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Beyond the Glass Ceiling: Does Gender Matter?

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Abstract

The representation of women in top corporate officer positions is steadily increasing. However, little is known about the impact this will have. A large literature documents that women are different from men in their choices and in their preferences, but most of this literature relies on samples of college students or workers at lower levels in the corporate hierarchy. If women must be like men to break the glass ceiling, we might expect gender differences to disappear among top executives. In contrast, using a large survey of directors, we show that female and male directors differ systematically in their core values and risk attitudes. While certain population gender differences disappear at the director level, others do not. Consistent with the findings for the general population, female directors are more benevolent and universally concerned, but less power-oriented than men. However, they are less traditional and security-oriented than their male counterparts. Furthermore, female directors are slightly more risk-loving than male directors. This suggests that having a women on the board need not lead to more risk-averse decision-making.

Keywords: Female Directors, Directors, Gender, Boards, Values, Risk

JEL Classifications: J16, G30

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1 Introduction

In the light of recent corporate scandals and the ongoing financial crisis, the question has been raised whether things would be different if more women ran corporate America (Huffington, 2003). One benefit of diversity is that people with different backgrounds may have different viewpoints. As Kirk and Gwin (2009) argue, these may be particularly valuable in difficult economic times. Kristof (2009) points out that financial firms are particularly male-dominated and suggests that this may have contributed to the recent poor performance of banks. Harriet Harman, UK Labour party's number 2, has gone so far as to blame the financial crisis on male domination in banks (Morris, 2009).

Understanding whether corporate outcomes can be expected to change with more female board representation is particularly important in light of the increasing world wide trend to enact board-room gender quotas. Norway enacted a law in 2003 requiring firms to have 40% female directors by 2008. Spain passed guidelines in 2007 to encourage firms to increase the share of female directors to 40% by 2015 (see Proyecto de Codigo Unificado de Recomendaciones de Buen Gobierno de Sociedades Cotizadas). On January 20, 2010 the French National Assembly proposed a law that will impose 20% gender quotas on boards of listed French firms within 3 years of the law's adoption and 40% quotas after 6 years. Similar laws are currently under debate in Belgium, Germany and the Netherlands.

To understand the effect of increased female participation in corporate leadership, we ask in what dimensions female directors are different from men. Academic research increasingly points to fundamental differences between men and women (see Marini, 1990; Croson and Gneezy, 2008). For example, gender gaps have been documented for risk attitudes (Eckel and Grossman, 2008; Sapienza, Zingales and Maestripieri, 2009), desired exposure to competition (Gneezy, Niederle and Rustichini, 2003; Niederle and Vesterlund, 2007; Niederle, Segal and Vesterlund, 2008; Hogarth,

Karelaia and Trujillo, 2011), and altruistic behavior (Andreoni and Vesterlund, 2001). These studies suggest that women are generally more risk averse, less keen on being exposed to competition, and more altruistic when altruism is expensive. Furthermore, women were found to lie less frequently than men in order to secure monetary payoffs in experiments (Dreber and Johannesson, 2008). In the field of psychology, survey evidence documents gender differences in core values (see Schwartz and Rubel, 2005) that are robust across cultures. However, most of these studies focus on students, workers or the general population, thus it is unclear whether we should expect women at the top of the corporate ladder to be any different from men.

In fact, there are several reasons why we might expect gender differences to vanish beyond the glass ceiling. First, Niederle, Segal and Vesterlund (2008) show that women often try to avoid competitive environments. Thus, it is possible that the women who do pursue leadership positions are very similar to men. Second, Branson (2006) presents evidence from court cases against gender discrimination in which women were denied promotion because they acted too "feminine". Therefore, only women who think like men may be promoted by their male colleagues. Third, women in a predominantly male environment may adapt their behavior so that gender differences disappear. While these three channels make gender gaps disappear, the opposite may also occur in an environment where femininity is seen as a comparative advantage: here, very feminine women may make it to the top, and the gender gaps may actually be larger than in the representative population.

Empirical evidence on gender differences at the executive level is scant partly because so few women are represented in corporate leadership positions. In the US, women held 14.8% of Fortune 500 board seats in 2007 (Catalyst, 2007). The percentage of female directors in Australia, Canada, Japan, and Europe is estimated to be 8.7%, 10.6%, 0.4% and 8%, respectively (Equal Opportunity for Women in the Workplace Agency (EOWA), 2006; European Professional Women's Network (EPWN), 2004). In this paper, we examine gender differences at the director level using data on

board members in Sweden. In 2005, women held 17.34% of board seats in listed Swedish firms. Thus, there is sufficient variation in the representation of women in Swedish boardrooms to be able to study gender differences.

The main question we ask is: how similar are female directors to male directors? There are many metrics one could use to compare women and men. Since it is impractical to run experiments at the executive level, we conduct a survey. We focus on examining survey measures of directors' values. Personal values are abstract desirable goals that people strive to attain (Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992). They are particularly useful for our purposes because they transcend particular situations and actions.[1] Hitlin and Piliavin (2004) also suggest that values occupy an important place within individuals' social psychology. Thus, examining values is useful for trying to understand how male and female directors differ. Furthermore, researchers have shown that values predict a variety of actions.[2] Most importantly, the literature on values suggests that these relations are causal: important values lead to actions consistent with them (Sagiv et al., in press; Verplanken and Holland, 2002). Thus, gender differences in values of directors may help to predict whether and how corporate outcomes will change as the representation of women in management increases.

We measure values as in Schwartz (1992). Schwartz (1992) identifies 10 basic human values that are recognized by all cultures and that leave out no major value that is meaningful across societies (Schwartz and Rubel, 2005). These values are labeled achievement, power, security, conformity, tradition, benevolence, universalism, self-direction, stimulation and hedonism. According

[1]This differentiates them in important ways from other personal attributes such as attitudes or goals. For example, striving to pay employees fairly can be considered to be a specific attitude or goal. Because the situations that are linked to directors' attitudes will vary across firms, it is difficult to draw broad conclusions from comparisons of attitudes. In contrast, concern for social justice is a value that can be considered to be a motivating factor regardless of the specific situations directors face in the boardroom.

[2]For instance, evidence exists suggesting that values are related to creativity (Dollinger, Burke and Gump, 2007; Kasof, et al., 2007), reactions to organizational change (Sverdlik and Oreg, 2009), cooperation versus competition in social dilemmas (Sagiv, Sverdlik and Schwarz, 2010) and conflict resolution style (Morris et al., 1998).

to Schwartz (1992), all individuals recognize the same system of values, but they differ in the relative importance they ascribe to different values. This hierarchical feature of values distinguishes them from norms and attitudes. Furthermore, while all values are desirable, it is impossible to attain all values at once. Some values are compatible with each other, while others conflict with each other in the sense that actions that promote one of them are likely to impede the attainment of the other. The dynamic relationships among them can be summarized as two basic conflicts: The first conflict is between openness to change (self-direction and stimulation) and conservation (tradition, conformity, and security) values. The second conflict contrasts self-enhancement (power and achievement) versus self-transcendence (benevolence and universalism) values. Hedonism shares elements of both openness and self-enhancement.

The Schwartz value surveys are among the most advanced that psychologists use, have been replicated in many countries and produce consistent and reliable results. An additional benefit of focusing on Schwartz values is that both the World Value Survey (WVS) and the European Social Survey (ESS) use Schwartz value surveys to measure values in the general population in various countries, including Sweden. Thus, we cannot only compare gender differences in values in the population to those in the boardroom, but also use the WVS and the ESS to examine the extent to which our results seem sensitive to our choice of Sweden as the setting for our survey. This enables us to better understand the role of sample selection bias and the extent to which our results are generalizable beyond Sweden.

We collected data on directors' values by surveying the universe of resident directors and CEOs (1,796 individuals) of publicly-traded firms in Sweden in 2005. In addition to the relatively high representation of women among directors, conducting such a survey in Sweden has several advantages. First, unlike in many other countries, it is straightforward to identify and obtain characteristics of the entire population of directors of publicly-traded corporations. Surveying the population of directors reduces sample selection bias. Second, gender equality is high in Sweden. This suggests that

stereotyping or gender biases should be smaller than in other countries and increases confidence that any gender effects we find are not driven by these biases. Finally, Swedish board structure has features that closely resemble those of boards in sole board countries as in the US and UK, but it also shares features with dual board structures as in Germany, for example, the presence of worker representatives on the board.[3] We take it as re-assuring evidence that our survey measures of values are meaningful since worker representatives (of both sexes) differ in reported values from the other directors along expected dimensions.

Our survey instrument consisted of Schwartz's 40 question Portrait Value Questionnaire (PVQ). Because a large literature argues that women are more risk-averse than men (see Croson and Gneezy, 2008) and risk-aversion is considered an important factor influencing corporate outcomes (e.g Graham, Harvey and Puri, 2009), we augment the survey with a question designed to measure risk aversion. We also include a question that is designed to measure one aspect of director behavior which we use to examine whether values may affect corporate outcomes.

We received responses from 628 individuals (a response rate of 36.6% from directors and 29.7% percent from CEOs) representing all but 36 (12.59%) of all publicly-traded firms in 2005. Compared to other surveys of executives, our response rates are high. For example, in a survey of 4,440 CFOs in the U.S. Graham and Harvey (2001) obtain a response rate of 9% and in a survey of primarily U.S. based CEOs Graham, Harvey and Puri (2010) obtain a response rate of 11%. McCahery, Sautner and Starks (2009) cite various surveys conducted with institutional investors in which response rates fluctuate between 8 and 19%.

In our main analysis, we focus on non worker-representative directors. Their responses indicate that *even at the top*, women and men are significantly different in terms of values and risk attitudes. Male directors care more about achievement and power than female directors, and less

[3]Employees in firms with more than 25 employees have the right to appoint two directors while employees in firms with more than 1000 employees are allowed to appoint up to 3 directors (as long as employee representatives do not constitute a majority on the board).

about universalism and benevolence. This is consistent with prior literature (e.g. Schwartz and Rubel, 2005) that has found that across cultures men consistently attribute more importance to self-enhancement values (achievement and power), whereas women emphasize self-transcendence values (universalism and benevolence). However, in contrast to the broad patterns documented for different cultures, female directors are less security and tradition oriented and care more about stimulation than male directors. Surprisingly, but in line with the finding that women in the board-room care less about security than men, female directors are also slightly more risk-loving than their male colleagues. These results are robust to controlling for observable characteristics such as age, family characteristics and measures of educational and professional experience.

How general are our results? In 2006, the World Economic Forum introduced a Global Gender Gap Index (GGGI) which benchmarks national gender gaps on economic, political, education- and health-based criteria. In 2006, Sweden achieved a score of 0.813 and was ranked number 1 out of 115 countries. Although Sweden's gender gap has increased slightly over time to 0.802, Sweden has always ranked in the top 4 of countries covered by the GGGI since 2006 (see Hausmann, Tyson and Zahidi, 2010). Therefore, one may question the extent to which our findings generalize to countries other than Sweden precisely because Sweden scores so highly in terms of emancipation.

We address this concern in several ways. First, we use the World Value Survey to show that gender gaps in values in the Swedish population are similar to those in other high income countries around the world. This suggests there is nothing unusual about the measurement of gender gaps in values in Sweden per se even though Sweden ranks so highly in terms of gender equality as measured by the GGGI. Second, we collect data on director characteristics from Boardex for high income countries that are both in the WVS and Boardex and we show that the gender gaps in observable characteristics of male and female directors are similar in Sweden as in other countries. Observable characteristics may proxy for underlying mechanisms driving gender differences in values among Swedish directors. The fact that directors in other countries exhibit similar gender gaps in

characteristics increases our confidence that our results may generalize outside of Sweden. In fact, we argue that gender gaps in the boardroom may be even bigger in countries in which it is more difficult for women to choose a high-profile career.

We add to a small but growing strand of literature that analyzes how culture, values and attitudes affect economic outcomes (see Guiso, Sapienza Zingales, 2006 for an overview). Previous studies document effects of culture on labor force participation and fertility (Fernandez, 2007a; Fernandez, 2007b), economic exchange (Guiso, Sapienza Zingales, 2009) and per capita growth of regions (Tabellini, 2008). The country-level studies that are most directly related to ours are Siegel, Licht and Schwartz (2011 and 2010). In these papers, the authors show that differences in egalitarianism, a cultural value that is constructed using individual-level Schwartz value surveys, has a significant effect on FDI, cross-national investment flows of bond and equity issuances, syndicated loans, and mergers and acquisitions. Importantly, Siegel, Licht and Schwartz argue that the effect of values is both economically significant and causal.

Our paper differs from these papers in our focus on values of individuals in corporations rather than in the population. To our knowledge, our paper is the first to examine gender gaps in values and risk attitudes at the individual director level in publicly-traded corporations.[4] Other authors examine gender gaps in values at the population level (e.g. Schwartz and Rubel, 2005), but they do not examine values at the executive level because of the difficulty in obtaining this data. Authors who examine psychological measures of executive attitudes (e.g. Graham, Harvey and Puri, 2010) do not focus on gender gaps, possibly because of the limited representation of women in executive positions. We believe our focus is interesting for several reasons.

A small but growing literature documents that the presence of women in the boardroom matters.

[4]Graham, Harvey and Puri (2010) measure risk-aversion of male and female CEOs. While being male is negatively correlated with risk aversion, this correlation is not significant. Moreover, it is unclear how many observations on female CEOs are included in this correlation since the number of observations on men is 1,009 and the number of observations on risk aversion is 1,008. Thus, it is difficult to compare their findings to our findings.

Adams and Ferreira (2009), Levi, Li and Zhang (2008) Ahern and Dittmar (2010) and Matsa and Miller (2010) document that corporate outcomes vary with gender diversity in the boardroom (see Ferreira, 2009, for a review of other papers in this literature). Adams and Ferreira (2009) document that more gender-diverse boards have more equity-based pay for directors and greater performance sensitivity of CEO turnover, although diversity has ambiguous effects on corporate value. Levi, Li and Zhang (2008) show that bid premia in acquisitions depend significantly on the gender composition of both the acquirer and the target board. Ahern and Dittmar (2010) and Matsa and Miller (2010) both study the effect of the 40% gender quota for directors in Norway on corporate outcomes. Ahern and Dittmar find that firm value decreased following the quota, but argue that this value decrease was not caused by gender per se but at least in part by the relative inexperience of new female directors. Matsa and Miller reach a slightly different conclusion. They find evidence consistent with the idea that Norwegian firms became more stakeholder-oriented following the introduction of the gender quota. Since there is evidence that female directors are more stakeholder-oriented, their results suggest that the gender of corporate directors matters.

Our paper provides complimentary evidence that inputs into board behaviour may also vary with gender diversity in the boardroom. We document that even at the director level and even after controlling for observable characteristics there are fundamental differences between women and men. This provides evidence supporting the arguments made by the above authors that changes in diversity can have causal effects on corporate outcomes. Furthermore, we believe our results help to shed light on the channel through which gender may affect corporate outcomes. For example, we find that female directors emphasize self-transcendence values more (benevolence and universalism). This suggests that firms with more female directors may consistently make decisions that are more stakeholder-oriented. This is in line with the findings by Matsa and Miller (2010) and Adams, Licht and Sagiv (2010) who show that directors with higher benevolence/universalism values are more likely to side with stakeholders if their interests conflict with those of shareholders.

Understanding whether women in leadership positions are different from "typical" women in the population may also help reduce statistical discrimination. Anecdotal evidence suggests that firms may be reluctant to appoint women to leadership positions because they believe they are too risk-averse or conservative. Our evidence suggests that women in leadership positions do not satisfy these gender stereotypes. While prospective female candidates for leadership positions are not equivalent to women who already occupy leadership roles, our results are at least suggestive that such candidates may have different attributes than the population average.

Our results may also be interesting to understand potential implications of recent affirmative action policies concerning gender quotas at the director level. The larger the gender quota, the more likely it is that women will be chosen as directors who have different characteristics than directors in place prior to the introduction of quotas. For example, Ahern and Dittmar (2010) document that there were only 9% female directors on boards at the time the Norwegian government passed the law requiring a 40% director gender quota. Once the law was enforced in 2008, there was a substantial shortfall in the supply of qualified female candidates with CEO or prior board experience. The shortfall was so large that the Norwegian government established a database of potential female candidates. Ahern and Dittmar argue that this induced an exogenous change in observable characteristics of female directors and show that new female directors were younger and less experienced than both female and male directors in place before the law was enforced. Their results suggest that new female directors would probably not have been selected as directors absent the law. Thus, they may be more similar in their characteristics to population averages than directors in place prior to the quota.

We show that women in the population have significantly different values than women who obtained their director positions in the competitive market for directors. We are also able to show that female directors differ in observable characteristics from women in the population at large. If women are chosen to be board members because of quotas, one might expect them to have

characteristics that lie somewhere in between those of these two groups. Thus, understanding the differences between directors and the population may help us to understand the potential impact of boardroom gender quotas on corporate outcomes.

Although we believe that individual survey data can be useful for understanding gender differences, it is difficult to relate them directly to corporate outcomes because for many firms only a few directors responded to the survey. It would be difficult to argue that firm outcomes should vary with the values of one director, for example. To provide at least some suggestive evidence we relate director values to a survey measure of individual director behavior. In conjunction with the literature arguing that values affect outcomes, our evidence supports the argument that gender differences matter.

The remainder of the article is structured as follows. In Section 2 we examine population gender gaps in values across countries and show that Sweden is not an outlier. In Section 3, we discuss the survey and our data. Section 4 presents the main analysis of gender differences in the boardroom. In Section 5, we discuss possible mechanisms driving our results. In Section 6, we discuss the extent to which our results may generalize. In Section 7, we discuss whether values can be expected to affect corporate outcomes. Section 8 concludes.

2 Gender gaps in population values - is Sweden an outlier?

To put our comparison of male and female directors into perspective, we first examine what "typical" gender differences in values look like in the population in Sweden and other comparable countries. While the ability to survey the population of Swedish directors is an important advantage of conducting our survey in Sweden, one may question whether gender differences in Sweden will be

different from those in other countries because Sweden ranks so highly on the GGGI measure of gender equality. A high ranking in terms of gender equality suggests that differences between men and women may be less pronounced in Sweden than in other countries, which means that any differences we find could serve as a lower bound for estimates of differences one might expect in other countries. However, it is also possible that gender differences in the Swedish population are completely different than in other countries, in which case our results may not be generalizable.

To examine gender gaps in values in the population, we use data from the combined 5-wave World Value Survey. We use the European Social Survey later in our analysis because it contains more observations on the Swedish population. For our purposes here, the World Value Survey is more useful because it contains data on a more diverse group of countries than the ESS, including data on the United States. The 5-wave World Value Survey compiles national surveys on norms and values that were carried out five times (1981-1984, 1990-1993, 1995-1997, 1999-2004, 2005-2007). To have the most comparable data to our director survey, we use the 5th wave of the World Value survey, which was conducted in the year 2005. Sweden was classified as a high income country by the World Economic Forum in 2006. To ensure comparability across countries, we restrict the sample to all countries in the high income group. This leaves us with a sample of 16 countries: Australia, Canada, Cyprus, Denmark, Estonia, Finland, France, Great Britain, Japan, Netherlands, Norway, Singapore, Sweden, Switzerland, Trinidad and Tobago and the United States.

As we discuss in more detail in Section 3, Schwartz value surveys have a standard structure. Subjects are provided a set of statements describing characteristics of people and asked to rank how much they identify with these people on a scale of 1 "not like me at all" to 6 "very much like me".[5] The responses to the statements are then aggregated to construct 10 values. For instance, one statement that is used to construct a measure of how much a subject values power is: "It is

[5]The scale in the survey is reverse, i.e. 1 is highest and 6 is lowest but we reverse it in our analysis for ease of interpretation.

important to him to be rich. He wants to have a lot of money and expensive things". The longest version of the Schwartz survey contains 57 questions which are aggregated to construct 10 values. To correct for differences in individuals' use of the response scale, individual "centered" values are created by subtracting the mean individual score over all value items from the value measures. By correcting for individual differences in "answering priorities", one can cleanly identify individual's relative value priorities. When dealing with values it is also common to drop respondents who skipped too many items, who did not try to discriminate among their values or who responded in ways suggesting deliberate misrepresentation. For the 57 item survey, Schwartz (2009) argues that subjects should be dropped if they leave 15 or more items blank or chose a particular response (e.g. always choose a response of 3) more than 35 times.

The World Value Survey uses 10 items to measure respondents' 10 value priorities as defined by Schwartz. Thus, we adopt the cleaning cutoffs from Schwartz (2009) to account for the smaller number of items. We drop subjects if more than 3 items were missing or if they chose a particular scale more than 6 times. Finally, we restrict the sample to respondents between the age of 25 and 74 which is the age range of directors in our sample. After cleaning, the number of observations on achievement values per country varies from 656 for Cyprus to 1614 for Canada. The numbers of observations are similar for the other values.

If we label the (relative) values by Y_x, where $x \epsilon$ 1,...,10 then for each $x \epsilon$ 1,...,10, we estimate the gender gap in values by estimating a model of the following type for each country:

$$Y_{xi} = \alpha + \beta Female_i + \varepsilon_i \tag{1}$$

Here Female is a dummy variable taking a value of 1 if the individual is female, and 0 otherwise.

— Insert Figure 1 about here —

To facilitate exposition, we estimate kernel densities of the resulting coefficient estimates on

the Female dummy variable using the Epanechnikov kernel function in Stata. Figure 1 displays the densities for the ten value dimensions. The vertical solid line denotes the estimated gender gap for Sweden, and the vertical dashed line denotes the estimated gender gap for the US which was ranked 23 on the GGGI in 2006, with a score of 0.7042.

As is evident from Figure 1, the estimated gender gaps are similar across countries. For instance, along the self-enhancement (achievement and power) versus self-transcendence (benevolence and universalism) axis displayed in the four graphs in the first row all countries have a negative coefficient on the female dummy for achievement and 15 countries have a negative coefficient for power. The exception is Trinidad/Tobago; however, the gender gap is not significant. All countries have a positive coefficient for benevolence, and 14 countries have a positive coefficient for universalism with the exception of Trinidad/Tobago and France where the estimated gender gap is insignificant. Therefore, women are generally less achievement and power oriented than men, and more benevolent/universalistic.

Along the axis conservation (security, conformity and tradition) versus openness to change (self-direction and stimulation), the estimated gender gaps are very consistent in sign for the values security, tradition and stimulation. For the values conformity, self-direction and hedonism, we observe more heterogeneity because the gender gaps in some countries are negative and in others they are positive. However, these are also the values for which gender gaps are the least significant. The estimated coefficients for conformity, (self-direction and hedonism) are significant at the 5% level using robust standard errors in only 6 (6 and 3) countries. In contrast, the estimated gender gaps for achievement, power, benevolence, universalism, security, tradition and stimulation are significant at the 5% level in 12, 13, 15, 7, 15, 11 and 16 countries, respectively. Importantly for our study, we observe that the estimated gender gaps in Sweden are similar to the gender gaps in the United States. They have the same sign for all values except conformity which displays more variance across countries than other values anyhow, as we discuss above. Moreover, for most

values with more consistent gender gaps in terms of estimated signs and frequency of statistical significance (i.e. excluding conformity, self-direction and hedonism), the estimated gender gaps for Sweden are closer to the median of the distributions of gender gaps than the estimated gender gaps for the United States.[6] The gender gaps for the United States are closer to the median only for benevolence, universalism and stimulation. Across countries, Sweden also appears to be typical in terms of the significance of the estimated gender gaps. The median number of significant gender gaps is 7 which is precisely how many estimates are significant for Sweden (all gender gaps except for achievement, universalism and self-direction are significant at the 5 % level). The United States has 8 significant gender gaps (for all but universalism and hedonism) and the other countries vary between 2 for Trinidad and Tobago to 10 for Singapore.

We performed similar analyses after controlling for age as an exogenous factor. We also ran a set of regressions in which we weight the country data with a weighting variable (provided by the World Value Survey) that accounts for the fact that the survey samples may not be truly representative of the underlying populations. We also ran regressions in which we divided the countries' dependent variables (= individual values) by the standard deviation of the countries' respective values. The reason we do this is to account for the fact that if a country's variance in values is low, then estimated gender gaps may appear too significant in that country relative to gender gaps in other countries. The results in all cases were very similar to Figure 1 (results from these other specifications are available upon request).

Finally, we examined whether the densities would look very different if we also included upper middle income countries in our sample. Apart from the value dimensions conformity, self-direction and hedonism for which we already observed some heterogeneity, the estimated gender gaps still have the same signs across countries. Moreover, even in this broader category of countries Sweden

[6]We do not include the line indicating the median of the distribution in Figure 1 to maintain visual clarity, but a figure containing this line is available upon request.

appears to be an outlier for only one of the more heterogenous values: the estimated gender gap for conformity is more negative than in other countries, meaning that Swedish women are of particularly low conformity. Thus, even though Sweden is considered to be one of the most gender equal societies, the population gender gaps in values in Sweden do not appear to be atypical. This gives us confidence that examining data on Swedish directors can be informative about gender gaps in the boardroom.[7]

3 Director Data

In this Section, we first describe the population we survey and the mechanics of the survey. We then describe the survey questions and the construction of values and provide some summary statistics for our data.

3.1 The Survey

We used MM Partner, a database containing names of board members of all public and private firms in Sweden to identify the entire population of directors, CEOs and Vice CEOs (the equivalent of the President or other person who is second-in-command to the CEO in a US firm) of all publicly-traded firms in Sweden in 2005. In 2005, there were 288 publicly-traded firms listed on the OMX (A & O list) and the NGM (Nordic Growth Market). Including Vice CEOs, these firms have 468 CEOs and 1,372 resident board members. We surveyed all CEOs and board members. To increase the response rate, we mailed the survey to the home addresses of each individual. The survey was accompanied by a cover letter that displayed the logo of the Stockholm School of Economics (where the authors were based at the time of the survey) in a prominent way. The Stockholm School of Economics is the leading business school in Sweden and the use of the logo was meant to instill

[7] We also examined whether it would be possible to restrict the WVS data to respondents with university degrees but this dramatically restricts the number of observations for some countries.

confidence that the survey was serious. Finally, we used the help of Statistics Sweden to guarantee that the responses were anonymous. Recipients of the survey mailed their responses to Statistics Sweden, which matched the responses to data on personal characteristics on the basis of personal identifying numbers, but then removed all personal identifying information.

The first survey was sent out on July 14, 2006. We followed it up with two reminders. The last survey response was received on November 11, 2006.[8] In total, we received 502 responses (36.6%) from board members and 126 responses (29.7%) from CEOs.[9]

Most respondents filled out the entire survey. Thus, we have complete surveys for 485 board members and all CEOs. Although the response rate is good compared to other surveys of top management teams, an obvious concern in this context is that responses may be biased because female directors differ systematically in their tendency to respond. We examine this issue in detail in Section 4.3.

From MM Partner, we obtain information on director age, tenure on the board and the identities of worker representatives for the entire population of directors and CEOs. From Osiris, we obtain the 2005 Financial Times industry classification for the sample firms. From Statistics Sweden we obtain information on the number of children and the marital status of each director. From the European Social Survey (ESS) we obtain information on values of individuals in the Swedish population, as we describe in more detail in Section 4.1.

3.2 Survey Questions

The survey primarily contained questions designed to measure directors' and CEOs' values. We also asked two additional questions which we describe below. The survey was carried out in Swedish. To ensure that the Swedish questions reflected the meaning of the English questions, we had the

[8] Because the survey respondents mailed their surveys to Statistics Sweden, we were unable to obtain the exact dates of all responses.

[9] 32 of the CEO respondents were Vice CEOs, the rest were CEOs.

English survey translated into Swedish and then reverse translated into English.

3.2.1 Director Values

To measure director and CEO values, we used Schwartz's 40 question Portrait Value Questionnaire (PVQ). The Schwartz PVQ serves as the basis for the measurement of human values in the European Social Survey. The European Social Survey uses Schwartz measures of human values because it is the most comprehensive model of values and has been validated extensively in cross-country analyses (Knoppen and Saris, 2009). The PVQ includes short verbal portraits of different people that point implicitly to the importance of a single basic value by describing a person's goals, aspirations, or wishes. For example: "Thinking up new ideas and being creative is important to him. He likes to do things in his own original way", describes a person for whom self-direction values are important. By describing each person in terms of what is important to him or her the verbal portraits describe the person's values without explicitly identifying values as the subject of investigation.

For each portrait, respondents can answer the question "How much like you is this person?" in 6 possible ways: "very much like me", "like me", "somewhat like me", "a little like me", "not like me", and "not like me at all". The similarity judgments are transformed into a 6-point numerical scale and used to infer the respondents' own values. We code the answers so that they are increasing in agreement from 1 to 6, i.e. 6 represents the response "very much like me".

The respondents are asked to compare the portrait to themselves rather than themselves to the portrait because it directs attention only to the aspects of the other that are portrayed, i.e. the similarity judgment is likely to focus on value-relevant aspects rather than other characteristics of the self. To avoid confusions with the masculine formulation, we gave the following written instructions at the beginning of the survey: "Here, we briefly describe some people. Please read each description and think about how much each person is or is not like you. For simplicity, we

refer to this person as male. If you are a woman, please compare yourself to women."

Although different Schwartz value surveys exists, a benefit of using the 40-item PVQ is that multiple responses are aggregated to construct the 10 values. This makes it extremely difficult for respondents to infer how their answers will reflect on their values especially since the items that pertain to specific values do not appear in sequence in the PVQ. The Appendix replicates the PVQ we use in our survey. We number each item from 1 to 40 to describe how we construct the 10 uncentered values below. To obtain the centered "relative" values, we subtract the individual mean response to the PVQ from the uncentered values.

1. Self-Direction (Independent thought and action; choosing, creating, exploring) = mean of items 1, 11, 22, 34.

2. Stimulation (Excitement, novelty, and challenge in life) = mean of items 6, 15, 30.

3. Hedonism (Pleasure and sensuous gratification for oneself) = mean of items 10, 26, 37.

4. Achievement (Personal success through demonstrating competence according to social standards) = mean of items 4, 13, 24, 32.

5. Power (Social status and prestige, control or dominance over people and resources) = mean of items 2, 17, 39.

6. Security (Safety, harmony, and stability of society, or relationships, and of self) = mean of items 5, 14, 21, 31, 35.

7. Conformity (Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms) = mean of items 7, 16, 28, 36.

8. Tradition (Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide the self) = mean of items 9, 20, 25, 38.

9. Benevolence (Preserving and enhancing the welfare of those with whom one is in frequent personal contact (the"in-group") = mean of items 12, 18, 27, 33.

10. Universalism (Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature) = mean of items 3, 8, 19, 23, 29, 40.

As in Section 2, we clean the values following Schwartz (2009). In our case, most individuals answered all questions. Thus, we did not drop individuals because of too much missing data. However, as recommended, we dropped individuals where 30% or more of the answers for a given value were missing (one individual) or individuals who indicated the same scale for 25 (or more) out of the 40 value questions (two individuals). In total, we excluded three respondents from our analysis. The results are similar even if we do not exclude these 3 executives (results available upon request).

3.2.2 Other survey questions

We ask two additional questions in the survey. The first is a question designed to measure risk aversion. Because we use Swedish data, we chose to use a question that has been studied in the European context. Dohmen, Falk, Hoffman and Sunde, (forthcoming) discuss a variety of standard questions that are used to measure risk in the German Socio-Economic Panel (SOEP), a representative panel survey of the resident German population. The 2004 wave of the SOEP contained 6 risk questions that respondents answered on an 11 point scale and one lottery risk question with responses on a 6 point scale. Because we were concerned about the length of the survey, we wanted to use only one question. The 6 point lottery risk question appeared particularly suitable for our purposes for two reasons. First, as Dohmen, Falk, Huffman, Sunde, Schupp and Wagner (2005) discuss, this lottery question corresponds the most closely to lottery measures used in the majority of risk-aversion studies. Second, we believed that maintaining consistency in response

categories was important to increase the response rate, thus we wanted a question that used a 6-point scale. Dohmen et al. (forthcoming) discuss that the lottery question predicts behavior and have validated the question in laboratory experiments. We use their question with Swedish currency instead of Euros as in the SOEP. The question we asked was: "Imagine you had won SEK 1,000,000 in a lottery.[10] Almost immediately after you collect, you receive the following offer from a reputable bank: There is a chance to double the money within two years. It is equally possible that you could lose half of the money invested. Which amount of SEK 1,000,000 would you invest?: 1 (0 SEK), 2 (200,000 SEK) , 3 (400,000 SEK), 4 (600,000 SEK), 5 (800,000 SEK), 6 (1,000,000)."

Higher answers to this risk question indicate lower risk-aversion. Because this question presents respondents with a gamble involving explicit stakes and probabilities, it holds risk perceptions constant across individuals. Thus, differences in responses are attributable to risk preferences alone. Another feature of this question is that it features a two-year time lag in order to create the context of a realistic investment. While this may cause time preferences to influence the measurement of risk-aversion, Dohmen, Falk, Huffman and Sunde (2005) show in a field experiment that there is little reason to be concerned about this potentially confounding effect.

The final question we ask is a question which we use to examine whether values can be expected to predict corporate outcomes. The difficult in linking values of individual directors directly to corporate outcomes is that for most firms only a fraction of directors responded to the survey. It would therefore be hard to argue that individual responses should necessarily be related to outcomes. To provide suggestive evidence that values may affect corporate outcomes, we use a question that is designed to measure director behavior. We argue that directors can only affect outcomes if they participate in decision-making. If directors' values relate to the extent to which they participate in decision-making, directors' values can plausibly affect corporate outcomes.

To measure whether directors participate in decision-making we asked directors to rank their

[10] 1,000,000 SEK corresponded roughly to $120,000 in 2006.

agreement with the following statement on the same 6-point scale as in the PVQ: "Please consider a recent important strategic decision that the board made. Please assess the level of debate and the decision-making process concerning that decision as follows: I voiced my views in the discussion." To facilitate exposition, we again code the answers so that they are increasing in agreement (1 "Strongly disagree" to 6 "Strongly Agree"). Because this question is board specific and we could survey each director only once, we randomly chose a board seat from each director's set of board seats and asked the director to answer firm-specific questions for that board seat in the cover letter. In formulating the question, we do not specify a specific decision because the management literature argues that this formulation better captures general patterns of team interaction that are stable over time (see e.g. Simons, Pelled and Smith, 1999).

3.3 Summary Statistics

The top part of Table 1 presents summary statistics for the reported values, the risk aversion and the behavior question for all respondents. Survey respondents generally rank high on benevolence and self-direction values, and low on the value measuring tradition. Stated values are correlated as expected (see Table A1): directors who are ambitious (high power and achievement values) are less caring (low benevolence and universalism values), and directors who are conservative (high security, conformity and tradition values) need less stimulation and change (low stimulation, self-direction and hedonism values). Concerning risk-taking, Swedish directors would choose to invest on average a bit less than 1/3 of the 1,000,000 SEK in the lottery. To put this number into perspective, we calculate the mean for the German population using data from the 2004 wave of the German Socio-Economic Panel. We restrict the sample of respondents to be of similar age as our directors (i.e. between 25 and 74 years old), which leaves us with 16924 respondents. We get a mean of 1.7, which is a bit lower than the average value of 2.6 for Swedish directors. While

cultural differences may explain the differences in means, we believe it is plausible that directors of publicly-traded corporations will be less risk-averse than members of the general population. Finally, with an average value of 4.9, directors seem to moderately agree that they voiced their views in the discussion.

— insert Table 1 about here —

The lower part of Table 1 reports summary statistics for individual characteristics, split up by survey respondents (middle panel) and the population of directors (bottom panel). Respondents appear quite similar to the population, except that the share of CEOs and worker-representative directors is slightly lower than in the population. Also, survey respondents are more likely to have a university degree and a degree from the Stockholm School of Economics. Interestingly, women show no difference in response behavior than men: 17 percent of the directors are female, and 17 percent of the population is female. Differences in responding behavior between men and women are also statistically insignificant.

4 Gender Differences in The Boardroom

In this Section, we examine whether or not gender gaps in values exist at the director level. In Section 4.1, we present the basic results. In Section 4.2, we use data on worker representative directors to assess whether our survey questions appear meaningful. In Section 4.3, we discuss selection issues and in Section 4.4 we address some sorting issues by using firm fixed effects.

4.1 Gender Gaps in Values and Risk Attitudes

To what extent are female directors different from their male counterparts? One way of answering this question is to compare value priorities and risk attitudes of male and female directors. Since we

are primarily interested in comparing male and female directors who made it into the boardroom by other means than employment law, we exclude worker-representatives. That leaves us with a sample of 499 directors. Since CEOs are also board members, we include CEOs in our director category, although our results are similar if we exclude them. For each value and the risk answer, we estimate the same model as in Section 2 (equation 1), except that we correct for possible interdependencies among firms by correcting the standard errors for group correlation at the firm level and potential heteroskedasticity. If a director sits on more than one board, we use the board seat to which we randomly assigned them in the cover letter to correct the standard errors.

— insert Table 2 about here —

Table 2 documents that female and male directors differ in most, but not all value dimensions. Female directors care more about benevolence, universalism and stimulation. On the other hand, they care less about power, security, conformity and tradition. The coefficients are large in magnitude and up to around 1/2 of the values' standard deviation for benevolence, universalism and conformity. Surprisingly, women in the boardroom are also slightly more risk-loving than men.

This evidence suggests that gender differences do not disappear above the class-ceiling. Moreover, some of the "typical" population gender gaps we document in Section 2 appear to reverse for directors. For example, previous results suggest that across countries women are less stimulation and more tradition and security oriented than men. However, even though these results also hold for the Swedish population, female directors in our sample care more about stimulation and less about security and tradition than their male counterparts.

To get a better sense of the magnitudes of the differences in gender gaps for directors and those in the population, we append our director data to data for Sweden from the European Social Survey. The results would be similar if we used the WVS, but the ESS sample is larger and the Schwartz value survey in the ESS resembles our survey more because it is longer than in the WVS (21 items

as opposed to 10). Since the 21 items in the ESS Schwartz value survey are a subset of our 40-item PVQ, it is straightforward to match the responses from our director survey to the responses from the ESS survey by restricting the analysis to the 21 common value questions. In the third round of the European Social Survey (2006/2007), 3000 people were selected out of a target population of resident Swedes older than 15. From those 3000 (contacted by phone), 1927 responded. We cleaned the ESS data as for the WVS and our director sample following Schwartz (2009). The basis for our comparison between Swedish directors and non directors are all ESS respondents with valid responses to the 21 items of the ESS Schwartz value survey (1519 respondents) and 499 (non-worker representative respondents) from our director survey. For this sample we construct 10 centered values based on the 21 item value survey.[11] To compare individuals of a similar age, we restrict the sample of non-directors to be between 25 and 74 years old.

Unfortunately, the ESS contains no risk aversion question, so we can only compare values of directors to those of the population. We estimate the following model for each value x ($x = 1, ..., 10$):

$$Y_{xi} = \alpha + \beta \cdot Female_i + \gamma \cdot Director_i + \delta \cdot Female \cdot Director_i + \varepsilon_i \tag{2}$$

The estimated coefficients can be interpreted with the following conditional expectations in mind:

$\mathrm{E}[\mathrm{Y}_x \mid Female = 0, Director = 0] = \alpha$

$\mathrm{E}[\mathrm{Y}_x \mid Female = 0, Director = 1] = \alpha + \gamma$

$\mathrm{E}[\mathrm{Y}_x \mid Female = 1, Director = 0] = \alpha + \beta$

$\mathrm{E}[\mathrm{Y}_x \mid Female = 1, Director = 1] = \alpha + \beta + \gamma + \delta$

If $\beta \neq 0$, women in the population are different from their male counterparts. If $\gamma \neq 0$, male directors differ from male non-directors, and if additionally $\delta = 0$, in the population is the same

[11] The 10 values are computed as before except with fewer component items.

as the gender gap among directors. Finally, female directors are different from women in the population at large if $\gamma + \delta \neq 0$.

— insert Table 3 about here —

Table 3 shows the regression results. From the estimated γ, we see that the values of directors differ significantly from those in the population in expected ways. Directors care more about achievement, power, self-direction and stimulation and less about benevolence, universalism, conformity and tradition than members of the population.

Consistent with the results in Section 2, female members of the population care less about power and achievement, but more about benevolence and universalism than male members of the population. Also, women care relatively less about stimulation and conformity, but more about tradition. The extent to which these gender gaps prevail at the director level can be seen from the interaction terms. Since the interaction terms are insignificant for achievement, power and benevolence, the same gender gaps that exist in the Swedish non-director population also exist at the director level. In contrast, however, the gender gaps at the director level are significantly different from the population gender gaps for security, conformity, tradition and stimulation. In the population, women are more tradition-oriented than men, equal in terms of security and less conformity and stimulation oriented than men. At the director level, female directors care less about tradition, security and conformity, but more about stimulation. Thus, gender gaps at the director level are "atypical" when it comes to preferences for conservation and change. In the remainder of this Section, we investigate how robust the gender gaps at the director level are to various concerns about survey data. In Section 5, we investigate potential explanations of these results.

4.2 Different Director Types

A common concern with survey data is that answers are biased (see the discussion in Bertrand and Mullainathan, 2001). For example, the social nature of the survey may affect respondents' answers because respondents may try to answer according to what they think the researcher wants to hear. Although the 40-item PVQ is designed to minimize common survey biases (e.g. it is difficult for respondents to infer what the "right" answer should be), one may still be concerned that the answers are biased. Thus in this Section, we perform a robustness check by comparing the responses of worker representative directors to those of "regular" directors. In our previous analyses, we omitted worker representatives because we expected them to be different from other directors. But if this is really the case, then verifying that the values of regular directors and worker representative directors differ in expected ways can serve as a robustness check that the measurement error in our survey measures of director values is not too large to make them meaningless.

To be able to compare the two director types, we re-estimate equation (2) in Section 4.1 for each value and the risk question in the sample of all director survey respondents. In this sample, the variable "Director" measures a "regular director". If $\beta \neq 0$, female worker representatives are different from their male counterparts. If $\gamma \neq 0$, male directors differ from male worker representatives, and if additionally $\delta = 0$, the gender gap among the worker representatives is the same as the gender gap among the "regular" directors. Finally, female directors are different from female worker representatives $\gamma+\delta \neq 0$. Table 4 shows the regression results. From the estimated γ, we see that directors are fundamentally different from worker representatives. Directors care more about achievement and power, and less about benevolence and universalism than worker representatives.[12]

Using Schwartz's terminology, regular directors rank higher on self-enhancement values and lower on self-transcendence values. Regular directors also differ from worker representatives along

[12]This finding parallels Gneezy and Rustichini's (2006) finding that executives are more competitive than teachers: the former choose competitive incentive schemes more frequently than the latter.

their attitudes towards change. They prioritize self direction and stimulation at the cost of security, conformity and tradition. Because these findings are consistent with intuition, this evidence suggests that our measures of values are not systematically biased. We also find that female directors differ from female worker representatives primarily through the effect of being a director (apart from the risk attitude and conformity question, the interaction terms δ are insignificant). Therefore, women who acquired their seat in the boardroom through competition are more power and achievement oriented than worker representatives of the same sex. Also, they are less tradition-oriented and more open to change. They are also significantly more risk loving. In fact, female directors differ from all the other members in the boardroom by a significantly higher willingness to take risks.

These results are potentially interesting for countries with co-determination (e.g. Sweden or Germany) in which one avenue for increasing boardroom gender diversity is the appointment of more female worker representatives. Our analysis highlights that female board members who are recruited from within the firm's employees and female board members who are recruited in the market for executives may differ. Thus, changes in boardroom gender diversity can have different effects depending on how gender diversity was achieved.

— insert Table 4 about here —

4.3 Sample Selection

Another common concern with surveys is biases due to sample selection. There are two main types of biases. The first arises because the surveyed population may not be representative of the underlying population. The second arises because respondents may be systematically different from non-respondents. The first type of bias is not a concern for our survey because we survey the population of directors of publicly-traded firms. However, the second type of bias may still be a

concern. For instance, if response rates vary a lot by industries and board seat occupancies differ by industry and gender, then our estimated gender gaps may be unrepresentative.

To get some intuition about the magnitude of this potential problem, we examine patterns of response rates and gender occupancy of board seats by industry. The sample consists of all board seats of all publicly-traded firms in 2005. The total number of board seats is 2940. We were unable to obtain Global Industry Classification codes (GICS) for all firms, thus we end with a sample of 2745 board seats. Because these seats are filled by the individuals in our population, we have data on individual director characteristics for each board seat. Since we are interested in response behavior at the industry level, we counted directors only once even if they occupied several board seats within a given industry. On the other hand, directors appear multiple times in the data if they are on different boards in different industries. That leaves us with a final sample size of 2816.

In Table 5, we show the distribution of board seats, gender diversity and response rates across industries. Consistent with prior literature, e.g. Adams and Ferreira (2009), female directors are more prevalent in industries with traditionally female customers (household products, apparels, food) and less prevalent in typically male-dominated areas (cars, telecommunications, technology). Yet, response rates are quite homogenous across industries. In addition, the share of female respondents per industry closely resembles the share of female directors in that industry. As such, there is no a priori reason to believe that the sample of our respondents is systematically different from the population because of industry clustering.

The summary statistics on individual characteristics in Table 1 also suggest that our respondents may not differ too systematically from the non-respondents. While on average respondents are different from the average director in the population, these differences generally do not appear economically significant except possibly for salary. For example, the average age of respondents is 54.28 years old, while the average director is 53.07 years old.

— insert Table 5 about here —

Nevertheless, as a further robustness check we estimate Heckman selection models of individual director responses in Table 2 of the Appendix. To address sample selection bias, we need an instrument that will be correlated with the likelihood of responding but not with directors' values. We use two different instruments. The first is a dummy indicating whether the director graduated from the Stockholm School of Economics (SSE). Our reasoning is that since the survey was conducted by researchers at the SSE, directors who were alumni of the SSE may have been more likely to respond to the survey. The question is whether this instrument is exogenous to values. Because the Stockholm School of Economics awards only Economics degrees, one could argue that the instrument is not exogenous if Economists have systematically different values than graduates with other majors. We are not aware of any evidence documenting this. However, we can also control for this possibility by controlling for the possession of an economics degree directly in our value regressions. In our sample, 416 of the directors have an Economics degree, and 176 received it from the Stockholm School of Economics.

Our second instrument is the number of other directors who responded to the survey. The intuition behind this instrument is that the more other directors on the board responded, the more likely any given director will be to respond. One could argue that women may be more sensitive to this instrument than men if they are more sensitive to peer pressure and that this could invalidate this instrument. However, we checked this by putting an interaction variable "female times number respondents" into the participation equation and did not find a significant effect. The results from Table 2 in the Appendix suggest that correcting for sample selection does not change our conclusions concerning gender gaps at the director level by much regardless of the instrument we use. We recognize that our instruments may not be truly exogenous, but these results may provide at least suggestive evidence that our results may be representative of the population of directors of

publicly-traded firms in Sweden, not just the sample of respondents.

4.4 Within-Firm Variation

While our results appear robust to common survey concerns, it is also possible that they are driven by sorting. For example, some firms may have boards that are attractive to directors with certain types of values and these firms may drive our results. Thus we examine whether gender gaps in the boardroom still exist when we examine within-firm variation in values. To do this we match our individual value data to the sample of directorships. In this data each director is matched to all of his or her directorships and thus may occur more than once. We end with a sample of 718 observations. Using this sample, we re-run the previous regressions after controlling for firm fixed effects and adjusting our standard errors for clustering at the director level.

— insert Table 6 about here —

The results in Table 6 strongly suggest that even within firms gender differences persist. As before, female directors appear less power oriented, more benevolent, and rank lower on security, conformity and tradition. They value high stimulation and self-direction and are willing to take higher risks. Because firm effects in this sample control for any firm specific factor that is omitted, such as board size, composition and ownership structure, etc., the gender differences we document do not appear to be driven by corporate culture or omitted firm effects.

5 Mechanism

Our evidence so far suggests that our results concerning gender gaps in values in the boardroom are not driven by any peculiarity of gender gaps in values in Sweden per se. Population gender gaps in values in Sweden are similar to those in other countries at a similar stage of development.

A natural question is then: what is the underlying mechanism that explains why gender gaps in the boardroom are different from those in the population?

To a certain extent we believe it is not so surprising that gender gaps in the boardroom are different from those in the population. Arguments that women must be like men to succeed in executive positions (e.g. Branson, 2006) already suggest that boardroom gender gaps should be different from typical gender gaps. Moreover, it is natural to expect that directors in general will be different from the general population, although there is little direct evidence on this issue. Our results in Table 3 provide some novel evidence that this is indeed the case since they show that directors are significantly different from the population along almost every single value dimension. However, what is not necessarily clear is why some population gender gaps may actually reverse in the boardroom, so that female directors are different from male directors along the openness to change/conservation axis in the direction of greater openness to change (more stimulation and less tradition and conformity oriented). There are several potential stories that might explain this, although identifying the exact mechanism is difficult. It is also possible that multiple factors drive our results.

One possibility is that firms choose female directors who exhibit a more extreme focus on certain values than their male colleagues. Lyness and Judeisch (1999) argue that more extreme job performance is required for women to overcome gender stereotypes, especially if women are externally appointed. In Adams and Ferreira's (2009) sample of U.S. firms, most female directors are outside directors. This is also the case in our sample since in Sweden only one insider sits on the board, usually the CEO. Thus, it is possible that women need to be more extreme in some characteristics than men in order to obtain their board seats. Because women are in the minority in the boardroom, it is possible that the extreme values they need to exhibit are precisely those values that might be important to fit into an atypical role (i.e. less conservation and more openness to change values). However, to the extent that the firm-level characteristics driving the selection

process for female directors can be proxied by firm fixed effects, our results from Section 4.4 suggest that this may not be the only factor driving gender gaps in the boardroom.

Another possibility is that the women who choose career paths that ultimately lead to board appointments are significantly differ from both other women in the population and male directors in characteristics that could be related to values. For example, Bertrand, Goldin and Katz (2010) document that many qualified women drop out of the labor market as soon as they have children. This suggests that the costs of choosing a career path leading to a directorship are higher for women than for men. Thus, it is plausible that the sample of female director candidates differs from the sample of male candidates in important ways. For example, female director candidates may have fewer children than both members of the population and male directors. To the extent that the number of children is correlated with values, gender gaps in values may arise in the boardroom. If female directors differ from male directors primarily in their observable characteristics, we would expect boardroom gender gaps to decrease once we control for these characteristics.

However, it is even more likely that the costs of choosing a career path lead female director candidates to be different from male candidates in unobservable characteristics such as values. For example, it is plausible that women who choose not to drop out of the labor market to have a family have significantly higher stimulation values than both members of the population and male directors. To the extent that career costs lead the sample of female director candidates to differ significantly in their values from both the population and male director candidates, gender gaps in values will appear in the boardroom. While we believe this is a plausible explanation for our results, it is difficult to determine the extent to which it drives our results. In order to examine this selection argument in more detail, we would need data on the population of female director candidates and measures of costs of choosing a high-profile career path, which we do not have. Thus, at this stage we simply advance this argument as a plausible argument that poses an interesting topic for future research.

To examine the extent to which *observable* characteristics explain boardroom gender gaps, we examine observable characteristics for which we have data both in our director sample and in the ESS. These are age, a dummy variable indicating marital status (1=married), the number of children and a dummy variable indicating possession of a university degree (1=university degree). We estimate the same model as in Section 4.1 with individual characteristics as dependent variables using the entire sample of ESS data and the entire sample of directors, i.e. we do not restrict directors to survey respondents and we do not restrict the ESS sample to a similar age group as the directors. We correct the standard errors for heteroskedasticity.

As is clear from Table 7, there are gender gaps in characteristics in the population, i.e. women have more children on average and are more likely to have a university degree than men. Male directors are also significantly different from members of the population in all characteristics, i.e. they are older, more likely to be married with more children and more likely to have a university degree. Most importantly, female directors are younger, less likely to be married and with fewer children on average than male directors. Thus, the gender gaps in observable characteristics in the population are different from the gender gaps in these characteristics in the boardroom. If values are also correlated with these observable characteristics, then the gender gaps in values we document for directors could potentially be explained by omitted variable bias.

— insert Table 7 about here —

To examine whether difference in readily observable characteristics may explain boardroom gender gaps in values after controlling for firm characteristics, we reestimate our director value regressions in the same sample we used for our firm fixed effect specifications in Section 4.4. We correct all standard errors for potential heteroskedasticity and group correlation at the director level.

— insert Table 8 about here —

Table 8 shows the results of adding the following individual characteristics to our firm fixed effect specifications: director age, a dummy indicating marital status, the number of children, the number of university degrees, the number of board seats and tenure on the board.[13] The latter two variables have no population counterpart but are plausibly correlated with both gender and values because they are measures of professional experience. To assess the importance of the control variables, we replicate the coefficients on the female dummy for the firm fixed effect specifications from Section 4.4 in the first row of Table 8. Comparing these coefficients with the coefficients on the female dummy in the row below, we see that differences in personal characteristics may partly explain some of the gender gap in values for directors. The coefficients on security, conformity, tradition, stimulation and risk all decrease in magnitude and the coefficient on risk is no longer statistically significant.

Since the dimensions of stimulation, conformity and tradition are precisely the dimensions along which boardroom gender gaps in values are the reverse of those in the population, these results suggest that sorting of women with certain observable characteristics may partly explain our results. However, the results also suggest that sorting based on observables does not completely explain gender gaps in values, because the signs of the gender gaps do not change, only the magnitudes.[14] Moreover, we cannot claim that these regressions have a causal interpretation because values may also influence some of the personal characteristics we measure.

It is possible that other observable personal characteristics are more important for gender gaps in values than the ones for which we have data. It is also quite likely that a combination of unobservable characteristics (values) and personal characteristics (costs of choosing a career path)

[13] Appendix Table 3 presents saturated regressions in which we include dummies for each value of age and the number of children. We also ran regressions at the individual level, not the directorship level, and also added controls for whether directors were from the same industry as the board on which they sit and salary. We lose some observations with these additional controls, but otherwise the results are similar.

[14] Another possibility is that the boardroom environment leads women to change their values. For example, they may emphasize and exaggerate their femininity as a form of comparative advantage. However, since the gender gaps remain even after we control for measures of boardroom experience such as the number of board seats and tenure, we believe that this explanation is not the main driver for our results.

matter for the supply of executives and may cause the gender gaps we observe. Thus, our tentative conclusion is that sorting and self-selection on observables may partly explain our results, but that more research needs to be done to fully explain gender gaps in the boardroom.

6 Generalizability

Because Sweden ranks highly on the GGGI in terms of gender equality, a natural question is to what extent our results are generalizable. Although there appears to be nothing unusual about gender gaps in values Sweden per se, it is possible that boardroom gender gaps would be very different in other countries. For example, it could be the case that female directors in Sweden are selected based on very different criteria as compared to other countries. While it is impossible to say whether gender gaps in values will be the same in other countries without replicating the survey, we can use some data to make some (admittedly speculative) predictions about how our results may generalize.

Because Sweden is so gender equal, one might expect less discrimination against women in Sweden than in other countries. If so, we predict that female directors in Sweden should have different characteristics than female directors in other countries. For instance, in countries which rank lower on gender-equality, female directors may have to be particularly qualified or experienced. Alternatively, female directors may be selected based on entirely different criteria than male directors (e.g. women may be more likely to be younger and single than their male counterparts). One may also expect a higher gender wage gap for directors for countries that rank lower on gender equality. Thus, if the demand for female directors is different in Sweden, Swedish female directors may have different observable characteristics than female directors in other countries and gender gaps in characteristics in Sweden may be different than in other countries.

The supply of female directors may also be different in Sweden because the trade-off between

career and family may be less strong in Sweden than elsewhere. Bertrand, Goldin and Katz's (2010) study on attrition of women from the labor market was conducted using data for the U.S.. Looking at recent nominations to the U.S. Supreme court, the last three men have all been married, each of them with several children. In contrast, the last three women were all single and without children (The New York Times, 3. August, 2010: A Labour Market Punishing to Mothers). In Sweden, the institutional support for working mothers is very well developed. Sweden has a very flexible and generous maternity leave system, which enables mothers to take up to 480 days of maternity leave, at 80 percent salary (see The Independent, 20. Oct. 2010, Maternity and Paternity leaves in Europe). Furthermore, these rights are fully transferrable to the fathers. Thus, one may expect that the gender gap in marital status and the number of children between male and female directors to be smaller than in other countries. To the extent that marital status and number of children are related to the gender gap in values, this could affect the extent to which the gender gaps we document will generalize to other countries.

If the costs of choosing a career path leading to a directorship are lower for women in Sweden than elsewhere, then female director candidates may also have different unobservable characteristics than female director candidates in other countries. This could also affect how the gender gaps generalize. We discuss this issue after comparing gender gaps in observable characteristics of Swedish directors to those in other countries.

To examine whether directors in Sweden have different characteristics than in other countries, we use 2005 data from BoardEx which is compiled by the U.K.-based firm Management Diagnostics Limited. For 2005, BoardEx contains data on directors of publicly-traded firms in 63 countries. To better link this comparison to our results in Section 2, we restrict this data to the set of countries that we examine in Section 2, i.e. high income countries that are also covered by the WVS. The set of countries that remain are Australia, Canada, Switzerland, Denmark, Estonia, Finland, France, the United Kingdom, the Netherlands, Norway, Sweden and the United States. We examined

data on directors' age, education (a dummy indicating possession of a university degree and the number of university degrees), the number of board seats, tenure on the board and total director compensation (the sum of salary plus bonus the directors receives for board service measured in GBP). The number of observations on director age varies from 231 for Finland to 52,510 for the United States. The number of observations on other characteristics is similar.

Unfortunately, BoardEx contains no information on the directors' family status. To obtain at least some information on family status we collected data on family status of 100 male and 100 female directors in the U.S. using the Marquis Who's Who database. To reduce search costs, we focused on searching for directors with the highest level of director compensation according to BoardEx since lower paid directors of smaller firms would be unlikely to appear in the Who's Who. We then match the U.S. data to data on marital status and number of children for the 100 male and female directors in Sweden with the highest pay from our original director sample.

Since we have data on marital status and the number of children only for the U.S. and Sweden, we start our comparison of observable director characteristics by first comparing only the U.S. and Sweden. To ensure consistency, we use BoardEx data (rather than our original director data for Sweden) for all comparisons except when we compare marital status and the number of children. We correct all standard errors for heteroskedasticity and group correlation at the board level.

As is evident from Table 9, the gender gap in age, education, and experience (measured by tenure and the number of board seats) is comparable in Sweden and the United States: In both countries, female directors are younger, of similar education, and slightly less experienced than male directors. As such, there is no a priori evidence that female directors are selected on the basis of very different characteristics in Sweden than elsewhere. The only significant difference in the first 6 columns concerns compensation: the gender gap in the US is bigger than in Sweden. One possibility is that this difference stems from the fact that there is more variance in earnings in the U.S. For instance, Kaplan and Rauh (2009) point out that the dispersion in executive compensation

levels in the U.S is large. To check whether this significant interaction term is driven by a different earnings variance, we divided the individual compensation data by the country-level variance in compensation and re-estimated earnings gender gaps. Once we control for country-level variance, the interaction term is no longer significant.

When we examine differences in marital status and the number of children, we find that female directors in Sweden are more likely to be married and have more children than their counterparts in the U.S. This is consistent with the idea that there is more institutional support for families in Sweden.

— insert Table 9 about here —

Other than in marital status and the number of children, female directors in Sweden display an astonishing similarity in observable characteristics to female directors in the United States. To compare Sweden to other countries, we display in Figure 2 the gender gaps in characteristics using the same method as in Figure 1. The vertical solid line denotes the estimated gender gaps for Sweden, and the vertical dashed line denotes the estimated gender gap for the US. As is evident from Figure 2, the estimated gender gaps are similar across countries, especially for age, board tenure and compensation. Across all countries female directors are on average younger than male directors and this difference is significant at the 5% level in all countries. Across all countries except France, women have shorter tenure but this difference is not significant for France. Across all countries except Australia female directors earn less total compensation and this difference is significant at the 5% level except in Australia. There is more heterogeneity in gender gaps for education and number of board seats across countries. Women are significantly more likely to have a university degree in Finland, the UK, Norway and the US but are significantly less likely to have a university degree in Denmark and France. Similarly, women have significantly more degrees in Australia, Canada, Finland, the UK, Norway, Sweden and the US. Once again Denmark

and France are outliers with female directors having significantly fewer university degrees. Finally, female directors have significantly fewer board seats on average in Switzerland, Denmark, Finland, France and the Netherlands. In this instance the U.S. is an outlier since female directors have significantly more board seats (but only at the 10% level).

As is evident from Figure 2 and our discussion above, Sweden does not appear to be an outlier when it comes to gender gaps in characteristics of directors. As we already noted, the estimated gender gaps are very similar to those in the U.S.. What is also noticeable is that despite its gender equality ranking, female directors in Sweden earn less than male directors for their board service. This is consistent with evidence in Albrecht et al. (2003), who find that there is a gender wage gap in income in Sweden which accelerates throughout the income distribution. The authors interpret this as a class-ceiling effect (p. 145): "Our findings suggest that a gender-specific mechanism in the Swedish labor market hinders women from reaching the top of the wage distribution." Similar gender gaps in salary from employment are evident in our director sample, even in the subsample in which we can control for some characteristics of employers (results available upon request).

— insert Figure 2 about here —

From the comparison of director characteristics across countries, what conclusions can we draw about the generalizability of our results? Although Sweden is one of the most gender equal societies, the gender differences in directors' age, education and tenure are comparable to those in other high-income countries. Thus, leaving aside the differences in marital status and the number of children in Table 9 for the moment, there is no strong evidence suggesting that directors in Sweden are selected according to different observable characteristics than elsewhere. Can we conclude that the gender gaps in values are likely to be the similar for directors in other countries? To the extent that observable characteristics explain some of the gender gap in values as we describe in Section 5, it is plausible that boardroom gender gaps in values may be similar in other countries.

However, there is one plausible channel that may lead to divergence. If the costs of choosing a career path leading to a director seat are lower for women in Sweden than elsewhere and these costs are the main reason that female directors differ from male directors in their values then one might expect gender gaps in values to be even more extreme in other countries, e.g. in the U.S. In countries with less support for families, it is plausible that women have to have even higher levels of stimulation and be less tradition oriented in order to pursue a directorship than in Sweden. Thus, we predict that boardroom gender gaps in values will be similar to those we document in countries in which the costs of pursuing a career for women are similar to those in Sweden, but that they will be more extreme in countries with higher costs and less extreme in countries with lower costs.

7 Values and Corporate Outcomes

The literature on values at the individual level argues that values affect individual behavior (e.g. Sverdlik and Oreg, 2009; Sagiv, Sverdlik, and Schwarz, 2010; Verplanken and Holland, 2002). The literature on values and culture at the national level argues that culture affects economic outcomes (e.g. Guiso, Sapienza and Zingales, 2006; Fernandez, 2007a; Fernandez, 2007b; Tabellini, 2008). Since national level values are aggregates of individual values and national economic outcomes are affected by individual corporate outcomes, it stands to reason that individual values should be correlated with corporate outcomes. Moreover, both Ahern and Dittmar (2010) and Matsa and Miller (2010) use the case of the Norwegian gender quota to argue that observable director characteristics have a causal effect on corporate outcomes. Thus, it is plausible that unobservable director characteristics, such as values, may also have a causal effect on outcomes.

To provide additional evidence consistent with the idea that values may affect outcomes, we examine the relationship between our survey question related to director behavior and values and the risk answer. We regress the answers to the question regarding whether directors voiced their

views in the discussion concerning a recent decision (which we label participation) on values and the risk answer and cluster the standard errors for group correlation at the firm level. The regressions suggest that values are significantly related to directors' assessments of their participation. The coefficients on all values are significant at greater than the 1% level except for hedonism, universalism and risk which are not significantly related to participation. The coefficients on achievement, power self-direction and stimulation are positive (0.39, 0.35, 0.33 and 0.27, respectively) and the coefficients on security, conformity, tradition and universalism are negative (-0.26, -0.25, -0.41, -0.31, respectively). This provides at least some suggestive evidence that director values can influence outcomes. Importantly, although the value items precede the behavior question in the survey, the ordering of the questions is unlikely to influence directors' responses to the behavior question because they are unaware of how the value items are aggregated to construct values.

To assess the potential impact of gender gaps in values, one would also like to have a sense of how values may affect corporate outcomes. We are not aware of any literature linking the values along the openness to change/conservation axis (i.e. stimulation, tradition and conformity) directly to corporate outcomes that we can use to make specific predictions about the effects of the gender gaps in these values. Adams, Licht and Sagiv (2010) provide some suggestive evidence for the self-transcendence (benevolence and universalism) versus self-enhancement (achievement and power) axis. They present corporate director with vignettes based on actual legal cases in which there was a tension between the interests of shareholders and those of other stakeholders. There were different possible outcomes to the legal cases and directors were asked to rank their agreement to the different solutions. Using these answers, Adams, Licht and Sagiv construct a "shareholderism" index measuring the extent to which directors sided with shareholders more than stakeholders. The authors find that power and achievement values are positively related to siding with shareholders and universalism values are negatively related to shareholderism. Female directors were generally more stakeholder-oriented than male directors, which is consistent with the idea that they emphasize

universalism values more.

To the extent that the shareholderism index captures how directors might decide in real life situations, the evidence in Adams, Licht and Sagiv (2010) suggests that firms with more female directors will make more decisions in favor of stakeholders other than shareholders. Matsa and Miller (2010) provide direct evidence consistent with this argument. They find that firms in Norway that were the most affected by the gender quotas increased labor costs and employment levels. Importantly, they can exploit the law concerning quotas to argue that these effects are causal. They conclude that their results are consistent with the idea that women are more stakeholder-oriented than men.

8 Discussion

The initial question we asked was: are women in the boardroom different from men? After surveying the population of Swedish directors on their values as defined by Schwartz, we answer yes. Male directors value achievement and power relatively more, and benevolence and universalism relatively less. Women, on the other hand, care more about stimulation, and less about security, conformity and tradition. While the first set of gender gaps is consistent with the gender gaps in the population, the latter is not. Therefore, women who make it onto the board of publicly-traded firms are a selected sample with a high taste for stimulation and a low need for security. Thus, it is not surprising that compared to their male colleagues female directors appear less risk averse.

Are these results generalizable to other countries? There are two pieces of evidence that suggest that they may be. First, the differences in value priorities between men and women in the general Swedish population are similar to those reported for other countries. This suggests that the Swedish population is not an outlier in terms of gender gaps. Second, the differences in characteristics between male and female directors in Sweden are similar to those in other countries. However, we

argue that boardroom gender gaps in values may be more extreme in countries in which the costs of choosing a career are higher for women and less extreme than in countries where these costs are lower.

What are some potential implications of our results? We believe our results provide some insight into why boardroom gender diversity appears to have an effect on corporate outcomes, as documented, for example, in Adams and Ferreira (2008), Levi, Li and Zhang (2008), and Matsa and Miller (2010). A fundamental question in the literature on organizational diversity (see, e.g. the survey by Milliken and Martins, 1996) is whether the effect of gender diversity can be attributed to intrinsic differences between women and men or to other factors that happen to be correlated with gender diversity. For example, in the context of directors, gender diversity could have an impact on outcomes, not because female directors are different from men, but because the population of female directors happens to differ from the population of male directors in terms of age, tenure or other characteristics that are potentially uncorrelated with gender preferences. This is the argument that Ahern and Dittmar (2010) make for Norway. They argue that the effects of the Norwegian quota on corporate outcomes are not driven by gender per se, but by the fact that the new female directors were younger and less experienced than the existing directors. However, Matsa and Miller (2010) argue that gender did have an effect on corporate outcomes for Norway and that this effect can be explained by the fact that women have a particular leadership style.

Our results suggest that even after controlling for observable characteristics, male and female directors have different priorities which may lead gender diverse boards to behave differently. Consistent with Matsa and Miller (2010), more gender-diverse boards may embrace stakeholder interests to a greater extent. However, we do not argue that our results tell us anything about the more fundamental question of whether men are intrinsically different from women. As we argue above, the effects we document may be driven by self-selection of women caused by career choice costs. If these costs were absent, it is possible that female directors would look more similar to male

directors, although the persistence of some population gender gaps to the boardroom, e.g. for universalism values, suggests that even then all gender gaps might not disappear.

Furthermore, even if self-selection is driving our results, they still show that a set of women exists that is very different from men and very different from female members of the population in their values. This in itself may be important to document because it can help break down gender stereotypes. For example, our data suggests that having more female directors need not lead to more risk-averse decision-making. Finally, our results suggest that changing the gender composition of boards may have long-lasting effects. Despite being in the same position as male directors, female directors are not indistinguishable from them in their priorities.

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Appendix: Survey questions

Questions 1-40 are the Schwartz PVQ. The following two questions are a question designed to measure risk-aversion and a question related to outcomes. In our cover letter we asked directors to answer any firm-specific questions like the outcome question for a specific board that we sampled randomly from the set of board seats each individual held. For our analysis we code all answers except for those of the risk question from right to left on a scale from 1 to 6 so that 6 represents the most agreement. For the risk question a score of 6 represents the maximum amount invested. The survey was conducted in Swedish.

Personal Profiles

Instructions: Here we briefly describe some people. Please read each description and think about how much each person is or is not like you. For simplicity, we refer to this person as male. If you are a woman, please compare yourself to women. Please put an X in the box to the right that shows how much the person in the description is like you.

	HOW MUCH LIKE YOU IS THIS PERSON?					
	Very much like me	**like me**	**some-what like me**	**a little like me**	**not like me**	**not like me at all**
1. Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	☐	☐	☐	☐	☐	☐
2. It is important to him to be rich. He wants to have a lot of money and expensive things.	☐	☐	☐	☐	☐	☐
3. He thinks it is important that every person in the world be treated equally. He believes everyone should have equal opportunities in life.	☐	☐	☐	☐	☐	☐
4. It's very important to him to show his abilities. He wants people to admire what he does.	☐	☐	☐	☐	☐	☐
5. It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	☐	☐	☐	☐	☐	☐
6. He thinks it is important to do lots of different things in life. He always looks for new things to try.	☐	☐	☐	☐	☐	☐
7. He believes that people should do what they're told. He thinks people should follow rules at all times, even when no-one is watching.	☐	☐	☐	☐	☐	☐
8. It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	☐	☐	☐	☐	☐	☐
9. He thinks it's important **not** to ask for more than what you have. He believes that people should be satisfied with what they have.	☐	☐	☐	☐	☐	☐
10. He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	☐	☐	☐	☐	☐	☐
11. It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself.	☐	☐	☐	☐	☐	☐
12. It's very important to him to help the people around him. He wants to care for their well-being.	☐	☐	☐	☐	☐	☐
13. Being very successful is important to him. He likes to impress other people.	☐	☐	☐	☐	☐	☐
14. It is very important to him that his country be safe. He thinks the state must be on watch against threats from within and without.	☐	☐	☐	☐	☐	☐

HOW MUCH LIKE YOU IS THIS PERSON?

	Very much like me	**like me**	**some-what like me**	**a little like me**	**not like me**	**not like me at all**
15. He likes to take risks. He is always looking for adventures.	☐	☐	☐	☐	☐	☐
16. It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	☐	☐	☐	☐	☐	☐
17. It is important to him to be in charge and tell others what to do. He wants people to do what he says.	☐	☐	☐	☐	☐	☐
18. It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	☐	☐	☐	☐	☐	☐
19. He strongly believes that people should care for nature. Looking after the environment is important to him.	☐	☐	☐	☐	☐	☐
20. Religious belief is important to him. He tries hard to do what his religion requires.	☐	☐	☐	☐	☐	☐
21. It is important to him that things be organized and clean. He really does **not** like things to be a mess.	☐	☐	☐	☐	☐	☐
22. He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things.	☐	☐	☐	☐	☐	☐
23.He believes all the worlds' people should live in harmony. Promoting peace among all groups in the world is important to him.	☐	☐	☐	☐	☐	☐
24. He thinks it is important to be ambitious. He wants to show how capable he is.	☐	☐	☐	☐	☐	☐
25. He thinks it is best to do things in traditional ways. It is important to him to keep up the customs he has learned.	☐	☐	☐	☐	☐	☐
26. Enjoying life's pleasures is important to him. He likes to 'spoil' himself.	☐	☐	☐	☐	☐	☐
27. It is important to him to respond to the needs of others. He tries to support those he knows.	☐	☐	☐	☐	☐	☐
28. He believes he should always show respect to his parents and to older people. It is important to him to be obedient.	☐	☐	☐	☐	☐	☐
29. He wants everyone to be treated justly, even people he doesn't know. It is important to him to protect the weak in society.	☐	☐	☐	☐	☐	☐
30. He likes surprises. It is important to him to have an exciting life.	☐	☐	☐	☐	☐	☐
31. He tries hard to avoid getting sick. Staying healthy is very important to him.	☐	☐	☐	☐	☐	☐
32. Getting ahead in life is important to him. He strives to do better than others.	☐	☐	☐	☐	☐	☐
33. Forgiving people who have hurt him is important to him. He tries to see what is good in them and not to hold a grudge.	☐	☐	☐	☐	☐	☐
34. It is important to him to be independent. He likes to rely on himself.	☐	☐	☐	☐	☐	☐
35. Having a stable government is important to him. He is concerned that the social order be protected.	☐	☐	☐	☐	☐	☐
36. It is important to him to be polite to other people all the time. He tries never to disturb or irritate others.	☐	☐	☐	☐	☐	☐

HOW MUCH LIKE YOU IS THIS PERSON?

	Very much like me	like me	some-what like me	a little like me	not like me	not like me at all
37. He really wants to enjoy life. Having a good time is very important to him.	☐	☐	☐	☐	☐	☐
38. It is important to him to be humble and modest. He tries not to draw attention to himself.	☐	☐	☐	☐	☐	☐
39. He always wants to be the one who makes the decisions. He likes to be the leader.	☐	☐	☐	☐	☐	☐
40. It is important to him to adapt to nature and to fit into it. He believes that people should not change nature.	☐	☐	☐	☐	☐	☐

Please consider a recent important strategic decision that the board made. Please assess the level of debate and the decision-making process concerning that decision as follows:

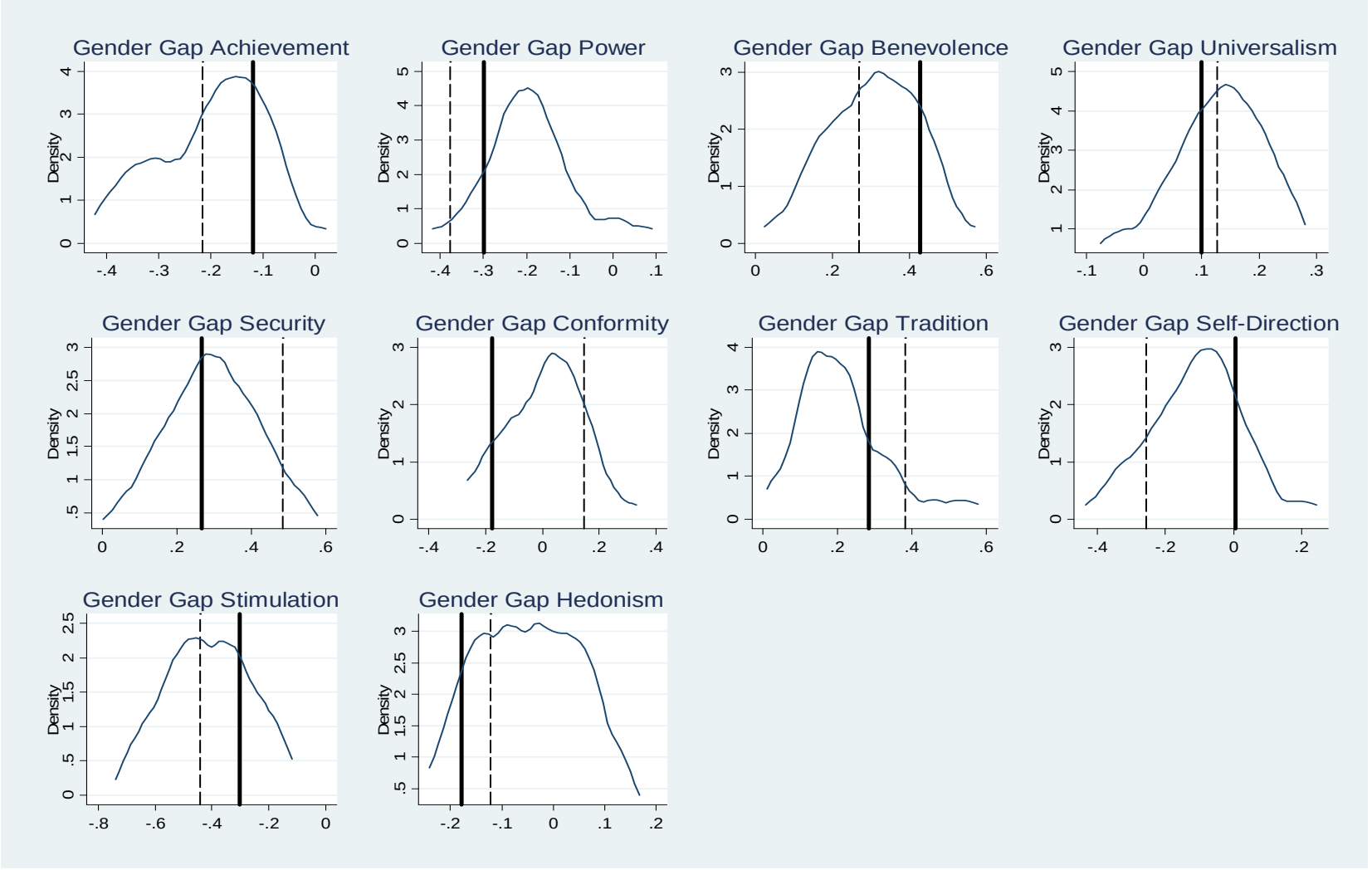
	Strongly Agree	Moder-ately Agree	Slightly Agree	Slightly Disgree	Moder-ately Disgree	Strongly Disagree
I voiced my views in the discussion.	☐	☐	☐	☐	☐	☐

Imagine you had won SEK 1000000 in a lottery. Almost immediately after you collect, you receive the following financial offer from a reputable bank: There is the chance to double the money within two years. It is equally possible that you could lose half of the amount invested.

	0	200000	400000	600000	800000	1000000
Which amount of SEK 1000000 would you invest?	☐	☐	☐	☐	☐	☐

Figure 1

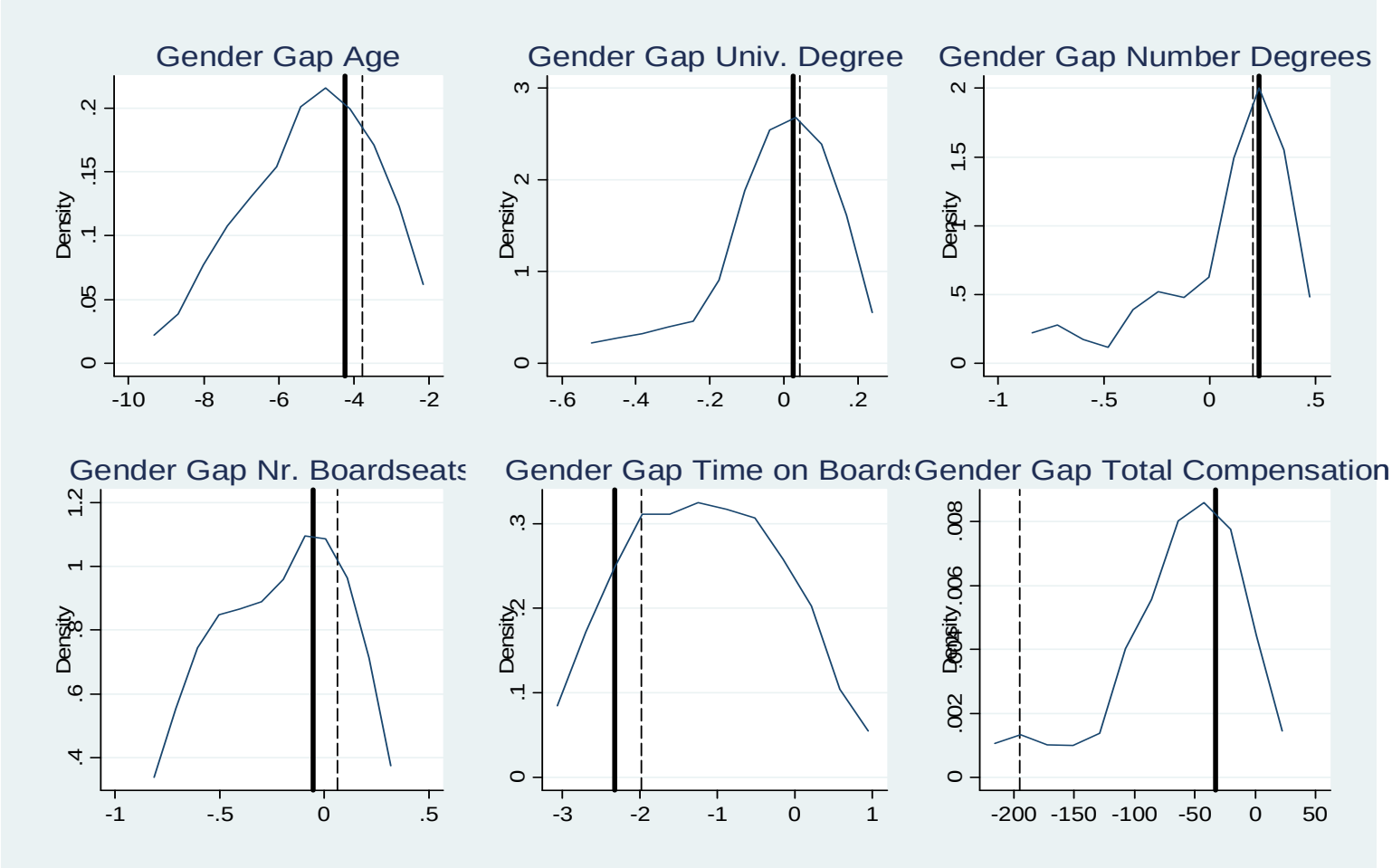
Gender Gaps in Values for High-Income Countries



Notes: The graph displays kernel density distributions for the gender gaps in values for high-income countries according to the 2006 definition of the World Economic Forum. These are: Netherland, Great Britain, France, Finland, Norway, Australia, US, Canada, Estonia, Denmark, Switzerland, Singapore, Cyprus, Sweden, Japan and Trinidad and Tobago. The data consists of 2005 data on Schwartz values from the 5th wave of the World Value Survey. The gender gap in values refers to the estimated coefficients on the female dummy in country-by-country value regressions. The dependent variables are the centered 10-item Schwartz values in the WVS. We consider all respondents between 25 and 74 years of age. Vertical solid line: Sweden; vertical dashed line: US.

Figure 2

Gender Gaps in Director Characteristics for High-Income Countries



Notes : Data on director characteristics is from BoardEx for 2005. For 2005, BoardEx contains data on directors of publicly-traded companies in 63 countries compiled by the U.K.-based firm Management Diagnostics Limited. BoardEx is the leading database on board composition of publicly listed firms, and includes detailed biographic information on individual executives and board members. We restrict this data to the set of countries also present in the World Value Survey and that fall into the group of high income country according to the definition of the World Economic Forum. The 2-letter codes for the countries we consider are: AU, CA, CH, DE, ES, FI, FR, GB, NL, NO, SE, US. This Figure shows densities of the estimates of the coefficients on the female dummy in country-level regressions of director characteristics on the female dummy. Age is age in 2005. University degree is a dummy variable if a director has a university degree. Number of degrees is the number of academic degrees including undergraduate. Number of board seats is the number of board seats in publicly-traded companies. Time on board is the number of years a director has served on a given board. Total compensation is the sum of salary plus bonus the director receives as payment for board service. Total compensation is measured in GBP. Vertical solid line: Sweden; vertical dashed line: US.

TABLE 1

Summary Statistics

	Observations	Mean	Std. Dev.	Min	Max
Values (relative)					
Achievement	625	0.02	0.76	-2.4	2.35
Power	625	-0.44	0.74	-3.18	1.94
Security	625	-0.06	0.63	-2.03	1.43
Conformity	625	-0.28	0.73	-2.35	1.83
Tradition	625	-1.25	0.59	-3.10	0.47
Benevolence	625	0.56	0.59	-1.55	2.25
Universalism	625	0.38	0.63	-1.50	2.55
Self-Direction	625	0.91	0.63	-1.25	2.85
Stimulation	625	-0.13	0.86	-2.65	2.55
Hedonism	625	-0.04	0.88	-2.65	2.38
Measure Risk					
Investment: 1 (0%) to 6 (100%)	617	2.63	1.42	1	6
Board Behavior Question					
"I voiced my views in the discussion": 1 (strongly disagree) to 6 (strongly agree)	496	4.90	1.12	1	6
Individual Characteristics (respondents)					
Female Dummy	628	0.17	0.37	0	1
Age	628	54.28	9.15	25	74
Marital Status Dummy	628	0.79	0.41	0	1
Nr. Kids	628	2.18	1.16	0	7
CEO-Dummy	628	0.20	0.40	0	1
Worker-Representative Dummy	628	0.20	0.40	0	1
Salary	615	1017535	1504574	1840	2.23e+07
University Degree	628	0.60	0.49	0	1
Degree from SSE	628	0.13	0.34	0	1
Number Degrees	628	0.68	0.62	0	3
Number Board Seats	628	1.35	0.85	1	7
Tenure	628	2.62	2.21	0	9
Same Industry	585	0.49	0.50	0	1
Individual Characteristics (all directors)					
Female Dummy	1796	0.17	0.38	0	1
Age	1796	53.07	9.20	25	81
Marital Status Dummy	1796	0.76	0.42	0	1
Nr. Kids	1796	2.12	1.14	0	7
CEO-Dummy	1796	0.24	0.42	0	1
Worker-Representative Dummy	1796	0.23	0.42	0	1
Salary	1759	1180050	1678346	900	2.23e+07
University Degree	1796	0.56	0.50	0	1
Degree from SSE	1796	0.11	0.31	0	1
Number Degrees	1796	0.64	0.63	0	3
Number Board Seats	1796	1.29	0.78	1	7
Tenure	1796	2.74	2.27	0	9
Same Industry	1695	0.51	0.50	0	1

Notes: The data are from the Swedish director sample. The values are for the survey respondents. The raw value scores range between 1 and 6, with higher numbers reflecting a higher importance of the respective value dimension. Relative values are centered around the individual's mean response and reflect a respondant's relative value priorities in life. The risk measure is the individuals' answer to how much of 1,000,000 SEK they would invest in a fair lottery (with equal chances of winning the double or loosing half): 0 (1), 20,000 (2), 40,000 (3), 60,000 (4), 80,000 (5), 1,000,000 (6). The board behavior question is the directors response to the question "Please consider a recent important strategic decision that the board made. Please assess the level of debate and the decision-making process concerning that decision as follows: I voiced my views in the discussion." The first set of individual characteristics is for the survey respondents, the second set for the population of surveyed directors. Marital Status is a dummy variable taking a value of 1 if married, and 0 otherwise. Nr. Kids is the number of children. Salary is total compensation in SEK. University degree is a dummy variable taking a value of 1 if the individual is in possession of a university degree. Degree from SSE takes a value of 1 (and 0 otherwise) if the degree is from Stockholm School of Economics. Number of Board Seats gives the total number of boards, the director is on, and tenure the (average) number of years on the boards. Same Industry takes a value of 1 if the director is from the same industry as the firm he sits on the board. Data sources are Market Manager, Statistics Sweden and survey responses.

TABLE 2

Values and risk attitudes of male and female directors

	Achievement	Power	Security	Conformity	Tradition	Benevolence
Female Director	-0.0166	-0.295***	-0.231***	-0.375***	-0.194***	0.322***
	(0.105)	(0.0940)	(0.0854)	(0.0899)	(0.0722)	(0.0813)
Constant	0.131***	-0.307***	-0.0786**	-0.317***	-1.241***	0.485***
	(0.0354)	(0.0349)	(0.0307)	(0.0349)	(0.0282)	(0.0286)
Observations	499	499	499	499	499	499
R-squared	0.000	0.020	0.016	0.031	0.013	0.034

	Universalism	Self-Direction	Stimulation	Hedonism		Risk
Female Director	0.307***	0.0970	0.226**	0.0667		0.306*
	(0.0806)	(0.0840)	(0.0980)	(0.110)		(0.170)
Constant	0.267***	0.968***	-0.0707*	-0.0634		2.588***
	(0.0288)	(0.0311)	(0.0404)	(0.0454)		(0.0714)
Observations	499	499	499	499		491
R-squared	0.030	0.003	0.008	0.001		0.005

Notes: The sample consists of the directors that responded to the survey and who are not worker representatives. Dependent variables are the centered value dimensions using the Schartz 40 item Portrait Value Questionnaire and the risk measure. Female Director is a dummy variable taking a value of 1 if female and 0 otherwise. Standard errors are clustered at the company level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 3

Values and risk attitudes, directors versus representative Swedes

	Achievement	Power	Security	Conformity	Tradition
Female	-0.172***	-0.298***	0.0800	-0.0925*	0.172***
	(0.0487)	(0.0435)	(0.0506)	(0.0507)	(0.0494)
Director	0.729***	0.472***	0.0672	-0.138***	-1.114***
	(0.0491)	(0.0462)	(0.0471)	(0.0485)	(0.0450)
Female Director	0.0836	-0.00589	-0.307***	-0.256**	-0.341***
	(0.120)	(0.102)	(0.0940)	(0.109)	(0.0924)
Constant	-0.593***	-0.778***	-0.155***	-0.180***	-0.115***
	(0.0348)	(0.0313)	(0.0364)	(0.0344)	(0.0353)
Observations	1747	1740	1743	1739	1746
R-squared	0.170	0.138	0.004	0.013	0.333

	Benevolence	Universalism	Self-Direction	Stimulation	Hedonism
Female	0.289***	0.181***	-0.0293	-0.289***	0.0674
	(0.0363)	(0.0363)	(0.0427)	(0.0506)	(0.0491)
Director	-0.191***	-0.367***	0.371***	0.354***	-0.0864
	(0.0380)	(0.0386)	(0.0425)	(0.0544)	(0.0554)
Female Director	0.0434	0.146*	0.118	0.486***	0.0191
	(0.0851)	(0.0855)	(0.0931)	(0.114)	(0.125)
Constant	0.677***	0.631***	0.592***	-0.429***	0.0283
	(0.0261)	(0.0258)	(0.0309)	(0.0357)	(0.0355)
Observations	1753	1764	1743	1748	1745
R-squared	0.086	0.101	0.061	0.087	0.005

Notes: The data are a combined dataset of the 499 non-worker representative directors and Swedish survey respondents to the third European Social Survey (ESS). Dependent variables are the centered value dimensions using the 21-item Schwartz value survey. To match the Swedish directors, we drop ESS respondents older than 74 and younger than 25. Robust standard errors in parentheses. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 4

Values and risk attitudes, Directors versus Worker Representatives

	Achievement	Power	Security	Conformity	Tradition	Benevolence
Female	-0.238*	-0.265**	-0.141	-0.102	-0.176	0.303***
	(0.121)	(0.113)	(0.121)	(0.119)	(0.126)	(0.103)
Director	0.484***	0.449***	-0.268***	-0.416***	-0.103	-0.120*
	(0.0916)	(0.0862)	(0.0704)	(0.0724)	(0.0725)	(0.0658)
Female * Director	0.222	-0.0306	-0.0899	-0.273*	-0.0175	0.0191
	(0.163)	(0.143)	(0.137)	(0.154)	(0.144)	(0.141)
Constant	-0.353***	-0.757***	0.189***	0.0982	-1.138***	0.606***
	(0.0835)	(0.0781)	(0.0655)	(0.0634)	(0.0676)	(0.0596)
Observations	625	625	625	625	625	625
R-squared	0.089	0.090	0.041	0.082	0.016	0.052

	Universalism	Self-Direction	Stimulation	Hedonism	Risk
Female	0.323***	0.0955	0.0954	-0.0693	-0.275
	(0.103)	(0.141)	(0.150)	(0.142)	(0.242)
Director	-0.307***	0.364***	0.443***	-0.116	-0.120
	(0.0719)	(0.0698)	(0.0956)	(0.0940)	(0.153)
Female * Director	-0.0161	0.00155	0.130	0.136	0.581*
	(0.134)	(0.160)	(0.174)	(0.185)	(0.307)
Constant	0.575***	0.604***	-0.513***	0.0523	2.708***
	(0.0666)	(0.0656)	(0.0896)	(0.0832)	(0.142)
Observations	625	625	625	625	617
R-squared	0.086	0.052	0.049	0.002	0.006

Notes: The sample consists of all survey respondents (regular directors and worker representatives). Dependent variables are the centered value dimensions using the Schartz 40 item PVQ and the risk measure. Director is a dummy variable taking a vaule of 1 in case of a non worker-representative director, and 0 otherwise. Female Director is a dummy variable taking a value of 1, if female, and 0 otherwise. Standard errors are clustered at the company level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 5

Distribution of Female Directors by Industry

Industry	Gics-Code (4 digit)	# Firms per Industry	# Directors per Industry	Av. Percentage Female Directors per Industry	Response Rate by Industry	Share Female Among Respondents	# Firms per Industry (Respondents)
Energy	1010	4	41	2.4	17.1	0	3
Materials	1510	20	225	8.9	28.9	16.9	16
Capital Goods	2010	41	444	11.9	26.6	14.4	40
Commercial Services & Supplies	2020	22	211	15.6	28.9	19.7	21
Transportation	2030	4	46	8.7	21.7	10	3
Automobiles	2510	1	13	7.7	38.5	0	1
Consumer Durables & Apparel	2520	8	104	14.4	28.8	20	8
Hotel Restaurants & Leisure	2530	6	49	14.3	14.3	14.3	4
Media	2540	6	60	16.7	33.3	20	6
Retailing	2550	11	118	22.9	35.6	21.4	11
Food & Staples Retailing	3010	1	16	37.5	18.7	100	1
Food Beverage & Tobacco	3020	4	60	21.7	33.3	25	4
Household & Personal Products	3030	1	9	22.2	32.9	33.3	1
Health Care Equipment & Supplies	3510	15	143	16.8	29.9	17	15
Pharmaceuticals & Biotechnology	3520	17	127	14.2	29.9	18.4	17
Banks	4010	4	105	18.1	15.2	43.7	3
Diversified Financials	4020	25	202	10.9	30.2	9.8	24
Insurance	4030	2	32	25	31.2	30	2
Real Estate	4040	14	113	12.4	31	14.3	14
Software & Services	4510	42	349	12	31.8	13.5	38
Technology Hardware & Equipment	4520	26	217	8.7	25.3	7.3	21
Semiconductor Equipments and Products	4530	1	12	8.3	25	0	1
Telecommunications Services	5010	5	49	10.2	22.4	0	5

Notes: The sample consists of all director-firm matches, i.e. directors who sit on multiple boards appear several times. The industry classification is based on the first four digits of the Global Industry Classification System (GICS). The table (left panel) reports the number of firms, directors and share of female directors per industry. The table (right panel) displays response rates by industry.

TABLE 6

Values and risk attitudes: Within-Firm Variation

	Achievement	Power	Security	Conformity	Tradition	Benevolence
Female Director	-0.0157	-0.214	-0.273***	-0.413***	-0.197**	0.304***
	(0.151)	(0.134)	(0.0972)	(0.112)	(0.0904)	(0.106)
Firm-Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	718	718	718	718	718	718
R-squared	0.383	0.412	0.429	0.448	0.390	0.413
	Universalism	Self-Direction	Stimulation	Hedonism		Risk
Female Director	0.296***	0.219*	0.303**	-0.0865		0.417*
	(0.101)	(0.124)	(0.142)	(0.158)		(0.234)
Firm-Fixed Effects	Yes	Yes	Yes	Yes		Yes
Observations	718	718	718	718		707
R-squared	0.387	0.402	0.388	0.421		0.368

Notes: The sample consists of all director-firm matches for directors that responded to the survey. Dependent variables are the centered value dimensions using the Schartz 40 item PVQ and the risk measure. Female Director is a dummy variable taking a value of 1 if female and 0 otherwise. All estimations include firm-fixed effects. Standard errors clustered at the director level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 7

Individual Characteristics, Directors versus representative Swedes

	Age	Married	Nr. Kids	University Degree
Female	1.032	0.00560	0.230***	0.0698***
	(0.704)	(0.0261)	(0.0677)	(0.0254)
Director	6.642***	0.316***	0.673***	0.317***
	(0.565)	(0.0215)	(0.0590)	(0.0224)
Female Director	-4.890***	-0.101**	-0.800***	-0.0226
	(0.945)	(0.0423)	(0.109)	(0.0431)
Constant	47.86***	0.518***	1.640***	0.359***
	(0.502)	(0.0186)	(0.0497)	(0.0178)
Observations	2858	2853	2858	2858
R-squared	0.062	0.103	0.054	0.087

Notes: The data are a combined dataset of the 499 non-worker representative directors and Swedish survey respondents to the third European Social Survey (ESS). To match the Swedish directors, we dropped ESS respondents older than 74 and younger than 25. Robust standard errors in parentheses. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 8

Values and risk attitudes of male and female directors (sensitivity to controls; within firm variation)

	Achievement	Power	Security	Conformity	Tradition	Benevolence	Universalism	Self-Direction	Stimulation	Hedonism	Risk
Female Director	-0.0157	-0.214	-0.273***	-0.413***	-0.197**	0.304***	0.296***	0.219*	0.303**	-0.0865	0.417*
	(0.151)	(0.134)	(0.0972)	(0.112)	(0.0904)	(0.106)	(0.101)	(0.124)	(0.142)	(0.158)	(0.234)
Female	-0.0566	-0.302**	-0.234**	-0.380***	-0.191**	0.353***	0.349***	0.229*	0.255*	-0.201	0.344
	(0.148)	(0.139)	(0.102)	(0.112)	(0.0946)	(0.108)	(0.108)	(0.121)	(0.141)	(0.166)	(0.249)
Age	-0.00795*	0.00177	0.00224	0.00360	0.00471	-0.00211	0.00215	0.00188	0.00317	-0.0131**	0.00855
	(0.00455)	(0.00457)	(0.00461)	(0.00519)	(0.00408)	(0.00371)	(0.00407)	(0.00469)	(0.00644)	(0.00656)	(0.0107)
Married	0.138	-0.0486	0.0253	0.194*	0.0730	-0.0182	0.0478	-0.0938	-0.259*	-0.222	0.165
	(0.101)	(0.116)	(0.0967)	(0.105)	(0.0760)	(0.0996)	(0.0874)	(0.0932)	(0.133)	(0.135)	(0.256)
Nr. Kids	-0.0382	-0.0758**	0.00643	-0.00131	-0.00262	0.0253	0.0162	0.0280	0.0105	0.000915	0.0957
	(0.0336)	(0.0368)	(0.0323)	(0.0367)	(0.0294)	(0.0297)	(0.0285)	(0.0353)	(0.0539)	(0.0480)	(0.0761)
Nr. Degrees	0.136*	0.0508	-0.0631	-0.0758	0.0530	0.0265	-0.0669	0.0150	0.0184	-0.0286	-0.0421
	(0.0800)	(0.0631)	(0.0592)	(0.0745)	(0.0593)	(0.0515)	(0.0579)	(0.0590)	(0.0955)	(0.0791)	(0.141)
Nr. Board Seats	0.0247	0.0515	0.0542*	-0.0198	-0.0504	0.00834	-0.0416	0.0110	-0.0693	0.0555	0.00938
	(0.0249)	(0.0341)	(0.0315)	(0.0386)	(0.0320)	(0.0293)	(0.0339)	(0.0384)	(0.0461)	(0.0454)	(0.0731)
Years Tenure	0.00448	-0.0100	0.00912	-0.0122	-0.0119	0.0317**	0.0237	-0.0125	-0.0129	-0.0368	-0.0953**
	(0.0185)	(0.0209)	(0.0187)	(0.0195)	(0.0172)	(0.0153)	(0.0180)	(0.0203)	(0.0257)	(0.0248)	(0.0440)
Constant	0.388	-0.285	-0.306	-0.543*	-1.480***	0.420*	0.106	0.878***	0.113	0.898**	3.847***
	(0.279)	(0.274)	(0.254)	(0.313)	(0.234)	(0.226)	(0.232)	(0.278)	(0.361)	(0.384)	(0.624)
Observations	718	718	718	718	718	718	718	718	718	718	707
R-squared	0.403	0.426	0.444	0.457	0.404	0.423	0.399	0.407	0.405	0.445	0.383

Notes: The first row of the table reports the baseline estimates for the regressions with firm fixed effects (see Table 6). The remaining rows contain controls for age, marital status, the number of children, the number of university degrees, the number of board seats and the number of years in the director position. Standard errors are clustered at the director level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE 9

Characteristics Directors, Sweden and US

	Age	Dummy University	Number University Degrees	Number Boardseats	Tenure	Total Compensation	Married	Nr. Children
Female	-4.248***	0.0258	0.232**	-0.0537	-2.323***	-32.82***	-0.110**	-0.650***
	(0.599)	(0.0310)	(0.0920)	(0.116)	(0.310)	(5.185)	(0.0546)	(0.153)
DummyUS	3.612***	0.0657***	0.329***	-0.283***	1.658***	233.6***	-0.160***	-0.290
	(0.276)	(0.0135)	(0.0364)	(0.0502)	(0.175)	(6.708)	(0.0568)	(0.238)
Female*DummyUS	0.478	0.0179	-0.0261	0.114	0.348	-162.1***	-0.154*	-0.500*
	(0.614)	(0.0316)	(0.0940)	(0.119)	(0.327)	(9.225)	(0.0868)	(0.292)
Constant	53.97***	0.721***	1.304***	2.087***	6.154***	41.82***	0.870***	2.440***
	(0.272)	(0.0134)	(0.0360)	(0.0491)	(0.171)	(4.086)	(0.0338)	(0.107)
Observations	53872	54038	54038	47281	47246	23854	400	400
R-squared	0.016	0.001	0.004	0.001	0.007	0.011	0.115	0.122

Notes: Data from columns (1)-(6) come from the database BoardEx which contains data on directors of publicly-traded companies in 63 countries, compiled by the U.K.-based firm Management Diagnostics Limited. Age is age in 2005. University degree is a dummy variable if a director has a university degree. Number of degrees is the number of academic degrees including undergraduate. Number of board seats is the number of board seats in publicly-traded companies. Time on board is the number of years a director has served on a given board. Total compensation is the sum of salary plus bonus the director receives as payment for board service. Total compensation is measured in GBP. Columns (7) and (8) of the table displays information on family status for the best-paid directors (in terms of salaries). For Sweden, the data stem from our surveyed director sample; for the US, the data come from Marquis Who´s Who database. Robust standard errors in parenthesis. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE A1

Correlations between the Values and Risk Attitudes

	Achievement	Power	Security	Conformity	Tradition	Benevolence	Universalism	Self-Direction	Stimulation	Hedonism	Risk
Achievement	1										
Power	0.4875*	1									
Security	-0.1398*	-0.1032*	1								
Conformity	-0.2276*	-0.1612*	0.3294*	1							
Tradition	-0.3212*	-0.1587*	0.1720*	0.3432*	1						
Benevolence	-0.3290*	-0.4267*	-0.1668*	-0.1086*	-0.0538	1					
Universalism	-0.4667*	-0.4954*	-0.1573*	-0.1497*	-0.0336	0.3396*	1				
Self-Direction	0.1228*	0.0911*	-0.3940*	-0.5227*	-0.3647*	-0.0441	-0.0513	1			
Stimulation	0.0503	0.0177	-0.5063*	-0.4350*	-0.3350*	-0.0774	-0.1090*	0.3666*	1		
Hedonism	-0.0574	0.0279	-0.2268*	-0.1696*	-0.2073*	-0.1491*	-0.2367*	-0.0498	0.2105*	1	
Risk	0.0238	-0.0015	-0.1034*	-0.0388	-0.0883*	0.0884*	-0.0036	0.0501	0.1392*	-0.0339	1

Notes: The table displays pairwise correlations between the values and risk attitudes for all survey respondents (= 617 individuals). * denotes significance at the 5% level.

TABLE A2

Gender Gap in Values, Directors (OLS versus Heckman)

	Part. Equ.	Achiev.	Power	Security	Conformity	Tradition	Benev.	Univers.	Self-Direction	Stimulation	Hedonism	Risk
Female Exec.	-0.0676	0.0409	-0.257**	-0.250***	-0.391***	-0.204***	0.341***	0.288***	0.109	0.204*	0.0713	0.297
	(0.0971)	(0.115)	(0.105)	(0.0893)	(0.0960)	(0.0734)	(0.0869)	(0.0810)	(0.0894)	(0.106)	(0.113)	(0.201)
SSE-Degree	0.224*											
	(0.119)											
Economics-Degree	-0.0551											
	(0.0929)											
Observations		1378	1378	1378	1378	1378	1378	1378	1378	1378	1378	1370
ρ		-0.7538	-0.7026	0.47329	0 .2492	0.0584	-0.5977	0.3333	-0.4117	0.6584	0.1681	0.1670
ρ=0		0.0001	0.0000	0.0493	0.8188	0.9395	0.1045	0.2368	0.6435	0.0075	0.6833	0.851
	Part. Equ.	Achiev.	Power	Security	Conformity	Tradition	Benev.	Univers.	Self-Direction	Stimulation	Hedonism	Risk
Female Exec.	-0,1060	-0.0245	-0.291***	-0.215**	-0.358***	-0.182**	0.318***	0.310***	0.0790	0.210**	0.0567	0.309*
	(0.1023)	(0.105)	(0.0943)	(0.0890)	(0.0945)	(0.0749)	(0.0825)	(0.0805)	(0.0882)	(0.1000)	(0.112)	(0.171)
Number-Resp.	0.2119***											
	-0.045											
Observations		1378	1378	1378	1378	1378	1378	1378	1378	1378	1378	1370
ρ		0.2285	-0.1283	-0.4786	-0.4344	-0.473	0.1383	-0.1391	0.5553	0.3952	0.2275	-0.0543
ρ=0		0.1907	0.5424	0.0230	0.0438	0.0222	0.5476	0.5700	0.0001	0.0278	0.1930	0.7409

Notes: The sample consists of all non worker-representative directors. Dependent variables are the centered value dimensions and the risk attitude. Female Executive is a dummy variable taking a value of 1 if female and 0 otherwise. SSE-Degree is a dummy variable taking a value of 1 if the director obtained a degree at the Stockholm School of Economics. Economics-Degree takes a value of 1 if the director holds an economics degree. Number Respondents is the number of directors per company that filled out the survey. Standard errors are clustered at the company level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

TABLE A3

Values and risk attitudes of male and female directors (sensitivity to controls; saturated regressions)

	Achievement	Power	Security	Conformity	Tradition	Benevolence	Universalism	Self-Direction	Stimulation	Hedonism	Risk
Female Director	-0.0157	-0.214	-0.273***	-0.413***	-0.197**	0.304***	0.296***	0.219*	0.303**	-0.0865	0.417*
	(0.151)	(0.134)	(0.0972)	(0.112)	(0.0904)	(0.106)	(0.101)	(0.124)	(0.142)	(0.158)	(0.234)
Female Director	-0.0591	-0.342**	-0.138	-0.396***	-0.220**	0.300***	0.320***	0.202*	0.311**	-0.151	0.3401
	(0.129)	(0.140)	(0.115)	(0.122)	(0.0968)	(0.113)	(0.105)	(0.119)	(0.132)	(0.175)	(0.275)
Married	0.112	-0.0201	0.0693	0.130	0.0707	-0.0479	0.112	-0.0847	-0.357***	-0.210	0.270
	(0.104)	(0.118)	(0.102)	(0.116)	(0.0825)	(0.0989)	(0.0946)	(0.102)	(0.130)	(0.156)	(0.278)
Number Degrees	0.145*	0.0899	-0.0718	-0.0503	0.0276	0.0193	-0.0829	0.0239	0.0147	-0.0335	-0.120
	(0.0800)	(0.0579)	(0.0615)	(0.0754)	(0.0594)	(0.0529)	(0.0586)	(0.0617)	(0.0946)	(0.0817)	(0.155)
Nr. Boardseats	0.0136	0.0684**	0.0398	0.00562	-0.0388	0.00334	-0.0577**	0.0168	-0.0703	0.0620	0.101
	(0.0258)	(0.0316)	(0.0339)	(0.0411)	(0.0305)	(0.0300)	(0.0278)	(0.0382)	(0.0447)	(0.0428)	(0.0766)
Tenure	-0.00874	-0.0184	0.00942	-0.0222	-0.00546	0.0377**	0.0355**	-0.0107	-0.0161	-0.0393	-0.0724*
	(0.0202)	(0.0206)	(0.0189)	(0.0202)	(0.0182)	(0.0169)	(0.0157)	(0.0196)	(0.0267)	(0.0268)	(0.0438)
Age-Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nr-Kids Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.614	1.487**	0.245	-0.498	-2.172***	0.771	-0.418	1.918***	-1.918	-0.378	5.559***
	(0.607)	(0.617)	(0.939)	(0.434)	(0.431)	(0.544)	(0.497)	(0.550)	(1.238)	(1.117)	(1.820)
Observations	718	718	718	718	718	718	718	718	718	718	707
R-squared	0.528	0.547	0.539	0.536	0.497	0.512	0.514	0.508	0.510	0.514	0.464

Notes: The first row of the table reports the baseline estimates for the regressions with firm fixed effects (see Table 6). The remaining rows contain controls for marital status, the number of university degrees, the number of board seats and the number of years in the director position. Age and the number of children are dummied out. Standard errors are clustered at the director level. *** denote significance at the 1% level, ** significance at the 5% level, and * significance at the 10% level.

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