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## Political Values, Culture, and Corporate Litigation

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Using one of the largest samples of litigation data available to date, we examine whether the political culture of a firm determines its propensity for corporate misconduct. We measure political culture using the political contributions of top managers, firm political action committees, and local residents. We show that firms with a Republican culture are more likely to be the subject of civil rights, labor, and environmental litigation than are Democratic firms, consistent with the Democratic ideology that emphasizes equal rights, labor rights, and environmental protection. However, firms with a Democratic culture are more likely to be the subject of litigation related to securities fraud and intellectual property rights violations than are Republican firms, whose party ideology stresses self-reliance, property rights, market discipline, and limited government regulation. Upon litigation filing, both types of firms experience similar announcement reaction, which suggests that the observed relationship between political culture and corporate misconduct is unlikely to reflect differences in expected litigation costs.

Data, as supplemental material, are available at http://dx.doi.org/10.1287/mnsc.2014.2106.

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#### 1. Introduction

In the last decade, hundreds of chief executive officers (CEOs) and senior corporate managers of publicly traded companies have been convicted of illegal behavior that resulted in significant monetary and reputational costs to firm shareholders, auditors, analysts, and regulators. Although many instances of such wrongdoings were financial in nature, the vast majority of them were violations of employment civil rights, labor laws, intellectual property laws, product liability, antitrust laws, and other related issues. Corporate litigation, even stemming from less egregious offences, is costly to the defendant firm, as it leads to losses in market value, procedural costs, potential court penalties or settlement costs, reputational losses, management time, and costs associated with followon litigation. Existing evidence suggests that the economic magnitude of these costs is quite large.1

Why are certain firms more likely to misbehave than others? A large literature in accounting and finance has highlighted the important roles of auditors, corporate governance, executive compensation, and the legal system in discouraging white-collar crime.<sup>2</sup> However, there is limited research on alternative mechanisms such as firm or local culture that may also affect a firm's propensity of misconduct.

Although the relationship between culture and corporate wrongdoing may appear intuitive, it is often difficult to quantify the cultural attributes that define the ethical boundaries of a firm. In this paper, we use the political environment within a firm and its locality to quantify one aspect of firm culture that may influence a firm's propensity for misconduct. The key advantage of a politics-based measure of culture is that political party platforms allow us to explain differential propensities of wrongdoing across various domains (e.g., environmental, civil rights, securities).

The choice of political values as an indicator of culture is motivated by the observation that an ideological tilt of a firm toward the Republican Party or

<sup>&</sup>lt;sup>1</sup> See Bhagat et al. (1998), Karpoff and Lott (1999), Haslem (2005), Karpoff et al. (2005, 2008b), and Bessen and Meurer (2012). We provide additional information about litigation costs of firms in our sample in Supplementary Appendix §A1 (available as supplemental material at http://dx.doi.org/10.1287/mnsc.2014.2106).

<sup>&</sup>lt;sup>2</sup> For auditors, see Pagano and Immordino (2012); for governance, see Agrawal and Chadha (2005), Dechow et al. (1996), and Kedia and Philippon (2009); for compensation, see Bergstresser and Philippon (2006) and Johnson et al. (2009); and for enforcement, see Kedia and Rajgopal (2011).

the Democratic Party often reflects the firm's identification with the core values of that party.<sup>3</sup> Prior research in psychology shows that ethical boundaries vary across the political spectrum because the set of moral foundations that defines a political ideology varies across political parties (e.g., Graham et al. 2009). Therefore, the political culture or environment surrounding a firm may have significant economic implications in domains that are strongly associated with various political ideologies.

Specifically, we conjecture that, compared with firms with a Republican culture, firms with a Democratic culture are less likely to violate civil rights, labor, or environmental laws because the Democratic ideology emphasizes equal rights, labor rights, and environmental protection.<sup>4</sup> However, Democratic firms are more likely to commit securities fraud, where managers manipulate firm financials or market values of their firms' securities, or violate intellectual property laws than Republican firms because the Republican ideology emphasizes the importance of free enterprise (i.e., an economic system built on the foundation of market forces), limited government regulation, property rights, and protection of individual economic interests.

To empirically test these conjectures, we quantify the political culture of a firm using a composite index (political culture index, or PCI) that is based on the political leanings of the firm's top managers (including its CEO), political action committees (PACs), and local residents. We measure the political leanings using monetary contributions of individuals or PACs to various political campaigns. The contributions of PACs are likely to reflect the preferences of the firm's shareholders,<sup>5</sup> whereas those of local residents should be correlated with preferences of lower-level employees and corporate monitors located in the firm's home state. Further, personal political contributions of the top managers are likely to reflect their individual political values (DiGiuli and Kostovetsky 2014,

Hutton et al. 2014).<sup>6</sup> Thus, our composite political culture index captures the political attitudes of a firm's employees across its organizational hierarchy, its shareholders and monitors, as well as other community stakeholders.

To measure the propensity of corporate misconduct, we use a comprehensive sample of litigation filings associated with employment civil rights, labor, environmental, securities, and intellectual property violations filed during the 1993–2007 period and terminated by the end of 2008. The final litigation sample contains 31,343 civil rights lawsuits, 3,449 labor lawsuits, 960 environmental lawsuits, 2,927 securities lawsuits, and 5,050 intellectual property lawsuits, all filed in the federal district courts. To our knowledge, this constitutes one of the most comprehensive litigation data sets.

Our choice of litigation filings as an indicator of potential corporate wrongdoing is motivated by recent studies on corporate fraud (e.g., Fich and Shivdasani 2007, Peng and Roell 2008, Murphy et al. 2009). Since there may be a potential concern that a litigation filing could be frivolous and does not necessarily indicate corporate wrongdoing, we use an indicator variable that is set to 1 for firm-years with one or more litigation filings. This indicator variable helps us mitigate the effect of follow-on opportunistic lawsuits. Further, we obtain similar results with alternative measures of wrongdoing, such as lost or settled litigation and litigation volume, where the latter variable captures the severity of corporate misconduct.

Our main empirical tests focus on the relationship between PCI and the propensity of a firm being the subject of a certain type of litigation in a given year. Our estimates indicate that compared with firms with a Democratic culture, Republican firms are 13.5%, 3.5%, and 0.5% *more* likely to be sued for employment civil rights, labor rights, and environmental regulation violations but 1.5% and 4.0% *less* likely to be sued for securities violations and intellectual property violations, respectively. These effects are economically significant, considering that the unconditional probabilities of these corporate events are 35.2%, 8.8%, 3.1%, 4.0%, and 12.9%, respectively.

Our findings are robust to alternative measures of political culture based on the number of candidates supported and the inclusion of a large number of firm and industry characteristics, as well as time fixed effects. In particular, as the nature of business can affect the lawsuit propensity, we control for the industry-level litigation volume. Further, we find



<sup>&</sup>lt;sup>3</sup> Party identification and the core political values of that party are the most central and enduring predispositions in the political belief systems of citizens (Goren 2005). Party identification represents a sense of emotional attachment to a political party rooted in the social images of the parties (Green et al. 2002). Core political values reflect abstract, prescriptive beliefs about humanity and society (Feldman 1988).

<sup>&</sup>lt;sup>4</sup> See §2.3 for a review of the relevant literature.

<sup>&</sup>lt;sup>5</sup> Since corporate PAC funds are collected from employees and shareholders and PACs themselves carry the names of sponsoring corporations, they should contribute in a way that best advances the interests of corporation stakeholders. Corporate political expenditure policies (e.g., those of Boeing, Johnson & Johnson, Procter & Gamble, Dell, AT&T) explicitly state that contributions are made to the candidates who support the issues that are in the interest of the PAC firms' customers, employees, and shareholders.

<sup>&</sup>lt;sup>6</sup> Prior research shows that personal political contributions reveal personal political preferences rather than opportunistic donations to establish political connections with politicians, which are established primarily through lobbying (Ansolabehere et al. 2003).

that weak firm governance and option-heavy executive compensation—the two common explanations of corporate wrongdoing (Agrawal and Chadha 2005, Burns and Kedia 2006, Peng and Roell 2008)—cannot fully explain our results, although political culture tends to have a stronger effect on litigation propensity in firms with weak governance. The main challenge to these traditional theories is to explain why corporate governance or executive compensation would differentially induce misconduct in some settings and deter it in others.

An additional concern may be that certain state characteristics other than political culture, such as local laws, can affect litigation volume. However, our analyses use cases filed in federal district courts, which are guided by the Constitution, and laws passed by Congress rather than by states. Thus, state-level variation in litigation is unlikely to reflect differences in state laws. Nevertheless, we account for state-specific litigation propensity and find that our main findings remain virtually unchanged.

Another potential challenge to our findings is that political contributions are endogenously determined by the fundamental nature of the firm's business, which is not fully captured by industry and firm controls. To establish a causal relationship between political culture and the propensity of misconduct, we use a home state attribute (educational attainment or gun ownership) measured in the early 1990s as an instrumental variable. Each of the instrumental variables is strongly correlated with PCI and helps address reverse causality concerns, since the business needs or resulting litigation propensities of a firm are unlikely to alter the characteristics of the entire state. For both instruments, we find that the instrumented PCI continues to have a significant impact on litigation propensities in value-relevant domains.

In the last part of the paper, we study the market reactions to corporate litigation filings as measures of expected litigation costs. After controlling for a set of firm and industry characteristics and proxies for observed litigation severity, we find that investors react more negatively to the filings of securities and environmental litigation in Republican firms, whereas there is no statistically significant difference following litigation filings related to civil rights, intellectual property rights, or labor violations. These findings suggest that expected litigation costs do not help explain why relative to firms with a Republican culture, firms with Democratic culture are more likely to engage in securities fraud or violate intellectual property rights but less likely to violate civil rights, labor rights, or environmental protection regulations. Thus, the observed litigation propensity is likely to result from culture-driven, as opposed to cost-driven, firm decisions.

Our results contribute to the growing accounting and finance literature on the importance of culture. Recent studies have used religion as a proxy for culture to study its impact on firm policies (Hilary and Hui 2009) and corporate misconduct (Grullon et al. 2010, McGuire et al. 2012). Stulz and Williamson (2003) use religion and language as proxies for culture and examine its effect on creditor rights. Unlike religion, which is only available at county or country levels, our measure of political culture is more comprehensive in that it aggregates values from individual, firm, and local neighborhood levels. Other contemporaneous papers link local ethical culture derived from population ancestry (Liu 2013), prior unethical behavior of CEOs (Biggerstaff et al. 2015), and misconduct of neighboring firms (Parsons et al. 2014) to firm misbehavior. However, the limitation of many existing measures of culture, including ours, is that they capture one of its dimensions even though other organizational attributes such as the mission statement, corporate hierarchy, and firm openness to new ideas may be of equal importance.

This paper also contributes to the literature on the effect of politics on firm policies (Hutton et al. 2014), firm performance (Ovtchinnikov and Pantaleoni 2012), and stock returns (Cooper et al. 2010) by advancing that strand of research into the domain of corporate wrongdoing. Specifically, we show that a firm's political culture can serve as an "internal" monitoring system that guards certain interests of shareholders and the broader community. In a related paper, DiGiuli and Kostovetsky (2014) use Kinder, Lydenberg, Domini Research & Analytics data to demonstrate that Democratic firms exhibit greater social responsibility, but they do not exclusively examine corporate litigation, which is the main focus of our study.

The rest of this paper is organized as follows. In the next section, we summarize the related literature and develop our main testable hypotheses. We describe the data sources in §3 and present the main empirical results in §§4 and 5. We conclude in §6 with a brief summary.

# 2. Related Literature and Testable Hypotheses

#### 2.1. Corporate Misbehavior: Traditional Theories

Previous studies propose that several economic factors could affect the propensity of wrongdoing, including, for example, the cost of external financing, the capital market expectations on stock price, and the structure of executive compensation (Dechow et al. 1996, Richardson et al. 2002, Johnson et al. 2009). Although the majority of the studies focus on financial fraud, it is likely that the same economic factors affect propensity of misconduct in other domains.



Distorted incentives encourage managerial misconduct, although corporate monitoring by various internal and external parties acts as a deterrent. For instance, proximity to the U.S. Securities and Exchange Commission (SEC) offices (Kedia and Rajgopal 2011), a greater number of independent directors (Dechow et al. 1996, Agrawal and Chadha 2005), and good corporate governance in general (Kedia and Philippon 2009) are negatively related to the propensity of fraud. In addition, market- and court-imposed penalties, including job loss as well as loss of personal and firm reputation, could serve as an effective fraud deterrent mechanism.

Firms that are caught experience large losses in market value, stock liquidity, analyst coverage, and overall firm reputation. As a result, they face increased cost of capital (Feroz et al. 1991, Dechow et al. 1996, Karpoff et al. 2008b, Murphy et al. 2009). In addition, Karpoff et al. (2008a) show that managers who "cook the books" are often dismissed from jobs and receive civil penalties or even jail time. Such losses apply not only to financial fraud but also to patent, environmental, product liability, antitrust, contract, and labor claims (Bhagat et al. 1998, Karpoff and Lott 1999, Haslem 2005, Bessen and Meurer 2012).

## 2.2. Culture as a Determinant of Ethical Boundaries

In contrast to the traditional theories of corporate misconduct based on economic incentives, the literature in psychology and business ethics emphasizes the role of ethical norms in understanding potentially fraudulent behavior. Further, this literature asserts that individual ethical norms and moral values are largely shaped by culture.

For example, models by Rest (1986) and Jones (1991) stress the critical importance of individual moral norms or ethical judgment in the decision-making process. Ajzen (1985, 1988, 1991) develops the theory of the fraud triangle in which corporate fraud is a function of incentives, opportunities, and attitudes/rationalizations. This theory is extended in Beck and Ajzen (1991) to incorporate a fourth concept related to personal feelings of moral obligation. Personal moral attitudes are strongly determined by culture, since it provides a reference point for evaluating one's own ethical behavior. Individuals often look to norms of their peer group as a guide for how to effectively respond to social situations, especially during times of uncertainty (Cialdini 2001).

Of course, this is not a unidirectional relationship, as personal ethical norms in turn can influence corporate culture. For example, the ethical values of upper management may shape the ethical climate and culture within a corporation that provides behavioral guidance for employees (Adams et al. 2001, Martin and Cullen 2006). In addition, a firm's political culture is often "matched" to the political orientation of its top managers at their hiring (Hutton et al. 2014). Thus, managerial ethical values could be correlated with the firm and local cultures (Guiso et al. 2006).

#### 2.3. Party Ideology and Ethical Norms

If personal moral attitudes are strongly influenced by cultural norms, measures of culture could be used to explain corporate misconduct. In particular, the political environment of a firm is likely to reflect the prevailing cultural norms within the firm. Our key conjecture is that differences in corporate and local culture, as reflected by core political values, translate into differences in ethical values and norms across firms. Those ethical boundaries eventually affect propensity of fraud in different domains.

This conjecture is based on research in psychology and political science, which suggests that political parties in the United States are built on distinct sets of moral foundations that generate differences in ethical values and norms. For example, the political science literature has identified the areas where these differences are most profound, which include economic individualism (people should get ahead on their own hard work), equal rights (people have equal rights regardless of social status), moral tolerance (society accepts individuals and groups whose beliefs differ from mainstream beliefs), free enterprise (the economic system based on market discipline, strong property rights, and limited government regulation), and protection of the environment (Rokeach 1973, Feldman 1988, Goren 2005, Goren et al. 2009). The commitment to these beliefs is not uniformly distributed within the public and varies with political orientation (McCloskey and Zaller 1984, Feldman 1988, Goren 2005). In particular, Goren et al. (2009) find that political values have a significant influence on the behavior of individuals. Similar to religious adherents who accept matters of faith unconditionally, political adherents accept their own party's doctrine on core ethical issues.

The Republican ideology stresses the free enterprise, which is an economic system characterized by efficient markets, limited government regulation, and the protection of property rights and individual economic interests. This system of beliefs places greater importance on factors that yield economic gains for the firm and its shareholders. Therefore, costly initiatives such as environmental protection, unionization, and compliance with Affirmative Action are addressed only if they generate ex ante benefits for the firm. Further, the Republican ideology asserts that



<sup>&</sup>lt;sup>7</sup> From a broader macroeconomic perspective, financial fraud can create conditions for firm overhiring and overinvestment, which result in misallocation of resources (Kedia and Philippon 2009).

individual accountability and market discipline may be a more effective solution to corporate misbehavior than government regulation.

By contrast, Democrats, particularly liberal Democrats, believe in government regulation of business as effective means to protect interests of the public and to manage corporate crime. They value labor rights, civil rights, environmental protection, and corporate social responsibility. Democrats are also committed to a strong social safety net, which is evident from their support of Affirmative Action, which provides employment support to individuals from disadvantaged social classes or backgrounds, and unionization, which aims to protect employment conditions and labor rights.

Multiyear survey evidence published by the Pew Research Center, which is one of the largest independent, nonpartisan public opinion organizations, and polls by Ipsos Public Affairs/Reuters, NBC News, the *Wall Street Journal*, and Quinnipiac University repeatedly and strongly support this summary of Republican and Democratic political values.

#### 2.4. Main Testable Hypotheses

Overall, the evidence from psychology and political science literatures suggests that ethical boundaries are often fluid and not universal. A behavior that may appear unethical to some individuals in certain contexts may appear perfectly appropriate to other individuals because of differences in their perceived benefits and costs or interpretation biased by preferences and values. Motivated by this prior evidence, we conjecture that fundamental differences in the core moral values of Republican and Democratic Parties will produce a negative relationship between political culture of a firm and the propensity of misconduct in certain value-relevant domains. In particular, we propose the following hypotheses.

Hypothesis 1 (H1). Firms with a Republican culture are more likely to be the subject of civil rights, labor, and environmental litigation than firms with a Democratic culture.

HYPOTHESIS 2 (H2). Firms with a Democratic culture are more likely to be the subject of securities and intellectual property litigation than firms with a Republican culture.

#### 3. Data

#### 3.1. Main Data Sources

Our empirical analyses employ data collected from multiple sources that provide identities of firms, their political preferences, legal violations and firm and industry characteristics. Our main sample of firms and managers is from the ExecuComp database and extends from 1992 to 2006 to allow for the merge with the sample of lawsuits terminated by the end of 2008 and filed prior to 2006. The sample of litigation events is constructed from civil terminations in federal district courts compiled by the National Archive of Criminal Justice Data (NACJD) and disseminated by the Inter-University Consortium for Political and Social Research (ICPSR). Terminated lawsuits are updated annually in the ICPSR with nearly a twoyear lag, making 2008 terminations available in 2010. The entire database from 1994 to 2008 contains more than one million lawsuits, which include government, individual, and private firm defendants. We map the names of defendants in the NACID database to ExecuComp firms to obtain our sample. The advantage of NACID data over other common sources of litigation data used in the finance literature is that they contain multiple litigation types in terms of subject matter (i.e., civil rights, labor, etc.) and impact (i.e., single plaintiff versus class action, penalty, disposition, etc.) and span a longer period. Thus, securities class actions covered by the Stanford Securities Class Action Clearinghouse database are a small subset of our data set.

Our data on political contributions of top firm managers and firm PACs were obtained from the sample developed in Hutton et al. (2014).<sup>8</sup> The initial sample was constructed by cross-referencing ExecuComp data containing the name, title, and position of top managers to their individual political contributions recorded by the Federal Election Commission (FEC). Firm-level accounting variables and stock returns are from Compustat and the Center for Research in Security Prices. The final sample spans 1993–2007, with most control variables available for the entire sample period.

#### 3.2. Firm-Level Political Culture Index

Our firm-level political culture measure is based on the political orientations of the top managers, including the CEO, firm PACs, and lower-ranked employees. All political orientations are inferred from the respective group's monetary contributions to political campaigns during the election cycles, starting in 1991 and ending in 2006. For the top managers, the name, title, employer, and location of individual contributors are matched to the top five managers of the firms in our sample. For the PACs, the PAC sponsor's name is matched with the names of firms in our sample, similar to Cooper et al. (2010). We infer



<sup>&</sup>lt;sup>8</sup> Since Hutton et al. (2014) study capital structure and firm policies, their sample excludes regulated industries such as utilities (Standard Industrial Classification (SIC) codes 4900–4949) and financials (SIC codes 6000–6999), consistent with prior literature.

<sup>&</sup>lt;sup>9</sup> However, in robustness tests in §4.4.2, we examine the effect of political culture on litigation of financial firms.

Table 1 Sample Statistics

Variable	N	Mean	SD	25th pctl	Median	75th pctl
Political values variables						
MGRREP	21,460	0.124	0.332	0.000	0.000	0.361
PACREP	21,483	0.074	0.247	0.000	0.000	0.000
STATEREP	21,288	0.007	0.299	-0.156	0.021	0.165
PCI	21,265	3.268	1.281	2.000	3.000	4.000
Litigation variables						
Civil Rights Litigation	21,483	0.352	0.477	0.000	0.000	1.000
Labor Litigation	17,938	0.088	0.283	0.000	0.000	0.000
Environmental Litigation	21,483	0.031	0.173	0.000	0.000	0.000
Securities Litigation	21,483	0.040	0.195	0.000	0.000	0.000
Intellectual Property Litigation	17,938	0.129	0.335	0.000	0.000	0.000
All Litigation	21,483	0.429	0.495	0.000	0.000	1.000
Control variables						
Total Assets	21,438	4,584	19,872	323	858	2,672
Operating Margin	21,328	-0.075	7.147	0.079	0.135	0.207
Leverage	21,358	0.226	0.249	0.052	0.204	0.336
Market-to-Book	21,187	4.198	69.654	1.557	2.409	3.884
Stock Return	19,916	0.225	0.738	-0.131	0.114	0.399
Managerial Ownership	20,089	0.050	0.099	0.003	0.010	0.043

Notes. This table reports the full sample summary statistics for measures of political values, litigation variables, and control variables. Political values of the top five managers (MGRREP), firm PACs (PACREP), and home-state residents (STATEREP) are measured as relative contributions to the Republican Party. The main firm-level political values variable is PCI, which is the sum of annual tercile rankings of MGRREP, PACREP, and STATEREP. The litigation variables are binary variables equal to 1 if a fiscal year contains a litigation filing related to civil rights, labor, environmental, securities, or intellectual property violations, or all types of litigation. Total Assets is the book value of assets. Operating Margin is the operating income before depreciation divided by net sales. Leverage is the current and long-term debt divided by total assets. Market-to-Book is the market-to-book equity. Stock Return is daily stock returns compounded over a fiscal year. Managerial Ownership is the fraction of the firm's shares owned by the top five managers. The sample period is from 1993 to 2007. pctl, percentile.

the political orientations of lower-ranked employees using the political contributions of local residents in the firm's headquarters state. We provide additional details about the data-matching process in Supplementary Appendix §A2.

For each identification entity (i.e., PAC, manager, or state residents), we first compute its political orientation as the difference between the contributions to the Republican and Democratic Parties divided by the total contribution to both parties during an election cycle. This normalized variable is bounded between -1 (strong Democrat) and +1 (strong Republican). Our normalized political orientation measure is not sensitive to changes in contribution limits over time; therefore, it can be aggregated across time.

Second, motivated by the evidence in the political science literature that political ideology is a stable measure at an individual level (Green et al. 2002), we average these election cycle-level values of each manager across all election cycles in which that manager makes political contributions. The averaging process minimizes the effects of opportunistic campaign contributions. Next, we aggregate the political values measure of the top managers to the firm-level using weights that vary inversely with a manager's annual pay-based rank in the firm.<sup>10</sup> Nondonor managers are

assigned a political value of 0, which indicates political neutrality. We label this variable *MGRREP*. We also compute the political values of a firm's PAC(s) as well as the local residents in the firm's headquarters state for the most recent election cycle prior to the start of the current fiscal year; we denote these two variables as *PACREP* and *STATEREP*, respectively. Firms without any PAC are assigned a political value of 0.<sup>11</sup>

Finally, we construct an annual composite firm *PCI* by adding the annual tercile rankings (0, 1, 2) of MGRREP, PACREP, and STATEREP. We prefer rankings to the raw political values because they allow us to control for the differences in the distributions of the three components across time. The resulting PCI ranges from 0 (Democratic) to 6 (Republican), where intermediate values reflect moderate political views. We report the summary statistics of all political values measures in the first part of Table 1. Since MGRREP, PACREP, and STATEREP all have positive means, our sample firms have a tilt toward the Republican Party. The analysis of medians, which in three of four cases equal 0, implies moderate political views. We provide further information regarding the correlations of the three components in Supplementary Appendix §A3. In §§4.4.4–4.4.6, we consider alternative measures of



<sup>&</sup>lt;sup>10</sup> In unreported results, we also find similar results when we assign equal weights to the top five managers.

<sup>&</sup>lt;sup>11</sup> Our method tends to assign firms without donor managers or PACs to the politically neutral group. However, this is not essential for our main findings. Our results hold in Table 2, where we directly compare the Republican firms with the Democratic firms.

firm political culture that account for the potential look-ahead bias in the current measure, the political preferences of CEOs only, those of the board of directors, and the relative number of candidates supported in the Republican versus the Democratic Party.

#### 3.3. Litigation Variables

To construct our litigation sample, we utilize the NACJD, which contains civil litigation terminations in federal district courts. We examine several dimensions of corporate wrongdoing, including civil rights (nature of suit code 442), labor (710, 720, 790), environmental (893), securities (850), and intellectual property (820, 830, 840) violations. The sample of securities, environmental, and civil rights litigation starts in 1993, whereas the sample of intellectual property and labor litigation starts in 1994. Although NACJD provides many other types of litigation, we limit our focus to those that are closely linked to party platforms and have sufficient observations. The names of corporate defendants in these lawsuits are then matched to ExecuComp firms.

Violations of employment civil rights and labor laws deal mainly with employee rights. Litigation of employment civil rights includes lawsuits related to intimidating acts or discrimination based on race, ethnicity, national origin, religious beliefs, gender, sexual orientation, or disability. Labor litigation includes lawsuits related to union and labor disputes. Environmental violations include air, land, and water supply pollution. Securities litigation captures any activities that relate to influencing security prices or otherwise benefiting from the insider knowledge about security prices, such as earnings manipulation, opportunistic merger and acquisition activities, security issuances, insider trading, option backdating, and other related events. Intellectual property rights violations include patent, copyright, and trademark infringements; false advertising; licensing; false marking; and trade secret

To explain the likelihood of litigation, we aggregate multiple same-type lawsuits filed against the firm in the same fiscal year into one observation for each type of litigation. We use this indicator variable in the main analyses to proxy for the likelihood of litigation. The advantage of using the indicator is that it is likely to minimize the noise caused by frivolous litigation of firms with deep pockets. In some cases, as in, for example, wage and labor disputes or sexual harassment cases, one lawsuit may generate several follow-on lawsuits filed by opportunistic plaintiffs or attorneys. Nevertheless, for robustness, we also use the annual number of litigation incidents as measures of the frequency of firm misconduct.

Corporate litigation is frequent. Table 1 reports the average frequency of litigation filings by litigation

type. The most common type is the employment civil rights litigation, with filings in 35.2% of all firm-years in our sample. This is followed by intellectual property litigation (12.9%), labor litigation (8.8%), securities litigation (4.0%), and environmental litigation (3.1%). Altogether, 42.9% of firm-year observations have a litigation filing, which suggests that there are significant costs associated with litigations, including procedural costs, penalties, reputation loss, and management time.<sup>12</sup>

# 4. Political Culture and Corporate Litigation

In this section, we present our main empirical results. Specifically, we test the two main hypotheses, which posit that political culture influences litigation propensity across various value-relevant domains.

# 4.1. Political Culture and Litigation Propensity: Sorting Results

We begin our empirical analysis by examining the litigation propensities across all litigation types. We estimate these propensities for the three groups of firms identified based on their PCI: Democratic (PCI  $\leq$  1), Moderate  $(2 \le PCI \le 4)$ , and Republican  $(PCI \ge 5)$ . The results are reported in panel A of Table 2 and also summarized in Figure 1. The differences in the incidence of litigation between Democratic and Republican firms are striking and consistent with our hypotheses. Republican firms are more likely than Democratic firms to be sued over employment civil rights (48.3% versus 34.1%), labor (14.5% versus 8.1%), and environmental (5.0% versus 3.0%) violations. By contrast, Democratic firms are more likely than Republican firms to be sued over securities (4.4% versus 3.3%) and intellectual property (16.4% versus 14.3%) violations. Examining violations across all domains, we find that Republican firms are more likely to be sued (54.5% versus 43.7%). In all cases, the litigation propensity differential between Republican and Democratic firms is statistically significant. In Supplementary Appendix §A5, we also report the differences in a set of firm characteristics associated with the three groups.

In panels B and C of Table 2, we partition our sample into two subperiods (1993–2000 and 2001–2007) and repeat the same analysis for each subperiod. Our rationale for this analysis is twofold. First, the polarization between Republicans and Democrats has become more pronounced over time. Second, two types of legislation during our sample period could have affected the frequency of securities litigation.



<sup>&</sup>lt;sup>12</sup> We provide further information on litigation data in Supplementary Appendix §A4.

Table 2 Political Culture and Litigation Propensity: Sorting Results

Political culture	Civil rights	Labor	Environmental	Securities	Intellectual property	All
		Panel A: Ful	l sample (1993–2007)			
Democrats (PCI = $0, 1$ )	0.341	0.081	0.030	0.044	0.164	0.437
	1,751	1,465	1,751	1,751	1,465	1,751
Moderates (PCI = $2, 3, 4$ )	0.322	0.076	0.026	0.041	0.122	0.402
	15,699	13,055	15,699	15,699	13,055	15,699
Republicans (PCI = 5, 6) $N$	0.483	0.145	0.050	0.033	0.143	0.545
	3,815	3,248	3,815	3,815	3,248	3,815
Republicans — Democrats	0.142***	0.064***	0.020***	-0.011*	−0.021*	0.108***
	(10.0)	(6.7)	(3.7)	(-2.0)	(−1.9)	(7.5)
		Panel B: 1	993–2000 subperiod			
Democrats (PCI = 0, 1) $N$	0.428	0.102	0.048	0.045	0.155	0.508
	897	714	897	897	714	897
	0.346	0.072	0.037	0.039	0.116	0.423
	8,163	6,607	8,163	8,163	6,607	8,163
Republicans (PCI = $5, 6$ )	0.516	0.147	0.071	0.032	0.153	0.585
	1,910	1,617	1,910	1,910	1,617	1,910
Republicans — Democrats	0.088***	0.045***	0.023**	-0.013*	-0.002	0.077***
	(4.3)	(2.9)	(2.4)	(-1.6)	(-0.1)	(3.8)
		Panel C: 2	001–2007 subperiod			
Democrats (PCI = $0, 1$ )	0.249	0.061	0.011	0.043	0.172	0.363
	854	751	854	854	751	854
	0.296	0.079	0.015	0.043	0.128	0.379
	7,536	6,448	7,536	7,536	6,448	7,536
Republicans (PCI $=$ 5, 6) $N$	0.451	0.143	0.028	0.034	0.132	0.505
	1,905	1,631	1,905	1,905	1,631	1,905
Republicans — Democrats	0.202***	0.082***	0.017***	-0.009	-0.040**	0.142***
	(10.2)	(6.6)	(3.5)	(-1.2)	(-2.5)	(7.0)

Notes. This table reports litigation propensity estimates for firms sorted by political culture. We report the results for the full 1993–2007 period as well as for the 1993–2000 and 2001–2007 subperiods. Political values of the top five managers (MGRREP), firm PACs (PACREP), and home-state residents (STATEREP) are measured as relative contributions to the Republican Party. The main firm-level political values variable is PCI, which is the sum of annual tercile rankings of MGRREP, PACREP, and STATEREP. The litigation variables are binary variables equal to 1 if a fiscal year contains a litigation filing related to civil rights, labor, environmental, securities, or intellectual property violations, or all types of litigation. Reported in parentheses are t-statistics.

Specifically, the Private Securities Litigation Reform Act of 1995 (PSLRA) was designed to discourage frivolous litigation, though the Sarbanes–Oxley Act of 2002 (SOX) relaxed its effects to an extent. No significant legislation relating to other types of litigation took place, although the George W. Bush administration (2001–2009) had been criticized for its attempts to relax environmental regulations.

We find that the differences in propensity for civil rights, labor, and environmental litigation persist during both subperiods. Interestingly, the spreads in litigation propensity between Republican and Democratic firms widen for civil rights, labor, and intellectual property litigation and narrow for environmental and securities litigation. In addition, the levels of civil rights and environmental litigation decline in the second half of the sample, which is consistent with the reluctance of the Republican administration to pros-

ecute these offences. Other types of litigation exhibit no significant time trend.

#### 4.2. Probit Regression Specification

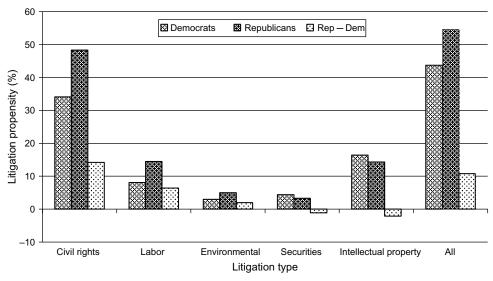
In the next set of tests, we examine the determinants of litigation propensity in a multivariate setting using a bivariate probit model. Our key objective is to identify whether the political party-specific ethical norms captured by the political culture index can explain the cross-sectional differences in legal violations, beyond the known effects of firm and industry attributes.

In all regression specifications, we carefully control for factors known to influence corporate litigation. Specifically, we control for the log of total book assets since firms committing financial fraud are larger (Dechow et al. 2011), and more generally, firms with deep pockets are more likely to be sued. We also control for operating performance using operating margin, defined as operating profit before



<sup>\*, \*\*,</sup> and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Figure 1 Political Culture and Litigation Propensity



Notes. This figure reports litigation propensity estimates for firms with Republican and Democratic cultures. Firm culture is identified using the firm-level PCI. The litigation variables are binary variables equal to 1 if a fiscal year contains one or more litigation filings related to civil rights, labor, environmental, securities-related, intellectual property violations, or all types of litigation. The Republicans — Democrats difference (Rep — Dem) is statistically significant in all cases. The sample period is from 1993 to 2007.

depreciation over net sales, because firms that manipulate financials typically have strong financial performances prior to manipulation (Crutchley et al. 2007, Dechow et al. 2011). We further control for leverage as a proxy for proximity to debt covenants (Dechow et al. 1996, Richardson et al. 2002) or accounting irregularities (Beneish 1997). We define leverage as the ratio of total book debt to total book assets.

Next, we control for growth opportunities defined as the ratio of market value of equity to book value of equity. A high value of the market-to-book ratio can indicate strong performance, making the firm less prone to litigation (Strahan 1998), and alternatively, it can indicate overvaluation and put pressure on management to manipulate share prices. In addition, stock returns may predict litigation (Jones and Weingram 1996); firms that experience large negative returns are likely to be sued by shareholders over their investment losses. Moreover, poor stock market performance could be accompanied by managerial actions such as layoffs or excessive cost cutting that may later result in other types of litigation such as labor or environmental. We therefore control for the stock return of a firm over the past year. Last, we use the total percentage stock ownership of top five managers as a proxy for equity incentives, which may provide personal economic incentives for misconduct as well as the means to commit fraud. Although these variables have been mainly used in studies of financial fraud, they are likely to account for sources of nonfinancial misconduct as they are likely to be induced by financial pressure.

Beyond firm-level control variables, we include industry litigation volume (at the two-digit SIC code) to control for any industry-specific component in litigation.<sup>13</sup> Since probit models are conditional on litigation occurrence and some industries may not have all types of litigation in a given year, we use industry volume to preserve the sample size.<sup>14</sup> In all specifications, we use year fixed effects and robust standard errors with firm-level clustering to measure the statistical significance of our estimates.

#### 4.3. Probit Regression Estimates

The probit regression estimates are reported in Table 3. We find that PCI has a significantly positive coefficient estimate in the civil rights, labor, and environmental litigation regressions. This evidence indicates that firms with a Republican culture exhibit a greater propensity for these types of misconduct than do Democratic firms. Beside the estimates of PCI, the estimates of various control variables in all our models are consistent with the prior evidence in the financial fraud literature (e.g., Karpoff et al. 2008b, Dechow et al. 2011).

In economic terms, the marginal effects of these coefficient estimates indicate that the likelihood of civil rights violations is higher for a Republican firm (PCI = 5, 6, or 5.5) than a Democratic firm (PCI = 0, 1, 1)



<sup>&</sup>lt;sup>13</sup> The results remain virtually unchanged when we measure industry litigation volume using a three-digit SIC code.

<sup>&</sup>lt;sup>14</sup> Although the sample size drops considerably, our results are somewhat weaker but qualitatively similar when we use industry fixed effects.

Table 3 Litigation Propensity Probit Regression Estimates: Baseline Specifications

Independent variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All
PCI	0.075*** (0.027)	0.063*** (0.007)	0.052** (0.001)	-0.030*** (-0.003)	-0.043*** (-0.008)	0.046*** (0.018)
	(5.6)	(3.7)	(2.2)	(-3.0)	(-2.7)	(3.7)
log( <i>Total Assets</i> )	0.471*** (0.168)	0.391*** (0.045)	0.398*** (0.009)	0.139*** (0.009)	0.287*** (0.055)	0.454*** (0.177)
	(25.0)	(20.5)	(17.5)	(8.7)	(17.3)	(25.3)
Operating Margin	, ,	, ,	,	` ,	'	'
	(-5.5)	(-5.6)	(-3.2)	(-4.7)	(-2.5)	(-6.0)
Leverage	-0.094  (-0.034)	,	` ,		-0.808*** (-0.155)	-0.270*** (-0.106)
	(-0.9)	(-0.3)	(0.1)	(-1.6)	(-5.5)	(-2.6)
Market-to-Book	0.004 (0.001)	0.009 (0.001)	-0.040***(-0.001)	, ,	0.039*** (0.007)	0.017*** (0.007)
	(0.9)	(1.5)	(-3.7)	(5.4)	(8.2)	(3.9)
Stock Return	, ,	,	-0.014  (-0.000)	,	,	-0.061***(-0.024)
	(-2.7)	(-0.4)	(-0.3)	(-3.6)	(-0.9)	(-3.0)
Managerial Ownership	0.338 (0.120)	0.018 (0.002)		-0.251  (-0.017)		0.231 (0.090)
	(1.4)	(0.1)	(-1.9)	(-1.0)	(0.0)	(1.0)
Industry Civil Rights	0.291*** (0.104)					
Litigation	(6.0)					
Industry Labor Litigation		1.990*** (0.231)				
		(7.3)				
Industry Environmental			5.413*** (0.071)			
Litigation			(7.4)			
Industry Securities				2.165*** (0.145)		
Litigation				(5.7)		
Industry Intellectual Property	′				2.084*** (0.399)	
Litigation					(8.2)	0.007 (0.000)
All Industry Litigation						0.227*** (0.086)
V FF	V	V	V	V	V	(5.6)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm clustering	Yes	Yes	Yes	Yes	Yes	Yes
N (observations)	18,530	15,570	18,530	18,530	15,570	18,530
Pseudo R <sup>2</sup>	0.226	0.208	0.271	0.064	0.129	0.210

Notes. This table reports the estimates from probit models in which one of the measures of litigation propensity is the dependent variable. The dependent variables are binary variables equal to 1 if a fiscal year contains a litigation filing related to civil rights, labor, environmental, securities, or intellectual property violations, or all types of litigation. Political values of the top five managers (MGRREP), firm PACs (PACREP), and home-state residents (STATEREP) are measured as relative contributions to the Republican Party. The main firm-level political values variable is PCI, which is the sum of annual tercile rankings of MGRREP, PACREP, and STATEREP. The control variables include firm size, measured by the logarithm of total book assets. Operating Margin is the operating income before depreciation divided by net income. Leverage is the current and long-term debt divided by total assets. Market-to-Book is the market-to-book equity. Stock Return is the daily returns compounded over fiscal year. Managerial Ownership is the fraction of the firm's shares owned by the top five managers. Industry litigation activity is the annual number of litigation filings in two-digit SIC industry scaled by the total annual number of litigation filings. All control variables are lagged by one year. Marginal effects are reported in parentheses next to the estimates. Annual fixed effects (FE) are included in all models. The z-statistics are computed using standard errors corrected for clustering of observations by firm and are reported in parentheses below the estimates.

or 0.5) by  $0.027 \times 5 = 0.135$ , or 13.5%. We base economic significance on the difference in mean PCI between firms with a Republican versus Democratic culture rather than one standard deviation of the PCI because PCI is an ordinal variable. Alternatively, we examine the difference between the 25th (PCI = 2) and 75th (PCI = 4) percentiles of PCI. The difference in the likelihood of wrongdoing between these groups is  $0.027 \times 2 = 0.054$ , or 5.4%. Given that the unconditional propensity of civil rights litigation is 35.2%, this incremental effect is economically significant.

\*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Similarly, the economic effects of a shift from a Democratic to a Republican culture on labor and environmental litigation are 3.5%  $(0.007 \times 5)$  and 0.5%  $(0.001 \times 5)$ , respectively. If we define the political culture shift more narrowly, the incremental effects are 1.4%  $(0.007 \times 2)$  and 0.2%  $(0.001 \times 2)$  for labor and environmental litigations, respectively. Both effects are

significant economically considering that the sample means of these events are 8.8% and 3.1%, respectively.

In other litigation regressions, our measure of political culture is significant but negative. Specifically, in securities and intellectual property litigation regressions, having a Democratic culture increases the litigation propensity by 1.5% and 4.0%, respectively, over having a Republican culture. Again, a cultural shift from the 25th to the 75th PCI percentile is associated with 0.6% and 1.6% shifts in securities and intellectual property litigation propensities, respectively. These estimates are again economically meaningful when compared with the sample means of 4% and 12.9%, respectively.

Although not directly related to our main hypotheses, in the last column of Table 3, we report the probit regression estimates for the full sample of litigation events. We find that Republican firms have



Table 4 Litigation Propensity Regression Estimates Using PCI Components

	. , ,		•			
Independent variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All
	Panel A: Li	tigation propensity reg	ression estimates us	ing managerial political	orientation	
MGRREP	0.125** (0.044)	0.161** (0.008)	0.182** (0.004)	-0.155** (-0.010)	-0.175*** (-0.033)	0.057 (0.022)
	(2.2)	(2.2)	(2.1)	(-2.4)	(-2.7)	(1.1)
N (observations)	18,682	15,696	18,682	18,682	15,696	18,682
Pseudo R <sup>2</sup>	0.220	0.204	0.268	0.064	0.128	0.206
	Panel B	: Litigation propensity	regression estimates	using PAC political orie	ntation	
PACREP	0.341*** (0.121)	0.273*** (0.032)	0.164* (0.004)	-0.188** (-0.013)	-0.030  (-0.006)	0.270*** (0.105)
	(4.9)	(3.3)	(1.8)	(-2.5)	(-0.4)	(4.1)
N (observations)	18,682	15,696	18,682	18,682	15,696	18,682
Pseudo R <sup>2</sup>	0.222	0.205	0.267	0.064	0.126	0.208
	Panel C	: Litigation propensity	regression estimates	using state political orie	entation	
STATEREP	0.309*** (0.108)	0.189** (0.022)	0.102 (0.002)	-0.167** (-0.011)	$-0.120^{*}$ (-0.023)	0.193*** (0.076)
	(5.0)	(2.5)	(0.9)	(-2.3)	(-1.9)	(3.4)
N (observations)	18,530	15,570	18,530	18,53Ó	Ì5,57Ó	18,530
Pseudo R <sup>2</sup>	0.225	0.207	0.269	0.063	0.128	0.210

Notes. This table reports the estimates from probit models in which one of the measures of litigation propensity is the dependent variable. The dependent variables are binary variables equal to 1 if a fiscal year contains a litigation filing related to civil rights, labor, environmental, securities, or intellectual property violations, or all types of litigation. Political values of the top five managers (MGRREP), firm PACs (PACREP), and home-state residents (STATEREP) are measured as relative contributions to the Republican Party. Panel A reports the effect of MGRREP on litigation propensity. Panel B reports the effect of PACREP on litigation propensity. Panel B reports the effect of STATEREP on litigation propensity. All regressions include the set of standard control variables and the year fixed effects as in Table 3. The control variables include logarithmic Total Assets (firm size), Operating Margin, Leverage, Market-to-Book, Stock Return, Managerial Ownership, and industry litigation activity, all defined in Table 3. All control variables are lagged by one year. Marginal effects are reported in parentheses next to the estimates. Annual fixed effects are included in all models. The z-statistics are computed using standard errors corrected for clustering of observations by firm and are reported in parentheses below the estimates.

\*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

a 9%  $(0.018 \times 5)$  or, alternatively, 3.6%  $(0.018 \times 2)$ , higher overall chance of litigation than Democratic firms since civil rights litigation dominates other litigation types in our sample.

In all regressions, the coefficient estimate of log(*Total Assets*) is large and has the highest *t*-statistic of all independent variables. In Supplementary Appendix §A6, we report additional tests to ensure that the positive correlation between size and PCI does not drive our results. First, we repeat our regression analysis in Table 3 on litigation propensity after excluding the largest firms, defined as above the median size of New York Stock Exchange firms. Second, we add squared firm size to the set of controls. In both cases, we continue to find that PCI has a significant influence on the propensity of lawsuits in value-relevant domains.

In Table 4, we reestimate litigation regressions with the three individual components of PCI by replacing them with *MGRREP* (panel A), *PACREP* (panel B), and *STATEREP* (panel C). In Supplementary Appendix §A3, we show that PCI is strongly correlated at the 1% level with *MGRREP* (0.637), *STATEREP* (0.606), and, to a slightly lesser extent, *PACREP* (0.421). Therefore, it is not surprising that the analysis yields similar results, which suggests that the political beliefs of managers, other employees, shareholders, and stakeholders play a role in corporate misconduct. We find that *MGRREP* has a statistically

significant effect on each type of litigation with the hypothesized sign. The effect of *PACREP* is significant for all litigation types except intellectual property. *STATEREP* is also significant in all regressions other than the environmental specification. We do not use all three individual components at once because their high pairwise correlations would obscure the interpretation of estimated coefficients.

Taken together, the evidence in Table 4 suggests that decision makers at different levels in the corporate hierarchy exhibit consistent preferences and refrain from misconduct in the political value-relevant domains. These findings support our conjecture that firms with a Democratic culture are more likely to be sued for securities-related fraud or intellectual property right violations, whereas firms with Republican cultures are more likely to be sued for violations related to environmental issues, civil rights concerns, or labor regulations.

#### 4.4. Robustness Checks

In this section, we examine the robustness of our baseline results and show that various alternative explanations cannot fully explain our findings.

**4.4.1. Additional Controls.** One alternative explanation for our findings is that our results are driven by a factor that is correlated with political culture but is omitted from our analysis (i.e., the



omitted variable problem). For example, higher religiosity in states that support the Republican Party may affect our results. In communities where religion is an important component of local culture, ethical norms are likely to be influenced by religious beliefs, which may discourage corporate wrongdoing (Grullon et al. 2010, McGuire et al. 2012, Liu 2013). Although geographical variation in religiosity is unlikely to generate the observed variability in the likelihood of different types of wrongdoing, we formally examine its effect. Following Hilary and Hui (2009), *Religiosity* is defined as the number of religious adherents in a county (from the American Religion Data Archive) divided by the total county population. We assign the county-level religiosity measure to all firms headquartered in that county.

Another potential concern is that we do not sufficiently control for managerial incentives and opportunities to commit misconduct. For example, managers may manipulate stock prices either at options grant or vesting date to capitalize their gains in stock options (Burns and Kedia 2006, Peng and Roell 2008). To account for the effects of option incentives, we control for the option holdings of top managers. Differences in firm governance may also affect the propensity of financial fraud. Fich and Shivdasani (2007) find a significantly higher G-index for fraudulent firms, indicating weaker governance (Gompers et al. 2003). Moreover, Bhagat et al. (2008) find that the director ownership is a good measure of governance. We use the G-index and the median director ownership as additional variables in our regressions. Since the governance index is available at biannual frequency and director ownership is available from RiskMetrics for a subsample of firms, the sample size in these robustness tests shrinks.

We present the results from our robustness tests in panel A of Table 5. The estimates from these specifications show that the coefficient estimates of PCI remain significant in all but environmental litigation regression with the correct signs. Among the additional control variables, however, we find that the G-index and local religiosity have no or little effect on all corporate wrongdoing. However, director ownership has a surprisingly positive and significant coefficient in civil rights, environmental, and securities litigation possibly because of litigation-prone firms taking steps to strengthen governance mechanisms. Moreover, option holdings of executives have a significantly negative effect on civil rights, labor, and

 $^{15}$  Grullon et al. (2010) report that religiosity discourages financial violations, including class action securities litigation. We examine the effect of religiosity on a subset of class action securities litigation in our sample in unreported results and find that local religiosity has a statistically significant negative effect on these types of offenses (t-statistic = -2.3).

environmental litigation but a positive effect on securities litigation. When we exclude director ownership from the regression and retain the G-index, religiosity, and option holdings in addition to standard controls, which increases the sample size considerably, the coefficient on the PCI is significant in all regressions. In summary, our results remain similar to the baseline when we use alternative measures of governance such as CEO duality, board size, or proportion of independent directors.

**4.4.2. Subsample of Financial Firms.** So far, we have excluded financial firms from our analyses because they represent a regulated industry that may have a unique set of firm policies and outcomes. In Supplementary Appendix §A7, we examine whether PCI affects litigation in financial firms. Our analysis is limited in scope because financial firms do not engage in environmental infractions, and their labor and intellectual property litigation instances are sparse. Thus, we restrict our analyses to civil rights and securities litigation.

Although we find that the coefficient estimates for the financial firms subsample have the same signs as the full-sample estimates, only the coefficient estimate in the civil rights litigation regression is statistically significant. One possible explanation for the insignificant coefficient in the securities litigation regression is that securities litigation is a highly sensitive issue for financial firms' core line of business. Thus, both types of firms are likely to strive to lower the probability of securities litigation regardless of the firm culture, which leaves little room for political values to play a role in such firm decisions. In other words, the weak influence of firm culture on securities litigation for financial firms may be attributed to the unique business nature of the financial industry.

4.4.3. Alternative Measures of Wrongdoing. Motivated by related studies in the literature (e.g., Fich and Shivdasani 2007, Peng and Roell 2008, Murphy et al. 2009), our empirical analyses are based on the assumption that litigation is a good proxy of wrongdoing. However, this approach may be subject to the potential criticism that not all litigation represents wrongdoing and in many cases either the defendant is cleared or the case is dismissed. Even settlements may be a result of frivolous litigation.

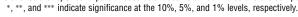
Distinguishing between frivolous and valid litigation cases is a difficult task (e.g., Avery 1996, Grundfest and Perino 1997). According to Arthur Levitt, a former chair of the SEC, it is "difficult to measure how prevalent strike suits are, or even to determine whether the problem is any more serious today than it was ten or twenty years ago" (cited in Avery 1996, p. 340). The issue of frivolous litigation has been debated extensively. On one hand, highprofile tort cases involving personal injury or product



Table 5 Litigation Propensity Regression Estimates from Various Robustness Tests

Independent variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All
	Pa	anel A: Litigation propensi	ty regression estimates u	sing additional control var	iables	
PCI	0.098*** (0.036)	0.055*** (0.007)	0.002 (0.002)	-0.049** (-0.003)	-0.080***(-0.018)	0.053*** (0.021)
Religiosity	(5.8) 0.094 (0.034)	(2.7) -0.577** (-0.077)	(0.1) -0.831** (-0.010)	(-2.3) 0.122 (0.008)	(-4.1)	(3.3) -0.204 (-0.080)
neligiosity	0.094 (0.034) (0.5)	(-2.1)	$-0.031^{-6}$ ( $-0.010$ ) ( $-2.3$ )	(0.5)	-0.371 (-0.081) (-1.6)	-0.204 (-0.080) (-1.1)
G-Index	0.013 (0.005)	0.011 (0.001)	0.016 (0.001)	-0.004 (-0.000)	0.010 (0.002)	0.018* (0.007)
Diractor Ownership	(1.4) 3.259*** (1.183)	(0.9) 0.330 (0.044)	(0.9) 1.671*** (0.035)	(-0.3) 3.049*** (0.193)	(1.0)	(2.0) 3.991*** (1.575)
Director Ownership	(14.7)	(1.3)	(2.7)	(4.2)	-0.219 (-0.048) (-1.0)	(18.41)
Option Holdings	-0.123** (-0.045)	-0.182** (-0.024)	-0.232 (-0.010)	0.151** (0.010)	-0.073 ( $-0.016$ )	-0.109** (-0.043)
M (abaaryatiana)	(-2.2)	(-2.4)	(-1.4)	(2.4)	(-1.3)	(-2.2)
V (observations) Pseudo <i>R</i> 2	8,877 0.241	7,847 0.205	8,877 0.265	8,877 0.096	7,847 0.137	8,877 0.232
				when defendant loses or s		0.202
PCI	0.062*** (0.017)	0.036** (0.003)	0.071*** (0.001)	-0.077*** (-0.001)	-0.007 (-0.001)	0.044*** (0.014)
0.	(4.7)	(2.1)	(2.9)	(-2.8)	(-0.5)	(3.5)
V (observations)	18,530	15,570	18,530	18,530	15,570	18,530
Pseudo R <sup>2</sup>	0.214	0.184	0.249	0.061	0.118	0.205
		•	number of litigation even	•		
PCI	0.027***	0.007**	0.001	-0.004**	-0.006*	0.023***
V (observations)	(3.8) 18,530	(2.5) 15,570	(1.2) 18,530	(-2.4) 18,530	(-1.8) 15,570	(3.1) 18,530
2 <sup>2</sup>	0.374	0.169	0.097	0.021	0.142	0.391
				sing PCI without look-ahea		
PCI prior	0.085*** (0.030)	0.059*** (0.007)	0.061*** (0.001)	-0.031* (-0.002)	-0.041** (-0.008)	0.058*** (0.023)
opo.	(6.2)	(3.5)	(2.6)	(-1.9)	(-2.6)	(4.6)
(observations)	18,530	15,570	18,530	18,530	15,570	18,530
seudo R <sup>2</sup>	0.226	0.208	0.271	0.062	0.129	0.211
	I	Panel E: Litigation propen	sity regression estimates	using CEO political orienta		
CEOREP	0.062* (0.022)	0.065* (0.008)	0.036 (0.001)	-0.111*** (-0.007)	-0.118*** (-0.023)	0.011 (0.004)
V (observations)	(1.8) 18,682	(1.7) 15,696	(0.7) 18,682	(-3.0) 18,682	(-3.2) 15,696	(0.3) 18,682
seudo R <sup>2</sup>	0.220	0.203	0.266	0.065	0.128	0.206
				ing directors' political orie		
BOARDREP	0.079** (0.031)	0.078* (0.012)	0.044 (0.001)	-0.143*** (-0.009)	-0.097** (-0.022)	0.117 (0.007)
	(2.2)	(1.7)	(0.6)	(-3.3)	(-2.4)	(0.5)
V (observations)	9,780	8,925	9,780	9,780	8,925	9,780
Pseudo R <sup>2</sup>	0.219	0.196	0.260	0.089	0.138	0.216
	•		•	on supported candidates w		
PClcand	0.091*** (0.033)	0.061*** (0.007)	0.046** (0.001)	-0.041** (-0.003)	-0.050*** (-0.010)	0.063*** (0.025)
V (observations)	(6.4) 18,530	(3.6) 15,570	(2.0) 18,530	(-2.5) 18,530	(-3.1) 15,570	(4.7) 18,530
Pseudo R <sup>2</sup>	0.226	0.208	0.270	0.063	0.129	0.211
David					and date of the second second	and bin
	el H: Litigation propensity r	•		• • • • • • • • • • • • • • • • • • • •		
MGRREPcand	0.181** (0.065) (2.4)	0.077 (0.009) (0.7)	0.211* (0.005) (1.7)	-0.127 (-0.009) (-1.4)	-0.263*** (-0.050) (-2.9)	0.155** (0.060) (2.1)
V (observations)	18,682	15,696	18,682	18,682	15,696	18,682
Pseudo R <sup>2</sup>	0.220	0.202	0.267	0.063	0.127	0.206
D	anel I: Litigation propensity	rearession estimates usi	na PAC nolitical orientatio	in hased on supported car	ndidates without look-abea	d hias
PACREPcand	0.321*** (0.114)	0.319*** (0.037)	0.173* (0.004)	-0.186** (-0.012)	-0.037  (-0.007)	
HUNEFUAIIU	(4.4)	(3.7)	(1.8)	(-2.3)	-0.037  (-0.007) (-0.5)	0.251*** (0.098) (3.5)
V (observations)	18,682	15,696	18,682	18,682	15,696	18,682
Pseudo R <sup>2</sup>	0.222	0.206	0.267	0.064	0.126	0.207

Notes. This table reports the estimates from probit and ordinary least squares models in which one of the measures of litigation propensity is the dependent variable. Panel A reports the effect of PCI on litigation propensity using additional control variables. Religiosity is the number of religious adherents in the county of the firm's headquarters divided by the total county population. G-Index is the governance index based on Gompers et al. (2003). Director Ownership is median director ownership based on Bhagat et al. (2008). Option Holdings is the sum of unvested and vested stock options previously granted to the top five managers and divided by shares outstanding. Panel B reports the effect of PCI on the annual log-transformed number of litigation events. Panel D reports the effect of PCI on litigation propensity, where the PCI measure is without a look-ahead bias (PCI\_prior). PCI\_prior is constructed using only the past political contributions of MGRREP, PACREP, and STATEREP. Panel E reports the effect of CEOREP on litigation propensity, where CEOREP represents the political contributions of the firm's CEO and is measured as relative contributions to the Republican Party. Panel F reports the effect of BOARDREP on litigation propensity, where BOARDREP represents the political contributions of the firm's directors and is measured as relative contributions to the Republican Party. Panels G-I respectively report the effect of PCI measured based on the relative number of candidates supported by the firm (PCIcand), the top five managers (MGRREPcand), and the firm PACs (PACREPcand) in the most recent election cycle. All regressions include the set of standard control variables and the year fixed effects, as in Table 3. The control variables include logarithmic Total Assets, Operating Margin, Leverage, Market-to-Book, Stock Return, Managerial Ownership, and industry litigation activity. All control variables are lagged by one year. Marginal effects are reported in parentheses next to the estimates. The z-statisti





liability create an impression that frivolous litigation is rampant. Similar reasoning was used to facilitate antitrust and securities litigation reforms. But on the other hand, surveys of judges indicate that only a small percentage of tort cases appear to be frivolous (Lyon et al. 2007).

Moreover, filing a lawsuit with little merit is costly. Thus, both the plaintiff and the plaintiff's attorney have to be convinced that the case is strong enough to have a reasonable chance of winning or settling before they commit substantial financial resources, time, and reputational capital. Therefore, it is reasonable to assume that a litigation filing is strongly correlated with the propensity of wrongdoing or, at the very least, with the defendant's unethical behavior.

Nevertheless, to address the concern about frivolous litigation, we redefine our binary litigation variable using only lawsuits in which firms were subsequently convicted of wrongdoing (i.e., lost) or agreed to settle. Specifically, the binary litigation variable is set to 1 in firm-years with at least one litigation filing that is subsequently lost or settled and to 0 otherwise. The downside of this definition is that it excludes lawsuits that settled after the dismissal. We present the output from regressions using a lost or settled litigation dummy in Table 5, panel B. These results support our prior findings in all but the intellectual property regression, for which we find a negative but statistically insignificant coefficient.

The second concern about using a binary litigation variable as a proxy for wrongdoing is that it ignores the information conveyed by the litigation intensity. The number of lawsuits filed in a given firm-year may capture the frequency of misconduct or more egregious wrongdoing. To address this concern, in panel C of Table 5, we alter our core specifications and replace the binary variable measuring litigation propensity with the logarithm of the number of lawsuits filed in that year, defined as log(1 + number of litigation events).

Consistent with our prior findings, we observe that the volume of civil rights and labor litigation is higher for Republican firms, whereas the volume of securities and intellectual property litigation is higher for

<sup>16</sup> We consider other ways of measuring litigation that are more representative of fraud, such as monetary penalties. However, monetary penalties are reported reliably only for lost litigation, which is around 3% of all lawsuit filings and varies only slightly in cross section, depending on the lawsuit type. Further, defendants are not required to disclose settlement amounts. Even in lost litigation, monetary penalties are not assigned in all cases. For example, in securities litigation only about 30% of lost lawsuits have monetary penalties, as judges do not like to penalize already aggrieved shareholders. In intellectual property lawsuits, monetary penalties may be less important than injunctive relief. Similarly, in environmental lawsuits, injunctions and cleanup expenses may substitute for monetary penalties.

Democratic firms. There is no significant difference in the number of environmental lawsuits, although the coefficient remains positive. Overall, these results show that our findings are robust to alternative definitions of the litigation variable. This evidence is consistent with our hypotheses that the political culture of a firm is associated with the severity or frequency of misconduct in value-relevant domains.

**4.4.4. Look-ahead Bias.** Previously, to reduce the noise from opportunistic donations, we define our *MGRREP* measure using political contributions from the full-sample period. This approach, while capturing the stable feature of culture and personal values, introduces a look-ahead bias in our analysis. In panel D of Table 5, we address this potential concern by reestimating our baseline regression using *PCI\_prior*, which is constructed using only contributions of CEOs and other top managers up to the most recent election cycle. The results with this alternative measure of political culture are qualitatively similar to our baseline results.

# **4.4.5. CEO and Director Political Contributions.** Our *MGRREP* measure combines political contributions of the CEO with those of other top managers. Although the political preferences of the CEO often get weighted more heavily in our aggregation scheme, the measure is not able to isolate the impact of the political views of the CEO on corporate misconduct. In panel E of Table 5, we reestimate our baseline regression using *CEOREP*, which is constructed using only contributions of CEOs. These results are similar to those in our baseline specifications, but *CEOREP* has a weaker statistical significance in civil rights and

labor litigation regressions and no significance in the

environmental litigation regression.

In addition to the CEO political contributions, we collect political contributions of firm directors. The information about directors is collected from Risk-Metrics, available starting from 1996, and matched to the FEC contribution data. We are able to identify contributions of directors, representing 1,492 firms. We reconstruct PCI using this additional dimension of firm culture and examine its effect on litigation propensity. These results, reported in Table 5, panel F, remain qualitatively similar to the baseline estimates. In unreported analyses, we rerun these regressions using contributions of nonemployee directors to avoid double counting contributions of the firm's top managers, who may serve as directors; the results remain similar. These findings strengthen our broader conjecture that the cultural attributes of other employees, shareholders, and stakeholders are important determinants of the propensity of misconduct.



4.4.6. Alternative Measures of Political Culture.

Previous studies have suggested that measures of political values based on the dollar value of contributions are less effective than those based on other candidate count-based measures (e.g., Cooper et al. 2010). This may be a more relevant concern in studies of political connections, but we nevertheless examine whether our findings hold for the candidate count-based measures. We recompute *MGRREP* and *PACREP* based on the relative number of candidates supported in each party by top managers and firm PACs during the most recent political cycle that contains the start of the current fiscal year. Thus, unlike with our dollar-based *MGRREP* measure, the candidate-based *MGRREP* measure is not subject to the look-ahead bias.

More specifically, we compute MGRREPcand as the number of Republican candidates minus the number of Democratic candidates supported by a manager, divided by the total of the two. The PAC-based measure, PACREPcand, is defined analogously. We continue to use the dollar-based measure of state residents' political leaning, as nearly all candidates from both parties receive some donations from residents of the state. We construct the new PCI (denoted as PCIcand) based on the annual tercile ranks of each of the three elements. In untabulated analyses, we find that the dollar- and candidate-based PCIs are strongly correlated (0.804), and so are the two measures of PAC contributions (0.902) and the measures of managers' contributions (0.361). All three correlation coefficients are significant at the 1% level.

By replacing PCI with *PCIcand*, our regression results (reported in Table 5, panel G) show patterns similar to the baseline regression: PCI has a significant influence on litigation propensity in value-relevant domains. In panels H and I, we use the two components of *PCIcand—MGRREPcand* and *PACREPcand—* and once again obtain results similar to our baseline. This evidence confirms that our dollar-based measures of political values are robust to alternative specifications and further alleviates potential concerns about the look-ahead bias.

4.4.7. Instrumental Variables Regression Estimates. Since our political culture variable is based on contributions, a valid concern is that political contributions are endogenously determined by the firm's likelihood of certain violations. Although political contributions of individuals in the locality do not suffer from this potential endogeneity concern, firms and their employees may strategically donate to the party or politicians that are more sympathetic to a certain type of wrongdoing or who can influence regulatory changes that are likely to benefit the firm. For example, firms with a high risk of environmental litigation may begin contributing to the Republican Party in an

effort to alleviate the penalties or proactively relax environmental laws.

We address the issue of reverse causality using an instrumental variables estimation framework. This method allows us to better establish the causal relationship between political culture of the firm and its propensity for certain types of wrongdoing. An ideal instrument would be a strong predictor of the firm's political values but would not directly influence a firm's propensity to engage in certain types of wrongdoing. Thus, we choose two local demographic variables that are observed years before any lawsuit and that are correlated with local political values but are unlikely to affect firm actions directly.

Our first instrumental variable is the proportion of local population with a bachelor's degree as reported in the census of 1990. Since this instrument precedes the start of our sample collection, it further alleviates the concern of reverse causality. The rationale for choosing this instrument for our analysis is that individuals with higher levels of education are more likely to identify with Democratic political values (Dixit 2007). Thus, the local education measure is likely to be correlated with local political culture, but there is no obvious expectation between local education level and differential corporate wrongdoing across different domains.<sup>17</sup>

The estimates from the first-stage regressions that predict PCI are reported in panel A of Table 6. The evidence demonstrates that local education is very strongly correlated with firm-level PCI. Moreover, our instrument is strong, based on the first-stage untabulated Cragg–Donald Wald F-statistics that exceed the 10% critical value of 16.4 and range from 3,687.5 to 4,157.6. We predict PCI individually in all five models since each one uses a measure of industry-based litigation volume of that particular type of litigation. We then use these instrumented values of PCI (i.e., Predicted PCI) as independent variables in our secondstage regressions. The second-stage regression results are reported in Table 6, panel B. We find that all coefficient estimates of *Predicted PCI* have the same signs as the original PCI coefficient estimates and remain statistically significant at the 5% level or better. This evidence suggests that our results are unlikely to be driven by opportunistic political contributions and are more likely to reflect the ethical norms that are correlated with core political values.

Our second instrumental variable is the proportion of gun owners in the home state, because gun owners



<sup>&</sup>lt;sup>17</sup> However, the education instrument is likely to violate the monotonicity condition in that the most educated and the least educated individuals are likely to identify with the Democrats. To mitigate this concern, we repeat all our analyses by adding a squared education term. The results remain virtually unchanged.

Table 6 Instrumental Variables Regression Estimates

Independent variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All
		Panel A: First-stage re	gression estimates (D	Dependent variable: <i>PCI</i> )		
% Population with a Bachelor's Degree	-15.961*** (-64.1)	-16.397*** (-63.3)	-15.938*** (-64.3)	-15.996*** (-64.5)	-16.481*** (-63.8)	-15.975*** (-64.1)
	Panel B:	Second-stage regressi	on estimates (Depen	dent variable: Litigation	dummy)	
Predicted PCI	0.252*** (0.089) (6.7)	0.181*** (0.021) (4.0)	0.153** (0.004) (2.3)	-0.136*** (-0.009) (-3.5)	$-0.093^{**} (-0.018) \ (-2.4)$	0.168*** (0.065) (4.9)
N (observations) Pseudo R <sup>2</sup>	18,530 0.229	15,570 0.209	18,530 0.272	18,530 0.065	15,570 0.129	18,530 0.212
rseudo n-				0.065 Dependent variable: <i>PCI</i> )	0.129	0.212
% Gun Ownership	3.729*** (61.2)	3.834*** (60.5)	3.718** (61.1)	3.727*** (61.6)	3.847*** (61.0)	3.732*** (61.3)
	Panel D:	Second-stage regress	ion estimates (Depen	dent variable: Litigation	dummy)	
Predicted PCI	0.251*** (0.089) (6.5)	0.182*** (0.021) (4.2)	0.141** (0.003) (2.3)	-0.161** (-0.011) (-3.9)	-0.106*** (-0.020) (-2.6)	0.156*** (0.061) (4.4)
N (observations) Pseudo R <sup>2</sup>	18,448 0.229	15,501 0.210	18,448 0.272	18,448 0.065	15,501 0.129	18,448 0.211

Notes. Panels A and B report results from regressions where PCI is instrumented with proportion of home-state residents with a bachelor's degree. In panels C and D, PCI is instrumented with proportion of home-state residents owning guns. The dependent variables in panels B and D are binary variables equal to 1 if fiscal year contains one or more litigation filings related to civil rights, labor, environmental, securities, intellectual property violations, or all types of litigation. The key political values variable PCI at the firm level is the sum of annual tercile rankings of MGRREP, PACREP, and STATEREP. All regressions include the set of standard control variables and the year fixed effects as in Table 3. The control variables include Total Assets, Operating Margin, Leverage, Market-to-Book, Stock Return, Managerial Ownership, and industry litigation activity. All control variables are lagged by one year. Marginal effects are reported in parentheses next to the estimates. Annual fixed effects are included in all models. The z-statistics are computed using standard errors corrected for clustering of observations by firm and are reported in parentheses below the estimates.

\*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively.

likely hold Republican values. We obtained state-level estimates of the percentage of gun ownership from the National Study of Private Ownership of Firearms in the United States conducted in 1994, which is at the beginning of our sample period. The results are reported in panel C of Table 6. We find that the percentage of gun ownership is a strong instrument that has a positive coefficient in the first stage with an average t-statistic of about 61. Moreover, the untabulated first-stage Cragg–Donald Wald F-statistics vary from 3,308.3 to 3,799.4 and exceed the critical value at 10% of 16.4. The predicted values of PCI from the first stage are used in panel D to predict the litigation propensity. We find that the coefficient estimates of predicted PCI are significant and similar to those instrumented with education. In unreported analyses we examine alternative gun ownership measures based on the number of gun dealers rather than owners recorded in 1994 and gun ownership estimates from another phone survey in 2001; the results are similar. Moreover, in Supplementary Appendix §A8, we report mostly consistent results based on statelevel union membership. This evidence further supports our key conjecture, which posits that ethical norms correlated with core political values influence corporate misbehavior.

In second-stage regressions, the estimated coefficients on the predicted PCI are two- to threefold the

estimates in the baseline regressions in Table 3. This is commonly observed in corporate finance papers when the instrumental variables approach is used. There are at least two possible explanations. First, as the first-stage R-squares are less than 100%, the instrumental variable only explains partial variation in PCI, which results in compressed dispersion of predicted PCI (standard deviation (SD) is 0.574 using education and 0.547 using gun ownership) relative to the original dispersion of PCI (SD = 1.291). Specifically, one standard deviation of PCI is equal in size to 2.25 standard deviations in predicted PCI. This evidence implies that the economic impact of PCI is close to that of the predicted PCI if we consider an equal size change in PCI and predicted PCI. Second, the average education level or percentage of gun ownership may be correlated with other unobservable dimensions of culture not captured by the control variables. As a result, the second-stage estimates reveal the effects of both political and nonpolitical dimensions of culture on litigation propensity.

Another possible concern about endogeneity is that an omitted variable—namely, the unobservable nature of a firm's operating environment—may determine both the type of managers and employees hired and the firm's propensity for certain legal and ethical violations. In other words, our result may be explained by the firm-manager or firm-low-level-employee matching rather than the active impact of



managers and employees on the ethical climate of the firm. Although this channel may, in part, explain the effect of managers' political values, it is hard to argue that the firm's political culture as measured by the local residents' political values is a result of such matching, unless a firm's employees dominate the population of the headquarters county. Thus, our instrumental variables regression results cast doubt on this alternative explanation based on firm–manager or firm–employee matching.

4.4.8. Further Robustness Checks. We conduct additional tests to further ensure the robustness of our main findings. To preserve space we do not report these results. First, we examine whether certain state characteristics can influence the propensity of litigation filings, making it a poor proxy for corporate misconduct. This is unlikely since federal district courts are guided by the Constitution and the laws passed by the Congress. Nevertheless, we control for the frequency of litigation activity in the firm's state for each type of litigation. This variable has little effect on our results, and all coefficients of PCI remain statistically significant.

Second, we examine the effects of PSLRA and SOX on security violations. The former was enacted over President Clinton's veto to discourage frivolous securities class action lawsuits. SOX subsequently relaxed the statute of limitations applied to class action lawsuits and offered greater protection for whistleblowers. We construct a dummy variable that equals 1 for all years between 1995 and 2002, thus identifying the period limiting securities litigation. Alternatively, we create two separate variables for the supposed shift in litigation propensity caused by both pieces of legislation. In unreported results, we find that the use of these additional controls does not significantly affect our results.

Finally, we examine the channel through which firm political culture influences (mis)conduct. Specifically, in Supplementary Appendix §A9, we study whether the political values affect litigation propensity through the governance channel. We test whether our findings are stronger among firms with insufficient governance mechanisms. We partition the sample into strong and weak governance groups based on the median annual director ownership as a measure of governance (Bhagat et al. 2008) and find a somewhat stronger effect of political culture on litigation in firms with weaker governance. In untabulated analyses we also use CEO duality as a measure of weak governance (Bhagat et al. 2008) and find that in firms with CEO duality our main findings are stronger for labor, securities, and intellectual property regressions. However, we do not find evidence of the governance effect if we split the sample based on other measures of governance, such as the percentage of independent directors and board size (Yermack 1996) or local institutional ownership (Chhaochharia et al. 2012). Taken together, we find some evidence based on CEO duality and director ownership that suggests that strong governance mitigates the influence of firm culture on litigation.

We also investigate in Supplementary Appendix §A9 whether CEOs' legal expertise plays a role, much like strong corporate governance. If CEOs have a clear understanding of the firm's legal responsibilities and consequences, firm culture may be less important than other internal control mechanisms these CEOs may institute. Specifically, we split the sample based on CEOs' legal expertise (i.e., a J.D. degree). We handcollect data on education from CEO biographies available through several comprehensive databases such as LexisNexis or other online sources. We find that the relationship between political culture and litigation is strong in the sample of firms having CEOs without legal expertise and less important in the sample of CEOs who hold J.D. degrees. This evidence suggests that when CEOs cannot interpret or are less familiar with the law or government regulations, corporate culture exhibits a significant impact on litigation propensity.

# 5. Stock Market Reaction to Litigation Events

Our results so far indicate that firms resolve ethical and legal dilemmas using ethical norms and values reflected in their political culture. One important alternative explanation for our findings is that the differences in litigation propensity between Republican and Democratic firms are not driven by culture and value but by differences in expected litigation costs for lawsuits in different domains. To address this potential concern, we study whether market reactions to litigation filings exhibit a systematic pattern across PCI in a manner consistent with the observed litigation propensity.

This analysis is based on the premise that market reaction to litigation filings is an unbiased estimate of the expected litigation costs. If the market on average reacts more negatively to litigation filings related to violations in civil rights, labor, and environmental regulations for Democratic firms than for Republican firms, one can explain why Democratic firms are more careful in dealing with these cases ex ante to minimize future litigation. Similarly, if the market on average reacts more negatively to litigation filings in securities or intellectual property violations for Republican firms, one can expect Republican firms to be less likely to engage in risky behaviors in these domains. If such patterns in market reactions are absent, however, we can conclude more confidently that our findings of different litigation propensities between Republican and Democratic firms across different domains are due to culture-driven rather than economic benefit-driven firm decisions.



To study the abnormal returns around litigation filings, we use the individual lawsuit data. In cases where several same-type lawsuits are filed on the same day, we randomly retain only one lawsuit to avoid overweighting days with clustered lawsuits. The abnormal returns are measured by the cumulative abnormal returns (CAR) and by the standardized cumulative abnormal returns (SCAR), following Dodd and Warner (1983) and Brown and Warner (1985), during the three-day period around the lawsuit date, starting at one day before the filing date. We use three alternatives for both CAR and SCAR: one is computed using the market model and the other two using standard Fama-French three- and four-factor models (i.e., FF3F and FF4F). The factor loadings for the Fama-French models are estimated using 17 or more daily observations in the month preceding the event month. This short estimation window helps to obtain more accurate factor loadings for the event window if firm risk exposures change around litigation filings.

The average CAR and SCAR announcement returns for each type of litigation and statistical significance levels are reported in panel A of Table 7. The mean CAR(-1, 1) across all litigation events varies from -0.066% to -0.110% across all three models, all significant at the 1% level. Across various types of lawsuit filings, we find that the market reaction around security violations is most significant and negative (between -0.614% and -0.770%), followed by intellectual property rights violations (between -0.125% and -0.134%) and labor-related violations (between -0.083% and -0.178%), and civil rights violations (between -0.006%and -0.044%). The filing market reaction to environmental lawsuits is positive but statistically insignificant, which is consistent with the evidence in Karpoff et al. (2005). 18 The standardized returns are less negative and range from -0.007% to -0.011% for all lawsuit types. At the individual litigation-type level, the reaction is negative and statistically significant only for securities litigation.

The relative magnitudes of market reaction around litigation events are consistent with previous evidence, which shows that securities-related litigations are associated with the largest market penalty. Our estimates of market reaction are on average less negative than those reported in other studies because we use a large sample of events, which includes less impactful lawsuits with less media coverage or that are part of a class action lawsuit. For example, many other litigation studies obtain data from the *Wall Street Journal* articles or the Stanford Securities Class Action Clearinghouse database, which contains only more egregious

and well-publicized violations typically associated with more negative announcement reactions.

To examine the economic impact of such lack of publicity, we conduct further analyses detailed in Supplementary Appendix §A10. For a randomly selected subsample of approximately 3,000 lawsuits, we search LexisNexis during the two weeks before the lawsuit filing for articles that contain the name of the corporate defendant as well as the strings "filed" and "suit," "lawsuit," or "litigation." We also verify other attributes of the lawsuit such as the lawsuit type and identity of the plaintiff or damages sought when possible. This allows us to record any mention of upcoming litigation and wrongdoing that led to it in top newspapers, local newspapers, trade journals, or newswires. Although the search covers a wide window, we find that litigation filings are usually announced in the press on day one, the day right after the litigation filing day. Among this subsample of lawsuits, only 7.1% received media coverage prior to the lawsuit. In this subsample, there is no media-induced information leakage because the abnormal three-day reactions to the filing of lawsuits with prior media coverage are similar to the returns of lawsuits without media coverage.<sup>19</sup>

Next, in Table 7, panel B, we investigate the effect of PCI on FF4F SCAR(-1, 1) using the same set of control variables as those used in the litigation regressions. In addition to these variables, we control for the severity of the lawsuit using the ex post and observed lawsuit cost and penalties. The lawsuit procedural costs are proxied by lawsuit length measured by the number of years from lawsuit filing to its termination. The lawsuit penalty is proxied by a binary indicator of whether the lawsuit is subsequently settled or lost. If differential propensity of litigation is driven by differential expected cost of litigation, measured by market reaction, in different domains, the coefficient estimates of PCI would be positive for civil rights, labor, and environmental lawsuits but negative for security and intellectual property rights lawsuits.

Our results indicate that PCI has a negative and statistically significant coefficient estimate in environmental (-0.028, t = -1.6) and securities (-0.034, t = -1.7) litigation regressions but a statistically insignificant coefficient estimate in the other types of litigation regressions (civil rights, labor, and intellectual property rights). We report similar results based on the nonstandardized CAR in Supplementary Appendix §A11. These findings suggest that the expected, but unobserved, litigation costs are higher for Republican culture firms only



<sup>&</sup>lt;sup>18</sup> We examine the abnormal returns for persistence over the window from 1 day before the filing to 10 days after the filing and do not find any evidence of recovery. In fact, returns continue to decline slightly over this time period.

<sup>&</sup>lt;sup>19</sup> To confirm this, we also estimate regressions of abnormal returns and use the media coverage indicator as one of the controls. Although the coefficient of media coverage has a negative sign in all three regressions, it is not statistically significant, which indicates that firm and lawsuit characteristics that can affect media coverage sufficiently control for the effect of early information release.

Table 7 Market Reaction to Litigation Events

Panel A: $CAR(-1, 1)$ and $SCAR*(-1, 1)$ mean returns							
Variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All litigation	
MM CAR (-1, 1)	-0.006% (-0.3)	-0.083% (-1.3)	0.012% (0.1)	-0.642%*** (-4.2)	-0.134%* (-1.9)	-0.066%*** (-3.2)	
FF3F CAR (-1, 1)	_0.044%* (_1.9)	-0.178%** (-2.5)	0.021% (0.2)	_0.770%*** (_5.3)	-0.133%* (-1.7)	_0.110%*** (_5.0)	
FF4F CAR (-1, 1)		_0.168%** (_2.2)	0.011% (0.1)	_0.614%*** (_3.9)			
MM SCAR (-1, 1)	_0.001% (_0.2)	_0.003% (_0.2)	0.035%* (1.8)	_0.107%*** (_5.8)	_0.004% (_0.4)		
FF3F SCAR (-1, 1)	_0.005% (_1.2)	_0.014% (_1.2)	0.026% (1.3)	_0.106%*** (_5.5)	_0.004% (_0.4)		
FF4F SCAR (-1, 1)	-0.001% (-0.3)	-0.012% (-1.0)	0.023% (1.1)	-0.090%*** (-4.7)	-0.003% (-0.3)	-0.007%** (-2.1)	

Panel B: FF4F SCAR(-1, 1) regression estimates

Independent variable	Civil rights	Labor	Environmental	Securities	Intellectual property	All litigation
PCI	-0.003	-0.001	-0.028*	-0.034*	-0.003	-0.005*
	(-0.8)	(-0.2)	(-1.6)	(-1.7)	(-0.3)	(-1.6)
Lawsuit Length	-0.005	-0.022	-0.005	-0.015	-0.006	-0.012***
	(-0.9)	(-1.3)	(-0.5)	(-1.0)	(-0.9)	(-2.7)
Lost/Settled Lawsuit	0.009	-0.019	-0.012	-0.065	-0.0448*	0.000
	(1.0)	(-0.7)	(-0.2)	(-1.0)	(-1.9)	(0.0)
Controls	YES	YES	YES	YES	YES	YES
N (observations)	25,376	2,473	833	2,365	3,271	34,318
$R^2$	0.001	0.010	0.030	0.031	0.008	0.002

Notes. Panel A reports the cumulative abnormal returns CAR(-1,1) and SCAR(-1,1) computed using the market model (MM) and FF3F and FF4F models around litigation fillings. Panel B reports estimates from ordinary least squares regressions in which FF4F SCAR(-1,1) is the dependent variable. The key political values variable PCI is the sum of annual tercile rankings of MGRREP, PACREP, and PACREP, and PACREP is the number of years from lawsuit filling to its termination. PCI PCI

in environmental and securities litigation.<sup>20</sup> In other words, we do not observe a more negative market reaction to intellectual property rights litigation filings for Republican firms, nor do we observe a more negative market reaction to civil rights, labor, and environmental litigation filings for Democratic firms. These patterns are inconsistent with the alternative explanation that it is the expected litigation costs that drive the different litigation propensities in different domains between Republican and Democratic firms. This finding, in turn, supports our hypothesis that observed differences in litigation propensity are culture driven, not cost driven.

A possible alternative interpretation of the market reaction regression results is that the market may have held mistaken beliefs by expecting the managers of Republican firms to be more ethical than Democratic managers in decisions related to environmental and securities matters, holding firm characteristics and litigation severity constant. Thus, the market is more negatively surprised following a litigation announcement related to a Republican firm. Such an interpretation, however, is built on the premise that stock market participants do not fully recognize the observed differences in the link between political culture and the propensity of wrongdoing in various political value-relevant domains.

#### 6. Summary and Conclusion

This paper examines whether the political culture of a firm can be used to identify its ethical boundaries and explain the tendency of corporate wrongdoing in value-relevant domains. Our key innovation is to use the political environment within a firm and its locality to identify the culture-determined ethical boundaries of a firm. Specifically, we define a measure of political culture that is based on the political contributions of individuals within a firm and its locality to capture one observable dimension of the broad firm culture.

Using this measure of political culture and one of the largest samples of litigation data to date, we show that,



<sup>\*, \*\*,</sup> and \*\*\* indicate significance at the 10%, 5%, and 1% level, respectively

<sup>&</sup>lt;sup>20</sup> Although we examined differences in lawsuit length as a measure of procedural expenses and the size of demanded and awarded penalties, where available, without observing differences, other factors such as cleanup costs, management replacement costs, and reputation loss may be higher for Republican firms.

consistent with the Democratic ideology that places greater value on equal rights, labor rights, and environmental protection, firms with Democratic cultures are less likely to be the subject of environmental, labor, or civil rights-related litigation. By contrast, consistent with the Republican ideology that stresses self-reliance, property rights, market discipline, and limited government regulation, firms with Republican cultures are less likely to be the subject of litigation related to securities fraud and intellectual property rights violations. Further tests based on market reactions to litigation filings suggest that our findings are not driven by differences in expected lawsuit costs in different domains between Republican and Democratic firms. Instead, the observed lower litigation propensities in political value-relevant domains are driven by firm culture.

Overall, our results establish an economically meaningful link between political culture and corporate wrongdoing. Interestingly, unlike other cultural attributes such as religion, language, and ethnic heritage, political values do not have a uniform impact on all corporate decisions. In future work, it may be useful to examine how multiple dimensions of firm culture jointly affect corporate misbehavior.

#### **Supplemental Material**

Supplemental material to this paper is available at http://dx.doi.org/10.1287/mnsc.2014.2106.

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