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**GENDER, CULTURE, AND FIRM VALUE:
EVIDENCE FROM THE HARVEY
WEINSTEIN SCANDAL AND THE
#METOO MOVEMENT**

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Gender, Culture, and Firm Value: Evidence from the Harvey Weinstein Scandal and the #MeToo Movement

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Abstract

During the revelation of the Weinstein scandal and the emergence of the #MeToo movement, firms with a culture of ethical behavior toward women, proxied by having women among their five highest paid executives, earned excess returns of close to 1.5% per highly-paid female executive. These returns were followed by positive revisions in analyst earnings forecasts. Firms in industries with more women executives, or headquartered in states with lower levels of sexism or gender pay gap, also earned excess returns of around 1.5% during these event windows. There is no relation between event returns and female board membership.

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1. Introduction

Does corporate culture create firm value? Practitioners believe so. Ninety-two percent of the executives surveyed by Graham, Grennan, Harvey, and Rajgopal (2019) state that improving culture would increase firm value. Consistent with this finding, 85% of the S&P 500 companies have at least one section dedicated to “corporate culture” in their web pages (Guiso, Sapienza, and Zingales (2015a)). More generally, other constituents, such as financial journalists and consulting companies (e.g., Kaplan, Dollar, and Melian (2016)), also advocate the positive valuation effects of having an effective corporate culture.¹

Notwithstanding this belief, academic evidence on this matter is inconclusive. Some studies show that metrics indicative of a strong workplace culture—such as being named among the best places to work—are associated with higher future excess stock returns (e.g., Edmans (2011)) and higher firm valuations (e.g., Guiso, Sapienza, and Zingales (2015a)). However, as discussed in Guiso, Sapienza, and Zingales the relation is not necessarily causal. In fact, Green, Huang, Wen, and Zhou (2019) argue that the positive relation between employee satisfaction levels and future stock market performance reflects an information transmission channel—measures of higher employee satisfaction capture employees’ observations of positive nonpublic value-relevant information. As such, it is not the firm’s culture that drives future returns.

The challenge in attributing valuation effects to corporate culture is exacerbated by the difficulty in defining what corporate culture actually encompasses. Kreps (1990) refers to culture as an intangible asset that can be used to meet unforeseen contingencies, while O’Reilly and Chatman (1996) define culture as “a set of norms and values that are widely shared and strongly

¹ For a specific case study, see The Wall Street Journal article entitled “After Uber and Wells Fargo, Boards Wake Up to Company Culture,” October 5, 2017.

held throughout the organization,” a definition that has also been adopted by Guiso, Sapienza, and Zingales (2015a) and Graham et al. (2019).

In this paper, we assess the valuation effects of corporate culture by investigating whether one particular area of culture—ethical behavior toward women—pays off. The way in which female employees are treated reflects norms and values that can be widely shared and strongly held, consistent with the definition of culture discussed previously. More generally, a culture of ethical behavior toward women could potentially spill over into and/or be a reflection of the firm’s broader overall culture. We argue that a culture of ethical behavior toward women has two elements necessary to investigate whether corporate culture impacts shareholder value: first, it recently experienced an unexpected (and unequivocal) shock to its importance, allowing for identification and causal inference;² and, second, it has a measurable dimension.

With regards to identification, we exploit an unequivocal shock to the importance of having an ethical culture—the public revelation of the egregious and numerous sexual harassment allegations against Harvey Weinstein and the subsequent resurgence of the #MeToo movement. The latter gained prominence in the weeks after the Weinstein scandal emerged and rapidly brought to light the true extent to which sexual harassment and gender discrimination accusations were prevalent in business organizations. Our premise is that as a result of this shock, shareholders re-evaluated the costs of having an unethical corporate culture; i.e., they became aware of the latent costs associated with owning stocks of firms with a potential, but unrevealed, culture of misogyny (which condones sexual harassment and gender discrimination).

² Ideally, we would like to observe an exogenous shock that suddenly changes a firm’s corporate culture. However, such a shock is difficult to observe because a firm’s corporate culture is slow to form and change. Hence, our focus is on an exogenous shock that changes the *importance of culture*, which should impact stock prices if culture is value-relevant.

With regards to measurability, we posit that firms with one or more women among the top-five-compensated executives are much less likely to have an unethical culture that tolerates misogyny and sexual harassment. Otherwise, it is unlikely that a woman would have risen to the top in the first place. Moreover, there is evidence in psychology and organizational behavior showing that: (i) women behave more ethically both in general (Borkowski and Ugras (1998)) and in a business context (Franke, Crown, and Spake (1997) and Kennedy, Kray, and Ku (2017)); and (ii) ethical behavior emanating from the top management of the firm trickles down in the organization (Schaubroeck et al. (2012)). This suggests that having a woman at the top level may further improve the culture of the organization.

Recent empirical work in finance and accounting echoes the view that female leadership is associated with less unethical behavior and increased fairness in firms. Adhikari, Agrawal, and Malm (2019) find that firms with more female executives among the top management team experience fewer operations-related lawsuits, while Tate and Yang (2015) and Kunze and Miller (2017) show that female leadership improves the gender pay gap.

A study by the World Economic Forum (2017) on attitudes towards women in the workplace also highlights the pivotal role of female leadership in reducing unethical behavior and building a culture of inclusion, fairness, and gender equality. The title of the press release accompanying the study succinctly summarizes its conclusion: “The key to closing the gender gap? Putting more women in charge.” Importantly, according to survey evidence by the Rockefeller Foundation and GlobalStrategyGroup (2017), one of the main hurdles to women achieving top leadership positions is indeed the culture of the corporation itself, particularly the attitude of men in the workplace or the so-called “boys club” sentiment.

To study the importance of corporate culture, we examine the stock price response of all US firms covered by the Execucomp database over various time periods surrounding the Weinstein allegations and subsequent rise of the #MeToo movement. We find that companies with at least one woman among its five highest paid executives earn positive excess returns around these events. Returns are modest, but significant, on October 5 and 6, 2017 when news of the allegations against Harvey Weinstein hit the media, and they become larger over the two weeks starting on October 16, 2017, right after the #MeToo movement was (re)launched. In terms of economic significance, a firm with one additional top-five-compensated female executive earns about a 0.29% excess return over the two days starting on October 5, and another 1.13% over the two weeks from October 16 onwards. Excess returns are also positive throughout November 2017 when more allegations of sexual misconduct were made public, but the incremental returns are generally insignificant.

We also study whether female leadership matters for stock returns when measured by the presence of women on the board. We find no relation between the fraction of female directors and stock returns around the revelation of the Weinstein scandal or the advent of the #MeToo movement. Thus, in this context in which there was a shock to the importance of corporate ethics, the market values the presence of women in top corporate leadership roles more than their presence on the board of directors. This finding is also consistent with the premise that corporate culture is largely driven by C-suite executives (e.g., Deloitte (2016) and World Economic Forum (2017)), and that it trickles down the organization.

Next, we investigate whether investors assign a higher valuation to firms with a strong culture as measured by employee review scores for the ‘Corporate culture and values’ category compiled by Glassdoor. We find that firms with higher culture and values ratings perform better

during the Weinstein revelations and #MeToo period, with economic and statistical significance similar to the female leadership measures. Thus, while the Glassdoor measure does not allow us to assess what the values and norms are that lead an individual to provide a specific score, the congruence between the female leadership and Glassdoor culture rating results supports the notion that female leadership captures an important aspect of corporate culture.

We further examine whether there are interactions and spillovers linking the culture of the firm and the broader culture in which the firm operates, measured at both the industry and state level. At the industry level, we find that a firm with female leadership is particularly valuable in male-dominated industries, indicating an interaction effect in which shareholders value an observably less-misogynistic culture more when the broader industry culture is more masculine. In addition, firms in industries with a high fraction of women in executive positions perform well around the Weinstein and #MeToo events, irrespective of whether an individual firm has a highly paid woman executive, suggesting an industry spillover effect. That is, when industry-level culture is less misogynistic such that women are more likely to achieve leadership positions, the entire industry benefits when there is a shock to the importance of this culture. At the state level, we assign firms to the state in which they are headquartered and test whether the value of female leadership within a firm is higher when state-level measures of sexism and of the gender pay gap are higher, both of which reflect societal cultural norms regarding the importance of ethical behavior toward women. We find that female leadership is particularly valuable in states with high levels of sexism and a large gender pay gap. We also find that firms headquartered in states with low levels of sexism or a low gender pay gap also experienced higher abnormal returns during our event windows relative to other firms, independent of whether they had women in top leadership positions. These state-level findings indicate that when top executives, regardless of their gender,

are located in a region that has a less misogynistic culture, the market perceives their firms as being more valuable during our event windows, which attests to the value of culture measured at the regional/societal level (see also Guiso, Sapienza, and Zingales (2006)).

There are two non-mutually exclusive interpretations of the stock return evidence that we document: (i) female leadership, and corporate culture more broadly, have always been important for valuation, but it became more salient around the Weinstein and #MeToo events, as shareholders gained a greater appreciation of the negative consequences that could arise from having an unethical corporate culture; and (ii) the events we study altered the importance that customers, employees, and other stakeholders attach to corporate culture, and, as such, increased the payoff to having an ethical culture. To investigate the relative merits of these explanations, we study revisions in analyst earnings forecasts after the Weinstein and #MeToo events, as well as real economic outcomes. Consistent with a re-assessment by the market of the benefits of female leadership and an ethical corporate culture, we find that after our event window analysts revise their earnings forecasts upwards for firms with women in leadership positions relative to other firms by 4% to 9%, depending on the specification. There is no evidence of any improvements in real economic outcomes after our event window, however. Because we find that the revaluation is accompanied by increases in *expected* cash flows, but not increases in *actual* cash flows, this suggests that the revaluation is potentially correcting for prior mispricing of firms that have better culture. We recognize, however, that it may take a longer period of time for improvements in operating performance to materialize (see Grennan (2019)).

Our work contributes to the literature on the relation between corporate culture and firm performance. Both Guiso, Sapienza, and Zingales (2015a) and Graham et al. (2019) rely on survey data to illustrate that measures of managerial ethics and integrity and a firm's cultural norms are

related to Tobin's q and profitability. Jeffers and Lee (2019) measure culture using employee connectivity on LinkedIn and find that employee departure rates in less-connected firms decline substantially after an increase in the enforceability of non-compete statutes, while there is little effect in more-connected firms. They suggest that culture serves as an implicit contract (Kreps (1990)), such that, for connected firms, explicit contracts are less important in the retention of human capital. Grennan (2019) employs textual analysis based on employee reviews to construct a metric of culture and finds that improvements in corporate governance reduce the value of some firms because they have a negative impact on their culture.

We also contribute to the broader literature on culture measured at the country or regional level. Guiso, Sapienza, and Zingales (2006, 2015b), for example, suggest that the culture of a society can add to economic prosperity. Our results indicate that there are important interactions and spillovers linking societal culture and corporate culture, and that societal culture can impact firm valuation.

Our paper's results also add to the emerging literature on the impact of female leadership in corporations. Tate and Yang (2015) find that female workers displaced after plant closings suffer a smaller wage gap compared to male workers displaced from the same plants if they are subsequently hired by a firm with female leadership, indicating that women in leadership positions create cultures with greater gender-equality. However, they do not test for valuation effects. Our evidence complements their work by showing that female leadership affects firm value. Faccio, Marchica, and Mura (2016) find that firms with female CEOs have lower leverage, less volatile earnings, and a higher survival probability than male-run firms, but they do not assess valuation effects either. Huang and Kisgen (2013) study gender effects for both CEOs and CFOs. They find that female executives are associated with lower firm growth, fewer acquisitions, and less debt

issuance, but that announcement returns for both acquisitions and debt issuance are slightly positive when a firm has a female CEO or CFO. As mentioned previously, Adhikari, Agrawal, and Malm (2019) find that firms with more female executives among the top management team experience fewer operations-related lawsuits. However, their reduced form equations suggest that the net effect of female leadership on firm value is negative. Our evidence, on the other hand, indicates that female leadership has a positive impact on stock returns measured around exogenous shocks that increased the salience of having an ethical and non-misogynistic culture.³

We also contribute to the large literature on gender diversity in corporations that focuses on the role of women on the board (see, e.g., Adams and Ferreira (2009), Adams and Funk (2012), Ahern and Dittmar (2012), Kim and Starks (2016), and Adams (2017)). We find no evidence that having more female directors impacts stock returns around the revelation of the Weinstein scandal or the advent of the #MeToo movement.⁴ This suggests that the distinct corporate culture that women bring requires a strong internal female executive presence and not just greater gender diversity on the board.

The remainder of this paper unfolds as follows. In Section 2 we discuss our data collection procedure. Section 3 presents the main results and Section 4 explores the mechanisms behind these findings. Section 5 concludes.

³ Recent evidence also indicates that policies aimed at attracting more women to the workplace in general either through maternity benefits (Liu, Makridis, Ouimet, and Simintzi (2019)) or state-level Paid Family Leave Acts (Bennett, Erel, Stern, and Wang (2019)) can be value enhancing.

⁴ Giannetti and Wang (2019) report that firms attract more female directors after increases in public attention to gender equality, in particular if these firms had a more favorable attitude towards women in the first place. They do not study the valuation effects of these appointments.

2. Data

From the Execucomp database, which covers the S&P 1500 firms, we gather information on the firms' highest-paid executives for the last fiscal year prior to October 1, 2017. Under SEC regulations, companies are required to disclose detailed information regarding the remuneration of the CEO, the CFO and the three other most highly paid officers. We drop executives for which Execucomp's 'rank' variable is missing. We also drop firms for which Execucomp reports fewer than five top-compensated executives per firm. We compute the fraction of these executives that are women (*Fraction Top-5 Women*) and we also create a dummy variable set equal to one if at least one woman is among the highest paid executives (*Indicator Top-5 Women*), and zero otherwise. We combine these data with daily stock returns from the CRSP database for the three-month period starting in September 2017, more than one month before the first allegations against Harvey Weinstein were made, and we drop firms with missing return data. This sample yields 1,436 firms.

Table 1 contains summary statistics on the firms in our sample. Roughly three quarters of the firms have no women among the highest paid executives, and only 6% of the top-five executives in our sample are women. In firms with at least one female executive, women comprise just 23.4% of the top-five executives, suggesting that most firms with female executives have just one woman among its leaders. Compared to the year-2009 figures reported by Matsa and Miller (2011) in which 22.6% of firms have a woman among the top-five-paid executives, little progress has been made in promoting women to the executive suite. We also report that only 4.3% of the sample firms have a female CEO.

Table 1 also contains summary statistics on our sample firms' financial characteristics, measured at the end of the most recent fiscal year prior to October 2017. Firms with at least one

female executive are broadly similar to those with no female executives in terms of size, cash holdings, Tobin's q , and investment (capital expenditures). However, firms with at least one female executive have lower levels of leverage (consistent with Huang and Kisgen (2013) and Graham, Harvey, and Puri (2013)) and higher profitability.

For our sample firms, we also gather data on board composition from BoardEx, based on the most recent proxy statements filed before October 1, 2017. As we do for the highest-paid executives, we compute the fraction of board members that are women (*Fraction Board Women*). Across our sample, 17% of all board members are women and 87% of all firms have at least one woman on the board (not reported in the table). Compared to the statistics for top female executives, these figures show that a woman is three times more likely to be on a corporate board than in the top-five executive team.

3. Results

3.1. Female Leadership: Baseline Results

We start by studying whether firms with female leadership, our proxy for a more ethical and less misogynistic corporate culture, earned higher stock returns during the two days in which the public announcement of the Harvey Weinstein sexual assaults were first widely reported in the media, on October 5 and 6, 2017. To this end, we estimate a panel regression of raw daily stock returns over the three-month period from September 1, 2017 through November 30, 2017 as a function of our two female leadership proxies, *Fraction Top-5 Women* and *Indicator Top-5 Women*, interacted with a time dummy set equal to one on October 5 and 6, 2017, and zero otherwise. The model is estimated with both firm and time (daily) fixed effects. The firm fixed effects control for all time invariant firm characteristics. As such, it is important to keep the

estimation period relatively short. By doing so, we alleviate the need to include controls for factor loadings, firm financials, and the female leadership proxies themselves as these are captured by the firm fixed effects. The interaction terms of the female leadership proxies and the Weinstein scandal event dummies are our variables of interest as these measure the change in the stock market's assessment of the importance of having a more ethical culture.

Using Factiva, we verify that there are no news stories in any of the major media outlets covering the terms “Harvey Weinstein” and either “harassment” or “assault” over the period from September 1, 2017 through October 4, 2017. On October 5, 2017, there were 72 stories and on October 6, 2017, there were 144, indicating that these two trading days are key to identifying the stock price response to the Weinstein announcement.

Models 1 and 2 of Table 2 contain the results of this estimation. Model 1 uses the interaction of the Weinstein event with *Fraction Top-5 Women*, while model 2 uses the interaction with *Indicator Top-5 Women*. Both interactions are positive and highly statistically significant, indicating that firms with female top executives earned excess returns when the Weinstein scandal unfolded relative to firms without women among their highest paid executives. The coefficient in model 1 indicates that a firm with one additional top-five-compensated female executive earns an excess return of 0.22% on October 5 and 6 (calculated as: coefficient of 0.551 \times 20% more female executives \times 2 days). The economic importance of the indicator variable in model 2 is similar: having a female executive yields a 0.19% additional excess return over two days. While statistically significant, these effects are relatively modest.

The second shock to the importance of having a more ethical culture occurred with the start of the #MeToo movement. While further allegations were made against Harvey Weinstein in the weeks after October 6, the notion that harassment in the workplace could be a more pervasive and

systematic problem gained strong momentum on October 15, 2017, when actress Alyssa Milano encouraged spreading the hashtag #MeToo in an attempt to draw attention to the widespread occurrence of sexual assault and harassment.⁵ In the subsequent days, Google searches for the terms “#MeToo” and “sexual harassment in the workplace” hit an all-time high, and several other prominent leaders in business and society were accused of sexual misconduct in the workplace.⁶

To assess whether firms with female leadership also earned excess returns during the onset of the #MeToo movement, we add an additional two-week event window to our earlier tests, starting on October 16 (the first trading day after the #MeToo tweet) and ending on October 27, and interact this event dummy with the female leadership proxies. The results of models 3 and 4 of Table 2 are striking. During the first two weeks of the #MeToo movement, firms with female leadership earned excess returns that are highly significant and economically important. The coefficient estimate in model 3 shows that relative to other firms, a firm with one additional top-five-compensated female executive earns excess returns of 0.95% on the ten trading days starting on October 16 (calculated as: coefficient of 0.477 \times 20% more female executives \times 10 days). The model 4 results confirm this finding. Firms with at least one woman among the top-five-paid executives earned excess returns of almost 1% over the 10 days.

One possible concern with these findings is that the female leadership effect on returns could be temporary in nature and may reverse in subsequent weeks. To assess whether this is the case, we also interact the female leadership proxies with a dummy variable for the period in between the Weinstein scandal announcement window and the beginning of the #MeToo movement (October 9 to 13, 2017), and the one-month period after the #MeToo event window

⁵ The term “Me Too” was originally used by Tarana Burke, a social activist and community organizer in 2006, on the Myspace social network, but was only used sporadically.

⁶ For a website keeping track of these allegations, see <https://www.vox.com/a/sexual-harassment-assault-allegations-list>, last accessed February 13, 2020. Unfortunately, this website has not been updated since early 2019.

(October 30 to November 30, 2017).⁷ Models 5 and 6 of Table 2 display these results. These models indicate that there is no reversal in returns for firms with female leadership in the week after the Weinstein announcement. For the month after the #MeToo movement event window, there is no evidence of a reversal either, and for the *Indicator Top-5 Woman*, there is, in fact, some evidence of additional excess returns during the month of November.

The regressions reported in Table 2 employ the firms' raw returns as the dependent variable and include firm and time fixed effects. Thus, we are comparing the firms' returns during the various event windows to the firms' returns outside of the event windows, after adjusting for market movements, and are implicitly assuming that returns outside of the event window are 'normal.' To ensure that our findings are robust to alternative methods of computing abnormal returns, we employ two variations to the above methodology. First, we replace the raw returns by market-model abnormal returns, where the market model is estimated using daily returns over the period September 1, 2016 through August 31, 2017, with the CRSP value-weighted index as the market proxy. This approach ensures that our findings are not due to an outcome in which firms with (without) female leadership happened to have experienced low (high) returns outside the event windows.⁸ Second, in our base-case model, we include an interaction term between the firm fixed effect and the market return. This approach accounts for differences across firms in their sensitivity to market movements during the estimation period. Both alternative approaches yield results that are very similar to our base-case specifications in both economic and statistical significance.⁹ Finally, we also verify that our findings are not due to extreme observations—

⁷ We note here that all event windows are based on trading days only.

⁸ We also calculate cumulative abnormal returns around the event windows and, as expected, find similar results.

⁹ These results are not tabulated for brevity but available upon request.

winsorizing returns at the 1st and 99th percentiles does not impact the magnitude or significance of our findings.

We next investigate whether the benefits of having a woman in a top-5 leadership position are further enhanced when the CEO is a woman. Since the CEO has more power in the firm than other executives, it could be that the impact of having a more ethical culture stems mainly or only from this position. In Table 3, we re-estimate the regression models displayed in Table 2 and include interactions between the relevant event dummies and a dummy set equal to one if the CEO of the firm is a woman, and zero otherwise. The female CEO interactions do not yield any significant results, while the female executive interactions remain statistically and economically significant, suggesting that the benefits of having a woman in the top management team are not further enhanced when the chief executive is a woman.

Overall, the evidence reported in Tables 2 and 3 provides strong support for our conjecture that a more ethical, less misogynistic corporate culture is valuable—firms with women in top leadership positions earned positive excess returns relative to other firms during the shock to the importance of culture associated with the Weinstein scandal and the #MeToo movement.

3.2. *Women on the Board*

Much of the literature on gender diversity in corporate leadership has focused on the board of directors, and outside directors in particular, and not on the executive team (see, e.g., Adams and Ferreira (2009), Adams and Funk (2012), and Ahern and Dittmar (2012)). Prior work documents that female board members enhance a board's skill sets, which may increase board efficiency (see, e.g., Kim and Starks (2016)). Moreover, Matsa and Miller (2001) find that firms with female directors are more likely to recruit female executives, suggesting that the benefits from

having a more ethical culture may originate at the board level. Thus, in our next set of analyses, we investigate whether female directors also bring with them an ability to import a better culture into the firm. We re-estimate our baseline models from Table 2 and include additional interactions between the relevant event windows and the fraction of female board members.¹⁰ The findings are reported in Table 4. We continue to find that our measures of female executives (*Fraction Top-5 Women* and *Indicator Top-5 Women*) have a positive and significant effect on stock returns during the Weinstein and #MeToo event periods. However, the fraction of female board members has no incremental effect on returns over these periods. These results suggest that the market perceives that having women in top executive positions is a more effective way of creating an ethical culture than having female board members.

In unreported models, we verify that the lack of any significant results for female representation on the board also obtains when we focus on non-executive board members, such that there is no overlap between the female director and female executive measures.

3.3. *Culture Measured Based on Employee Reviews*

The Weinstein scandal and the #MeToo movement represented a shock to the importance of having a more ethical and less misogynistic culture. In this section, we seek to understand whether these events caused outside investors to reassess the value of a firm's culture more broadly, thereby rewarding firms deemed to have a good corporate culture relative to firms that do not. To study whether overall corporate culture became more valuable during and following the Weinstein and #MeToo events, we rely on culture ratings provided by Glassdoor. Glassdoor is an employer review and recruiting website that contains company reviews from current and former

¹⁰ Since 87% of our sample firms have at least one woman on the board, our tests concentrate solely on the fraction of female board members and not the presence of a woman on the board.

employees for 600,000 companies worldwide. Reviews contain ratings on a scale from one to five for overall employer quality as well as for five distinct areas: career opportunities, compensation and benefits, work/life balance, senior management, and culture and values. We focus on the culture and values category and gather information for this rating for all US companies with stock returns data available on the CRSP database over the three month period starting on September 1, 2017.¹¹ The culture rating is averaged across all reviews for the years 2015 and 2016, and firms with less than 10 reviews are removed from the analysis, yielding a sample of 1,870 companies. Both the mean and median of the *Glassdoor Culture* variable are equal to 3.16 with a standard deviation of 0.57.

The advantage of employing the Glassdoor culture rating is that it captures the firm's culture more broadly from the perspective of the company's employees. The disadvantage is that we cannot assess the specific values and norms that lead an individual to provide a particular score and, as discussed in the introduction, we cannot rule out that positive employee ratings about a firm's culture and values fundamentally reflect positive non-public information about future prospects for the firm. However, it would be unlikely for this private information to be revealed exactly during the events we study.

We repeat our base case models reported in Table 2, but replace the female leadership variable with the *Glassdoor Culture* variable. The results are reported in Table 5. Model 1 focuses on the two days surrounding the announcement of the Weinstein scandal. Consistent with broader culture being valued more highly during this period, we find a positive and significant coefficient on the Glassdoor culture and value measure for these two days. Model 2 adds the #MeToo

¹¹ To maximize the sample size, we conduct these analyses using data on all public US firms available on the Glassdoor database and not just the firms that are covered by Execucomp (S&P 1500 firms), which we employ to study the effect of female leadership.

movement event window to the Weinstein scandal window. For this period the effect of culture is positive but not statistically significant (p -value of 0.14).

Finally, in model 3 we assess whether there is any reversal in returns by including the week after the Weinstein revelations and the month after the #MeToo period as additional periods interacted with the *Glassdoor Culture* rating. We find no evidence for return reversals. Moreover, in this more comprehensive regression model, two other periods also yield a significant relation between excess returns and culture. First, the #MeToo period, which was insignificant in model 2, turns significant in this broader specification. The coefficient of 0.122 suggests that a one standard deviation increase in the *Glassdoor Culture* rating leads to excess returns of 0.70% over the 10 days starting after the launch of the #MeToo movement. Second, during the week after the Weinstein revelations, the excess returns to overall culture are positive as well.

Overall, these results indicate that the effect we uncover when measuring culture based on female leadership continues to hold when culture is measured based on employee ratings.

3.4. *Industry-level Evidence*

Our results thus far indicate that having a woman as a top executive was valued positively by investors when the Weinstein scandal and the #MeToo movement brought the importance of having an ethical culture to the forefront. In this section, we examine whether this effect depends on the extent to which women have attained top leadership positions in an industry. When women comprise a larger fraction of the executive ranks of an industry, it is possible that the entire industry is less misogynistic. As such, having a woman among the firm's highest paid executives may become less important for any given firm operating in such industries. In contrast, if the gender

composition of executives in an industry is overwhelmingly male, having a female top executive could be particularly valuable when investors reassess the importance of culture.

To analyze this issue, we obtain data on the job patterns for minorities and women collected annually from private employers with 100 or more employees or federal contractors with 50 or more employees by the US Equal Employment Opportunity Commission (EEOC).¹² We use the nationally-aggregated data at the 6-digit NAICS code for 2015.¹³ For each NAICS code, the EEOC reports the number of female and male employees in executive and senior officer positions, and we use these data to measure the share of women in executive positions (WEP). Because our sample firms are identified by SIC codes, we match the NAICS codes to 4-digit SIC codes and compute the average share of women in executive positions for each SIC code. Firms for which there is no match are dropped from this analysis.¹⁴ We also construct a dummy variable, using these industry averages, that equals one for industries with an above-median share of women in executive positions (33.5%), and zero otherwise.

We estimate a similar regression model as in Table 2, but include both measures of women in executive positions in an industry (*Fraction WEP* and *Above-Median WEP*), and the interaction between these industry measures and each of the two female leadership variables (*Fraction Top-5 Women* and *Indicator Top-5 Women*). For ease of interpretation, we combine the first three event windows into a single period, which runs from October 5-27, 2017, and captures the effect of the Weinstein scandal revelation, its aftermath, and the first two weeks of the #MeToo movement. The

¹² <https://www.eeoc.gov/eeoc/statistics/employment/jobpat-eeo1/>.

¹³ We use 2015 data because starting with 2016, the EEOC only offers data aggregated at the 3-digit NAICS code or lower.

¹⁴ Alternatively, to avoid dropping firms that cannot be matched at the 4-digit SIC code level, we match NAICS codes to 3-digit, 2-digit, and 1-digit SIC codes respectively, and repeat our analysis. Our findings are similar.

October 30 to November 30, 2017 window remains unchanged. The results are presented in Table 6.

In models 1 and 2, we study the effect of female leadership (either *Fraction Top-5 Women* or *Indicator Top-5 Women*) for industries with above- and below-median WEP. The standalone coefficient estimates in the first row capture the effect in male-dominated industries (because in male-dominated industries *Above-median WEP* is zero in rows two and three). The results indicate that valuation effects of female leadership are particularly important in male-dominated industries. The coefficient estimate in model 1 shows that in a male-dominated industry a firm with one additional top-five-compensated female executive earns excess returns of 2.79% over the 17 trading days from October 5 through 27 (calculated as: coefficient of 0.822 \times 20% more female executives \times 17 days). In model 2, the effect of having at least one woman among the top-five-paid executives is even larger, showing an excess return of almost 3.28% over the 17 days (calculated as: 0.193 \times 17). These results support the notion that when investors reassess the importance of corporate culture, female executives are particularly valuable in male-dominated industries.

The coefficients in the second row of models 1 and 2 show the value implications as the Weinstein scandal and #MeToo movement unfolded for industries that have greater female representation in executive positions. The results show that a more ethical culture measured at the industry level itself is also valuable. Firms from industries that had an above-median share of female executives had higher stock returns during the October 5 through 27 period, regardless of whether the firm itself had a female executive. The coefficients of 0.197 and 0.193 in models 1 and 2, respectively, indicate that firms from above-median WEP industries had returns roughly 3.3% higher (computed as: 0.197 (or 0.193) \times 17) than firms from male-dominated industries.

Finally, the third row of models 1 and 2 assesses whether having a female top-5 executive is incrementally beneficial for firms of industries that already have a large proportion of female executives. The interaction term is significantly negative and essentially offsets the positive effect of female leadership found in the first row. Thus, for firms in industries with more women at the top, having one or more top-5 female executives is not valued more highly by stockholders during the Weinstein scandal and #MeToo movement. This is consistent with our conjecture that when a culture of ethical behavior toward women is perceived to be the norm in an industry, individual firms in the industry do not necessarily need senior female leaders to instill such a culture.

In models 3 and 4 of Table 6, we replace the *Above-median WEP* dummy with the continuous measure of women in executive positions (*Fraction WEP*) and find similar results. Rows four through six of Table 6 assess whether there is any continuation or reversal in these effects in the October 30 to November 30 period, but this is not the case. Overall, these findings show that the Weinstein and #MeToo events led to a reassessment of the value of having a less misogynistic culture.

Apart from illustrating the interaction between industry and firm culture, the results in Table 6 also allow us to mitigate the concern that our findings may be driven by women executives taking less risk, which may have become particularly valuable during our event window. If this were the case, the effect of female leadership at the firm level would not depend on the overall level of female executive representation in the industry; in particular, we should also observe significant female leadership effects in industries with a larger female presence among their executives.

3.5. *State-level Evidence*

In this section, we investigate whether a more ethical culture measured at the state level affects the valuation consequences of the Weinstein and #MeToo events. The argument is similar to the one in the prior section: if the culture of the state in which the firm is headquartered is more ethical and less misogynistic, then having a more ethical corporate culture may be less valuable than if this were not the case. In addition, the culture of the state itself could affect the revaluation of firms around the events we study if there are spillover effects from regional to corporate culture.

We employ two state-level measures of culture: state-level sexism and the state-level gender pay gap. Data on state-level sexism are obtained from Charles, Guryan, and Pan (2018). They employ questions from the General Social Survey to determine whether an individual is sexist and average survey responses across individuals in a specific state and across surveys to obtain a state-level measure.¹⁵ To calculate the state-level gender wage gap, we obtain data from the Current Population Survey for the years 2015 and 2016. This survey contains state-by-state data on earnings and a large number of demographic characteristics. We estimate for each state a regression of weekly pay on a female indicator variable, while controlling for various other variables that explain a person's pay (for example, age, occupation, race, industry, location within the state, and time). The coefficient estimate on the female indicator captures the difference in pay after controlling for observables; that is, it serves as an estimate of the gender pay gap.

For both the sexism and gender pay gap measures, we divide states into two groups based on the overall median. We estimate similar regression models as in Table 2 but allow the effect of female leadership to depend on whether the state has a high or low level of sexism or gender pay

¹⁵ Charles, Guryan, and Pan (2018) combine responses on eight questions. For example, one of the questions is whether respondents agree with the following statement: "Women should take care of running their home and leave running the country up to men."

gap. As in Table 6, for ease of interpretation, we combine the Weinstein and #MeToo events into one event window. In these specifications, we double cluster the standard errors by time and state, since we measure the cultural attributes at the state level.

The results based on sexism splits are reported in Panel A of Table 7. The first row shows that in states with high levels of sexism, firms with female leadership earned higher returns during our event window compared to other firms. Based on the coefficient estimate in model 2, firms in these states with at least one woman among the top 5 executives earned excess returns of 2.1% over the 17 trading days from October 5 to October 27 (calculated as: 0.124×17). The coefficients in the second row show that all firms in states with low levels of sexism also earned excess returns during this period, suggesting that the culture of the state where the firm is headquartered was also important during our period of study. Based on model 2, the magnitude of the effect is similar to that of female leadership itself. Finally, the interaction between the female leadership variable and the low-sexism-state indicator suggests that the effect of female leadership documented in the first row is mostly undone in states with low levels of sexism. While the coefficient on the female \times low sexism interaction is insignificant, the net effect that accrues by adding the female leadership coefficient and the female \times low sexism interaction coefficient is not significantly different from zero.

The results using the state split based on the gender pay gap reported in Panel B of Table 7 echo those of Panel A and again illustrate both a firm-level and a regional-level culture effect: during our event window, female leadership is particularly valuable in states with a high pay gap, while firms in states with a low pay gap earned excess returns relative to other firms regardless of their female leadership.

Overall, the Table 7 results indicate that there is an important interaction between societal culture and firm culture and suggest that they can act as substitutes. These results are consistent with Liu, Makridis, Ouimet, and Simintzi (2019), who find that firms offer maternity benefits to attract female talent, particularly in industries and locations where female talent is relatively scarce, and that doing so confers a relative valuation advantage as long as the state itself does not mandate minimum maternity benefits.¹⁶

4. Mechanism

In this section, we study the potential mechanism(s) behind the revaluation of firms with female leadership during the Weinstein and #MeToo events. As pointed out previously, there are two non-mutually exclusive interpretations of these results. First, firms with female leadership were undervalued by the market prior to the events we study. As such, the revaluation is not accompanied by any real effects, but it does lead to a reassessment by the market of these firms' prospects. Second, as a result of the events we study, the firm's stakeholders attached more importance to corporate culture and increased their subsequent commitment to the firm. This could, for example, be in the form of greater loyalty from customers, leading to increased sales and profits, or higher productivity from employees, reducing costs and increasing net cash flows. Direct costs associated with legal action by employees and other stakeholders related to discrimination and sexual harassment also fall into this category.

¹⁶ In related work, Bennett, Erel, Stern, and Wang (2019) find that after the adoption of state-level Paid Family Leave Acts, the performance and value of affected firms increases, particularly in states with low levels of sexism, and industries with more female workers. States with higher levels of sexism discourage women from participating in the workforce in the first place, and, as such, the ability to take paid leave becomes less valuable. In contrast, our findings indicate that it is exactly in those states, as well as in industries with fewer women in executive positions, that female leadership becomes more valuable after the Weinstein and #MeToo events.

We start our investigation of these channels by studying revisions of analysts' annual earnings forecasts surrounding our event window. To do so, we gather from I/B/E/S the last forecast made prior to October 1, 2017 and the first forecast after October 31, 2017 for each analyst covering the firms in our sample. To capture revisions potentially related to the Weinstein and #MeToo events, we focus on the closest upcoming annual earnings forecast, specifically the forecast for a firm's first fiscal year-end after October 31, 2017. Forecasts made outside a 100-day window prior to and after our events are removed, as well as cases where a given analyst does not provide a forecast both before and after the event window. Forecasts are scaled by the firm's stock price at the time the first analyst makes a forecast and are expressed as a percentage. We then estimate a regression of analyst earnings forecasts on a post-event dummy interacted with our measures of female leadership. We also include firm, analyst, and forecast announcement day fixed effects, and cluster standard errors at the firm level.

The results are reported in Table 8. The first three models measure female leadership using the fraction of women among top-5 executives, while models 4 through 6 use an indicator variable. Models 1 and 4 are limited to firms with a December 31, 2017 fiscal year-end, while the other models also include firms with fiscal year-ends beyond December 31, 2017. All specifications yield the same insight. Firms with a higher fraction of women or at least one woman in the top leadership team experience significant revisions in analyst forecasts after our event window. In term of economic significance, for example, based on model 3, adding one woman to the top-5 executive team (i.e., increasing the fraction by 0.20) increases the analyst forecast relative to its average by 3.3% (calculated as: coefficient of 0.812 \times 0.20, divided by the average analyst earnings forecast measure of 4.99). The results are even larger economically if we restrict the sample to firms with December 31, 2017 fiscal year-end, which occurs just two months after the events we

study (see model 1). Since actual improvements in operating performance are less likely to materialize in such a short period, our results suggests that analysts were underestimating the profitability of firms with a more ethical culture before the allegations against Harvey Weinstein were announced.

Next, we study whether these changes in earnings forecasts are accompanied by actual improvements in operating performance. We employ four performance metrics: (i) operating income to sales, (ii) gross margin, defined as sales less cost of goods sold divided by sales, (iii) growth in sales relative to the same quarter in the previous year, and (iv) sales per employee, calculated as quarterly sales divided by the number of employees measured at the end of the fiscal year.¹⁷ These measures are computed using quarterly Compustat data over two periods surrounding our event window. The pre-period includes quarters ending between January 2016 and September 2017, and the post-period comprises quarters ending between January 2018 and June 2019.^{18,19} We estimate a regression of each performance metric on the interaction of our measure of female leadership with a post-event dummy, which is zero for quarters before October 2017, and one for quarters starting in January 2018. The model also includes the log of total assets to control for size, firm fixed effects to control for unobservable time-invariant firm characteristics, and time (quarter) \times industry fixed effects to control for any time-varying industry performance. The results are presented in Table 9. Panel A reports results using *Fraction Top-5 Female* and Panel B using *Indicator Top-5 Female*. Both panels yield similar results: there is no change in the operating performance surrounding the events we study for firms with women in top executive positions.

¹⁷ We use the number of employees at the end of the fiscal year because data on number of employees are not available on Compustat at the quarterly level.

¹⁸ We do not include the quarter ending December 2019 because it will likely take some time for increased stakeholder engagement to translate into better operating performance, but our results are very similar if we do include that quarter's performance.

¹⁹ Because our pre-period starts in January 2016, we measure female leadership as of the last fiscal year-end before that date for this test.

The combined results of Tables 8 and 9 indicate that the revaluation of firms with female leadership during our event windows is accompanied by increases in *expected* cash flows, but no increases in *actual* cash flows. This evidence supports the view that firms with a more ethical culture were undervalued by the market before the Weinstein and #MeToo events, and that the revaluation corrects for this prior mispricing. We recognize, however, that the real effects may take longer to materialize or that the Weinstein and #MeToo events lead to changes in firms with a more misogynistic culture such that the operating performance of both sets of firms (i.e., firms with a good and with a bad culture) is similar.

5. Conclusion

The culture of a corporation starts with a firm's leadership (Graham et al. (2019)), but it is difficult to identify whether culture matters for shareholder value. Our analyses take advantage of a shock during which the media and the public at large reassess the value of corporate culture. During the revelation of the Harvey Weinstein scandal and the ensuing #MeToo movement, we show that firms with a larger female presence in the top leadership team and firms with a better overall culture in general earn substantial excess returns relative to other firms. This increase in value does not reverse in subsequent weeks, suggesting that outside investors place a permanent valuation premium on firms with a strong culture.

We also find that the increase in value of firms with highly paid women executives is particularly pronounced in industries with few women in executive positions, and in states with high levels of sexism and a large gender pay gap. Firms in industries with a relatively high share of women in executive positions, and firms headquartered in states with low levels of sexism and a low gender pay gap also experience an increase in value, regardless of whether they have women

in top positions. These results show that corporate culture became more valuable after the event we study; they also suggest that corporate culture and industry/societal culture may serve as substitutes. The fact that our findings persists when using a survey measure of corporate culture also indicates that female leadership captures corporate culture more broadly.

Much of the extant research on gender diversity at the corporate level tends to focus on the board of directors. However, we do not find that an increased female presence on the board affects value during the shock to the importance of a firm's culture. Instead, all of the effects we uncover come from female leadership inside the firm. This suggests that, for investors, regulators, and others who seek to improve the culture of corporations, additional focus should be placed on factors that facilitate women obtaining top executive positions and not just positions at the board level.

One caveat is in order: embedded in our analysis is the notion that firms without women in the top leadership ranks are more likely to have an unethical culture, a notion that is grounded in the literature in psychology and organizational behavior and backed up by survey evidence. If this were not the case, the challenge would be to explain why female leadership at the firm or industry level is particularly valuable when ethical behavior becomes more salient.

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Table 1
Summary Statistics

This table shows summary statistics. *Fraction Top-5 Women* is the fraction of female executives among the top-five highest paid executives of the company. *Indicator Top-5 Women* is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. *Female CEO* is a dummy variable that equals one if the CEO is a woman, and zero otherwise. These data are from Execucomp. We drop executives for which Execucomp's 'rank' variable is missing. We also drop firms for which Execucomp reports fewer than five top executives per firm. The variables are measured at the end of the most recent fiscal year prior to October 1, 2017. *Log (Total Assets)* is the logarithm of total assets. *Cash* is cash and cash equivalent divided by total assets. *Leverage* is the sum of short and long-term debt divided by total assets. *Tobin's q* is calculated as (total assets – book value of equity + market value of equity) / total assets. *Investment* is capital expenditures divided by total assets. *Profitability* is profit from operations divided by total assets. The last two columns show *p*-values of mean comparison tests (using a *t*-test) and median comparison tests (using a Wilcoxon rank-sum test) between the two subsamples. These data are from Compustat and the variables are measured at the end of the most recent fiscal year prior to October 1, 2017.

	Full Sample (N=1,436)			At Least One Female Executive (N=376)			No Female Executives (N=1,060)			Test of Differences (<i>p</i> -values)	
	Mean (1)	Median (2)	SD (3)	Mean (4)	Median (5)	SD (6)	Mean (7)	Median (8)	SD (9)	Mean (10)	Median (11)
Fraction Top-5 Women	0.061	0.000	0.112	0.234	0.200	0.086	0.000	0.000	0.000		
Indicator Top-5 Women	0.262	0.000	0.440	1.000	1.000	0.000	0.000	0.000	0.000		
Female CEO	0.043	0.000	0.203	0.165	0.000	0.372	0.000	0.000	0.000		
Log (Total Assets)	8.402	8.310	1.705	8.438	8.311	1.744	8.389	8.309	1.691	(0.63)	(0.88)
Cash	0.127	0.076	0.144	0.133	0.079	0.144	0.125	0.075	0.144	(0.33)	(0.33)
Leverage	0.291	0.271	0.236	0.263	0.252	0.195	0.302	0.278	0.249	(0.01)	(0.02)
Tobin's <i>q</i>	1.972	1.599	1.271	1.958	1.602	1.232	1.977	1.598	1.286	(0.80)	(0.98)
Investment	0.036	0.025	0.044	0.037	0.028	0.033	0.036	0.023	0.047	(0.69)	(0.01)
Profitability	0.116	0.110	0.113	0.128	0.113	0.087	0.111	0.109	0.121	(0.01)	(0.04)

Table 2
Shareholder Value and Female Leadership

This table shows regression estimates of daily stock returns on interaction terms of female \times event and firm and time fixed effects. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. The event variables (e.g., Oct 5-6) are dummy variables that equal one for all trading days during a specific event window, and zero otherwise. The female variables are measured at the end of the most recent fiscal year prior to October 1, 2017. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP and Execucomp. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by firm and time (trading day) and p -values are reported in parentheses.

Female Variable =	Daily Stock Returns					
	Fraction	Indicator	Fraction	Indicator	Fraction	Indicator
	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women
	(1)	(2)	(3)	(4)	(5)	(6)
Female Variable \times						
Oct 5-6	0.551 (0.00)	0.094 (0.00)	0.629 (0.00)	0.110 (0.00)	0.717 (0.00)	0.146 (0.00)
Oct 9-13					-0.297 (0.36)	-0.011 (0.87)
Oct 16-27			0.477 (0.00)	0.099 (0.01)	0.565 (0.00)	0.135 (0.00)
Oct 30-Nov 30					0.260 (0.19)	0.082 (0.08)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs	90,468	90,468	90,468	90,468	90,468	90,468
Adjusted R^2	0.052	0.052	0.052	0.052	0.052	0.052

Table 3
Shareholder Value and Female CEOs

This table shows regression estimates of daily stock returns on interaction terms of *Female CEO* × event, female × event, and firm and time fixed effects. *Female CEO* is a dummy variable that equals one if the CEO is a woman, and zero otherwise. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. The event variables (e.g., Oct 5-6) are dummy variables that equal one for all trading days during a specific event window, and zero otherwise. The female variables are measured at the end of the most recent fiscal year prior to October 1, 2017. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP and Execucomp. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by firm and time (trading day) and *p*-values are reported in parentheses.

Female Variable =	Daily Stock Returns					
	Fraction	Indicator	Fraction	Indicator	Fraction	Indicator
	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women
	(1)	(2)	(3)	(4)	(5)	(6)
Female CEO ×						
Oct 5-6	0.099 (0.34)	0.151 (0.17)	0.081 (0.43)	0.138 (0.21)	0.096 (0.35)	0.143 (0.19)
Oct 9-13					-0.050 (0.65)	-0.113 (0.37)
Oct 16-27			-0.111 (0.07)	-0.075 (0.28)	-0.096 (0.17)	-0.070 (0.35)
Oct 30-Nov 30					0.043 (0.55)	0.034 (0.68)
Female Variable ×						
Oct 5-6	0.479 (0.00)	0.069 (0.03)	0.571 (0.00)	0.088 (0.01)	0.648 (0.00)	0.123 (0.01)
Oct 9-13					-0.261 (0.40)	0.008 (0.90)
Oct 16-27			0.557 (0.00)	0.111 (0.01)	0.635 (0.00)	0.146 (0.00)
Oct 30-Nov 30					0.228 (0.24)	0.077 (0.11)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs	90,468	90,468	90,468	90,468	90,468	90,468
Adjusted R^2	0.052	0.052	0.052	0.052	0.052	0.052

Table 4
Shareholder Value and Female Directors

This table shows regression estimates of daily stock returns on interaction terms of *Fraction Board Female* × event, female × event and firm and time fixed effects. *Fraction Board Female* is calculated as the fraction of female directors on the firms' board of directors. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. The event variables (e.g., Oct 5-6) are dummy variables that equal one for all trading days during a specific event window, and zero otherwise. The female variables are measured at the end of the most recent fiscal year prior to October 1, 2017. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP, Execucomp, and BoardEx. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by firm and time (trading day) and *p*-values are reported in parentheses.

Female Variable =	Daily Stock Returns					
	Fraction	Indicator	Fraction	Indicator	Fraction	Indicator
	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women	Top-5 Women
	(1)	(2)	(3)	(4)	(5)	(6)
Fraction Board Female ×						
Oct 5-6	-0.080 (0.46)	-0.022 (0.84)	-0.077 (0.54)	-0.016 (0.90)	0.129 (0.40)	0.174 (0.27)
Oct 9-13					0.207 (0.53)	0.124 (0.72)
Oct 16-27			0.013 (0.97)	0.042 (0.91)	0.220 (0.55)	0.231 (0.54)
Oct 30-Nov 30					0.414 (0.14)	0.393 (0.17)
Female Variable ×						
Oct 5-6	0.588 (0.00)	0.098 (0.00)	0.672 (0.00)	0.115 (0.00)	0.725 (0.00)	0.146 (0.00)
Oct 9-13					-0.311 (0.27)	-0.001 (0.99)
Oct 16-27			0.508 (0.00)	0.105 (0.04)	0.562 (0.00)	0.135 (0.01)
Oct 30-Nov 30					0.186 (0.24)	0.068 (0.09)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs	85,743	85,743	85,743	85,743	85,743	85,743
Adjusted <i>R</i> ²	0.053	0.053	0.053	0.053	0.054	0.053

Table 5
Shareholder Value and a Broad Measure of Corporate Culture and Values

This table shows regression estimates of daily stock returns on interaction terms of *Glassdoor Culture* \times event and firm and time fixed effects. *Glassdoor Culture* measures a firm's corporate culture and values and is calculated as the average of all culture and values ratings submitted for a given firm on the Glassdoor.com website for the years 2015 and 2016. The event variables (e.g., Oct 5-6) are dummy variables that equal one for all days during a specific event window, and zero otherwise. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP and Glassdoor. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by firm and time (trading day) and p -values are reported in parentheses.

	Daily Stock Returns		
	(1)	(2)	(3)
Glassdoor Culture \times			
Oct 5-6	0.093 (0.08)	0.106 (0.05)	0.150 (0.01)
Oct 9-13			0.131 (0.02)
Oct 16-27		0.078 (0.14)	0.122 (0.03)
Oct 30-Nov 30			0.069 (0.13)
Firm Fixed Effects	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes
Obs	117,810	117,810	117,810
Adjusted R^2	0.04	0.04	0.04

Table 6
Shareholder Value and Female Leadership: Splits Based on Industry-Level Women in Executive Positions

This table shows regression estimates of daily stock returns on various interaction terms (and firm and time fixed effects) estimating the effect of female leadership for firms in industries with different shares of women in executive positions. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. The industry-level measures of women in executive positions (WEP) are calculated with data from the US Equal Employment Opportunity Commission for all private employers with more than 100 employees at the 4-digit SIC industry level. Fraction of women in executive positions (*Fraction WEP*) is the fraction of women that hold executive positions for a given SIC industry. Above-median share of women in executive positions (*Above-median WEP*) is a dummy variable that equals one for industries with an above-median fraction of women that hold executive positions in a given SIC industry. The event variables (e.g., Oct 5-27) are dummy variables that equal one for all trading days during a specific event window, and zero otherwise. The female variables are measured at the end of the most recent fiscal year prior to October 1, 2017. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP, Execucomp, and the Bureau of Labor Statistics. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by firm and time (trading day) and *p*-values are reported in parentheses.

Female variable = Industry-level measures of women = in executive positions (WEP)	Daily stock returns			
	Fraction Top-5 Women	Indicator Top-5 Women	Fraction Top-5 Women	Indicator Top-5 Women
	Above-median WEP	Above-median WEP	Fraction WEP	Fraction WEP
	(1)	(2)	(3)	(4)
Female variable × Oct 5-27	0.822 (0.00)	0.193 (0.01)	1.477 (0.00)	0.314 (0.01)
WEP × Oct 5-27	0.197 (0.03)	0.193 (0.04)	0.754 (0.05)	0.727 (0.05)
Female variable × WEP × Oct 5-27	-0.855 (0.05)	-0.180 (0.08)	-2.911 (0.02)	-0.589 (0.05)
Female variable × Oct 30-Nov 30	0.400 (0.12)	0.109 (0.09)	0.409 (0.36)	0.086 (0.44)
WEP × Oct 30-Nov 30	0.171 (0.14)	0.171 (0.14)	0.543 (0.23)	0.522 (0.25)
Female variable × WEP × Oct 30-Nov 30	-0.272 (0.41)	-0.060 (0.47)	-0.494 (0.66)	-0.044 (0.88)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	Yes	Yes	Yes	Yes
Obs	74,151	74,151	74,151	74,151
Adjusted R ²	0.047	0.047	0.047	0.047

Table 7
Shareholder Value and Female Leadership: Splits Based on State-level Sexism and Gender Pay Gap

This table shows regression estimates of daily stock returns on various interaction terms (and firm and time fixed effects) estimating the effect of female leadership for firms headquartered in state states with high and low levels of sexism and gender pay gap. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. State level sexism is obtained from Charles, Guryan, and Pan (2018) based on questions from the General Social Survey. The state-level gender pay gap is computed using data from the Current Population Survey, based on regressions of weekly pay on a female indicator variable (capturing the gender pay gap) while controlling for race, occupation, manager, age, industry, education, location within state, and time. States are divided into two groups based on the median state-level sexism and pay gap measures. The event variables (e.g., Oct 5-27) are dummy variables that equal one for all trading days during a specific event window, and zero otherwise. The female variables are measured at the end of the most recent fiscal year prior to October 1, 2017. The sample period is September 1, 2017 to November 30, 2017. The data are from CRSP, Execucomp, and the Bureau of Labor Statistics. Firms with missing returns during the sample period are dropped. Standard errors are double clustered by state and time (trading day) and *p*-values are reported in parentheses.

Panel A: Splits Based on State-level Sexism

Female variable =	Daily Stock Returns	
	Fraction Top-5 Women	Indicator Top-5 Women
	(1)	(2)
Female Variable × Oct 5-27	0.432 (0.10)	0.124 (0.04)
Low Sexism State × Oct 5-27	0.129 (0.03)	0.136 (0.02)
Female Variable × Low Sexism State × Oct 5-27	-0.316 (0.31)	-0.099 (0.19)
Female Variable × Oct 30-Nov 30	0.255 (0.34)	0.069 (0.26)
Low Sexism State × Oct 30-Nov 30	-0.012 (0.89)	-0.019 (0.82)
Female Variable × Low Sexism State × Oct 30-Nov 30	-0.035 (0.90)	0.021 (0.75)
Firm Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Obs	85,176	85,176
Adjusted <i>R</i> ²	0.053	0.053

Table 7 (continued)

Panel B: Splits Based on State-level Gender Pay Gap

Female variable =	Daily Stock Returns	
	Fraction	Indicator
	Top-5 Women	Top-5 Women
	(1)	(2)
Female Variable \times Oct 5-27	0.677 (0.01)	0.161 (0.01)
Low Gender Pay Gap State \times Oct 5-27	0.194 (0.00)	0.191 (0.00)
Female Variable \times Low Gender Pay Gap State \times Oct 5-27	-0.799 (0.03)	-0.177 (0.03)
Female Variable \times Oct 30-Nov 30	0.195 (0.45)	0.052 (0.41)
Low Gender Pay Gap State \times Oct 30-Nov 30	0.079 (0.26)	0.069 (0.33)
Female Variable \times Low Gender Pay Gap State \times Oct 30-Nov 30	0.067 (0.80)	0.052 (0.44)
Firm Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Obs	87,444	87,444
Adjusted R^2	0.053	0.053

Table 8
Analyst Earnings Forecasts Surrounding the Weinstein and #MeToo Event Windows

This table shows regression results of annual analyst earnings forecasts on interaction terms of female \times *Post* and firm, analyst, and announcement day fixed effects. *Analyst Earnings Forecasts* is the analyst forecast for a firm's annual earnings. Forecasts are scaled by the firm's stock price at the time the first analyst makes a forecast and are expressed as a percentage. Forecasts made outside a 100-day window prior to October 1, 2017 and after October 31, 2017 are removed, as well as cases where a given analyst does not provide a forecast both before and after the event window. Models 1 and 4 include firms that have December 31, 2017 fiscal year-end only; models 2 and 5 include firms with fiscal year-end up to June 30, 2018; and models 3 and 6 include the full sample. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company; and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise. *Post* is a dummy variable equal to one for days after October 31, 2017, and zero for days before October 1, 2017. The data are from Execucomp, I/B/E/S, and CRSP. Standard errors are clustered by firm and *p*-values are reported in parentheses.

Female Variable = Earnings Forecast Fiscal Year End =	Analyst Earnings Forecasts					
	Fraction Top-5 Women			Indicator Top-5 Women		
	Dec 31, 2017	Dec 31, 2017 to Jun 30, 2018	Dec 31, 2017 to Nov 30, 2018	Dec 31, 2017	Dec 31, 2017 to Jun 30, 2018	Dec 31, 2017 to Nov 30, 2018
	(1)	(2)	(3)	(4)	(5)	(6)
Female Variable \times Post	1.671 (0.03)	1.039 (0.03)	0.812 (0.06)	0.442 (0.02)	0.302 (0.03)	0.235 (0.05)
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Analyst Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Announcement Day FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs	14,406	18,766	21,514	14,406	18,766	21,514
Adjusted R^2	0.930	0.925	0.927	0.930	0.925	0.927

Table 9
Operating Performance Surrounding the Weinstein and #MeToo Events

This table presents regressions of quarterly operating performance measures on interaction terms of female \times *Post* and control variables. The female variables are: *Fraction Top-5 Women*, which is the fraction of female executives among the top-five highest paid executives of the company (in Panel A); and *Indicator Top-5 Women*, which is a dummy variable that equals one if a firm has at least one female executive among the top-five highest paid executives, and zero otherwise (in Panel B). *Post* is a dummy variable equal to zero for quarters ending between January 2016 and September 2017, and equal to one for quarters ending between January 2018 and June 2019. All operating performance measures are computed using quarterly Compustat data. *Operating Income to Sales* is quarterly operating income before depreciation divided by quarterly sales; *Gross Margin* is quarterly sales less cost of goods sold divided by quarterly sales; *Sales Growth* is growth in quarterly sales compared to the same quarter (q) of the prior year (y-1) calculated as $\text{sales}_{q,y} / \text{sales}_{q,y-1} - 1$; and *Sales per Employee* is quarterly sales divided by employees measures at the end of the fiscal year. The female variables are measured at the end of the most recent fiscal year prior to January 1, 2016. The model also includes $\text{Log}(\text{Total Assets})$ to control for size, firm fixed effects to control for unobservable time-invariant firm characteristics, and time (quarter) by industry fixed effects to control for any time varying industry performance. The data are from Execucomp and Compustat. Standard errors are double clustered by firm and time (fiscal-year-quarter) and *p*-values are reported in parentheses.

Panel A: Fraction Top-5 Women

	Operating Income to Sales	Gross Margin	Sales Growth	Sales per Employee
	(1)	(2)	(3)	(4)
Fraction Top-5 Women \times Post	-0.016 (0.21)	-0.008 (0.51)	0.028 (0.47)	0.003 (0.81)
Log (Total Assets)	0.031 (0.01)	0.017 (0.09)	0.230 (0.00)	0.049 (0.00)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Time \times Industry Fixed Effects	Yes	Yes	Yes	Yes
Obs	17,912	19,160	19,163	15,610
Adjusted R^2	0.805	0.916	0.326	0.955

Panel B: Indicator Top-5 Women

	Operating Income to Sales	Gross Margin	Sales Growth	Sales per Employee
	(1)	(2)	(3)	(4)
Indicator Top-5 Women \times Post	-0.005 (0.20)	-0.002 (0.52)	0.010 (0.34)	-0.001 (0.88)
Log (Total Assets)	0.031 (0.01)	0.017 (0.09)	0.230 (0.00)	0.049 (0.00)
Firm Fixed Effects	Yes	Yes	Yes	Yes
Time \times Industry Fixed Effects	Yes	Yes	Yes	Yes
Obs	17,912	19,160	19,163	15,610
Adjusted R^2	0.805	0.916	0.327	0.955