GENDER PAY GAP ACROSS CULTURES

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ABSTRACT

Employing a cross-country sample, we examine how a population's underlying cultural values help explain gender compensation variation across corporate executives. The results show that the cultural differences embedded in societies long before the board's compensation decisions have significant explanatory power for the observed gender gap in executive compensation. Using an Oaxaca-Blinder decomposition combined with variables previously shown to be fundamental determinants of executive compensation, we find that adding cultural measures increases the model's explanatory power of the gender compensation gap from 44% to 95%. We use further identification strategies to support causal inference.

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I. Introduction

A significant gender pay gap exists worldwide, pervasive across countries, sectors, and job roles. In fact, according to a recent report, women earn approximately 39.7% less than men in similar positions (World Economic Forum, 2022). Explanations have been proposed for the documented gender pay disparities, including but not limited to discrimination, occupational segregation, and educational differences.[1] In this study, we examine the role of cultural values in explaining gender wage disparities among corporate executives. Focusing on competitive executive positions mitigates potential effects from possible sources of a gender pay gap, as listed by Blau and Kahn (2017), such as human capital differences and self-selection.[2] Thus, our focus highlights the residual effects of a society's values, beliefs, and attitudes versus the qualifications of the executives.[3]

To estimate the association between gender wage differentials and cultural norms, we analyze data from a sample of top executives spanning 31 countries. We find that a significant gender compensation gap exists, on average, across countries and various executive roles. To test whether cultural norms matter, we construct measures from the World Values Survey (WVS), a cross-national and time-series dataset of cultural beliefs (Inglehart et al. 2014). Our measures derive from two primary categories: Beliefs about women's place in society and general cultural beliefs that influence compensation.[4] The first category encompasses beliefs and attitudes that directly impact women, for example, a society's attitudes toward preferential treatment for men in education and employment. These beliefs are relevant to understanding behaviors that influence

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[1] See, for example, Blau and Kahn (2017), Bertrand, Goldin, Katz (2010), Sapienza (2020), among others.
[2] Considering the documented higher attrition rate among women, female professionals who persist and succeed in executive positions may constitute a notably distinguished cohort in the corporate labor market.
[3] For ease of exposition, we use the term *cultural values* interchangeably with, and to refer to, beliefs, attitudes, and norms of a society.
[4] Focusing only on gender-related cultural values could lead to a biased interpretation of the relationship between the gender compensation gap and cultural values.

economic outcomes for women. Additionally, we consider attitudes concerning the tolerance of violence towards women, as studies show that a consistent predictor of acceptance of violence towards women are more traditional gender-role attitudes (Flood and Pease, 2006).

The second category encompasses cultural values that shape cooperation, markets, and pay structures, including individualism, hard work, and trust. Given their broader societal roles, the second category also includes corruption, intolerance, and religion. Examining this category of cultural values is critical because these elements can influence compensation practices and contribute to differences in pay between women and men.

In both theoretical and empirical research, authors argue that the labor market for executives is an efficient, competitive, and broad-based market (e.g., Edmans, Gabaix, and Landier, 2009; Murphy and Zabojnik, 2007; Frydman, 2019; Gompers, Kaplan, and Mukharlyamov, 2023). Further, research on CEOs suggests that the CEO labor market, relative to lower-level executive positions, exhibits greater transparency and efficiency. Consequently, cultural values may have greater effects in non-CEO markets if those markets are less efficient, making it less costly for employers to base decisions on nonobjective criteria. Notably, it will be less costly when more substitutes exist for an executive position, i.e., in labor markets for executives below the CEO level we expect a larger number of candidates with similar skills. This substitutability can create more opacity and subjectivity in decision-making, leading us to hypothesize that wage gaps explained by cultural attitudes should be more pronounced at levels below the CEO position. Accordingly, our analyses include the total sample of all executives and three subsamples: CEOs only, the top three positions excluding CEOs, and other executives. These separate analyses allow us to examine whether cultural values differentially affect the pay gap across executive markets.

Consistent with our hypotheses, our empirical analyses indicate that cultural values explain a

significant portion of the executive pay gap. Specifically, the unexplained pay gap becomes smaller once we include the cultural values with the variables shown in previous work to explain executive compensation. When we test relationships between the executive gender pay gap and each cultural measure individually (while controlling for other potential influences), we find significant relationships for nearly all the individual cultural measures we employ. Notably, society's acceptance of gendered violence is the strongest predictor of the pay gap among top executives. This result is particularly important because it is unlikely to cause an endogeneity issue since it does not directly relate to the division of labor and market organization.

To reduce dimensionality and capture the interactions, we conduct a principal component analysis of the cultural values, which shows three factors associated with the executive compensation gender gap. Respectively, these three factors load on (1) attitudes toward violence against women, religious dogmatism, and acceptance of intolerance and corruption; (2) beliefs and attitudes toward women's education and work; and (3) views on hard work, individualism, and societal trust. Significant associations exist between each of these cultural factors and the gender gap in executive compensation. Moreover, the unexplained gender pay gap disappears when we include all three factors in our model for CEOs.

Further, we find that cultural views associated with smaller gender pay gaps are also associated with increased compensation for men. This finding is consistent with the argument made centuries ago that changes in society's attitudes toward girls' education and their role in society would improve the lives of not only women but also men (Mary Wollstonecraft, 1792).

To understand the economic importance of the relations we observe between cultural values and the executive gender pay gap, we employ the Oaxaca (1973)-Blinder (1973) decomposition method. We find that the primary variables previously documented as being related to executive

compensation, such as position, tenure, and firm characteristics, explain 82.4% of the compensation gap we identify, and a combined model that includes the cultural measures explains 94.8% of the gender compensation gap. Our results strongly imply that a society's cultural values affect economic outcomes for women, even in a highly competitive market where taste-based preferences should be arbitraged away (Becker, 1957; Arrow, 1973).

Reverse causality is less likely to be a problem in our analysis because cultural measures reflect the persistent attitudes of a country's average inhabitant, and executives are unlikely to hold values that would be inconsistent with their success. As pointed out by Aggarwal, Faccio, Guedhami, and Kwok (2016), empirical studies have shown persistence in relative country culture scores over time even when the country experiences changes in its economic conditions: "It would therefore be difficult to argue that frequently changing firm- or individual-level financial behavior drives changes in cultural scores." However, to address possible reverse causality concerns, similar to the approaches of Alesina, Giuliano, and Nunn (2013) and Goldin and Sokoloff (1984), we use cultural measures determined in the distant past (the 1800s). These economists borrow from anthropology's premise that human culture derives from solving the practical problems of human existence, where ideologies, values, and attitudes subsequently form that are consistent with the practices.[5]

Specifically, Alesina et al. (2013) show that pre-industrial societies that adopted the plow for agriculture developed cultural attitudes supporting the appropriateness of women working outside the home. In their study of the U.S., Goldin and Sokoloff (1984) show that where women were not

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[5] This premise is from the theory of cultural materialism, which is based on the proposition that human social life develops as a response to the practical problem of human existence, where social life includes, both social and political structure, along with changes in ideologies that are consistent with these structures (Harris, 1979). Here, ideas and attitudes, are influenced by the way people live in response to their environment, and because ideas are slow to change, they also subsequently influence the choices people make on how to live.

involved in agriculture, women's labor was more quickly adopted for manufacturing, leading to faster development of manufacturing and reduction of the gender pay gap in the U.S. North as compared to the U.S. South. Consistent with these approaches, we analyze whether women in a country were involved in agriculture in the 1800s as a historical measure of a country's family practices and attitudes toward the appropriateness of women working outside the home. We hypothesize that in countries where women were historically less involved in agriculture, the gender pay gap should be smaller today. Using a second historical measure motivated by Becker (1991), who shows dowries arise when laws and social norms restrict the division of economic output by gender, we hypothesize that in countries where dowries have been practiced, the executive gender pay gap should be larger today. Our evidence supports both hypotheses, providing a unique lens on how deep-rooted cultural norms continue to influence contemporary compensation practices. Finally, we employ instrumental variables and a two-stage least-squares model to allay endogeneity concerns further.

Although recognizing that culture is slow to change, we employ an analysis of two significant country-level policy changes that could result in reductions in the gender pay gap: (1) legislation that initiates paternity leaves and (2) the proposal of laws to increase gender diversity on corporate boards. Consistent with results from Giannetti and Wang (2023) that board diversity increased after the passage of the board diversity initiatives, we find that proposals for paternity leave and board diversity laws appear to help reduce the gender gap in executive compensation.

Our paper contributes to the increasing literature on cultural values in financial economics.[6] We complement the studies most directly related to our research by providing novel findings and

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[6] For recent work on culture and finance, see, for example, Giannetti and Zhao (2019), Field, Souther and Yore (2020), Adams and Funk (2012), Berger, Li, Morris and Roman (2021), Delis, Hasan, Iosifidi and Ongena (2022), and Gompers, Mukharlyamov, Weisburst and Xuan (2022). See Aggarwal, Faccio, Guedhami, and Kwok (2016) for a review of earlier work in culture and finance.

original interpretations by focusing on a broad set of executives. Fortin (2005) examines whether women's identity with gender norms affects their employment decisions, employment rates, and the overall gender compensation gap. We address a fundamentally different question by examining how cultural values affect compensation using a sample of highly skilled workers who would be less likely to hold personal identity beliefs inconsistent with success in their competitive labor pool (Bertrand and Hallock, 2001; Blau and Kahn, 2017). McLean, Pirinsky, and Zhao (2023) use a combination of WVS and Hofstede data to form a measure of gender egalitarianism based on U.S. immigration patterns. They conclude that regional differences in inherited gender egalitarianism beliefs can explain the heterogeneity of women in key positions across U.S. firms. In contrast, we study the executive gender pay gap within companies across countries. In a contemporaneous paper to ours, Chen, Torsin, and Tsang (2022) explore country variations in the CEO gender pay gap as it relates to Schwartz's (1994, 2008) country-level egalitarian index, concluding that a significant CEO gender pay gap exists. Our paper is quite different from theirs as we employ the underlying cultural values related to executive compensation and gender, and we apply these cultural values to a dataset that contains a broad cross-section of executives, not just CEOs. While their study touches on country-level attitudes towards gender equality, it does not delve deeply into the causal relationships or the significance of cultural values in shaping the gender compensation gap.[7] Further, two crucial differences exist between the Chen, et al. conclusions and ours. First, their primary measure of culture (egalitarian index) negatively relates to overall executive compensation, while our study indicates that overall executive compensation increases in cultural values that support women. Second, in contrast to their finding of a significant CEO

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[7] Chen, Torsin and Tsang (2022) employ the Schwartz egalitarian index as their primary cultural variable. They also use a legally-based gender equality index, a measure based on differences in country's gender gaps according to the World Economic Forum Report, and a measure of women's opportunities.

gender pay gap, we find that once we use fundamental cultural values in the analysis, the unexplained pay gap disappears at the CEO level. At the same time, it remains for other executive ranks. This result is consistent with our hypothesis regarding the differences between labor markets for CEOs versus other executives. Overall, our main contribution is to highlight *how* the gender gap in compensation, particularly in executive compensation, can be explained by a set of cultural values.[8]

II. Background and Description of Measures

A. Background

Understanding how cultural values affect the gender pay gap is challenging not only because many factors influence the pay gap but also because of the endogeneity problems inherent in the empirical tests. Restricting our sample to executive positions allows us to mitigate some of these challenges. Bertrand and Hallock (2001) suggest that about 80% of the gender pay disparity is due to self-selection regarding job segregation, industry choice, and corporate rank, which is less of a concern when examining top executives. As Blau and Kahn (2017) point out, "...given women's higher exit rate, women survivors in the executive labor market may be an especially positively selected group."[9] This focus on top executives also helps us control for factors that could influence the pay gap, such as differences in seniority, tenure, and job responsibilities. Executive positions are distinctive in that individuals in these roles typically have over 20 years of experience and are vetted by highly skilled executives and boards, reducing the impact of "statistical" discrimination. Recent studies indicate that female executives and directors often have unique qualifications

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[8] We also contribute novel evidence regarding the existence of a gender gap in top executive salaries compared to the previous evidence that concludes there exists no executive gender gap in the U.S. or U.K. (e.g., Bertrand and Hallock, 2001; Geiler and Renneboog, 2015; Gupta, Mortal and Guo, 2018).

[9] Further, self-selection is not likely to be as problematic among female executives, who are less inclined to adhere to stereotypes that might limit their workforce participation or investment in training (e.g. Kosteas, 2013).

relative to male executives and directors (e.g., Adams and Funk, 2012; Adams, Barber, and Odean, 2016; Kim and Starks, 2016; Shams, Minnick, Khedmati and Gunasekarage, 2024). Further, Shams et al. show that these unique, observable qualifications in directors are associated with value-enhancing acquisitions. Moreover, Bertrand and Hallock (2001) state that characteristics such as career commitment and ambition, which are harder to quantify, are likely to be less variable in this elite group due to the particularly competitive labor market. Although research suggests gender differences in human capital relating to competition (Flory, Leibbrandt, and List, 2015), evidence also indicates that this issue should not be a significant concern for our sample because the competitiveness gap narrows with age and for women MBAs (Reuben, Sapienza and Zingales, 2015; Flory, Gneezy, Leonard and List, 2018). Further, evidence suggests that women with higher professional status have more potential for negotiation and face less resistance to their negotiation attempts, e.g., Bowles, Thomason, and Macias-Alonso (2022).[10]

Our cross-country sample allows us to exploit differences in country cultural beliefs and attitudes to investigate their association with gender pay gaps. Studying compensation at the executive level gives us the advantage of a particularly competitive market for which the pool of people with appropriate talent and skill is limited relative to the demand, which, according to Becker's (1957) theory, should arbitrage away nonmarket-based differences, in our case, cultural values. However, there are limits to the market's effects on persistent cultural attitudes. Cultural attitudes toward female labor exhibit persistence (i.e., intergenerational), even following immigrants to new countries such as the United States (Alesina et al., 2013; McLean et al., 2023). For example, in her study of the U.S., Margolis (1985) provides evidence that demand for female labor varies with market forces, but attitudes towards female labor do not.

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[10] Studying a sample of executives also mitigates the effects of imbalances in child-rearing efforts between men and women, e.g., Wilde, Batchelder, Ellwood (2010).

Further, as documented by Faccio, Marchica, and Mura (2016), potential differences in risk preferences between male and female executives could explain some of the unexplained compensation gap. Alternatively, as pointed out by these authors, the risk differences could arise from differences in social norms, which our cultural values should capture. These beliefs and attitudes manifest in social systems and become reflected in firms' corporate governance systems. For example, Adams, Licht, and Sagiv (2011) and Licht and Adams (2022) provide evidence that board members' values influence their decisions and that these personal values are related to the country's cultural norms. Thus, board members' decisions regarding executive compensation should reflect these norms. Therefore, values may affect compensation even in the competitive executive labor market, especially since establishing compensation requires subjectivity.

B. Measures of Cultural Norms

The WVS, from which we derive our measures of cultural values, is conducted in person by a worldwide network of social scientists at different points in time, i.e., in waves.[11] To match our sample period, we employ Wave 4 (1999-2004), Wave 5 (2005-2009), and Wave 6 (2010-2014) and match the closest WVS wave response to the year of our compensation data.

Employing the techniques suggested by Inglehart and Welzel (2005) and Welzel (2013), we create index measures of culture from the WVS by adjusting the responses to achieve the same polarity (i.e., a higher value means the same for each aspect of culture) and then averaging across similar belief responses.[12] These adjustments provide two benefits: more straightforward interpretations of the survey responses and mitigation of measurement error. We standardize each WVS item on a scale with a minimum of 0 and a maximum of 1. Finally, we average across groups

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[11] See Inglehart et al. (2014) for more detailed information on WVS (www.worldvaluessurvey.org).
[12] Appendix Table A1 and Table A2 contain definitions and the components of the variables.

of related responses because, as Welzel (2013) argues, culture occurs at the group level. The mean of the index values represents aggregate measures of culture in each country.

We first consider WVS questions related to cultural values regarding women's entitlement to education and the role of women in society, which allow us to infer the average beliefs in a society regarding the importance of building women's human capital, their labor force participation, and their right to work, as well as the desirability of women working relative to men, and the impact of women's working on their families. If these values affect power to women, then the economic structure should reflect it, including compensation at the executive level. We group these WVS questions into gender-related indices: *Gender_education* (positive views regarding female education) and *Gender_work* (positive views regarding women in the workforce).

We also employ a group of WVS questions that we expect to be related to other cultural values regarding women. These questions focus on accepting violence toward women, religion, and societal intolerance of those who are different. Summarizing over twenty years of literature on the relationship, Flood and Pease (2006) conclude that the most consistent predictor of acceptance of violence towards women is holding more traditional gender-role attitudes and further that its counterpart also exists in the data – holding more egalitarian gender-role attitudes is associated with less acceptance of violence against women.[13] In environments where violence, a form of coercion, is more acceptable, the roles tend to involve more social, political, and economic inequality. To capture this attitude, we derive the acceptance of violence variable, Violence, by reversing the sign on the WVS measure of whether violence toward a wife is never justified.

Another set of questions relates to a society's religious beliefs, as religion is essential for

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[13] The evidence in the cited work also indicates that more extreme gender-role attitudes (male authoritarianism, aggressiveness, superiority, and hostility to women) are associated with more acceptance of violence towards women. Further, other research focuses on violence and outside options by gender. See, for example, Aizer (2010) on wages and violence towards women, among others. We use acceptance of violence as a summarizing attitude.

teaching and shaping cultural values regarding gender differences in the workplace. Further, religion has been shown to be important to economic outcomes. For example, Guiso, Sapienza, and Zingales (2003) find a significant relationship between the intensity of religion in society and society's economic attitudes, including the views of women's roles. We include a measure of a society's belief in religion and the church's authority based on WVS questions, *Religion*. [14]

Welzel (2013) and Kistler, Thoni, and Welzel (2015) argue that tolerating differences and practicing freedoms becomes more critical for growth as societies become more modern. Thus, we also include a variable, *Intolerance*, which we derive from responses to WVS questions on racial discrimination and immigrants.

Finally, we use a group of variables employed in previous research that more generally capture a society's cultural values regarding work, success, and ethics, which should reflect views toward executive compensation. For example, Granato, Inglehart, and Leblang (1996) find that cultures that value work and individual performance provide substantial motivation to succeed. Thus, we employ a set of WVS questions that reflect a population's views on whether success is more likely to be an outcome of hard work or connections—whether the respondents consider that hard work, rather than luck and connections, brings a better life. Similarly, this set includes questions addressing attitudes toward the importance of balancing work and leisure. The resulting measure is termed *Hard work*.[15]

We also employ a set of questions that focus on a population's views on the importance of individualism. If individualism is respected, people should recognize an individual's contribution,

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[14] Guiso, Sapienza, and Zingales (2003) employ WVS questions related to the adherence to a religious belief and the intensity of religion through the frequency of attendance at religious services. Our questions are designed to capture how dogmatic the religious beliefs are.

[15] Burns, Minnick, and Starks (2017) show a relationship between *Hard work* and the overall wage and tournament structure of CEO compensation.

reducing taste-based preferences. In contrast, if the collective is more highly valued, people who deviate from a norm or expectation may be hampered in society.[16]

The next set of questions within this group includes measures of societal trust and corruption. Trust is argued to be vital for cooperation and, ultimately, economic performance (Guiso, Sapienza, and Zingales, 2008). Trust and cooperation occur when people expect fair and competent behavior from others. In cultures where trust and fairness are not firmly present, there may be less cooperation with women if beliefs about women justify this choice. We construct our *Trust* measure using WVS questions that directly ask about fairness or whether the respondent believes people can be trusted. Further, acceptance of corruption or bribery implies a lack of trust in a fair system and increases the use of established network ties. Thus, we employ a measure of acceptance of corruption (*Corruption*) from an idealistic viewpoint.[17]

C. Country Institutional Characteristics, Compensation, and Firm Characteristics

In addition to employing measures of a country's cultural values, we employ measures of a country's institutions and laws that would be expected to affect gender pay gaps. First, we include a country's female labor force participation rate and *%Female labor participation* (from Ortiz-Ospina, Tzvetkova, and Roser, 2018). This variable should capture the effects of a country's work-family policies and societal expectations for women's market and nonmarket contributions, some of which are unobservable. In our sample of positively selected individuals, it is unclear whether female labor force participation rates should affect our results.[18]

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[16] Attitudes toward individualism have been found to be important in other financial contexts, such as the success of cross-country mergers and the returns of momentum strategies (e.g., Ahern, Daminelli, and Fracassi (2015) and Chui, Titman, and Wei (2010).

[17] Online Appendix Table OA1 presents the culture measures for each country, averaged across the WVS survey waves.

[18] Although some work finds that female labor force participation helps explain aspects such as board gender diversity (Griffin, Li, and Xu, 2021), other work shows that female labor force participation rates explain less than 10 percent of the change in the share of women among top earners (Guvenen, Kaplan, and Song, 2020).

Another aspect of a country's institutions and laws that relate to executive compensation are laws regarding firm-level corporate governance, which can capture the essential economic and legal institutions cross-country (Shleifer and Vishny, 1997). We use a modified version of the La Porta et al. (1997, 1998) index, *ADRI*, due to the range of critical responses on both conceptual and measurement grounds (Coffee, 1999 and 2000; Pagano and Volpin, 2005; Spamann, 2010).

Table 1 presents the correlations between the proxies for these country institutions and the culture variables. The table shows many of the cultural measures to be highly correlated with each other (such as an 82% correlation between *Gender_education* and *Gender_work*).

In addition to the described measures of cultural values and institutions, we employ data on executive compensation and firm characteristics. Our compensation, occupation, employee age, and tenure data are collected from Standard and Poor's Capital IQ. We construct the occupational categories based on the title, professional function ID, and name variables. We construct the following ten occupational categories: CEO, President, Chief Operation Officer (COO), Chief Financial Officer (CFO), Chief Investment Officer, Comptroller or Chief Accounting Officer, Chief Administrator, Chief Legal, Chief Human Resources, and we group those that cannot be categorized, e.g., chief technology officer, into Other. We identify women by searching the Capital IQ biography for the words Ms., Mrs., she, and her. We drop countries without female executives. We calculate age and tenure using the date of birth and the executive start date.

We also obtain data on firm characteristics from Capital IQ. These characteristics include EBITDA divided by assets, long-term debt to assets, cash divided by assets, institutional ownership, and market value. We include in our sample countries for which this data is available for 100 or more firm-years. These constraints yield a sample of 31 countries from 2004 to 2016.[19]

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[19] The availability of compensation data in Capital IQ limited our final sample of countries.

The first column in Panel A of Table 2 shows the distribution of total sample observations by country. As with most cross-country samples, the U.S. has the greatest representation, with 253,186 executive-year observations.[20] Canada has the second-largest number of observations, with 103,707 executive firm years, followed by Australia (55,343), India (50,909), China (45,578), and the United Kingdom (40,082).

Panel A also reports for each country the representation of women in three executive position groups: CEO, the top three executives except for the CEO (Top 3) (which consists of the CFO, COO, and President), and the Other executives. In the United States, women held 2% of the CEO positions over the period, a considerable increase relative to the 0.5% reported by Bertrand and Hallock (2001) for data in the mid-1990s and comparable to more recent statistics reported by Hill, Upadhayay, and Beekun (2015) and Gupta, Mortal, and Guo (2018). The percentage of female CEOs is highest in Asian countries: Taiwan (9.3%), Thailand (6.2%), Hong Kong (4.9%), and Singapore (4.1%). In contrast, Finland, Germany, Japan, and Spain are among the developed countries with very few women serving as CEOs or Presidents in our sample.

In Panel B of Table 2, we present the average total compensation separated by gender and country for the various executive roles: CEOs, the Top 3 Executives (excluding the CEO), and Other Executives. The univariate results reveal notable compensation disparities, particularly where female executives are compensated more than their male counterparts in certain roles and countries. Specifically, while male CEOs, on average, earn $1.81 million compared to $1.41 million for female CEOs, in some countries, female executives in non-CEO roles not only close the gap but surpass their male peers in terms of compensation, as shown in the United Kingdom

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[20] We also conduct analyses in which we omit the U.S. data and discuss the differences.

and Ireland.[21]

III. Relation between Cultural Values and the Gender Pay Gap

A. Multivariate Tests

We begin our empirical analysis by estimating the following baseline multivariate regression of total compensation on an indicator for female executives (*FemExec*) while controlling for other variables:

$$\log(COMPENSATION)_{t+1,i} = \beta_0 + \beta_1 FemExec_{i,t} +$$

$$\beta_2 Female\ labor\ participation_{c,t} + \beta_3 ADRI_{c,t} + \beta_{4-13} Roles_{i,t} +$$

$$\beta_{14-20} Firm\ And\ Executive\ Controls_{i,t} + Year\ FE + IndustryFE + \varepsilon_{i,t}, \qquad (1)$$

where *t* represents the year, *i* represents the firm, and *c* represents the country. The primary independent variable of interest is an indicator variable equal to one if the executive is a woman and zero otherwise. We include a country's *%Female labor force participation* and its *ADRI* to control for country institutions and the legal environment. We include the executive's age and tenure because previous research shows that age and tenure positively correlate with compensation (Ryan and Wiggins, 2001; Graham, Li, and Qiu, 2012). Moreover, controlling for executive age serves several purposes. For example, men and women may have different timelines and effects from starting families and having children, including the birth of their first child. These differences, which may also be related to cultural values, could affect wage differences. Since compensation is also a function of the executive's job responsibilities, we include a job title indicator variable to control for wage effects related to occupation differences, for example, the difference between the chief financial officer and human resources officer.[22] We control for firm characteristics associated

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[21] We focus on total compensation, but results do not change when total compensation is segmented into two primary components: cash-based and incentive-based.

[22] The job title indicator variables are CEO, President, CFO, COO, SVP, Chief Investment Officer, Comptroller, Chief Administrative Officer, Chief Legal Officer, and Chief HR Officer.

with compensation, such as firm size, EBITDA/assets, debt/assets, institutional ownership, and total returns. Finally, we include industry (measured by a two-digit SIC code) and year fixed effects to absorb variation from increases in compensation and gender representation over time and across industries. Standard errors are clustered by country. The baseline regression includes country fixed effects instead of country culture and institutional measures.

To get a broad sense of whether a relationship exists between the pay gap and cultural attitudes, we examine the impact of cultural variables on the gender pay gap by adding each cultural measure and its interaction with gender to the baseline specification. Given the high pairwise correlations among cultural variables (as shown in Table 1), we include them separately. We later conduct factor analyses that include the variables in combination and discuss their economic significance.

Table 3 presents the results. Panel A focuses on cultural measures related to women's place in society, while Panel B focuses on general cultural beliefs that influence compensation. Model 1, our baseline model, includes the *FemExec* indicator and control variables such as job title, firm characteristics, country, year, and industry fixed effects. The negative coefficient on the *FemExec* indicator shows that the average difference in compensation is 16.6% less compensation for female executives. In Model 2, we replace country fixed effects with *%Female labor force participation* and a proxy for shareholder rights (*ADRI*). Higher female labor force participation correlates with higher executive compensation, while environments with better shareholder rights correlate with lower executive compensation. With these additional variables, the gender pay gap largely remains as female executives earn 15.6 percent lower compensation.

Models 3-6 of Panel A incorporate the cultural measures Gender_education, Gender_work, Religion, and Violence and their interactions with the gender indicator. In societies valuing

women's education, overall executive pay is higher. Given the mean (standard deviation) of Gender_education is 0.28 (0.127), a one-standard-deviation increase in this variable increases compensation for female executives by approximately 8% more than for male executives. In Model 4, we find that cultural acceptance of women in the workforce is associated with a reduction in compensation for all executives, possibly due to an increased labor supply but higher compensation for female executives, thereby reducing the pay gap. In contrast, in Models 5 and 6, the results indicate that in societies with dogmatic religious beliefs or greater acceptance of violence towards women, overall executive pay is lower, and the gender pay gap is higher. (A one-standard-deviation increase in dogmatic religious beliefs or acceptance of violence towards women results in a decrease in pay for women of 5.7% or 15.8%, respectively.) The significance of the results for the acceptability of violence towards women variable is noteworthy since the most consistent predictor of acceptance of violence towards women is holding more traditional gender-role attitudes (Flood and Pease, 2006). Further, unlike the gender attitudes of *Gender_work* and *Gender_education*, it does not involve the division of labor.

Model 1 of Panel B reports the results for *Intolerance*, which are similar to those of the *Religion* and *Violence* culture variables. In societies with more intolerance, executive compensation is lower overall and even lower for women executives.[23] In contrast, Models 2 and 3 demonstrate that executive compensation is generally higher in societies emphasizing hard work and individualism. These results conform with the intuition that in societies with such beliefs and attitudes, executives are paid more for their efforts. The results also show that executive compensation observed in societies with these values dramatically reduces the gender gap. Model 4 indicates that greater acceptance of corruption in a society is associated with lower compensation

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[23] Again, we find economic significance. For example, for a one standard deviation change in intolerance, women's pay decreases by 5.4 percent more than men's pay.

levels for both genders but not an executive gender pay gap.[24] Model 5 shows that trust is

associated with higher compensation levels, consistent with a society's trust facilitating economic

exchange and welfare. Trust is also associated with a slightly higher gender pay gap, which may

seem counterintuitive. Still, Dutta, Giddings, and Sobel (2022) explain that in individualistic

societies, trust fosters gender equity, while in collectivist societies, it may entrench patriarchal

attitudes.[25]

Given the purported differences in negotiation ability between women and men (e.g.,

Bertrand, 2011; Croson and Gneezy, 2009) and given that the composition of executive

compensation is subject to negotiation (e.g., Murphy, 1999), differences could exist between male

and female executives in the composition of their compensation between cash and incentive pay.

We check this possibility using percent cash compensation as the dependent variable and find the

results similar to total compensation. These results align with Bowles, Thomason, and Macias-

Alonso's (2022) evidence that women with higher professional status have more potential for

negotiation and face less resistance to their attempts. [26]

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[24] In Online Appendix Table OA2, we repeat the regression analyses from Panels A and B of Table 3, excluding U.S. firms. The results show a consistent gender gap, with the exception that the interaction term between Corruption and FemExec becomes significantly negative, implying that in countries where corruption is more acceptable, female executives are paid less than their male counterparts.

[25] In Online Appendix Table OA3, we repeat the regression analyses from Table 3 using firm-by-year fixed effects. This specification controls for time-varying influences related to wages, such as firm-level pay policy. Since cultural values do not vary within firm-year, this approach reduces the statistical significance of the interaction terms between culture variables and FemExec. The adjusted R-square decreases significantly compared to the primary model, but the results remain similar. We do not use firm-year fixed effects in our primary specifications because they can obscure critical between-country variations and may result in model misspecification with resulting biased estimates. Further, the increased model complexity, with its focus on within-firm variations over time, could lead to computational challenges and generalization issues and may overlook the influence of stable firm characteristics and long-term effects. Therefore, while controlling for unobserved heterogeneity, firm-year fixed effects might inadvertently limit the scope and applicability of cross-country analyses if firm-year fixed effects are not appropriate for the underlying model. We employ Correia's (2017) STATA's *reghdfe* for the estimation https://ideas.repec.org/c/boc/bocode/s457874.html.

[26] Evidence exists that childrearing can influence career performance, job tenure, and the gender gap in compensation. Thus, we estimate the age at which women executives may have had children by using adjusted age in the regressions, which is defined as the executive's age less than the average age at first birth in the country. These results are provided in Online Appendix Table OA4, showing that the previous results remain consistent with this alternate estimation. See, for example, Bertrand, Goldin, and Katz (2010), Barber, Jiang, Morse, Puri, Tookes, and Werner (2021), Adams

B. Principal Component Analysis

We perform a principal component analysis using varimax rotation to analyze how cultural factors affect the gender executive compensation gap due to the strong correlations between the individual cultural variables. Table 4 shows the factor weightings for each cultural measure, identifying key components. The factors capture similarities between the culture variables. Factor one (*F1*) focuses on the cultural norms of Religion, Violence, Intolerance, and Corruption; Factor 2 (F2) focuses on the gender attitudes of education and gender; and Factor 3 (F3) focuses on the more general economy-related cultural attitudes of *Hard work*, *Individualism*, and *Trust*.[27]

Given our previous hypotheses regarding the associations of these cultural attitudes with the gender gap, we expect that *F1* (*Religion, Violence, Intolerance, and Corruption*) should positively relate to the gender gap. That is, the gender pay gap should be greater in societies with more dogmatic religious beliefs, where violence against women is deemed acceptable, and with more intolerance and corruption. We expect that *F2* (*Gender_education and Gender_work*) should show a negative relationship with the gender gap, as the gap should be smaller when a population believes that women are entitled to education and views women in the workplace more positively. Finally, if *Hard work* and *Individualism* have more significant effects than *Trust* in this factor, we expect that *F3* (*Hard work, Individualism, and Trust*) will negatively affect the gender gap. That is, the executive pay gap should be less when hard work is considered necessary for success relative to networks and when the degree to which autonomy or the individual is more appreciated. These hypotheses are also supported by the results on the individual variables reported in Table 3.

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and Lowry (2022a, 2022b), Keloharju, Knupfer, and Tag (2022), and Kruger, Maturana, and Nickerson (2023). We recognize that this approach uses a rough proxy, but it should still provide insights regarding the potential effects of child-rearing. We retrieve the average age at first birth from http://www.oecd. org/els/family/database.htm.

[27] The factor loadings are the correlations between the factors and the variables. For example, the correlation between *Intolerance* and *F1* is about 0.78. Similarly, the correlation between *Hard work* and *F1* is only 0.22.

We employ these factors in regressions derived from Equation (1) to determine if they explain executive compensation and the gender compensation gap. In Table 5, we repeat the regressions from Table 3 with the same control variables and the factors from the principal component analysis, first for all executives. Then we break out the estimations into the three groups of executives.[28] We report results for only the variables of interest in this analysis: the gender indicator, the factors, and the interaction terms between the gender indicator and each factor.

In Panel A we report the results for all executives in Models 1-3 and for CEOs in Models 4-6. Across Models 1-3 of Table 5, the coefficient on FemExec is negative and statistically significant, demonstrating that, in general, female executives receive significantly lower compensation than their male counterparts. Consistent with our earlier results, Model 1 shows that executive compensation loads negatively on *F1* (*Religion, Violence, Intolerance, and Corruption*), indicating all executives face lower compensation in societies where these cultural beliefs and attitudes are more prevalent than in other societies. In addition, the interaction term between *F1* and FemExec suggests that the reduction in compensation is even greater for women executives in the countries that rank higher on these dimensions. Moreover, the results are economically significant. For a one standard deviation increase in *F1*, women's pay decreases by 13% more than men's pay. The comparison between the *F1* results (in Model 1), the *F2* (*Gender_education* and *Gender_work*) results (in Model 2), and the *F3* (*Hard work, Individualism,* and *Trust*) results (in Model 3) are striking. Unlike the results for *F1*, the cultural norms reflected in *F2* and *F3* have positive relations with the level of executive compensation and negative relations with the gender gap, i.e., the gender gap is smaller in such cultures.

The CEO results, presented in models 4-6, are similar in that they show a one standard

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[28] The control variables include indicators for each executive role, the executive's age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects.

deviation increase in *F1* (*Religion, Violence, Intolerance,* and *Corruption),* which decreases women's pay by 6 percent more than it decreases men's pay. In contrast, a one standard deviation increase in *F2* or *F3* increases women's pay by 7 and 6 percent more than men's, respectively. These results support the hypotheses that overall compensation is greater and the gender pay gap is smaller in societies that believe women are entitled to equal education, that value women's roles in the workplace, and where the values of hard work, individualism, and trust combined are higher. Overall, these results support Wollstonecraft's (1792) assertion that improving women's education and positive attitudes toward women benefits both women and men.

We expect a more standardized market labor wage for CEOs because, in this market, compensation practices tend to be influenced by global market trends as well as competitive benchmarks, which should generally reduce the impact of cultural values on their pay. In contrast, we expect cultural values to have a stronger effect in non-CEO executive markets because there are more people with these skills, thereby allowing for more substitutes and making it less costly for decisions to be influenced by subjective, nonmarket values.[29] We consider this hypothesis in Panel B, where we report the results for the Top 3 executives, excluding the CEO, in Models 1-3 and other executives in Models 4-6. The results are similar to those from Models 1-3 of Panel A, where we include all executives. For example, for the top 3 executives excluding the CEO, a one standard deviation increase in *F1* (*F2, F3*) decreases (increases) women's pay by approximately 16% (28%, 45%) more than it decreases men's pay. We find similarly strong results for other executives.[30] Overall, these results again suggest that cultural values significantly influence total

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[29] Studies support the competitive nature of the CEO market in the U.S. for large firms. Findings show that outside appointments to a CEO position in the U.S. have ranged over time, with increases from around 15% to 20% in the 1990s to 33% in the 2017 to 2021 period (Huson, Parrino, and Starks, 2001; Larcker et al., 2022). In fact, Gompers, Kaplan, and Mukharlyamov (2023) find that 75% of new CEOs at private equity firms are outsiders.

[30] For a one standard deviation increase in *F1* (*F2* or *F3)*, women's pay decreases 12% more (increases 21% or 54% more than men's pay, respectively).

compensation for male and female executives, with the results being stronger for executives below the CEO level.

IV. Oaxaca-Blinder Decomposition Analysis

To understand how much of the gender gap can be explained by the cultural and other characteristic variables, we perform an Oaxaca-Blinder decomposition analysis on our total sample of executive years (Oaxaca, 1973; Blinder, 1973). The Oaxaca-Blinder decomposition allows us to examine how much of the wage differentials between male and female executives can be explained by variations in observable, measurable characteristics. (We adopt the simplifying assumption that the male wage structure is the appropriate reference wage structure.) Equation (2) provides the regression specification.

$$Wm_{i,t+1} - Wf_{i,t+1} = \left[Xf_{i,t}\left(\beta m - \beta f\right)\right] + \left[(Xm_{i,t} - Xf_{i,t})\beta m\right] \qquad (2)$$

where $Wm_{i,t+1}$ and $Wf_{i,t+1}$ are the logs of the total compensation of men and women, respectively. The first term in brackets represents the measure of the total gap left unexplained. This unexplained portion can either be due to unmeasured differences (such as hours worked) or may be due to attitudes and values.[31] The second term in brackets is the explained difference in male and female wages due to differences in measured mean Xs (control variables from Equation (1)) for men and women.

In conducting the Oaxaca-Blinder decomposition, we first measure the difference in log pay between men and women, i.e., the log pay gap, against the control variables, which include executive role indicators, firm characteristics, age, tenure, female labor force participation, ADRI, year, and industry fixed effects without country or cultural controls. These results are presented in

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[31] It should be noted that generally, in gender differential compensation research, the estimations of the gender pay gap are explained by covariates that do not include cultural values.

the first row of Table 6 Panel A for the pooled sample of executives. The log of the pay difference between men and women is 0.535 and can be considered a univariate average difference across all executives in our sample. The decomposition shows that the primary covariates from prior research explain 82.4% of the log pay gap, while the log of the unexplained part equals 0.094, leaving 17.6% unexplained (equals 0.094 divided by 0.535).

We further the analysis by adding country variables to determine their contribution to the log pay gap and the reduction in the unexplained differences. When we include country indicators, the log unexplained gap reduces to 0.06 or 11.2%. Finally, we include the cultural factors: *F1(Religion, Violence, Intolerance* and *Corruption*), *F2(Gender_education* and *Gender_work),* and *F3(Hard work, Individualism*, and *Trust)*. Including the three cultural factors, the unexplained portion of the total compensation gap drops to 0.028 (leaving only 5.2% of the wage gap unexplained). Moreover, this unexplained portion is not statistically significant. The results show that cultural values can explain a significant part of the gender compensation gap. These values affect compensation even among highly skilled executives in presumably competitive markets.

We re-run the Oaxaca-Blinder decomposition separately for the CEOs, Top 3 executives, and Other executives and present the results in Panel B of Table 6. The log of CEOs, Top 3, and Other executive pay gaps are 0.243, 0.465, and 0.689, respectively. Using the base estimation, without controlling for country or culture, the proportions of each gender gap that is unexplained are 58% for CEOs, 48% for top executives, and 49.2% for other executives.[32] These unexplained portions of the gap act as our baseline to better understand how specific cultural attributes help reduce the pay differential driven by attitudes and values (i.e., reduce the unexplained portion of the gap). To better understand how much each cultural variable contributes to explaining the (unconditional)

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[32] Calculated as Unexplained divided by the total gap: 0.141 divided by .243 for CEOs; 0.224 divided by .465 for Top 3; and 0.339 divided by 0.689 for other executives.

unexplained pay gap, we conduct the Oaxaca-Blinder decomposition analysis by including each cultural measure separately and reporting the percentage of the unexplained gap. We also conduct this decomposition analysis using all three factors together in the final row of the table.

Including the culture measures individually, we find that *Gender_education and Gender_work* have high explanatory power for the compensation of CEOs and other executives, dropping the CEO's unexplained portion of the gap from 58% to 34% for *Gender_education* and from 58% to 33.5% for *Gender_work*. These results suggest that unexplained pay differentials are smaller in societies where women's education and careers are promoted.

As in Table 3, the results in Panel B show that the strongest explanatory power derives from the cultural measure, *Violence*, which represents acceptance of violence in a country. The table also shows this variable has stronger power than the combined factors. Panel B shows that including *Violence* decreases the unexplained portion of the pay gap to 7% for CEOs, 20% for the Top 3 executives, and 38% for the Other executives. *Violence* may pick up an attitude that a woman is considered less of a person than a man and thus may be a summary factor for attitudes, providing more evidence that attitudes and values can affect the gender pay gap. In contrast, including *Religion*, *Intolerance,* or *Trust* does not decrease the unexplained portion of the pay gap for CEOs. In other words, more unexplained pay differences exist in cultures with strong religious beliefs, high intolerance, or high trust. Moreover, the findings provide evidence that culture does not unilaterally affect all groups and levels of executives in the same way. Overall, the evidence in Panel B shows that cultural variables explain much of the gender gap that is not explained by observable variables such as occupation, firm characteristics, executive age, and tenure. Further, we find that when we use the three factors from the principal component analysis, the unexplained portions reduce from 58% to 7.4% for CEOs, 48% to 21.7% for the Top 3 Executives, and 49.2%

to 39.1% for the Other Executives. Similarly, when we include the three factors *F1*(*Religion, Violence, Intolerance* and *Corruption)*, *F2* (*Gender_education* and *Gender_work*), and *F3*(*Hardwork, Individualism* and *Trust*)), the unexplained portion of the pay gap reduces significantly.

Moreover, the unexplained portion for the CEOs is no longer significant, implying that including the three cultural factors explains the CEO gender gap. This result differs from that found by Chen, Torsin, and Tsang (2022), who conclude that their egalitarian index does not explain the CEO gender gap. Our result also demonstrates the importance of including a more comprehensive set of cultural variables in the analysis.[33] A potential explanation for the cultural variables explaining more of the gender gap for CEOs than for other executives is that the CEO role is likely to be more homogeneous across firms. In contrast, executive positions below the CEO level are more likely to vary significantly in their nature and responsibilities. This could contribute to the greater disparity in pay gaps observed in our sample since we find that a significant pay gap remains for the non-CEO executives after adding our cultural attitudes.

Cultural values may have more of an effect in non-CEO markets if those markets are less efficient, making it less costly for employers to make hiring decisions based on nonobjective criteria. Notably, this lower cost arises when there exist more likely substitutes for the positions— i.e., more individuals available with similar skills—which we expect for non-CEO executive positions as compared to the CEO positions. This substitutability can create environments that allow more opacity and subjectivity in decision-making, which could constitute evidence of taste-

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[33] The Oaxaca-Blinder decomposition analysis helps understand the gender wage gap among top executives by separating the effects of observable characteristics and unexplained factors, such as potential discrimination. Including a wider set of cultural values in this analysis reveals the extent to which these values influence gender-based compensation differences. This approach is crucial for identifying the role of cultural norms in wage disparities and informing targeted strategies to mitigate them.

based discrimination unrelated to our measures of taste, i.e., our cultural variables.

V Endogeneity

A. Historical Origins and Values

This section addresses potential endogeneity issues in our analysis, including reverse causality and omitted variable bias. Although women's employment in top executive positions is unlikely to significantly alter the cultural attitudes of the average country's inhabitants within a short time frame, we employ a Two-Stage Least Squares Instrumental Variables (2SLS-IV) analysis to mitigate concerns about reverse causality. We also consider omitted variable bias because unobserved factors could simultaneously affect cultural norms and gender-related outcomes.

Our instrumental variables are related to the cultural variables but should not be directly related to the measured pay gaps, satisfying both the relevance and exclusion restrictions for instruments. Further, the instruments are grounded in anthropology's theory on cultural materialism, which posits that ideologies develop as responses to solving the practical problems of human existence, where ideologies, values, and attitudes subsequently form that are consistent with the practices (see Harris, 1979). That is, ideas and attitudes are influenced by how people live in response to their environment, and because ideas are slow to change, they also subsequently influence people's choices on how to live. For example, Alesina, Giuliano, and Nunn (2013) show that pre-industrial societies that adopted plow technology subsequently developed ideologies supporting the appropriateness of women working outside the home. Another example is a U.S. data study by Goldin and Sokoloff (1984), which shows that women's labor was more quickly adopted for manufacturing in areas where women were not involved in agriculture. This led to faster development of manufacturing and a faster reduction of the gender pay gap in the U.S. North

as compared to the U.S. South. Consistent with these approaches, we employ a historical measure of a country's family practices: a variable based on whether women in a country were involved in agriculture in the 1800s.

We also employ a historical measure motivated by Becker's (1991) economic model of marriage that argues that dowries (payments to the groom) arise when economic output is unequally divided by gender. Dowry practices shape long-standing gender norms. Anderson (2007) adds that dowries persist in contexts where modernization benefits men more than women.

Using female agricultural participation and dowry practices as instruments, we address potential reverse causality since the instruments can influence contemporary cultural attitudes but are unlikely to affect contemporary compensation directly. Thus, we effectively account for unobserved factors and isolate the impact of cultural beliefs on gender outcomes, such as the executive gender pay gap. This approach helps prevent the relationships we estimate between cultural attitudes and gender disparities in the workforce from being biased by omitted variables that might otherwise confound the results, consequently providing more accurate and reliable insights into how cultural norms shape compensation in the labor market.

Specifically, we use two measures from the Murdock et al. (1999) *Ethnographic Atlas World Cultures* on family practices, women's involvement in agriculture in the 1800s, and the use of dowries.[34] For the first measure regarding women in agriculture, similar to Alesina et al. (2013), we create a variable of women's participation in agriculture by setting an index, *Female agricultural participation*, equal to five if the largest group in the society has women participating in agriculture and setting the index equal to one if the largest group has less than 5% of women participating in agriculture. We create a second variable based on the bride payments, *Dowry*,

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[34] Sourced from Kirby et al. (2016).

where the index is equal to one to capture significant dowries and zero otherwise.

B. Two-Stage Least-Squares Instrumental Variables Analysis

We conduct a 2SLS-IV analysis where the instruments to explain the three cultural factors in the first stage and the second stage are *Female participation in agriculture* during the 1800s, and *Dowry.* We conduct the same regressions as in Table 5 using the predicted factors from the first stage with the control variables from Equation (1). In Table 7 Panel A, we report the first-stage estimated coefficients, which show that *Female participation in agriculture* and *Dowry* positively relate to *F1*(*Religion, Violence, Intolerance, and Corruption*) and negatively relate to the other two factors, *F2(Gender_education* and *Gender_work)* and *F3(Hard work*, *Individualism*, and *Trust)*. The results indicate that countries with greater historical female agricultural participation are today associated with more violence toward women, dogmatic religious beliefs, intolerance, and corruption (positive *F1* coefficient). In contrast, the greater historical female participation in agriculture and dowry practices are negatively associated with current attitudes about women's education and employment (negative *F2* coefficient). Further, the *F3* coefficient broadly suggests that societies with less female participation in agriculture or dowry have stronger cultural values in hard work, individualism, and trust. Each of the *F*-statistics for the first-stage regressions is significant, with values greater than 500. These unusually high *F*-statistics speak to the persistence of culture at the country level. Each regression's *R-square* also supports historical culture's strong explanatory power for contemporary values. These tests indicate that the instruments we use are appropriate. The over-identification test (Sargan test) does not reject the null hypothesis that the instrumental variables—historical female agricultural participation and dowry practices—are uncorrelated with the error term in the second-stage regressions (p>0.10). These results support our instruments' validity, confirming that they are appropriate for addressing endogeneity

concerns, as they influence cultural attitudes without directly affecting contemporary compensation.

Table 7 Panel B reports the results from the second stage for all executives and CEOs, and Table 7 Panel C reports the second stage results for the Top 3 Executives without the CEO and separately for the Other Executives. Given the previous hypotheses and results for these cultural norms, we expect the instrumented *F1*(*Religion, Violence, Intolerance, and Corruption*) to relate to a more significant gender pay gap in the second stage regression. Similarly, we expect the instrumented *F2(Gender_education* and *Gender_work)* and *F3(Hard work*, *Individualism*, and *Trust)* to be related to a smaller executive gender compensation gap. We find that the results support these expectations.

B. Executive changes

To address concerns of correlated omitted variables, we re-examine Equation (1) for within-firm executive changes where the incoming executive's gender differs from that of the outgoing executive. We create two indicator variables to capture these gender shifts (*Female Executive to Male Executive* and *Male Executive to Female Executive*) and report the results in Table 8. Interestingly, our results across all executive positions show that the transition from a male executive to a female executive is associated with a significantly negative coefficient on compensation, which indicates that the female executive coming into the same post generally receives lower pay than her predecessor. In contrast, if the transition is from a female executive to a male executive, we find a significantly positive coefficient on compensation, which indicates that the incoming male executive generally receives higher pay than his predecessor. When we interact these change indicators with the cultural factors, we find differences across the two types of switches. If the switch is from a male to a female executive, the cultural attitudes that are directly

positively related to female compensation offset the reduction in compensation to females. These results provide supplementary evidence supporting our argument that cultural attitudes are closely tied to compensation disparities, which require some subjectivity in their setting, even at the executive level.

VI. Changes in Social Policies (Paternity Leave Laws and Board Diversity Laws)

We conduct two additional analyses to achieve better identification for testing our hypotheses. Specifically, we examine changes in the executive gender pay gap around new legislation proposals related to gender issues: paternity leave and board diversity laws. Many countries have adopted laws regulating work and compensation after childbirth for men and women that affect the entire labor force. In a competitive labor market, firms may want to reduce the opportunity cost associated with nonmarket activities that are more prevalent for women in order to increase the supply of women to the skilled labor force. Thus, we use the introduction of paternity leave laws to generate exogenous variation in the composition of the workforce and views towards women in the workforce.[35] We expect these laws to reduce the stigma of maternity leave, positively affect female wages if their initiation increases women's ability to work full-time, and improve the supply of female candidates for management positions.

In addition, some governments have begun to take actions that more directly influence decision-making by firm leadership through laws focused on achieving gender diversity on corporate boards. Often, these laws require that firms appoint a specified fraction of women to their boards or have a target to do so. For example, Spain's Equality Law requires board representation of a minimum of 40% and a maximum of 60% of women. At the same time,

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[35] We obtain the dates for the paternity and maternity laws from the International Labour Office (2014) and then verify the dates manually through internet searches. These changes in family-friendly laws may affect or reflect changes in cultural norms and attitudes.

Poland's law requires that a minimum of 30% of a board comprise female directors. We expect that the proposal to increase the number of women on corporate boards mandated by law should reduce the gender compensation gap. The presence of women board members may improve the circumstances of women executives either through the female directors themselves or through increased awareness.

We test for these effects from the proposed legislative changes by regressing executive compensation on an indicator variable equal to one if the observation is at least one year after the proposal of paternity leave labor laws (*Paternity Leave*) or board diversity laws (*Board diversity*).[36] The regression specifications include year, industry, and country fixed effects with standard errors clustered by country.[37] We also include an interaction term between *GenderInd* and *Paternity leave* or *Board diversity*. Our estimated model is as follows:

$$\log(COMPENSATION)_{t+1,i} = \beta_0 + \beta_1 Fem. Exec + \beta_2 Law\ Proposal_{c,t}$$

$$+\beta_3 Fem. Exec_{i,t} * Law\ Proposal_{c,t} + Year\ FE + Industry\ FE + CountryFE + \varepsilon_{i,t}, \qquad (3)$$

where *Law Proposal* is either *Paternity leave* or *Board diversity.*

Table 9 presents the regression results for the paternity leave laws. We only include developed countries in our sample because the evidence to date on paternity leave laws has focused on developed countries. Model 1 reports the results for the total sample of developed countries. Models 2 and 3 separate the sample based on countries where mothers delay childbirth as proxied by the median age at first birth (Model 3).[38] When women postpone having children, they may

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[36] We use the first proposed date of the laws (even if they have not been implemented). The fact that they are proposed indicates a possible shift in attitudes toward women's role in the workforce and corporate leadership.
[37] Spamann (2020) shows that clustering treatment firms at the state or country level leads to the over-rejection of the null hypothesis. We also cluster at the firm level to ensure that these clustering issues do not drive our results and conclusions. The results do not differ significantly.
[38] We find the median age of first birth across all countries and then split the sample by whether a country is above or below the median.

spend more time improving their skills in the labor market, which could make it less costly to return to the workforce.

In the total sample of developed countries (Model 1), the coefficient on *Fem.Exec* is significantly negative; thus, the executive gender pay gap generally exists in these countries. Further, the coefficient on the interaction term between *Fem.Exec* and *Paternity leave* is positive and significant, suggesting that paternity leave laws are associated with a subsequent reduction in the executive gender pay gap. Models 2 and 3 split the sample countries into two groups (below and above the median) using the country-level average age at first birth. We employ age at first birth because when women delay childbirth, they may have advanced further in their careers before giving birth and, therefore, find it less costly to return to work, as they will be more skilled. We find the interaction term between the post-paternity leave law and the gender indicator, Fem.Exec, to be significantly positive in countries where women bear children at an age above the sample median and significantly negative in countries where women bear children at an age below the sample median. These results are consistent with the idea that in countries where women bear children later (earlier) in life and where males are similarly incentivized to care for their children, the child-associated wage penalty is lower (higher). In countries where women have children earlier, employers may offer lower pay or slower wage growth to younger women as they view them as a higher risk for extended leave, even if paternity leave is designed to distribute caregiving responsibilities more evenly between men and women. In contrast, when women give birth later in life, they are usually more established in their careers, and employers may be less concerned about long-term disruptions. In such contexts, paternity leave may promote more balanced caregiving roles without negatively affecting women's compensation. In these cases, employers may view paternity leave as a positive policy for retaining experienced employees, leading to better

compensation for women who are valued for their established skills and contributions. In Models 4-6, we estimate the regressions on *all* countries that propose paternity laws during our sample period (not just developed countries, as in Models 1-3). This analysis allows us to check whether the results could be due to developed countries where paternity leave laws have not been proposed – the results remain consistent.

We present the regression results for analyzing board diversity laws and the executive compensation gender gap in Table 10. In Model 1, we estimate the determinants of compensation, including an indicator variable equal to one if the observation is at least one year after a proposed board diversity law. Model 2 adds an interaction term for gender and board diversity laws. The results show that the gender pay gap still exists after the diversity law proposal. However, the coefficient on the interaction variable is positive and significant, suggesting that the law proposal reduces the gender compensation gap. These results are consistent with those of Matsa and Miller (2011) and Carter, Franco, and Gine (2016), who show a reduced executive compensation gender gap when more women sit on the board of directors.[39]

VI. Conclusions

In this research, we examine a cross-country sample of top executives' compensation to understand the role of cultural norms in explaining the gender wage gap. This competitive market includes highly skilled individuals, which suggests that the competition should reduce the gender compensation gap. Even in this competitive market, we demonstrate that a country's cultural attitudes can be important determinants of executive compensation and the gender pay gap.

We document that across countries and executive roles, women are generally compensated

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[39] However, Bertrand, Black, Jensen, and Lleres-Muney (2019) find little discernible effect of the board quota law in Norway on women other than they find that gender gaps in board member compensation were reduced. For additional work on the effects of the Norway board quota law, see Ahern and Dittmar (2012) and Eckbo, Nygaard, and Thorburn (2022).

less than men, but the differences appear to be smallest at the highest executive level (CEO). In examining the association with a country's cultural values, we find that the executive gender pay gap appears to be more prominent in populations where religious beliefs are important, and there exists greater acceptance of violence toward women, intolerance, and corruption. In contrast, the gap is smaller in societies with more positive views on women's education and women in the workforce and more positive attitudes regarding the value of hard work and individualism. When our analysis includes cultural attitudes in combination with previously researched determinants such as executive role, tenure, and firm characteristics, we increase the explanatory power of the model for the executive gender compensation gap from 44% to 95%. Moreover, once we have accounted for the cultural values, we find that the gender pay gap is no longer significant at the CEO level.

We also find that the country's ancestral characteristics and values closely relate to their modern values and help explain executive compensation and the gender gap. We also show that in the presence of a shock to the workforce that changes (or reflects changes in) cultural attitudes towards a woman's role, the compensation gender gap decreases.

Understanding why the gender pay gap exists is important. This study identifies how cultural norms affect a company's salaries and overall compensation. The research suggests that achieving true gender equity in compensation will require a reassessment of cultural norms and a growing awareness of the value women bring to the corporate world.

ADRI	Anti-directors Rights Index; obtained from Spamann (2010)
Age	Age of the executive; obtained from Capital IQ's date of birth; Adjusted age is age adjusted by country's average age of first childbirth
Board gender diversity law	Indicator that is equal to one if the country adopted board gender diversity initiatives; hand collected from LexisNexis.
Compensation	ln(total compensation for executive); obtained from Capital IQ
Corruption	Acceptance of corruption; derived from WVS, see Table A2
Debt/assets	Firm's long-term debt to assets obtained from Capital IQ
Dowry	Indicator variable that equals 1 if dowries at marriage were used in a country, and zero otherwise; derived from Ethnographic Atlas
EBITDA/Assets	Earnings before interest, taxes, depreciation, and amortization divided by total assets obtained from Capital IQ
Factor 1 (F1)	F1 loads on Religion, Violence, Intolerance, and Corruption; constructed from principal component analysis
Factor 2 (F2)	F2 loads on Gender_education and Gender_work; constructed from principal component analysis
Factor 3 (F3)	F3 loads on Hard work, Individualism, and Trust; constructed from principal component analysis
Fem.Exec	Indicator that is equal to one if the executive is a woman and zero otherwise; obtained from Capital IQ biography search
Female Agricultural Participation	Variable that indicates female participation in agriculture in 1800's ranges from 1 to 5, where 1 is only men participate and where 5 is women are actively involved; derived from Ethnographic Atlas
%Female labor participation	Percentage of women in the labor force in a country; derived from Ortiz-Ospina, Tzvetkova, and Roser (2018)
Firm size	Measured by ln (market value of equity); obtained from Capital IQ
Gender_education	Positive views regarding female education derived from WVS, see Table A2
Gender_ work	Positive views regarding women in the workforce derived from WVS, see Table A2
Hard work	Importance of hard work; derived from WVS, see Table A2
Individualism	Importance of the individual in contrast to collectivism; derived from WVS, see Table A2
Industry	Based on two-digit SIC code obtained from Capital IQ
Institutional ownership	% ownership by institutional investors; obtained from Capital IQ
Intolerance	Unwillingness to tolerate or respect differences; derived from WVS, see Table A2
Occupational Fixed Effect	Executive job title indicator; job titles obtained from Capital IQ
Other Executives	Executives in a company that are not the CEO or Top 3 Executive; obtained from Capital IQ
Paternity Leave Laws	Indicator variable indicating a proposal of a law instituting paternity leave in a country; obtained through the International Labour Office (2014) and hand collected from LexisNexis.
Religion	Influence of religion on life; derived from WVS, see Table A2
Tenure	Number of years in the executive position based on executive start date; obtained from Capital IQ

Top 3 Executive (other than CEO)	CFO, COO, and President; obtained from Capital IQ
Total returns	Firms' annual stock returns obtained from Capital IQ
Trust	Belief that people can be trusted; derived from WVS, see Table A2
Violence	Acceptance of violence towards women; derived from WVS, see Table A2

World Values Survey Indices from Survey Questions

The World Values Survey questions (www.worldvaluessurvey.org) employed for the cultural value measures are listed below. To mitigate measurement error, we create an index of similar responses for each measure, as suggested by Inglehart and Welzel (2005). We also adjust the responses to achieve the same polarity. In addition, the WVS responses are measured on various scales. For example, some responses are measured on the degree of agreement to a statement on a scale of 1 to 3, 1 to 5, or 1 to 10, while others are dichotomous, with a 0 or 1 response. With these multiple possible responses, we recode by distributing them evenly in the 0 to 1 space, where zero is disagreement, and one is agreement. To match our sample period, we use Wave 4 (1999-2004), Wave 5 (2005-2009), and Wave 6 (2010-2014) and employ the cultural measures from the World Values Survey (WVS) wave immediately preceding the compensation data.

Gender_education— (Positive views regarding female education)
   1. Disagree with: A university is more important for a boy than a girl.
   2. Agree with: Important traits in a woman: Woman educated.

Gender_ work— (Positive views regarding women in the workforce)
   1. Agree with: When jobs are scarce, both men and women have the right to work.
   2. Agree with: Husband and wife should both contribute to income.
   3. Agree with: Important traits in a woman: Woman having work outside the home.
   4. Disagree with: Woman should not work outside of the home unless forced to do so.
   5. Disagree with: If a woman earns more than her husband, it is almost certain to cause a problem.
   6. Agree with: Having a job is the best way for a woman to be an independent person.
   7. Disagree with: When a mother works for pay, the children suffer.

Religion
   1. Agree with: Do you have a great deal of confidence in the church?
   2. Agree with: When science and religion conflict, religion is always right.

Violence
   1. Never justified: For a man to beat his wife [Note that in this paper, we reverse the sign of responses to this question so that the measure captures acceptance of violence.]

Intolerance
   1. Disagree with: Is it proper for churches to speak out on racial discrimination?
   2. Agree with: When jobs are scarce, employers should give priority to people of this country over immigrants.

Hard work— (Importance of work)
   1. Agree with: Work is what makes life worth living, not leisure
   2. Agree with: People who do not work become lazy
   3. Agree with: Work should come first above all else
   4. Agree with: Hard work brings success versus is more a matter of luck and connections
   5. Very important: How important in your life would you say it is: Work
   6. Agree with: Importance as a quality for children to learn at home: Hard work.

Individualism— (Individual is preferred)
   1. Agree with: Feel have complete control and choice over the way your life turns out

2. Disagree with: One should follow one's superior's instructions even when one does not fully agree with them versus one should follow one's superior's instructions only when one is convinced that they are right.
3. Agree with: I seek to be myself rather than to follow others
4. Agree with: How much respect is there for individual human rights in this country
5. Agree with: Importance as a quality for children to learn at home: Independence

Trust (people can be trusted)
1. Agree with: Most people try to be fair: Do you think most people would try to take advantage of you, or do you think most people try to be fair
2. Agree with: People can be trusted: Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?

Bribery justified
1. Agree with: Bribery is always justifiable: It is never justifiable to accept a bribe vs. always justifiable

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Table 1
Correlations across Country Institutional and Cultural Variables

This table presents the correlations for the cultural value measures derived from responses to the World Values Survey as described in Appendix Table A2, along with the country institutional measures, ADRI, and %Female labor participation. In brief, the variables measure the degree to which the following hold: Gender_education: education important for women; Gender_work: acceptance of women working; Religion: influence; Violence: acceptance; Intolerance: acceptance; Hard work: importance; Individualism: the importance of the individual versus the collective. Corruption: acceptance; Trust: people can be trusted.

	ADRI	%Female partic.	Gender educ.	Gender work	Religion	Viol.	Intol.	Hard work	Indiv.	Corrup.	Trust
ADRI	1.00										
%Female labor participation	-0.08	1.00									
Gender_education	-0.18	-0.36	1.00								
Gender_work	-0.36	-0.33	0.82	1.00							
Religion	-0.47	-0.26	0.85	0.73	1.00						
Violence	0.46	-0.24	0.26	0.17	0.01	1.00					
Intolerance	-0.42	-0.21	0.83	0.69	0.78	-.01	1.00				
Hard work	-0.31	-0.21	0.83	0.70	0.86	0.04	0.81	1.00			
Individualism	-0.25	-0.15	0.84	0.57	0.83	0.01	0.86	0.86	1.00		
Corruption	-0.03	-0.33	0.71	0.55	0.65	0.45	0.60	0.66	0.61	1.00	
Trust	-0.29	-0.38	0.38	0.39	0.46	-0.23	0.42	0.38	0.38	0.27	1.00

Table 2
Distribution of Executives and Their Average Compensation by Country

For each country in the sample, this table reports the geographic distribution of the executives along with their compensation and gender. Panel A shows the distribution of the executives by country and title, as well as the percentage of women who hold the titled roles. Roles are reported for three subsamples: CEO, the other top three executives (President, COO, CFO), and all other executive positions listed in Capital IQ (Other Executives). Panel B shows the distribution of executive compensation by country for the three subsamples divided by gender. Panel B also reports the significance level for t-tests of the differences in each country between the compensation for men versus women where ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Country Distribution of Female Executives by Title

Country	Total sample	CEO % Female	CEO Total	Top 3 Executives (ex CEO) % Female	Top 3 Executives (ex CEO) Total	Other Executives % Female	Other Executives Total
Australia	55,343	1.17%	19,300	4.92%	18,664	6.86%	17,379
Belgium	2,464	2.34%	1,540	2.42%	496	7.48%	428
Canada	103,707	1.96%	37,721	6.52%	50,274	6.96%	15,712
China	45,578	3.64%	16,729	14.05%	15,350	10.74%	13,499
Denmark	1,262	2.28%	659	1.59%	441	5.56%	162
Finland	1,903	0.72%	1,250	6.45%	372	5.69%	281
France	11,728	2.78%	6,728	6.81%	3,097	7.67%	1,903
Germany	9,509	1.10%	4,084	1.05%	3,727	3.95%	1,698
Hong Kong	22,842	4.94%	13,007	8.30%	6,642	13.65%	3,193
India	50,909	2.45%	27,138	2.64%	13,274	6.85%	10,497
Ireland	3,304	3.00%	1,199	3.05%	1,245	2.91%	860
Israel	12,032	3.67%	4,790	9.98%	4,070	9.84%	3,172
Italy	5,297	2.85%	3,650	4.95%	1,192	10.11%	455
Japan	2,032	0.13%	1,487	0.00%	299	0.81%	246
Luxembourg	468	0.00%	217	1.75%	171	3.75%	80
Malaysia	2,396	2.04%	1,467	11.05%	561	12.77%	368
Netherlands	4,193	0.97%	1,864	2.48%	1,735	3.03%	594
New Zealand	1,392	1.53%	980	0.00%	241	2.92%	171
Norway	6,615	2.87%	2,338	6.45%	2,651	6.58%	1,626
Poland	8,074	3.93%	3,943	8.89%	2,047	9.31%	2,084
Portugal	484	2.92%	240	0.00%	165	15.19%	79
Singapore	2,827	4.12%	1,529	9.71%	752	8.06%	546
South Africa	10,161	1.90%	3,952	5.36%	4,013	5.46%	2,196
Spain	1,267	0.68%	740	2.90%	276	6.77%	251
Sweden	4,627	2.57%	3,777	5.38%	558	5.82%	292
Switzerland	4,665	1.51%	2,523	1.40%	1,143	1.50%	999
Taiwan	509	9.30%	258	8.19%	171	11.25%	80
Thailand	6,879	6.18%	3,689	20.98%	2,207	25.74%	983
Ukraine	111	3.70%	54	36.00%	50	28.57%	7
United Kingdom	40,082	1.39%	17,358	2.62%	17,085	3.65%	5,639
United States	253,186	2.02%	83,272	4.29%	112,269	5.00%	57,645
Total	675,846	2.33%	267,483	5.51%	265,238	6.64%	143,125

Panel B Country Distribution of Compensation by Title and Gender

Country	CEO Total Compensation		Sig	Top 3 Executives (ex CEO) Total Compensation		Sig	Other Executives Total Compensation		Sig
	Men	Women		Men	Women		Men	Women	
Australia	1,042,340	1,055,649		503,977	461,570	*	459,372	323,895	**
Belgium	974,031	571,399	***	341,264	6,579	***	250,137	453,585	***
Canada	674,890	600,392	***	400,782	225,901	***	567,437	297,623	***
China	217,944	196,178	***	142,888	101,977	**	83,842	67,231	**
Denmark	917,380	1,035,575	***	760,385	417,603	***	323,027	609,555	***
Finland	756,832	521,087	***	458,848	132,405	***	165,700	37,090	***
France	952,575	294,058	***	567,710	397,434	**	693,785	295,323	***
Germany	1,595,598	526,784	***	1,017,351	756,362	**	1,522,889	1,295,046	*
Hong Kong	686,860	483,908	***	416,777	317,991	**	372,582	313,699	*
India	180,516	246,863	***	99,407	53,101	***	90,963	34,110	***
Ireland	4,198,412	505,671	***	1,800,178	2,216,262	**	2,003,681	2,552,440	**
Israel	621,047	505,558	***	323,822	243,729	**	598,433	341,068	***
Italy	1,108,230	830,285	***	768,459	527,528	***	793,930	509,602	***
Japan	1,765,187	1,038,185	***	1,622,148			1,471,117	1,112,710	**
Luxembourg	1,560,396				716,887	***	1,155,774		
Malaysia	323,752	466,564	***	224,443	63,390	***	122,040	63,620	***
Netherlands	3,143,927	3,766,052	***	1,104,171	848,926	***	1,302,364	671,414	***
New Zealand	469,661	145,449	***	326,440			281,218	101,671	***
Norway	577,486	591,354		361,406	266,209	**	333,246	258,878	**
Poland	256,284	257,713		248,100	106,878	***	62,169	46,041	**
Portugal	731,055	262,878	***	560,952			306,531	299,329	
Singapore	1,201,987	600,710		649,698	324,124	***	651,239	799,318	**
South Africa	761,437	657,134	**	437,457	348,085	**	534,615	273,380	***
Spain	1,340,969	945,629	***	940,460	194,214	***	736,291	73,190	***
Sweden	581,847	600,785		316,407	70,377	***	212,405	68,652	***
Switzerland	2,196,239	745,366	***	1,250,241	136,440	***	1,510,383	457,669	***
Taiwan	303,055	204,227	***	168,150	297,306	***	85,127	41,778	***
Thailand	20,077	16,819	**	15,759	12,968	**	16,506	7,879	***
Ukraine	270,217	165,123	***	355,208	166,582	***	307,257	124,000	***
United Kingdom	1,448,439	2,124,958	***	808,065	1,116,859	**	1,016,190	1,096,142	
United States	4,104,529	3,755,590	*	2,267,151	2,401,140	*	1,674,714	1,608,042	
Total	1,808,296	1,409,676		1,021,062	989,313		962,320	664,908	***

Table 3

Relation of Executive Compensation to Gender and Cultural Values

This table reports the results of Equation (1) using an OLS regression of total compensation, defined as ln(compensation), on the female executive (*Fem.exec*) indicator, country institutional variables, and each of the cultural variables individually. Panel A includes *Gender_education, Gender_work*, *Religion* and *Violence*. Panel B includes *Intolerance, Hard work, Individualism, Corruption*, and *Trust*. Each variable's coefficient is reported with the p-value in parentheses below it. The sample includes all executives. The regression also includes controls for executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, industry, year, and country fixed effects. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A: Cultural Values Related to Gender, Religion, and Violence

	(1)	(2)	(3)	(4)	(5)	(6)
			Gender_educ	Gender_work	Religion	Violence
Fem.exec	-0.166***	-0.156***	-0.206***	-0.329***	-0.158***	-0.089***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% Female labor		1.440***	-1.155***	-0.378***	0.881***	-0.763***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ADRI		-0.562***	-0.580***	-0.630***	-	-0.422***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Culture variable			3.244***	-1.291***	-0.470***	-5.069***
			(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Culture			0.212**	0.245***	-0.028*	-1.409***
			(0.05)	(0.01)	(0.09)	(0.00)
Observations	675,846	675,846	675,846	675,846	675,846	675,846
Adjusted R-squared	0.187	0.208	0.216	0.212	0.209	0.215
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry and year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Panel B: General Cultural Values

	(1)	(2)	(3)	(4)	(5)
	Intolerance	Hard work	Individualism	Corruption	Trust
Fem.exec	-0.082*	-0.251***	-0.141***	-0.158***	-0.206***
	(0.06)	(0.00)	(0.00)	(0.00)	(0.00)
% Female labor participation	0.157***	1.201***	1.153***	0.881***	0.830***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ADRI	-0.636***	-0.575***	-0.573***	-0.594***	-0.555***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Culture variable	-0.947***	0.247***	0.403***	-3.255***	1.129***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Fem.exec*Culture variable	-0.062**	0.253***	0.363***	-0.025	-0.228*
	(0.04)	(0.00)	(0.00)	(0.92)	(0.07)
Observations	675,846	675,846	675,846	675,846	675,846
Adjusted R-squared	0.212	0.209	0.209	0.210	0.208
Controls	Yes	Yes	Yes	Yes	Yes
Industry and year FE	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes

Table 4
Compensation and Cultural Value Factors

This table provides the results of a varimax-rotated principal component analysis using the full sample of executives. For each of the nine cultural variables, the table reports factor loadings, with the primary loadings highlighted: F1 loads on Religion, Violence, Intolerance, and Corruption; F2 loads on Gender Education and Gender Work; and *F3* loads on *Hard work, Individualism*, and *Trust.* The culture measures are described in Appendix Table A2.

Variable	Factor1	Factor2	Factor3
Gender_education	0.4070	0.6979	0.2603
Gender_work	-0.1217	0.7848	0.3092
Religion	0.7234	0.2140	0.4026
Violence	0.8010	0.2439	0.0865
Intolerance	0.7803	0.2709	-0.1458
Hard work	0.2211	0.2105	0.7145
Individualism	-0.2705	0.0027	0.7566
Corruption	0.8855	-0.1324	-0.0486
Trust	0.4395	0.0193	0.7829

Table 5

Relation of Executive Compensation to Gender and Cultural Factors

This table reports results from Equation (1) estimations using an OLS regression of total compensation, defined as ln(compensation), on the female executive (Fem.exec) indicator, the three cultural factors individually, and the interaction between the Fem.exec indicator and the cultural factor. The regression also includes control variables: executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects. F1 loads on Religion, Violence, Intolerance, and Corruption; F2 loads on Gender_education, and Gender_work; F3 loads on Hard work, Individualism, and Trust. Panel A reports the results for all executive roles and CEOs. Panel B reports the results for the top 3 executives, excluding the CEO and the other executives. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A: All Roles and CEOs

	All Executive Roles			CEOs		
	(1)	(2)	(3)	(4)	(5)	(6)
Factor	F1	F2	F3	F1	F2	F3
Factor Loadings	Religion, Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust	Religion, Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust
Fem.exec	-0.123***	-0.106***	-0.159***	-0.067**	-0.029	-0.094**
	(0.00)	(0.00)	(0.00)	(0.05)	(0.53)	(0.03)
Cultural Values Factor	-0.531***	0.815***	0.269***	-0.510***	0.946***	0.236***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Cultural Values Factor	-0.020***	0.030***	0.277***	-0.119**	0.042**	0.113**
	(0.00)	(0.00)	(0.00)	(0.03)	(0.05)	(0.02)
Constant	11.096***	9.408***	10.430***	11.270***	9.545***	10.512***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	675,846	675,846	675,846	267,483	267,483	267,483
R-squared	0.163	0.169	0.157	0.191	0.197	0.185
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year X Firm FE	No	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Panel B Top 3 Executives (ex CEO) and Other Executives Beyond the CEO and Top 3

	Top 3 Executives (ex CEO)			Other Executives		
	(1)	(2)	(3)	(4)	(5)	(6)
Factors	F1	F2	F3	F1	F2	F3
Factor Loadings	Religion, Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust	Religion, Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust
Fem.exec	-0.135***	-0.173***	-0.208***	-0.400***	-0.341***	-0.398***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cultural Factors	-0.538***	0.796***	0.301***	-0.541***	0.677***	0.282***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Cultural Factors	-0.102**	0.156***	0.124*	-0.080*	0.107*	0.140*
	(0.02)	(0.00)	(0.10)	(0.09)	(0.09)	(0.06)
Constant	11.365***	9.791***	10.805***	10.132***	8.285***	9.254***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	265,238	265,238	265,238	143,125	143,125	143,125
R-squared	0.218	0.219	0.212	0.194	0.194	0.189
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
YearXFirm FE	No	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Table 6
Oaxaca-Blinder Decomposition Analysis

This table reports the decomposition analysis of compensation for the sample of executives from Equation (2). The dependent variable is the log transformations of total compensation. The regression also includes executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects without country or cultural controls. The total pay gap is decomposed, assuming the male wage structure is representative. Panel A reports the analysis for the entire sample of executives and includes indicator variables for their roles. Panel B reports the analyses for each cultural value measure separately and divides the estimations by the executives' roles: CEOs, the top 3 executives excluding the CEO, and other executives. *F1* loads on *Religion, Violence, Intolerance,* and *Corruption; F2* loads on *Gender_education,* and *Gender_work*; *F3* loads on *Hard work, Individualism,* and *Trust.* ***, **, * denote significance at the 1%, 5% and 10%

Panel A: All Executive Roles

	Total gap	Explained gap	Unexplained gap	% of the total gap explained	% of the total gap is unexplained
Regression without the factors	0.535	0.441***	0.094***	82.4%	17.6%
Regression controlling for country	0.535	0.475***	0.060***	88.8%	11.2%
Regression with F1, F2, F3 factors	0.535	0.507***	0.028	94.8%	5.2%

Panel B: Separated by Executive Role

	(1) CEOs		(2) Top 3 Executives (ex CEO)		(3) Other Executives	
Total Gap Log (dollars)	**0.243***		**0.465***		**0.689***	
With:	Unexp. gap	% Unexp.	Unexp. gap	% Unexp.	Unexp. gap	% Unexp.
No cultural explanation included	0.141***	58%	0.224***	48%	0.339***	49%
Gender_education	0.083***	34%	0.208***	45%	0.303***	44%
Gender_work	0.082***	34%	0.201***	43%	0.301***	44%
Religion	0.142***	58%	0.191***	41%	0.323***	47%
Violence	0.016**	7%	0.094***	20%	0.265***	38%
Intolerance	0.155***	64%	0.220***	47%	0.309***	45%
Hard work	0.131***	54%	0.221***	48%	0.305***	44%
Individualism	0.123***	51%	0.223***	48%	0.337***	49%
Corruption	0.122***	50%	0.219***	47%	0.336***	49%
Trust	0.140***	58%	0.188***	40%	0.303***	44%
F1, F2, F3 Factors	0.018	7%	0.101***	22%	0.270***	39%

Table 7

Instrumental Variables Estimation of Executive Compensation, Gender and Cultural Factors

This table reports the results of a Two-Stage Least Squares regression analysis of ln(compensation) on the gender indicator and country institution against instrumented cultural factors using the ancestral characteristic of women's participation in agriculture and dowry during the 1800s. *F1* loads on *Religion, Violence, Intolerance and Corruption*; *F2* loads on *Gender_education,* and *Gender_work*; *F3* loads on *Hard work, Individualism,* and *Trust*. The regression also includes controls for executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects. Panel A reports the first stage results where we use FemaleAgriculturalParticipation and Dowry as instruments to predict the cultural factors. Panel C reports the second stage, where we use the predicted factor values to explain executive compensation for all executive roles and for CEOs. Panel D reports the second stage, where we use the predicted factor values to explain executive compensation for the top 3 executives excluding the CEO and other executives. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A First Stage of 2SLS Using Ancestral Characteristics to Predict Cultural Value Factors

	F1	F2	F3
	(1)	(2)	(3)
FemaleAgriculturalParticipation	0.666***	-0.060***	-0.026***
	(0.00)	(0.00)	(0.00)
Dowry	0.031***	-0.551***	-0.138***
	(0.00)	(0.00)	(0.00)
Observations	675,846	675,846	675,846
R-squared	0.706	0.612	0.786
F-statistic p-value	0.000	0.000	0.000
Durbin-Wu-Hausman stats (p-value)	<0.01	<0.01	<0.01
Overidentification (Sargan test p-value)	>0.10	>0.10	>0.10
Control variables	Yes	Yes	Yes
Year and Industry FE	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes

Panel B: Second Stage of 2SLS Using Instrumented Factors to Predict Executive Compensation for All Executive Roles and CEOs

	All Executive Roles			CEOs		
	(1)	(2)	(3)	(4)	(5)	(6)
	F1	F2	F3	F1	F2	F3
	Religion Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust	Religion Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust
Fem.exec	-0.074***	-0.095***	-0.007***	-0.056	-0.076	-0.067
	(0.00)	(0.00)	(0.01)	(0.25)	(0.14)	(0.29)
Cultural Value Factor	-0.968***	1.415***	9.662***	-1.067***	1.385***	9.553***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Cultural Value Factor	-0.011**	0.280***	0.246***	-0.091**	0.233**	0.317***
	(0.03)	(0.00)	(0.00)	(0.02)	(0.04)	(0.00)
Constant	11.951***	8.891***	-18.202***	12.131***	8.954***	-17.691***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	675,846	675,846	675,846	267,483	267,483	267,483
R-squared	0.163	0.169	0.157	0.191	0.197	0.185
F-statistic p-value	0.000	0.000	0.000	0.000	0.000	0.000
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Panel C: Second Stage of 2SLS Using Instrumented Factors to Predict Executive Compensation for Top 3 Executives (ex CEO) and Other Executives

	Top 3 Executives (ex CEO)			Other Executives		
	(1)	(2)	(3)	(4)	(5)	(6)
	F1	F2	F3	F1	F2	F3
	Religion Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust	Religion Violence Intolerance Corruption	Gender_educ Gender_work	Hard work Individualism Trust
Fem.exec	-0.234***	-0.118***	-0.028**	-0.007*	-0.082*	-0.131**
	(0.00)	(0.00)	(0.03)	(0.08)	(0.07)	(0.02)
Cultural Value Factor	-0.882***	0.958***	8.017***	-0.930***	2.275***	12.639***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Culture Value Factor	-0.156***	0.366***	0.329***	-0.093*	0.083**	0.040
	(0.00)	(0.00)	(0.00)	(0.08)	(0.04)	(0.54)
Constant	12.013***	9.242***	-13.291***	11.586***	7.807***	-27.213***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	265,238	265,238	265,238	143,125	143,125	143,125
R-squared	0.218	0.219	0.212	0.194	0.194	0.189
F-statistic p-value	0.000	0.000	0.000	0.000	0.000	0.000
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Table 8
Executive Changes, Compensation, and Cultural Values

This table reports results from Equation (1) estimations of OLS regressions of ln(compensation) on executive changes, where the incoming executive's gender differs from that of the outgoing executive. Two indicator variables capture these shifts from female to male executives (Female to Male) and male to female (Male to Female). The regression also includes controls for executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects. F1 loads on Religion, Violence, Intolerance and Corruption; F2 loads on Gender education, Gender work; F3 loads on Hard work, Individualism, and Trust. Panel A reports the results for the sample, including all executives' roles and the CEO subsample. Panel B reports the results for the two subsamples: the top 3 executives, excluding the CEO and other executives. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A: All Executive Roles and CEOS

	All Executive Roles			CEOs		
	(1)	(2)	(3)	(4)	(5)	(6)
Cultural value factors	F1	F2	F3	F1	F2	F3
Factor loading variables	Religion Violence Intolerance Corruption	Gender_ educ Gender_ work	Hard work Individualism Trust	Religion Violence Intolerance Corruption	Gender_ educ Gender_ work	Hard work Individualism Trust
Executive switch from Male to Female	-0.406***	-0.488***	-0.483***	-0.316***	-0.330***	-0.415***
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Executive switch from Female to Male	0.309***	0.318***	0.377***	0.382***	0.353***	0.434***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cultural value factor	-0.533***	0.816***	0.267***	-0.512***	0.946***	0.240***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cultural value factor*Switch Male to Female	-0.083	0.277***	0.364***	-0.400***	0.244	0.345
	(0.32)	(0.01)	(0.01)	(0.00)	(0.26)	(0.16)
Cultural value factor*Switch Female to Male	0.062	0.060	0.202	0.036	0.022	0.139
	(0.33)	(0.47)	(0.20)	(0.74)	(0.90)	(0.51)
Observations	675,846	675,846	675,846	267,483	267,483	267,483
R-squared	0.211	0.213	0.205	0.198	0.198	0.198
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Panel B Top 3 Executives (ex CEO) and Other Executives

Factors	Top 3 Executives (ex CEO)			Other Executives		
	(1)	(2)	(3)	(4)	(5)	(6)
Factors	F1	F2	F3	F1	F2	F3
Factor loading variables	Religion Violence Intolerance Corruption	Gender_ educ Gender_ work	Hard work Individualism Trust	Religion Violence Intolerance Corruption	Gender_ educ Gender_ work	Hard work Individualism Trust
Executive switch from Male to Female	-0.740***	-0.868***	-0.808***	-0.190**	-0.130**	-0.116**
	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.03)
Executive switch from Female to Male	0.138	0.380***	0.391***	0.342***	0.188*	0.325***
	(0.12)	(0.00)	(0.00)	(0.00)	(0.08)	(0.00)
Cultural value factor	-0.536***	0.806***	0.292***	-0.549***	0.675***	0.279***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cultural value factor*Switch Male to Female	-0.006*	0.469***	0.625**	-0.165**	0.208	0.482
	(0.07)	(0.01)	(0.02)	(0.03)	(0.24)	(0.17)
Cultural value factor*Switch Female to Male	0.443***	-0.129	0.217	0.096	0.308**	0.888***
	(0.00)	(0.31)	(0.31)	(0.43)	(0.03)	(0.00)
Observations	265,238	265,238	265,238	143,125	143,125	143,125
R-squared	0.222	0.222	0.222	0.196	0.196	0.196
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Table 9
Paternity Leave Laws

This table reports Equation (3) results using an OLS regression with total compensation as the dependent variable, defined as ln(compensation). The independent variables include an indicator variable for female executives (*Fem.exec),* a paternity law indicator (*Paternity Leave*) with a value of one if the country has passed a law that mandates paternity leave and zero otherwise, and an interaction term between the gender indicator and the paternity law indicator. The sample used in Models (1)-(3) includes developed countries, whether they have adopted paternity leave laws or not. The sample used in Models (4)-(6) is restricted to developed countries that have passed paternity leave laws. Each variable's coefficient is reported on the first line with the p-value in parentheses. The regressions include country, industry, and year fixed effects. The robust standard errors are clustered by country.   ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	All Developed Countries			**Countries that Adopt Paternity Leave Laws**		
	Full sample	Below median age first birth	At or above median age first birth	Full sample	Below median age first birth	At or above the median age of first birth
Fem.exec	-0.017*	-0.186***	-0.114**	-0.056***	-0.031**	-0.229***
	(0.05)	(0.00)	(0.04)	(0.01)	(0.03)	(0.00)
Post Paternity Leave	-0.004***	-0.538***	-0.013*	-0.518***	-0.505***	-0.6045***
	(0.00)	(0.00)	(0.07)	(0.00)	(0.00)	(0.00)
Fem.exec*Post Paternity	0.406***	-0.451***	0.197**	0.020***	-0.068**	0.185***
	(0.00)	(0.00)	(0.02)	(0.00)	(0.02)	(0.00)
Constant	8.303***	7.212***	10.184***	10.928***	22.148***	11.092***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	559,812	279,906	279,906	664,160	332,080	332,080
Adjusted R-squared	0.245	0.307	0.307	0.236	0.307	0.1158
Controls Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry and year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Table 10
Board Diversity Laws

This table reports Equation (3) results using an OLS regression of total compensation, defined as ln(compensation). The regression includes a gender indicator (*GenderInd*) with a value of one for a female executive, a board gender diversity law indicator (*Gender diversity law*) with a value of one if the country has passed a law that mandates women on the board and zero otherwise, and an interaction term between the gender indicator and the board diversity law indicator. Each variable's coefficient is reported on the first line with the p-value in parentheses. As indicated, the regressions include country, industry, and year fixed effects. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

	(1)	(2)
Fem.exec	-0.066***	-0.004***
	(0.00)	(0.87)
Post-board gender diversity law	-0.024***	-0.016***
	(0.00)	(0.00)
Fem.exec*Post board gender diversity law		0.155***
		(0.00)
Constant	9.670***	9.672***
	(0.00)	(0.00)
Observations	675,846	675,846
Adjusted R-squared	0.255	0.255
Control Variables	Yes	Yes
Industry and year FE	Yes	Yes
Country FE	Yes	Yes
SE clustered by country	Yes	Yes

Online Appendix Table OA1
Country Cultural Value Measures

This table presents the country averages for the cultural value measures derived from responses to the World Values Survey as described in Appendix Table A2. In brief, the variables measure the degree to which the following hold: Gender_educ: education important for women; Gender_work: acceptance of women working; Religion: influence; Violence: acceptance; Intolerance: acceptance; Hard work: importance; Individualism: the importance of the individual versus the collective. Corruption: acceptance; Trust: people can be trusted. Including ties, light-colored cells are the lowest five scores across the countries, and dark-colored cells are the highest.

Country	Gender educ	Gender work	Religion	Violence	Intol	Hard work	Indiv	Corrupt	Trust
Australia	0.42	0.38	0.35	0.05	0.78	0.59	0.64	0.05	0.47
Belgium	0.39	0.38	0.26	0.05	0.47	0.58	0.34	0.09	0.43
Canada	0.27	0.58	0.47	0.17	0.20	0.52	0.57	0.06	0.67
China	0.21	0.35	0.39	0.26	0.80	0.66	0.39	0.14	0.44
Denmark	0.34	0.40	0.43	0.26	0.47	0.62	0.45	0.05	0.51
Finland	0.38	0.59	0.33	0.26	0.28	0.61	0.57	0.05	0.38
France	0.22	0.40	0.33	0.11	0.47	0.60	0.56	0.12	0.43
Germany	0.29	0.35	0.40	0.07	0.57	0.61	0.48	0.07	0.30
Hong Kong	0.27	0.36	0.33	0.18	0.91	0.59	0.49	0.08	0.37
India	0.14	0.37	0.36	0.15	0.63	0.59	0.44	0.16	0.35
Ireland	0.23	0.49	0.40	0.15	0.50	0.78	0.33	0.07	0.40
Israel	0.29	0.31	0.54	0.19	0.90	0.62	0.40	0.08	0.50
Italy	0.26	0.50	0.82	0.20	0.47	0.44	0.49	0.14	0.40
Japan	0.50	0.35	0.26	0.05	0.73	0.66	0.50	0.06	0.20
Luxembourg	0.13	0.35	0.27	0.07	0.77	0.57	0.41	0.09	0.37
Malaysia	0.18	0.46	0.46	0.17	0.63	0.66	0.40	0.24	0.43
Netherlands	0.42	0.41	0.68	0.07	0.46	0.53	0.48	0.06	0.38
New Zealand	0.26	0.53	0.34	0.05	0.20	0.72	0.54	0.05	0.60
Norway	0.42	0.44	0.35	0.05	0.81	0.65	0.39	0.04	0.44
Poland	0.37	0.37	0.40	0.06	0.57	0.48	0.37	0.05	0.24
Portugal	0.18	0.45	0.86	0.05	0.53	0.47	0.56	0.15	0.44
Singapore	0.31	0.35	0.33	0.27	0.45	0.68	0.48	0.08	0.50
South Africa	0.16	0.35	0.53	0.37	0.83	0.52	0.41	0.11	0.34
Spain	0.18	0.47	0.83	0.05	0.57	0.33	0.41	0.15	0.33
Sweden	0.39	0.37	0.36	0.05	0.20	0.57	0.45	0.07	0.66
Switzerland	0.24	0.37	0.41	0.05	0.19	0.69	0.40	0.07	0.60
Taiwan	0.19	0.37	0.49	0.26	0.66	0.62	0.43	0.06	0.45
Thailand	0.16	0.39	0.50	0.10	0.80	0.44	0.40	0.20	0.32
Ukraine	0.12	0.37	0.47	0.11	0.84	0.48	0.35	0.37	0.40
United Kingdom	0.37	0.36	0.44	0.07	0.87	0.75	0.59	0.07	0.54
United States	0.37	0.37	0.59	0.07	0.87	0.64	0.48	0.06	0.35
Average	0.28	0.41	0.45	0.13	0.59	0.59	0.46	0.10	0.41
Median	0.27	0.38	0.41	0.11	0.58	0.60	0.45	0.08	0.43

Relation of Executive Compensation to Gender and Cultural Values Excluding U.S. Firms

This table reports the results of an OLS regression of total compensation, defined as ln(compensation), on the female executive indicator, country institutional variables, and cultural variables individually. The table is the same as Table 3, except that U.S. firms have been omitted from the sample. Panel A includes the cultural variables gender_education, gender_work, religion, and violence. Panel B includes cultural variables, intolerance, hard work, individualism, corruption, and trust. Each variable's coefficient is reported on the first line with the p-value in parentheses. The regression also includes controls for executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, industry, and year fixed effects. Column (1) also includes country fixed effects. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A Cultural Values Related to Gender, Religion, and Violence

	(1)	(2)	(3)	(4)	(5)	(6)
			Gender educ.	Gender work	Religion	Violence
Fem.exec	-0.217***	-0.239***	-0.139***	-0.123***	-0.140***	-0.295***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
% Female labor		1.136***	1.826***	0.985***	0.689***	0.456***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ADRI		0.083***	0.070***	0.008	0.018	0.130***
		(0.00)	(0.00)	(0.52)	(0.16)	(0.00)
Culture			3.609***	-1.447***	-1.462***	-4.724***
			(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Culture			0.485***	0.541***	-0.205*	-1.029***
			(0.00)	(0.00)	(0.09)	(0.00)
Observations	422,660	422,660	422,660	422,660	422,660	422,660
Adjusted R-squared	0.115	0.116	0.129	0.123	0.119	0.125
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry and year	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes

Panel B General Cultural Values

	(1)	(2)	(3)	(4)	(5)
	Intolerance	Hard work	Individualism	Corruption	Trust
Fem.exec	-0.115**	-0.203***	-0.214***	-0.121***	-0.225*
	(0.01)	(0.00)	(0.00)	(0.00)	(0.06)
% Female Labor	0.872***	0.526***	0.515***	0.055	0.317***
	(0.00)	(0.00)	(0.00)	(0.35)	(0.00)
ADRI	0.099***	0.034***	0.036***	0.161***	0.053***
	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)
Culture	-1.372***	0.614***	0.846***	-5.816***	1.347***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*Culture	-0.062*	0.302***	0.461***	-0.755*	-1.155***
	(0.08)	(0.00)	(0.00)	(0.08)	(0.00)
Observations	422,660	422,660	422,660	422,660	422,660
Adjusted R-squared	0.126	0.118	0.117	0.122	0.117
Controls	Yes	Yes	Yes	Yes	Yes
Industry and year FE	Yes	Yes	Yes	Yes	Yes
Country FE	No	No	No	No	No
SE clustered by country	Yes	Yes	Yes	Yes	Yes

Online Appendix Table OA3
Relation of Executive Compensation to Gender and Cultural Values Including Firm-Year Fixed Effects

This table reports the results of Equation (1) using an OLS regression of total compensation, defined as ln(compensation), on the female executive indicator (Fem.exec) and country institution and the cultural variables individually. Panel A includes the culture variables *Gender_education, Gender_work. Religion* and *Violence*. Panel B includes the culture variables, *Intolerance, Hard work, Individualism, Corruption*, and *Trust*. Each variable's coefficient is reported on the first line with the p-value in parentheses. The sample includes all executives. The regression also includes controls for each executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry, year, and country fixed effects. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

Panel A: Cultural Values Related to Gender, Religion, and Violence

	(1)	(2)	(3)	(4)	(5)	(6)
			Gender_education	Gender_work	Religion	Violence
Fem.exec	-0.033*	-0.031*	-0.073*	-0.019*	-0.047**	-0.103***
	(0.10)	(0.10)	(0.05)	(0.09)	(0.02)	(0.00)
% Female labor participation		2.206***	2.323***	2.218***	2.615***	2.423***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ADRI		-0.966***	-0.987***	-0.972***	-1.008***	-0.972***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Culture			0.762***	-0.074	-0.391***	-0.998***
			(0.00)	(0.31)	(0.00)	(0.00)
Fem.exec*Culture			0.428***	0.037*	-0.063*	-1.287***
			(0.00)	(0.07)	(0.10)	(0.00)
Observations	675,846	675,846	675,846	675,846	675,846	675,846
Adjusted R-squared	0.059	0.059	0.059	0.059	0.059	0.059
Control variables	No	No	No	No	No	No
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry and year FE	No	No	No	No	No	No
Firm X year FE	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	No	No	No	No	No	No

Panel B: General Cultural Values

	(1)	(2)	(3)	(4)	(5)
	Intolerance	Hard work	Individualism	Corruption	Trust
Fem.exec	-0.038**	-0.114*	-0.031*	-0.014**	-0.424***
	(0.05)	(0.09)	(0.06)	(0.05)	(0.00)
% Female labor participation	2.319***	2.667***	2.307***	2.301***	2.136***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
ADRI	-0.974***	-0.983***	-0.983***	-0.969***	-0.978***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Culture	-0.205***	0.125***	0.304***	-0.150**	0.684***
	(0.00)	(0.00)	(0.00)	(0.03)	(0.00)
Fem.exec*Culture	-0.113*	0.056**	0.014*	-0.667*	-0.932***
	(0.06)	(0.03)	(0.89)	(0.07)	(0.00)
Observations	675,846	675,846	675,846	675,846	675,846
Adjusted R-squared	0.059	0.059	0.059	0.059	0.059
Control variables	No	No	No	No	No
Occupation FE	Yes	Yes	Yes	Yes	Yes
Industry and year FE	No	No	No	No	No
Firm X year FE	Yes	Yes	Yes	Yes	Yes
SE clustered by country	No	No	No	No	No

Relation of Executive Compensation to Gender and Cultural Factors Using Adjusted Age

This table reports results from estimations of Equation (1) using an OLS regression of total compensation, defined as ln(compensation), on the female executive indicator and cultural factors from Table 5, where we use the CEO's adjusted age instead of actual age and interact adjusted age with the gender indicator. The regression also includes controls for executive role, age and tenure, firm size, EBITDA/assets, debt/assets, institutional ownership, total returns, and industry and year fixed effects. F1 loads on *Religion, Violence, Intolerance,* and *Corruption; F2* loads on *Gender_education,* and *Gender_work*; F3 loads on *Hard work, Individualism,* and *Trust*. The robust standard errors are clustered by country. ***, **, * denote significance at the 1%, 5% and 10% levels, respectively.

| | All roles | | | | CEOs | Top 3 | Other execs |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fem.exec	-0.147***	-0.135***	-0.184***	-0.155***	-0.090*	-0.152***	-0.405***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.07)	(0.00)	(0.00)
Fem.exec*Adj Age	0.001***	0.001***	0.001***	0.001***	0.001**	0.001	0.001
	(0.01)	(0.00)	(0.01)	(0.00)	(0.02)	(0.78)	(0.51)
Adjusted Age	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.002***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
F1	-0.531***			-0.340***	-0.283***	-0.361***	-0.381***
	(0.00)			(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*F1	-0.021***			-0.073**	-0.225***	0.097**	-0.137***
	(0.00)			(0.01)	(0.00)	(0.04)	(0.01)
F2		0.815***		0.630***	0.815***	0.590***	0.462***
		(0.00)		(0.00)	(0.00)	(0.00)	(0.00)
Fem.exec*F2		0.028**		0.065*	0.014*	0.279***	0.128*
		(0.01)		(0.07)	(0.06)	(0.00)	(0.06)
F3			0.269***	0.071***	0.149***	0.008	0.071**
			(0.00)	(0.00)	(0.00)	(0.69)	(0.03)
Fem.exec*F3			0.027***	0.091*	0.091**	0.171**	0.024**
			(0.00)	(0.09)	(0.03)	(0.03)	(0.02)
Constant	11.117***	9.420***	10.453***	10.107***	10.083***	10.480***	9.305***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	675,846	675,846	675,846	675,846	267,483	265,238	143,125
R-squared	0.211	0.212	0.204	0.215	0.198	0.222	0.197
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered by country	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Online Appendix Table OA5
Dates for Paternity Laws and Board Gender Laws Proposals by Country

This table shows the years that countries began proposing specific paternity leave laws or board gender diversity laws. The data was hand-collected from LexisNexis.

country	Specific Paternity	Country	Board gender
Australia	2011	Austria	2017
Belgium	2002	Australia	2018
Denmark	2007	Belguim	2011
Finland	1978	Canada	2015
France	2000	Denmark	2012
Hong Kong	2012	Finland	2003
India	1999	France	2011
Ireland	2016	Germany	2015
Israel	2016	Greece	2020
Italy	2009	Hong Kong	2015
Luxembourg	2016	India	2013
Netherlands	2001	Iceland	2010
New Zealand	1986	Israel	1999
Norway	1993	Italy	2011
Phillip	1996	Luxembourg	2014
Poland	2003	Malaysia	2011
Portugal	1999	Netherlands	2013
Singapore	2013	Norway	2003
South Africa	2020	Portugal	2017
Spain	2007	Spain	2007
Sweden	1974	Switzerland	2019
Taiwan	2002		
United Kingdom	2003		