

Federal Judge Ideology: A New Measure of Ex Ante Litigation Risk

ALLEN HUANG ,* KAI WAI HUI ,†
AND REEYARN ZHIYANG LI 

Received 16 May 2016; accepted 15 November 2018

ABSTRACT

Drawing on the political theory of judicial decision making, our paper proposes a new and parsimonious ex ante litigation risk measure: federal judge ideology. We find that judge ideology complements existing measures of litigation risk based on industry membership and firm characteristics. Firms in liberal circuits (the third quartile in ideology) are 33.5% more likely to be sued in securities class action lawsuits than those in conservative circuits (the first quartile in ideology). This result is stronger after the U.S. Supreme Court's ruling in the *Tellabs* case. We next show that the effect of judge ideology on litigation risk is greater for firms with more sophisticated shareholders and with higher expected litigation costs. Furthermore, judicial appointments affect litigation risk and the value of firms in the circuit, highlighting

*Department of Accounting, Hong Kong University of Science and Technology; †Faculty of Business and Economics, The University of Hong Kong; ‡Accounting and Taxation, University of Mannheim.

Accepted by Christian Leuz. We appreciate the insightful comments and constructive suggestions of an anonymous referee. We also thank Ray Ball, Jannis Bischof, Gilles Hilary, S.P. Kothari, Karen Nelson, Jeff Ng, Adam Pritchard, Douglas Skinner, T. J. Wong, participants at the 2016 AAA Annual Meeting, the 2016 MIT Asia Conference in Accounting, the 2018 Wuhan University Luojia Accounting Research Symposium and the 2018 *Journal of Accounting Research* Conference, and seminars at the Chinese University of Hong Kong, Fudan University, Hong Kong Polytechnic University, KAIST, Shanghai University of Finance and Economics, Southwest University of Finance and Economics, Xiamen University, the University of Hong Kong (Faculty of Law), Hong Kong University of Science and Technology, University of Mannheim. We especially thank Tarek Hassan, Stephan Hollander, Laurence van Lent, and Ahmed Tahoun for sharing the political donations data and Iris Jiang from Cornerstone Research for her invaluable insights. An online appendix to this paper can be downloaded at <http://research.chicagobooth.edu/arc/journal-of-accounting-research/online-supplements>.

the economic consequences of political appointments of judges. Finally, using our new measure, we document that litigation risk deters managers from providing long-term earnings guidance, a result that existing measures of litigation risk cannot show.

JEL codes: K22; K40; K41

Keywords: securities litigation; litigation risk; federal courts; judge ideology

1. Introduction

Litigation is costly to firms. The question of how the risk of securities class action lawsuits affects corporate decisions has attracted a great deal of research interest in the accounting and finance literature.¹² Prior studies generally use industry membership (e.g., Francis, Philbrick, and Schipper [1994a, b]), either alone or in conjunction with firm characteristics, such as size, stock turnover, and returns, as measures of ex ante litigation risk (e.g., Johnson, Kasznik, and Nelson [2001], Field, Lowry, and Shu [2005], Rogers and Stocken [2005]). However, these measures are also likely to capture industry and firm characteristics unrelated to ex ante litigation risk. Consequently, such measures can induce spurious relations, which affect their results (Kim and Skinner [2012]). Our study proposes a new measure that better captures ex ante litigation risk by exploiting firms' external litigation environment: federal judge ideology.

It is documented in both legal and political science studies that ideology is among the most important of judges' personal attributes influencing civil liberties and economic lawsuit outcomes (Johnston [1976], Tate [1981], Segal and Cover [1989], Staudt, Epstein, and Wiedenbeck [2006]). Specifically, political theory of judicial decision making argues that the materials available to judges do not usually provide sufficient clarity for resolving

¹ Federal securities class action lawsuits generally involve violations of the Securities Exchange Act of 1934 (commonly known as the Exchange Act). Although shareholders can file class action and derivative lawsuits in state courts, these generally cover a narrow range of misbehavior, that is, almost entirely limited to two contexts—acquisitions and self-dealing transactions—and focus largely on the duties and liabilities of directors, not officers; they also carry less severe penalties and are of diminishing importance (Thompson and Sale [2003], Thompson and Thomas [2004]). In addition, state derivative lawsuits typically follow the filing of a federal securities class action suit; they do not uncover new facts and often result in poor quality settlements, and thus add little significant value beyond federal securities class actions (Choi, Erickson, and Pritchard [2017]). Due to the importance of federal securities class action lawsuits, we focus on the risk of such lawsuits throughout this paper. Please refer to subsection 3.2 for a detailed discussion.

² For example, prior studies examine litigation risk in financial reporting and disclosure decisions (e.g., Skinner [1994, 1997], Johnson, Kasznik, and Nelson [2000], Field, Lowry, and Shu [2005], Rogers and Van Buskirk [2009]), cash-holding and investment decisions (Arena and Julio [2015]), executive compensation (Peng and Röell [2008], Laux [2010]), initial public offering (IPO) underpricing (Lowry and Shu [2002]), institutional monitoring (Cheng et al. [2010]), and auditor resignation (Shu [2000]).

disputes (Grundfest and Pritchard [2002]). As such, judges' individual characteristics can influence legal outcomes. Judges, like other government officials, take advantage of their ability to shape case outcomes and project their views of justice onto society (Richards and Kritzer [2002], Cross [2007]). Through judicial votes, judges advance personal ideological preferences, which generally fall along the conventional liberal-to-conservative continuum in U.S. politics (see George [1998] for a review).

The most widely adopted measure of judge ideology is the appointing president's political affiliation (Goldman [1999], Pinello [1999]). Presidents almost always appoint judges whose ideology reflects that of their political party (Dorsen [2006], Federal Judicial Center [2006]). Judges appointed by Democratic presidents are more liberal on the bench than those appointed by Republican presidents (Goldman [1975], Sunstein, Schkade, and Ellman [2004], Cross [2007]). For example, using presidential party affiliation as the measure, Tate [1981] finds evidence that judges' personal attributes explain 72–87% of their voting behavior, with ideology having the largest influence. In economic cases, studies show that a liberal (Democratic) ideology is more likely to result in outcomes that are antibusiness or proeconomic underdog, that is, that favor the “have-nots” over the “haves,” such as labor unions and employees over firms, and government regulations over the free market (Goldman [1966], Ryan and Tate [1975], Segal and Spaeth [1996]). In the political science literature, researchers apply the “liberal versus conservative” coding protocol to securities class action lawsuits (brought by investors or shareholders who suffered economic injury as a result of securities fraud). Findings indicate that liberal judges are more likely to vote in favor of investors (plaintiffs), while conservative judges are more likely to vote in favor of firms (defendants); as such, liberal judges pose a higher litigation risk to firms than conservative judges (Grundfest and Pritchard [2002], Sullivan and Thompson [2004], Spaeth [2006], Fedderke and Ventoruzzo [2016]).³

Our study also shows that the political appointments of judges have economic consequences for firms. Prior research has documented how the characteristics and quality of securities laws and their enforcements affect firms (see review by La Porta, Lopez-de-Silanes, and Shleifer [2008]). However, the outcomes of securities law enforcement depend heavily on the judicial system (Hay and Shleifer [1998]). In the United States, courts handle private enforcement of securities laws, and public enforcements such as

³ In line with the above definitions, ideological differences between liberals (Democrats) and conservatives (Republicans) in the context of securities class action lawsuits are also reflected in the debates that took place during the passage of the Private Securities Litigation Reform Act of 1995 (PSLRA). The PSLRA includes a diverse assortment of provisions to protect firms against perceived abuses in securities class action lawsuits, such as raising the burden of proof for plaintiffs. When the Republican-controlled Congress passed the PSLRA in 1995, all opposition votes to the bill were from Democratic congress members. Democratic President Clinton initially vetoed the bill, before Republicans overrode the veto and enacted the law.

those handled by the Securities and Exchange Commission (SEC) are often challenged in courts or, if settled, need approval from judges (Macchiarola [2012]). Investigating judges' influence in securities cases thus provides a more comprehensive understanding of the economic consequences of the legal system.

Empirically, we measure judge ideology at the circuit court level. Circuit and district court judges are usually the final arbiters of securities class action lawsuits, and circuit court decisions have binding constraints over district courts within their jurisdictions. Hence, the ideology of a circuit court has the greatest influence on *expected* lawsuit outcomes (refer to subsection 3.2 for a detailed discussion; Bowie and Songer [2009], Choi, Gulati, and Posner [2012]). Each case in a circuit court is assigned to a panel composed of three randomly selected judges from the circuit. We follow prior studies (e.g., Sunstein, Schkade, and Ellman [2004]) and measure the circuit's judge ideology as the probability that the panel is dominated by appointees of Democratic presidents, that is, the probability that the three-judge panel comprises at least two Democratic appointees.⁴ To estimate a firm's litigation risk, we use the judge ideology of the circuit court whose jurisdiction covers the firm's headquarters (hereafter, the home circuit), as the headquarters is the usually requested filing location in civil procedures (28 U.S. Code §1391 (b); 1404). In our sample, 87% of securities class action lawsuits are filed in the firm's home circuit.⁵ To the extent that plaintiffs understand how judge ideology affects case outcomes (de Figueiredo [2005]), we expect they are more likely to file securities class action lawsuits against firms when there are more Democratic judges in the circuit.⁶

As a measure of litigation risk, judge ideology differs from industry membership and firm characteristics in several ways. First, measures based on industry and firm characteristics are estimated using filed lawsuits, with a purpose to predict lawsuit occurrences. They thus capture not only the ex ante litigation risk (i.e., the likelihood of being sued given that there is misconduct), but also firms' misconduct behaviors that lead to lawsuits. In contrast, our measure of judge ideology is based on the composition of the judges on the circuit court with jurisdiction over the state where a firm is located. Compared with industry membership and firm characteristics, judge composition is less endogenous to omitted correlated variables that are also likely to affect firm operations or managerial decisions, such as risk and growth (Kim and Skinner [2012]), and can thus better serve the goal of isolating ex ante litigation risk. Second, judge ideology is measured based

⁴ See subsection 3.1 for a detailed discussion of how securities class action lawsuits are filed in the federal judicial system.

⁵ Cox, Thomas, and Bai [2009] also show that the majority of securities class action lawsuits are filed in firms' home circuits.

⁶ For example, Bernstein Litowitz Berger & Grossman, the largest plaintiff law firm in 2017, often discusses the impact of judge assignment on securities lawsuits in their analysis of the latest securities law issues (Eisinger [2017], Zayenchik [2017]).

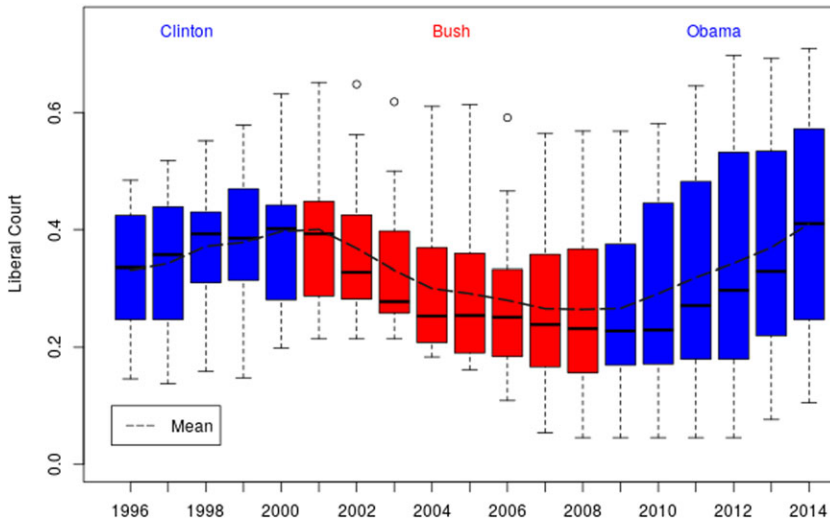


FIG. 1.—Annual distribution and time-trend of *LiberalCourt*.

on the circuit’s judge composition, which changes whenever a judge retires or a new judge is appointed (figure 1). The interaction of exogenous cross-sectional and time series variations in judge ideology makes it suitable to studies that require strong identification. Third, industry and firm characteristics capture litigation risks originating from the firms themselves, including their business models and internal operations. Our measure takes a different perspective by focusing on a set of critical players outside the firm, judges, who are central to the interpretation of legal doctrines and whose ideology is a key determinant of both the *expected* and realized lawsuit outcomes (Cross and Tiller [1998]). As such, our measure is especially useful for those studies interested in litigation risk stemming from the legal environment. In summary, we expect that judge ideology, as a parsimonious ex ante litigation risk measure, can be applied across a wide array of studies that require an exogenous measure for identification.

To validate judge ideology as a measure of ex ante litigation risk, we first investigate whether it can predict lawsuit occurrence beyond existing measures based on industry membership and firm characteristics (Johnson, Kasznik, and Nelson [2001], Rogers and Stocken [2005], Kim and Skinner [2012]). Specifically, we test whether firms located in circuits with judges that are more liberal are more likely to be sued. We find strong evidence in both univariate and regression analyses to confirm our prediction. Our regression analyses, which include state economy and demographic variables, in addition to circuit and year fixed effects to control for economic conditions and political climate, indicate that judge ideology not only adds incrementally to existing litigation risk prediction models, but also captures variations in ex ante litigation risk with significant economic magnitudes.

An increase in judge ideology (i.e., more liberal) from the first to the third quartile implies an increase in the ex ante probability of being sued by 33.5% in relative terms (from 2.45% to 3.27% in absolute terms).

Next, we conduct two sets of tests to explore variations in judge ideology as a measure of ex ante litigation risk and to provide further validations: (1) when judges have more discretion in their decisions, and (2) when plaintiffs are more capable or have more incentives to consider judge ideology in filing decisions. First, we identify the Supreme Court's decision on *Tellabs Inc. v. Makor Issues & Rights, Ltd.* (551 U.S. 308, 2007) as an exogenous shock that may have affected judge ideology's role in predicting lawsuit occurrence. Because the *Tellabs* decision allows judges a higher degree of discretion in deciding a motion to dismiss (Miller [2009]) and provides further room for presiding judges' individual perspectives to shape case outcomes (Cox, Thomas, and Bai [2009]), we predict the effect of judge ideology to be stronger after the *Tellabs* decision. Our findings are consistent with this prediction. The effect of judge ideology is 1.4 times stronger after the U.S. Supreme Court's ruling in the *Tellabs* case compared to the period before the ruling. Second, we conduct a series of cross-sectional tests to identify subgroups of firms for which judge ideology plays a stronger role in predicting litigation risk. Because judge ideology affects the odds of lawsuit filings only when plaintiffs understand its effect on case outcomes, we base these tests on plaintiffs' ability and incentives to consider judge ideology in their filing decisions.⁷ Specifically, we expect judge ideology to have a stronger effect when shareholders are more sophisticated or when the expected payoffs from the lawsuits are higher. We find consistent results using the percentage of institutional ownership to proxy for shareholder sophistication, and firm size and predicted litigation risk to proxy for expected lawsuit payoffs.

Third, we use judicial appointments to explore how time series variations in judge ideology affect firms' litigation risks. Consistent with the appointment of liberal (conservative) judges increasing (decreasing) firms' litigation risk, we find that liberal (conservative) judicial appointments increase (decrease) the occurrence of lawsuit filings. Furthermore, given that securities class action lawsuits are costly to firms (Romano [1991]), we predict that the market reacts negatively when a liberal judge is appointed, and vice versa, and find supporting evidence. A liberal judicial appointment leads to a -0.26% three-day abnormal return for firms in the circuit, while a conservative judicial appointment boosts the stock prices of firms in the circuit by 0.27% . Finally, we find that the market reacts more strongly for the subsample of firms in industries with higher securities litigation risk, suggesting that market reactions are more likely to be driven by expected

⁷ Note that the plaintiffs only need to know that ideology, that is, whether judges are liberal or conservative, affects case outcomes. They do not need to understand the exact mechanism by which ideology impacts outcomes, for example, the ambiguity in interpreting the statutory safe harbor for forward-looking statements.

cost changes in securities class action lawsuits rather than other types of litigation. In summary, our identification tests support judge ideology as a measure of ex ante litigation risk that provides economically meaningful improvements to measures currently used in the literature. The relation between judge ideology and lawsuit occurrence also suggests that the political appointment of judges shapes firms' litigation risks and has sizable economic consequences.

Fourth, we investigate the relation between judge ideology and lawsuit outcomes, that is, whether a lawsuit is dismissed and, if not, its settlement amount, to gain further insights into the economic consequences of judicial appointments. Consistent with the traditional notion that liberal judges tend to favor economic underdogs, we find cross-sectional evidence that lawsuits filed in more liberal circuits have significantly lower dismissal rates and larger settlements. An increase in judge ideology from the first to the third quartile leads to a 14.6% decrease in the odds of cases being dismissed, and for cases that are not dismissed, an average increase of \$907,274 in settlements. These findings suggest that judge ideology is a critical driver of judicial decision making and litigation costs.

Finally, we use our litigation risk measure to shed new light to a particular research problem: how ex ante litigation risk affects a firm's voluntary disclosure decisions. Prior studies show that when facing bad earnings news, firms either preemptively warn investors, known as the "preemption effect" (Kasznik and Lev [1995], Field, Lowry, and Shu [2005]), or abstain from disclosure, or bundle bad news with other news (Skinner [1997], Francis, Philbrick, and Schipper [1994b], Bliss, Partnoy and Furchtgott [2018]). Litigation risk, however, may also discourage firms from disclosing forward-looking information. This is known as the "chilling effect," because the legal system cannot effectively distinguish between unexpected forecast errors due to chance and those due to deliberate management bias (Johnson, Kasznik, and Nelson [2001], Baginski, Hassell, and Kimbrough [2002], Rogers and Van Buskirk [2009]). We find results consistent with theoretical predictions; that is, firms located in more liberal circuits are, in general, more likely to issue short-term earnings forecasts to preempt upcoming negative earnings news and also more reluctant to release positive long-horizon earnings forecasts. These results suggest that managers are aware of judge ideology's effect on their firms' litigation risk and that they incorporate this information in their decision making. Most importantly, we find that although measures based on industry membership and firm characteristics provide some support for the preemption effect, they fail to provide evidence of the chilling effect.⁸ In a placebo test, we find no significant

⁸Prior studies find support for the chilling effect using regulation changes (Johnson, Kasznik, and Nelson [2001], Huang, Shen, and Zang [2018]), actual lawsuit filings (Rogers and Van Buskirk [2009]), and cross-country samples (Baginski, Hassell, and Kimbrough [2002]). Our study is the first to document the chilling effect in a large sample of panel data.

relation between judge ideology and firms' mandatory disclosures, measured using firms' mandatory 8-K filings (Cooper, He, and Plumlee [2018]).

Our study makes the following contributions to the literature. First, we contribute to empirical research on litigation risk and firm behavior in the accounting, finance, and economics literature. We introduce a new measure of ex ante litigation risk, federal judge ideology. Measured via the party affiliation of judges' appointing presidents, judge ideology is an intuitive measure that is well grounded in legal and political science studies. Our findings based on the measure broaden the understanding of litigation risks to external factors beyond firm and industry characteristics currently used in the literature. Empirically, our new measure adds explanatory power in predicting litigation occurrences beyond existing measures and provides economically significant effects. As a result, our measure will enable researchers to draw a more definitive conclusion regarding the impact of ex ante litigation risk on firm decisions.

Second, we provide evidence for the economic consequences of judicial appointments. Research has shown how legal rules and their enforcements affect firms (La Porta et al. [1997], Hail and Leuz [2006], La Porta, Lopez-de-Silanes, and Shleifer [2006]). However, there is little evidence for the economic impact of the judicial system, which is heavily relied upon to enforce securities laws (Ford [2005], Pritchard [2011]). Our findings suggest that with the discretion allowed in the judicial doctrines (e.g., the Supreme Court's *Tellabs* Ruling), judge ideology is economically meaningful in predicting litigation occurrence and its outcomes. These results underline a key consequence of the political appointments of judges, which has not been documented in the literature. Thus, our study provides important insights, not only for academics but also for investors, regulators, and lawmakers.

Third, the judge ideology measure is especially relevant to the study of accounting regulations, as it enables researchers to examine litigation risk stemming from the legal system (e.g., Johnson, Kasznik, and Nelson [2001], Heflin, Subramanyam, and Zhang [2003]). Judge ideology measures how judges' preferences shape their interpretations of legal doctrines, which are crucial to regulatory enforcement. Evidence from studies based on judge ideology thus provides valuable insights, both to regulators for evaluating the effectiveness of regulations and to firms for determining how to cope with constantly evolving legal requirements. As an example, using the judge ideology measure, our study draws inferences relevant to the voluntary disclosure literature in ways that research using measures based on industry membership and firm characteristics cannot. In using judge ideology as a measure of litigation risk, it should be noted that circuit court judges are constrained by legal precedents in their own circuits and the Supreme Court. The effect of judge ideology is thus likely shaped by court decisions. Indeed, our empirical results show that judge ideology's effects became stronger after Supreme Court's *Tellabs* decision in 2007.

Our study also contributes to a second literature stream—legal and political science—by showing new evidence of judge ideology’s effects in securities class action lawsuits. First, unlike prior legal studies, which examine how judges who preside over lawsuits affect case outcomes (e.g., Tate [1981], Sunstein, Schkade, and Ellman [2004]), our study is the first to show that judge ideology affects the *occurrences* of securities class action lawsuits. Second, the literature yields mixed results on whether judge ideology affects business and finance cases (Choi and Pritchard [2012], Choi, Gulati, and Posner [2013]). Our paper sheds light on this issue by highlighting the role of circuit court judge ideology and its dominance over district courts in securities class action lawsuits. Taken together, our results contribute to the theory of litigation by improving our understanding of judge ideology’s effects in the judicial system.

2. *Securities Class Action Lawsuits and Existing Measures of Litigation Risk*

Securities class action lawsuits generally involve violations of the Exchange Act, which gives shareholders the right to bring private actions in federal courts to recover damages sustained as a result of securities frauds.⁹ These lawsuits are very costly for firms and their managers, who face the possibility of severe financial, reputational, and even criminal consequences if charged with misreporting (Romano [1991]).¹⁰ Due to their importance, securities class action lawsuits have drawn attention not only from scholars, but also from practitioners, such as consulting firms, law firms, and auditors. For example, Cornerstone Research, NERA Economic Consulting, Berstein Litowitz Berger & Grossmann, and PwC each regularly put out publications summarizing trends in litigation filings and outcomes, analyzing recent court decisions, upcoming court cases, and judicial appointments.¹¹

Academic researchers are particularly interested in how securities litigation influences corporate decisions, such as financial reporting

⁹ Most securities fraud allegations are brought pursuant to Section 10(b) of the Exchange Act, and the SEC Rule 10b-5.

¹⁰ Studies in accounting, finance, and law consistently find that in the post-PSLRA period, merits matter for both lawsuit incidence and outcomes. Specifically, firms are more likely to be sued when there are fraud indicators, such as intentional restatements, abnormal accruals, abnormal insider selling, and SEC enforcement action, and lawsuits with these fraud indicators are less likely to be dismissed and have larger settlements (Cox, Thomas, and Kiku [2003], DuCharme, Malatesta, and Sefcik [2004], Johnson, Nelson, and Pritchard [2007], Cox, Thomas, and Bai [2008], Hennes, Leone, and Miller [2008], Klausner, Hegland, and Goforth [2013]).

¹¹ In addition, popular press, such as newspapers and magazines, extensively discuss the impact of judicial appointments, including those to lower federal courts, on various topics and refer to these appointments as a President’s “judicial legacy” (Toobin [2014], Scheindlin [2017], Berenson [2018]).

(e.g., Frankel, McNichols, and Wilson [1995], Skinner [1994, 1997], Field, Lowry, and Shu [2005]).¹² The literature commonly uses industry membership and firm characteristics to proxy for litigation risk. These measures originate with the Francis, Philbrick, and Schipper [1994a, b] analyses, which are based on a sample of firms drawn from four industries with a high incidence of litigation (i.e., biotechnology, computers, electronics, and retail). Subsequent papers have used an indicator variable for whether a firm belongs to these industries as a proxy for high litigation risk (e.g., Matsumoto [2002], Jayaraman and Milbourn [2009], Brown and Tucker [2011], Donelson et al. [2012]) or limited their analyses to firms in these industries (e.g., Ali and Kallapur [2001], Johnson, Kasznik, and Nelson [2000, 2001], Johnson, Nelson, and Pritchard [2007]). Some papers model litigation risk with a combination of industry membership and firm characteristics, such as market capitalization and stock volatility, and use the predicted probability of lawsuit occurrence as their litigation risk measure (e.g., Johnson, Kasznik, and Nelson [2001], Rogers and Stocken [2005], Kim and Skinner [2012], Billings and Cedergren [2015]).

The measures used in these studies, based on industry and firm characteristics, capture not only *ex ante* litigation risk, but also firms' underlying misconduct. This makes it difficult to attribute empirical findings to *ex ante* litigation risk. Industry and firm characteristics, such as information asymmetries, operational or financial riskiness, proprietary costs, and investor clientele, are likely to independently affect firm decisions. Using these variables to study how litigation risk affects corporate decisions thus creates a correlated omitted variable problem (Kim and Skinner [2012]). For example, although stock market variables provide significant explanatory power in predicting litigation (e.g., Rogers and Stocken [2005]), they are also related to firms' disclosure decisions (Ke, Huddart, and Petroni [2003]). Consequently, associations between a litigation risk measure constructed using stock market variables and voluntary disclosure cannot be interpreted as showing that litigation risk affects voluntary disclosure. Indeed, prompted by litigation risk's importance to firm decision making, recent studies have called for further exploration of *ex ante* measures of litigation risk (e.g., Kim and Skinner [2012]).

¹² Other papers in the literature measure litigation risk using actual securities class action lawsuits filed against a firm (e.g., Rogers and Van Buskirk [2009]), legal regime changes, such as the passage of the PSLRA (e.g., Johnson, Kasznik, and Nelson [2001]), differences in legal environments across countries (Baginski, Hassell, and Kimbrough [2002]), and director and officer insurance premiums (Cao and Narayanamoorthy [2011]). Such measures rely on either a limited set of firms or a specific time period, and as such, their results may not be generalizable to broader samples.

3. *Judge Ideology and Litigation Risk*

3.1 JUDGE IDEOLOGY AND HOW IT AFFECTS JUDICIAL VOTES

Judge ideology denotes the extent to which judges are liberal or conservative (Goldman [1966], Segal and Spaeth [1996], Spaeth [2006]). In this section, we summarize the literature addressing the influence of judge ideology on judicial decisions and discuss how securities class action lawsuits are filed in the federal judicial system.

Judges in all federal courts are appointed by United States presidents with the approval of the U.S. Senate. Presidents almost always appoint judges with an ideology similar to their own party's; as such, judicial outcomes tend to be aligned with a president's own policy preferences (Goldman [1999], Scherer [2005], Dorsen [2006], Federal Judicial Center [2006]).¹³ Once appointed, federal judges almost always hold office for as long as they wish and their salaries are guaranteed by the U.S. Constitution (Federal Judicial Center [2006]). Lifetime tenure and salary protection are meant to ensure an independent judiciary but also give judges significant latitude to vote according to their ideological preference.

It is well documented in the political science literature that judge ideology influences judicial votes in federal courts, with judges appointed by Democratic presidents being more liberal than those appointed by Republican presidents. Although legal doctrine plays an important role in deciding case outcomes, judges are more likely to obey (disobey) legal doctrine when such doctrine supports (does not support) their own partisan or ideological policy preferences (Cross and Tiller [1998]). For example, Cross and Tiller [1998] show consistent evidence that judge panels controlled by Democratic appointees are more likely to produce liberal decisions than those controlled by Republican appointees. In a meta-analysis of 84 studies in the legal literature between 1959 and 1998, Pinello [1999] concludes that judge partisanship contributes to almost one-half of the variance in judicial actions. Similarly, Sunstein, Schkade, and Ellman [2004] document that circuit court judges' votes are explained by the political party of their appointing presidents. Specifically, they find that a panel composed of only Democratic appointees is 80% more likely to issue a liberal ruling than a panel composed of only Republican appointees. In economic cases, liberal ideology leads to outcomes that are antibusiness or proeconomic underdog (Goldman [1966], Segal and Spaeth [1996], Spaeth [2006], Fedderke and

¹³Note that while a president's judicial nominations may be weakened by a Senate controlled by the opposite party or by a "lame duck" status, he or she remains the most powerful player in the judge selection process (Segal [1987], Ruckman [1993], Galiuzza, Reagan, and Barrett [1994]). If the president must compromise when filling a vacated seat and nominates someone whose ideology is closer to the center of the ideological spectrum, this may introduce noise into our measure and bias against finding significant results. In subsection 5.4, we use a measure of judge ideology that incorporates the political composition of the Senate at the time of judicial appointment and find similar results.

Ventoruzzo [2016]).¹⁴ In another study, Tate [1981] finds that an appointing president's party affiliation is the most important factor in explaining Supreme Court justices' votes on economic issues in general.¹⁵ Using the same proxy, Goldman [1966,1975] and Cross [2007] find similar results for circuit court judges.

Given how important judge ideology is to case outcomes, it is not surprising that plaintiffs take judge ideology into consideration when deciding whether to file a lawsuit. Using a sample of Federal Communications Commission (FCC) orders and trials, de Figueiredo [2005] finds that firms are more likely to appeal their cases when the circuit judges' ideology is distant from that of the FCC executives, that is, when circuit judges are more likely to overturn the FCC's decisions. This evidence suggests that the expectation of an ideological effect on judicial voting impacts the incidence of lawsuit filings, consistent with plaintiffs attempting to take advantage of a court's ideological makeup to achieve a desired ruling.

Although the literature provides ample theoretical and empirical research into the role of judge ideology in civil rights or liberties cases, it is less clear whether judge ideology plays a significant role in the business and finance subset of economic cases.¹⁶ Prior studies recognize a divergence between how political preferences affect civil rights cases versus business and finance cases, and debate whether judges exhibit political or ideological preferences when it comes to the latter (Richards [2001]).¹⁷ For example, Schneider [2001] argues that even if judges have political preferences in such cases, they are sufficiently weak such that other factors, such as the legal process, may work to neutralize them. This view is supported by the mixed empirical evidence on the influence of judge ideology in individual income tax and bankruptcy cases (Staudt, Epstein, and Wiedenbeck [2006], Nash and Pardo [2012]). Similarly, previous research finds mixed evidence for judge ideology's role in securities class action lawsuit rulings. For example, Choi and Pritchard [2012] find no difference between Republican and Democratic district court judges' dismissal rates prior to the Supreme Court decision in the *Tellabs* case; however, after the *Tellabs* decision, Republican judges were found to dismiss cases on scienter grounds at a higher rate than their Democratic counterparts. Choi, Gulati, and

¹⁴ Liberal outcomes in economic cases may also be procompetition, proindigent, pro-small business vis-à-vis large business, prodebtor, probankrupt, pro-Native American, proenvironmental protection, and proconsumer, and, for issues pertaining to federal taxation, pro-United States (Spaeth [2006]).

¹⁵ Personal attributes examined in Tate [1981] include birth, upbringing, education, experience, elective office, age, tenure, and partisanship.

¹⁶ Economic cases include civil liberties (e.g., labor and government regulation) and business and finance cases (e.g., securities and antitrust) (Sullivan and Thompson [2004]).

¹⁷ We do note, however, that U.S. presidents usually express a consistent attitude toward social liberalism and economic liberalism. For example, Segal, Timpone, and Howard [2000] find correlations of 0.89 (0.93) between economic (social) liberalism and the presidential party.

Posner [2013], in contrast, find that district court judge ideology does not affect case dismissal decisions. By coding a selected group of 48 Supreme Court's securities regulation decisions from 1936 through 2011, Fedderke and Ventoruzzo [2016] find that conservative justices are more likely to vote probusiness (58% of cases) than liberal justices (40% of cases). Within the context of this literature, our study provides additional insights by documenting a large sample of evidence for judge ideology's effects in a specific type of business and finance case, securities class action lawsuits.

3.2 HOW SECURITIES CLASS ACTION LAWSUITS ARE FILED IN THE FEDERAL JUDICIAL SYSTEM

In the U.S. judicial system, securities class action lawsuits filed in the federal court system may go through three levels: district courts (trial courts), circuit courts (courts of appeals), and the Supreme Court (the final level of appeals).¹⁸ The plaintiff first files a complaint against the defendant in one of 94 district courts. After a case is filed, the district court randomly assigns it to one of its judges, such that judges in the same court have roughly equal caseloads (Federal Judicial Center [2014]). There are three potential outcomes for securities class action lawsuits in the district court: dismissal, out-of-court settlement, or trial. The vast majority of cases are either dismissed or settled out of court. For instance, Choi, Gulati, and Posner [2013] show that in their sample of securities class action lawsuits filed between 2003 and mid-2007, roughly half were dismissed (with voluntary dismissals at 11% and dismissals with prejudice at 38%), while the remaining half were settled out of court. Only eight lawsuits (1.6% of their sample) resulted in a trial verdict or a summary judgment.

If a judge in a district court dismisses a securities class action with prejudice, the plaintiff can appeal the case to a circuit court.¹⁹ There are 12 circuits in the United States that have jurisdiction over securities class action lawsuits, comprising 11 numbered circuits (from the 1st to the 11th Circuit) and the D.C. Circuit. These 12 circuits are geographically defined (see figure 2 for details). They have from 6 (1st Circuit) to 29 (9th Circuit) authorized judges, depending on the total area and population within their jurisdiction. After a case is appealed to a circuit court, it is

¹⁸ Immediately following the enactment of the PSLRA in 1995, plaintiffs' lawyers attempted to circumvent the heightened pleading requirement in the federal court by filing state securities class action lawsuits or parallel federal and state securities class action lawsuits (Walker, Levine, and Pritchard [1997], Martin et al. [1999]). The U.S. Congress responded by passing the Securities Litigation Uniform Standards Act (SLUSA) of 1998 (signed into law on November 3, 1998), thereby closing this loophole (Levine and Pritchard [1998]). Johnson [2012] confirms that after SLUSA was enacted, fewer securities class action lawsuits alleging 10b-5 violations were filed in state courts.

¹⁹ Out of the 1,754 securities class action cases reported in the Securities Class Action Clearinghouse (SCAC) from 1996 to 2014 that were dismissed at district courts, 773 (or 44%) appealed to circuit courts. Refer to online appendix table 1 for details on case outcome distributions.

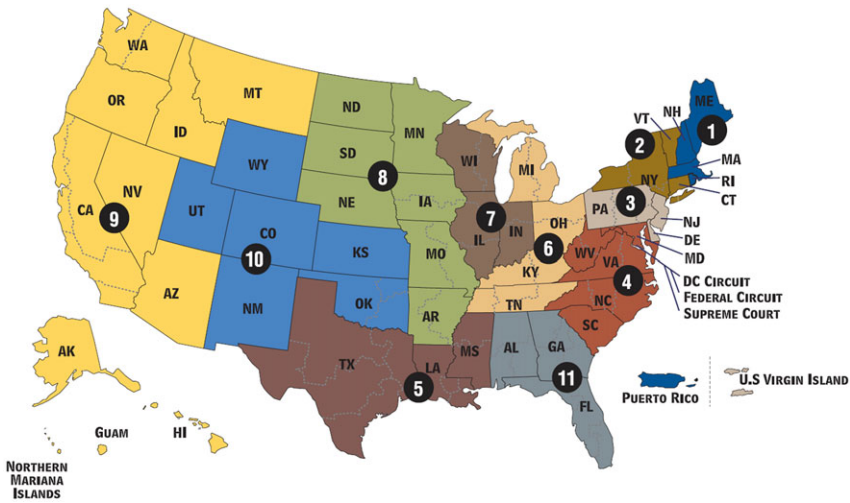


FIG. 2.—Geographic boundaries of U.S. circuit courts and district courts.

Source: http://www.uscourts.gov/sites/default/files/u.s._federal.courts.circuit_map_1.pdf.

assigned to a panel of three randomly selected judges. The panel then decides the case based on a majority opinion (i.e., at least two of the three judges on the panel must agree with the decision) and either affirms or reverses the lower court decision. In the set of circuit court cases that are terminated on their merits during the period from 2001 to 2017 (excluding cases voluntarily withdrawn or settled), 13% of the “Other Private Civil” cases, which include securities class action lawsuits, were reversed (data from the Administrative Office of the U.S. Courts).

After the circuit court decides a case, the losing party may file a petition requesting the Supreme Court to review it. Unlike the circuit court, however, the Supreme Court does not have to hear every case it is asked to review. Typically, it will agree to hear a case only when the case involves an unusually important legal principle or when two or more circuit courts have interpreted a law differently.

Of the three levels of federal court (i.e., the Supreme Court, circuit courts, and district courts), we choose to measure the ideology of circuit courts for three reasons. First, the Supreme Court, the highest federal court, makes only discretionary and infrequent reviews, that is, fewer than 1% of the more than 10,000 review requests that the Supreme Court receives from circuit courts each year (Bowie and Songer [2009]). In fact, research suggests that for securities class action lawsuits, monitoring by the Supreme Court is close to nonexistent (Pritchard [2011], Choi and Pritchard [2012]). Therefore, circuit courts and district courts generally serve as the final arbiters for the vast majority of, if not all, securities class action lawsuits, and thus have the greatest effect on case outcomes

(Woodford Howard [1981], Songer, Segal, and Cameron [1994], Klein [2002], Choi and Pritchard [2012]).²⁰

Second, district court judge decisions are subject to mandatory and routine reviews by circuit courts. During a review, a circuit court can rule that a district court judge's decision is incorrect and reverse it. Following a reversal, the district court judge must hear new motions and conduct a new trial, thus increasing his or her workload. Reversals embarrass district court judges, damage their reputation, and reduce their chances of being appointed to a higher court. Such concerns are limited for circuit court judges, however, as they lack opportunities for further promotion (Savchak, Hansford, and Songer [2006]). Because district court judges must consider the probability that their decisions will be reviewed and reversed by circuit courts, they have been found to take the political preference of circuit courts into consideration when making decisions (Schanzenbach and Tiller [2007], Knight and Gulati [2018]). Indeed, consistent with this argument, prior studies show weak or no evidence that district court judges' ideology affects their dismissal decisions for securities class action lawsuits (Choi and Pritchard [2012], Choi, Gulati, and Posner [2013]). In fact, in civil liberty and economic cases, district court judge rulings reflect the ideological preferences of the circuit court judges (Randazzo [2008], Choi, Gulati, and Posner [2012]).

Third, our primary objective is to measure *ex ante* litigation risk, which is affected both directly and indirectly by the circuit courts. Circuit courts directly influence the cases that they handle, which are 22% of our sample cases.²¹ In addition, circuit court judge ideology can indirectly influence cases that do not reach them. For example, if a case is not granted dismissal and is not voluntarily dismissed in the district courts (these two outcomes comprise roughly half of securities class action lawsuits according to Choi, Gulati, and Posner [2013]), then it usually ends in a settlement, in which case neither party can appeal to the circuit court (Choi and Pritchard [2012]). During the settlement bargaining process, both parties consider the probability that a case will be dismissed and appealed to the circuit court. Thus, it is likely that circuit court judge ideology plays an indirect but important role in these settled cases. Consistent with this argument, we find that if securities class action lawsuits filed in more liberal circuits are settled, they tend to be settled for larger sums than those filed in less liberal circuits (see details in subsection 5.8). Thus, when rational shareholders and plaintiff lawyers make filing decisions, they are likely to

²⁰ Consistent with this argument, Cross [2007] states that "*In large measure, it is the circuit courts that create U.S. law. They represent the true iceberg, of which the Supreme Court is but the most visible tip. The circuit courts play by far the greatest legal policymaking role in the United States judicial system.*"

²¹ Out of 3,898 securities class action cases from the SCAC from 1996 to 2014, 347 were still ongoing at district courts. Of the remaining 3,551 cases, 1,754 were dismissed at district courts, and 773 reached circuit courts. See online appendix table 1 for details.

assess the potential influence of the circuit judge ideology, that is, the likelihood that the case will reach the circuit court and how friendly its judges would be if that were to happen.

Note that shareholders may file lawsuits in state courts alleging breaches of state fiduciary duty by corporate directors and officers (Badawi [2013]). However, we focus our study at the federal level for several reasons. First, lawsuits filed at the state level are composed almost entirely of lawsuits challenging an acquisition or alleging self-dealing transactions, largely focusing on the duties and liabilities of directors and not those of officers. Indeed, Thompson and Thomas [2004] find that 88% or 808 of 916 state-level cases filed in Delaware in 1999 and 2000 allege a fiduciary duty breach resulting from an agreement to sell the company for too low of a price. They also carry less severe penalties and are of diminishing importance (Thompson and Sale [2003], Thompson and Thomas [2004]). For example, nearly every acquisition in 2011 (95%) was accompanied by a state-filed lawsuit, the vast majority of which resulted in only additional disclosure about the merger to shareholders and a payment of a relatively small fee to the plaintiffs' lawyers (Cain and Davidoff [2012], Davidoff, Fisch, and Griffith [2015]).

Similarly, state derivatives lawsuits have been increasingly limited by a variety of procedural and substantive restrictions. For example, the prevalence of independent directors following NYSE and NASDAQ requirements makes it harder to establish conflicts of interest (Thompson and Thomas [2004]). Consistent with this view, Choi, Erickson, and Pritchard [2017] find that derivative lawsuits typically follow the filing of a federal securities class action suit, but do not uncover new facts and result in poor quality settlements; they thus add little, if any, significant value beyond federal securities class actions.

4. Empirical Measure of Judge Ideology

4.1 DEFINITION OF JUDGE IDEOLOGY MEASURE

Empirically, we follow prior studies and adopt the most widely used measure of judge ideology: the political affiliation of the appointing president (Goldman [1999], Pinello [1999], Sunstein, Schkade, and Ellman [2004]). This measure is both objective and easy to implement. To identify each judge's appointing president, we obtain biographical data of circuit court judges from the Federal Judicial Center's Web site. Specifically, judge ideology in a circuit is calculated as the probability that Democratic presidents' appointees dominate a panel of three judges randomly selected from the circuit (*LiberalCourt*), calculated using the following formula:

$$\text{LiberalCourt} = [C(x, 3) + C(x, 2) \times C(y - x, 1)] / C(y, 3), \quad (1)$$

where $C(n, r)$ is a binomial coefficient indicating the number of possible combinations of r objects from a set of n distinct objects, x is the number

of Democratic appointees in the circuit, and y is the total number of judges in the circuit. Both x and y are measured at the end of each month.^{22,23} The first term $[C(x, 3)]/C(y, 3)$ calculates the probability that the three-judge panel comprises all Democratic appointees, and the second term $[C(x, 2) \times C(y - x, 1)]/C(y, 3)$ calculates the probability that the panel comprises two Democratic appointees and one Republican appointee. A higher value of *LiberalCourt* means that the circuit is more liberal.

To measure ex ante litigation risk at the firm-year level, we assign each firm-year observation to a circuit-month. The assignment is based on the location of the firm's headquarters at the beginning of the year, as civil procedure usually requires securities class action lawsuits to be filed in the circuit where the firm's headquarters are located (hereafter, the home circuit).²⁴ Because Compustat reports only the current headquarters of firms, we use Perl to extract the locations of firms' historical headquarters from their 10-K filings, downloaded from the SEC's EDGAR database.²⁵

4.2 DESCRIPTIVE STATISTICS OF THE JUDGE IDEOLOGY MEASURE

Figure 2 displays the geographic boundaries of the 12 circuits. We report the judge ideology (*LiberalCourt*) for each circuit and year in table 1. As an illustration of the cross-sectional and time series variations in judge ideology, figure 3 plots *LiberalCourt* for the two most liberal circuits (the 9th and 2nd Circuits), the two most conservative circuits (the 7th and 8th Circuits), and the 4th Circuit over time. Judge ideology varies greatly across circuits. In the 9th Circuit, the most liberal circuit during the sample period, from 1996 to 2014, an average of 56.6% of judges were appointed by Democratic presidents; this translates into a mean *LiberalCourt* of 0.599, that is, a 59.9% chance that a three-judge panel randomly drawn from the 9th Circuit is dominated by liberal judges. At the other extreme, only 29.2% of judges in the 7th Circuit, the most conservative circuit during the sample period, were appointed by Democratic presidents, with a mean *LiberalCourt* of 0.187. There are also substantial time series variations in judge ideology due to judge appointments and departures. A president can appoint a judge to a court when there is a vacant seat, which is created when an active

²² In a sensitivity test, we use the percentage of judges appointed by Democratic presidents in a given circuit to measure the circuit court ideology. Our results are similar using this alternative proxy.

²³ We include both active and senior judges in the calculation of judge ideology. For details on the difference between active and senior judges, please refer to footnote 26.

²⁴ As discussed in Cox, Thomas, and Bai [2009, p. 428], "it is usually required to file in the home circuit of the defendant firm because of the well-established doctrine of forum non conveniens (now subsumed in the statutory change of venue provision in 28 U.S.C. § 1404) available to defendants who believe the plaintiff's initial choice of forum poses substantial burdens on them."

²⁵ We assume that firms' choice of headquarters locations in the year is exogenous to judge ideology. Our findings are robust if we limit our sample to firms that have never changed their headquarters location.

TABLE 1
Summary Statistics of Judge Ideology in Circuit Courts

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	D.C.	Yearly Mean	Yearly SD
1996	0.183	0.304	0.146	0.304	0.388	0.346	0.191	0.326	0.476	0.461	0.484	0.364	0.343	0.1113
1997	0.183	0.326	0.138	0.304	0.388	0.380	0.191	0.335	0.470	0.453	0.518	0.425	0.349	0.1116
1998	0.255	0.434	0.159	0.366	0.388	0.398	0.191	0.369	0.502	0.426	0.552	0.419	0.379	0.1115
1999	0.279	0.578	0.148	0.459	0.410	0.371	0.159	0.360	0.546	0.400	0.481	0.349	0.393	0.128
2000	0.279	0.612	0.283	0.426	0.421	0.371	0.199	0.403	0.632	0.400	0.458	0.279	0.422	0.130
2001	0.279	0.602	0.296	0.446	0.416	0.389	0.214	0.384	0.651	0.397	0.450	0.279	0.427	0.132
2002	0.265	0.562	0.309	0.438	0.326	0.350	0.214	0.286	0.648	0.330	0.412	0.279	0.392	0.141
2003	0.263	0.500	0.279	0.383	0.230	0.281	0.214	0.263	0.618	0.277	0.412	0.254	0.356	0.139
2004	0.183	0.455	0.234	0.360	0.188	0.271	0.203	0.213	0.610	0.270	0.379	0.236	0.326	0.149
2005	0.183	0.466	0.246	0.360	0.162	0.263	0.197	0.169	0.613	0.270	0.359	0.210	0.318	0.156
2006	0.183	0.466	0.290	0.328	0.155	0.250	0.214	0.109	0.591	0.252	0.337	0.185	0.302	0.157
2007	0.183	0.461	0.253	0.355	0.148	0.250	0.157	0.054	0.564	0.227	0.360	0.176	0.285	0.163
2008	0.183	0.500	0.247	0.374	0.120	0.236	0.137	0.046	0.568	0.227	0.360	0.176	0.284	0.172
2009	0.175	0.497	0.247	0.395	0.117	0.220	0.164	0.046	0.568	0.236	0.356	0.176	0.286	0.173
2010	0.167	0.528	0.318	0.514	0.117	0.234	0.214	0.046	0.581	0.225	0.377	0.176	0.309	0.188
2011	0.183	0.586	0.332	0.564	0.166	0.277	0.189	0.046	0.645	0.265	0.400	0.176	0.341	0.207
2012	0.183	0.651	0.332	0.615	0.209	0.298	0.158	0.046	0.697	0.296	0.449	0.176	0.367	0.228
2013	0.271	0.670	0.361	0.633	0.209	0.298	0.176	0.077	0.692	0.382	0.435	0.230	0.395	0.215
2014	0.335	0.680	0.409	0.689	0.233	0.261	0.176	0.105	0.709	0.445	0.464	0.412	0.428	0.216
Circuit mean	0.222	0.520	0.265	0.438	0.252	0.302	0.187	0.194	0.599	0.328	0.423	0.262		
Circuit SD	0.054	0.105	0.076	0.114	0.114	0.059	0.026	0.136	0.069	0.086	0.063	0.090		

This table reports the calendar year average monthly *LiberalCount* for all states in each circuit during 1996–2014 period. Variable definitions are in appendix B.

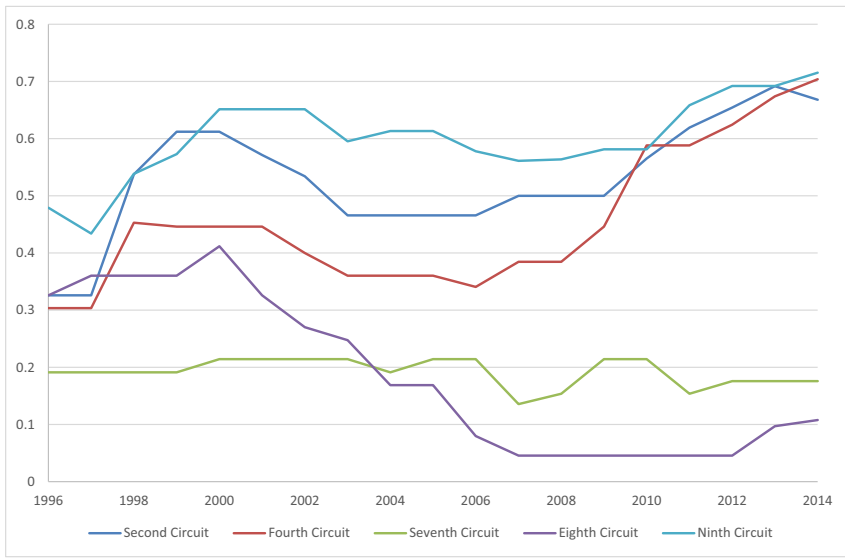


FIG. 3.—Quarterly Time Trend of *LiberalCourt* of the 2nd, 4th, 7th, 8th, and 9th Circuits
 This figure plots the judge ideology *LiberalCourt* of the two most liberal circuits (the 9th and 2nd Circuits), the two most conservative circuits (the 7th and 8th Circuits), and the 4th Circuit from 1996 to 2014. Variable definitions are in appendix B.

judge dies, resigns, or retires.²⁶ A court becomes more liberal when Republican appointed judges, whether active or senior, leave the court (i.e., die, resign, or fully retire), or when Democratic Presidents appoint new judges to fill vacant seats, and vice versa. Furthermore, because judge departures and appointments occur at different points of time across circuits, the circuits’ judge ideology levels do not always move in the same magnitude or even in the same direction. For example, figure 3 shows that during 2006–2012, the 7th and 8th Circuits became more conservative while the 1st, 2nd, and 9th Circuits became more liberal. The interaction of exogenous cross-sectional and time series variations in judge ideology makes it especially suitable to studies that require strong identification.

On average, *LiberalCourt* increases when there is a Democratic president and decreases during a Republican presidency. For example, the percentage of liberal judges in all circuit courts increased under President Clinton

²⁶ Circuit and district court judges are eligible to retire after they are 65 years old and the combination of their age and years of service totals at least 80 (the Rule of 80, 28 U.S.C. § 371). These judges can either fully retire and leave the bench, or take senior status and continue to serve in the courts. Judges usually take senior status soon after they become eligible (the median and average wait time is one and two years, respectively; Burbank, Plager, and Ablavsky [2012]). Most court vacancies are created when active judges take senior status. Anecdotal evidence suggests that judge’s retirement choices are unlikely to be driven by the expected ideology of their replacements (tables 26 and 28 of Burbank, Plager, and Ablavsky [2012]).

from 39.8% in 1996 (*LiberalCourt* of 0.343) to 45.1% in 2000 (*LiberalCourt* of 0.422). Conversely, by the time President George W. Bush left office in 2008 after two terms, we see the most conservative court in our sample period, with only 35.0% of judges classified as liberal (*LiberalCourt* of 0.284) and all circuits except the 9th dominated by conservative judges. However, after six years of President Obama's presidency, the courts were again much more liberal (45.0% of all judges being Democratic appointees, *LiberalCourt* of 0.428). The ideology of a circuit court can change dramatically over a relatively short period if there is a large number of judge turnovers. In a span of eight years, for example, the 4th Circuit transformed from a very conservative circuit in 2006 (*LiberalCourt* of 0.328) to a decidedly liberal circuit by 2014 (*LiberalCourt* of 0.689)—the result of retirements and President Obama's appointments of six judges to the circuit. As a comparison, the 7th Circuit's ideology became more conservative over the same period (*LiberalCourt* from 0.214 in 2006 increasing to 0.176 by 2014, see figure 2).

5. *The Effect of Judge Ideology on Securities Class Action Lawsuits*

We conduct a number of empirical tests to validate judge ideology as a measure of litigation risk to examine its economic significance and to compare it with existing proxies of litigation risk. Specifically, we investigate whether firms located in more liberal circuits are more likely to be sued, how the Supreme Court's *Tellabs* decision influences judge ideology's effects, and the cross-sectional variation in such effects.

5.1 UNIVARIATE ANALYSIS

Table 2, panel A, reports the selection procedure for our securities class action lawsuit sample and its summary statistics. To construct our sample, we follow procedures similar to those outlined in Choi and Pritchard [2012]. Our sample period begins in 1996, after the enactment of the PSLRA in 1995. Specifically, we first obtain a list of 3,898 securities class action lawsuit filings from 1996 to 2014 from the SCAC. From this, we remove 573 lawsuits that are unrelated to Rule 10b-5 (Choi and Prichard [2012], Kim and Skinner [2012]). We then remove 385 lawsuits filed against non-U.S. companies, as we cannot determine their home circuits. Finally, we remove lawsuits against companies that are not publicly listed, not in the Compustat or CRSP databases, or had missing variables in the class period. Our final sample consists of 1,973 lawsuits, covering 4,183 firm-year observations.²⁷ The unconditional probability that a firm-year in our testing sample is in a securities class action lawsuit's class period is 4.56% (4,183/91,698).

²⁷ During our sample selection process, we lost a larger proportion of lawsuits from the 2nd Circuit than from other circuits, as many cases against non-U.S. firms and IPO-related cases (which have missing firm-years in the class period) are filed in the 2nd Circuit. See online appendix table 2 for our lawsuit sample selection procedures by circuit.

TABLE 2
Descriptive Statistics of the Securities Class Action Lawsuit Sample

	Number of Cases
Lawsuit filings from 1996 to 2014 from the SCAC Web site	3,898
Less: Filings of Non Rule 10b-5 violations	3,325
Less: Filings against non-U.S. companies	(573)
Less: Filings against companies not listed on NYSE, AMEX, or NASDAQ	(385)
Less: Filings against companies not in Compustat or CRSP	(195)
Less: Filings against companies with missing variables in the class periods	(139)
	(633)
	Number of
	Firm-Years
Firm-years that overlap with class periods of securities class action lawsuits	4,183
Total firm-years available in Compustat from 1996 to 2014	91,698

(Continued)

TABLE 2—Continued

Panel B: Securities class action lawsuit sample by circuits													
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	D.C.	Total
Number of lawsuits	117	354	157	91	149	114	112	91	544	73	159	12	1,973
Number of firm-years sued in class periods	266	535	322	250	356	272	263	232	1,145	168	343	31	4,183
Number of total firm-years	5,595	10,783	8,639	6,810	8,857	7,023	6,514	5,754	20,159	4,276	6,969	319	91,698
Percentage of firm-years sued in class periods	4.75%	4.96%	3.73%	3.67%	4.02%	3.87%	4.04%	4.03%	5.68%	3.93%	4.92%	9.72%	4.56%
Average <i>LiberalCourt</i> of firm-years	0.207	0.467	0.232	0.403	0.282	0.316	0.186	0.240	0.563	0.343	0.435	0.272	0.373

Panel A reports the sample selection procedure for the securities class action lawsuit sample. Panel B reports the distribution of sample firm-years by circuits. Variable definitions are in appendix B.

Table 2, panel B, tabulates the number of lawsuits filed in each circuit. The largest circuit by population and area, the 9th Circuit, covers the West Coast of the United States and contains 544 of the total 1,973 lawsuits in our sample period. In contrast, the smallest circuit by population and area, the D.C. Circuit, contains only 12 lawsuits over our sample period. We also report the firm-year distribution of class periods across circuits in panel B. Firms located in the 9th Circuit, which has the highest *LiberalCourt* of all circuits (0.563), are 41% more likely to be sued (5.68% of its firm-years are involved in a lawsuit) than firms located in the 7th Circuit (4.04% chance of being sued), which has the lowest *LiberalCourt* of all circuits (0.186). This analysis provides a preliminary indication that the more liberal a circuit's judges are, the more likely firms located in that circuit are to be sued in securities class action lawsuits, which is consistent with judge ideology as a measure of firms' litigation risk.

To perform univariate tests of the relation between judge ideology and lawsuit occurrence, we sort our sample into five quintiles based on *LiberalCourt* and report lawsuit occurrences across the quintiles in table 3, panel A. We find that firm-years in the top quintile of *LiberalCourt* are 64% more likely to be sued (5.77%) than those in the bottom quintile (3.51%), a difference that is statistically significant at the 1% level.

Prior research establishes that firms in certain industries (e.g., biotechnology, computers, electronics, and retail, hereafter collectively referred to as FPS industries) have higher litigation risks than firms in other industries (Francis, Philbrick, and Schipper [1994b], Kim and Skinner [2012]). We investigate whether *LiberalCourt* can improve our ability to predict litigation beyond predictions based on FPS industry membership. We report the results in table 3, panel B. First, our results confirm findings from prior research that firms in FPS industries have significantly higher litigation risk than those in non-FPS industries. Reported in the first column ("All Quintiles"), the probability that a firm-year observation in FPS (non-FPS) industries was involved in a securities class action lawsuit is 6.55% (3.81%). Next, we independently sort firm-year observations from FPS and non-FPS industries into five quintiles based on *LiberalCourt*. If judge ideology measures an aspect of litigation risk that is incremental to that measured by FPS, then, conditional on industry membership, we expect firm-years with a higher *LiberalCourt* to have a higher litigation risk than those with a lower *LiberalCourt*. This prediction is strongly supported by our results. Specifically, in non-FPS industries, the probability that a firm in the most liberal quintile is sued is 1.47% higher than its counterpart in the most conservative quintile (4.39% and 2.92%, respectively, difference significant at the 1% level). In FPS industries, the difference is even larger: a firm located in the most liberal quintile is 2.56% more likely to be sued than a firm located in the most conservative quintile (7.88% versus 5.32%, respectively, significant at the 1% level). This univariate analysis provides initial evidence that judge ideology measures a different aspect of litigation risk than is captured by industry membership.

TABLE 3
Univariate Test of the Relation Between Judge Ideology and Lawsuit Occurrences

	All Quintiles	Quintile of <i>LiberalCourt</i>				
		Lowest	Q2	Q3	Q4	Highest – Lowest
Panel A: Lawsuit occurrences in firm-years across quintiles of <i>LiberalCourt</i>						
All firm-years	91,698	17,508	18,809	18,845	18,582	17,954
Total number of firm-years	4,183	614	731	836	966	1,036
Number of firm-years sued	4.56%	3.51%	3.89%	4.44%	5.20%	5.77%
Percentage of firm-years sued						2.26%***
Panel B: Lawsuit occurrences in firm-years across quintiles of <i>LiberalCourt</i> within high and low litigation risk industries						
	All Quintiles	Quintile of <i>LiberalCourt</i>				
		Lowest	Q2	Q3	Q4	Highest – Lowest
FPS industries	25,216	4,269	4,499	4,117	5,239	7,092
Total number of firm-years	1,652	227	266	243	357	559
Number of firm-years sued	6.55%	5.32%	5.91%	5.90%	6.81%	7.88%
Percentage of firm-years sued	66,482	13,239	14,310	14,728	13,343	10,862
Total number of firm-years	2,531	387	465	593	609	477
Number of firm-years sued	3.81%	2.92%	3.25%	4.03%	4.56%	4.39%
Percentage of firm-years sued						1.47%***
FPS industries – Non-FPS industries	2.74%***	2.39%***	2.66%***	1.88%***	2.25%***	3.49%***
						1.10%**

(Continued)

TABLE 3—Continued

		Quintile of <i>LiberalCourt</i>					Highest – Lowest
		All Quintiles	Lowest	Q2	Q3	Q4	
High predicted litigation risk	Total number of firm-years	45,849	9,051	8,737	9,476	9,331	9,254
	Number of firm-years sued	3,564	511	580	770	865	838
Low predicted litigation risk	Percentage of firm-years sued	7.77%	5.65%	6.64%	8.13%	9.27%	9.06%
	Total number of firm-years	45,849	8,457	9,185	9,850	8,223	10,134
High predicted litigation risk – low predicted litigation risk	Number of firm-years sued	619	103	106	132	126	152
	Percentage of firm-years sued	1.35%	1.22%	1.15%	1.34%	1.53%	1.50%
High predicted litigation risk – low predicted litigation risk		6.42%***	4.43%***	5.48%***	6.79%***	7.74%***	7.56%***
							3.13%***

Panel A reports the number and percentage of firm-years that overlap with class periods of lawsuits across quintiles of *LiberalCourt*. Panel B reports the number and percentage of firm-years that overlap with class periods of lawsuits across quintiles of *LiberalCourt* within FPS and Non-FPS Industries. FPS Industries include: biotech (SIC 2833–36, 8731–34), computer (SIC 3570–77, 7370–74), electronics (SIC 3670–74), and retail (SIC 5200–5961). Non-FPS Industries include all other industries. Panel C reports the number and percentage of firm-years that overlap with class periods of lawsuits across quintiles of *LiberalCourt* within high and low predicted litigation risk firm-years. Firm-years are sorted into the high and low predicted litigation risk groups based on whether their *Pred.FirmRisk* is above or below the sample median, respectively. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

Because prior studies also find that other firm characteristics predict securities class action lawsuits (Johnson, Kasznik, and Nelson [2001], Rogers and Stocken [2005], Kim and Skinner [2012]), we further investigate whether *LiberalCourt* can improve explanatory power beyond the litigation risk predicted by industry membership and firm characteristics. First, we follow prior studies (e.g., Rogers and Stocken [2005], Kim and Skinner [2012]) to estimate the predicted firm-specific litigation risk (*Pred_FirmRisk*) for each firm-year observation using a logit regression (see appendix A for details). We define high (low) litigation firm-years as those with predicted litigation risk above (below) the sample median. Next, we independently sort firm-year observations in the high and low predicted litigation risk samples into five quintiles, each based on *LiberalCourt*, and report the results in table 3, panel C. In short, we find results similar to those in table 3, panel B. In both the high and low predicted litigation risk samples, the probability that a firm in the most liberal circuits is sued is significantly higher than its counterpart in the most conservative circuits, suggesting that judge ideology measures an aspect of litigation risk that is not captured by firm and industry characteristics.

5.2 THE EFFECT OF JUDGE IDEOLOGY ON LAWSUIT OCCURRENCE

In this section, we further validate judge ideology as a measure of litigation risk by conducting a regression analysis. Following Johnson, Kasznik, and Nelson [2001], Rogers and Stocken [2005], and Kim and Skinner [2012], we use the following logit model to examine the effect of judge ideology on shareholder litigation:

$$\text{Logit} (SUED) = f(\text{LiberalCourt}, \text{FPS}, \text{Controls_SUED}) + \varepsilon. \quad (2)$$

The dependent variable (*SUED*) is an indicator variable that equals 1 if the firm-year overlaps with the class period of a securities class action lawsuit, and 0 otherwise. We measure *LiberalCourt* at the beginning of year t . For the control variables, we include industry and firm characteristics, such as high litigation risk industry (*FPS*), firm size (*Size*), sales growth (*SalesGR*), firm risk (*Beta*), return volatility (*RetVol*), return skewness (*RetSkw*), past returns (*Return*), minimum returns (*MinRet*), trading volume (*Turnover*), institutional ownership (*IO*), leverage (*Leverage*), and external financing (*Financing*). We further control for industry and market factors, including industry past returns (*IndRet*), industry return volatility (*IndRetVol*), and market return (*MktRet*). In addition, we control for demographic variables for a circuit that may be correlated with judge ideology, such as state economic growth (*GDPGR*), unemployment (*UNEMP*), and the political leaning of firms' headquarters states (*BlueState*). Detailed variable definitions are included in appendix B. Because judge ideology in each circuit changes only when there is a judge retirement or appointment, it is possible that the effect we observe for *LiberalCourt* is driven by variations across circuits; this would suggest that the association between judge ideology and lawsuit filings may

be driven by some correlated omitted variables at the circuit level. To mitigate this concern, we include circuit fixed effects in the regression. We also control for other macroeconomic events and lawsuit filing trends using year fixed effects. z -Statistics (t -statistics) are based on standard errors clustered by states, as the primary variable of interest is based on geographic location.²⁸

We report the descriptive statistics of the variables in table 4, panel A. The mean (median) firm-year observation in our sample has a total market value of \$1,918.6 (\$227.2) million, a sales growth of 10.3% (3.4%) of total assets, and a market-adjusted return of 3.4% (−5.6%) in the prior year. Table 4, panel B, reports the Pearson and Spearman correlations among the variables. These results show that *SUED* is significantly and positively correlated with both *FPS* (Pearson correlation of 0.06) and *LiberalCourt* (0.04), which is consistent with industry membership and judge ideology, respectively, predicting lawsuits. *SUED* is also positively correlated with firm characteristics that prior studies document as significantly correlated with litigation risk, namely, size (0.14), sales growth (0.08), past returns (0.05), return volatility (0.05), and turnover (0.16) (Kim and Skinner [2012]).

In table 5, we explore the relation between judge ideology and a set of variables, including firm characteristics that prior studies use to construct litigation risk measures, in addition to industry and market conditions and demographic variables. We report the regression results without fixed effects in column 1 and those with state and year fixed effects in column 2. In general, judge ideology is not related to firm characteristics. When fixed effects are included, only *FPS* is positively related to judge ideology (at the 5% level). Additional analysis shows that this positive correlation is primarily driven by a wave of technology firm IPOs in the 9th Circuit (primarily in the states of California and Washington) during the Internet Bubble period, which coincided with judicial appointments in the circuit. When we control for an indicator for Internet Bubble (*ITBubble*, equals 1 if the firm's headquarter is in California or Washington and during 1996–2000, and 0 otherwise),²⁹ or exclude such firms from the sample, *FPS* becomes insignificant (reported in online appendix table 3). Finally, industry and market returns and *BlueState* are correlated with judge ideology, suggesting that changes in judge ideology are related to macroeconomic conditions and political leaning during our sample period. Thus, future studies should

²⁸ We do not cluster by circuits, as a low number of clusters may bias the critical values used for rejecting the null hypothesis (Cameron, Gelbach, and Miller [2008]). In a sensitivity test, we use score bootstrapped standard errors and find similar results (tabulated in online appendix table 3).

²⁹ Note that during the Internet Bubble, the percentage of firms in California and Washington that were in FPS industries increased from 36.8% to 50.9%, three times the increase compared with other states (from 20.3% to 25.8%). During the same period, the judge ideology of the 9th Circuit also increased twice as fast as other circuits (from 0.414 to 0.649 in the 9th Circuit and from 0.273 to 0.401 in other circuits). When we include *ITBubble* in our main regression, we find robust results (tabulated in online appendix table 8, column 7).

TABLE 4
Descriptive Statistics of Variables Used in the Lawsuit Occurrence Test

Panel A: Descriptive statistics of the variables used in the lawsuit occurrence test

Variables	Observations	Mean	SD	Min.	Q1	Median	Q3	Max.
<i>LiberalCourt</i>	91,698	0.373	0.161	0.046	0.247	0.364	0.500	0.715
<i>SUED</i>	91,698	0.046	0.209	0.000	0.000	0.000	0.000	1.000
<i>EPS</i>	91,698	0.275	0.447	0.000	0.000	0.000	1.000	1.000
<i>Size</i>	91,698	5.518	2.069	0.283	3.970	5.430	6.951	11.217
<i>SalesGR</i>	91,698	0.103	0.350	-1.547	-0.006	0.034	0.165	4.045
<i>Beta</i>	91,698	1.076	0.761	-1.105	0.515	0.990	1.510	4.819
<i>RetVol</i>	91,698	0.143	0.100	0.022	0.075	0.116	0.181	0.754
<i>RetSkw</i>	91,698	0.338	0.859	-2.115	-0.234	0.287	0.859	2.883
<i>Return</i>	91,698	0.034	0.614	-0.962	-0.307	-0.056	0.221	6.099
<i>MinRet</i>	91,698	-0.141	0.099	-0.954	-0.180	-0.114	-0.072	-0.007
<i>Turnover</i>	91,698	1.610	1.740	0.043	0.469	1.035	2.099	12.177
<i>IO</i>	91,698	0.317	0.346	0.000	0.000	0.174	0.622	1.000
<i>Leverage</i>	91,698	0.173	0.203	0.000	0.003	0.100	0.280	0.853
<i>Financing</i>	91,698	0.181	0.422	0.000	0.001	0.025	0.155	4.876
<i>IndRet</i>	91,698	0.034	0.375	-0.962	-0.185	-0.012	0.178	6.099
<i>IndRetVol</i>	91,698	0.143	0.073	0.022	0.090	0.130	0.180	0.754
<i>MktRet</i>	91,698	0.121	0.195	-0.441	-0.008	0.162	0.264	0.576
<i>GDPGR</i>	91,698	0.049	0.028	-0.132	0.035	0.050	0.067	0.218
<i>UNEMP</i>	91,698	0.069	0.031	0.023	0.047	0.062	0.082	0.407
<i>BlueState</i>	91,698	0.697	0.460	0.000	0.000	1.000	1.000	1.000

(Continued)

TABLE 4—Continued

Panel B: Correlation coefficients of the variables used in the lawsuit occurrence test

	<i>SUED</i>	<i>Liberal Court</i>	<i>FPS</i>	<i>Size</i>	<i>Sales Cr</i>	<i>Beta</i>	<i>Ret Vol</i>	<i>Ret Skw</i>	<i>Ret Return</i>	<i>Min Ret</i>	<i>Turn over</i>	<i>IO</i>	<i>Leverage</i>	<i>Financing</i>	<i>Ind Ret Vol</i>	<i>Mkt Ret</i>	<i>GDPRUNEMP</i>	<i>BlueState</i>	
<i>SUED</i>	0.04	0.06	0.14	0.08	0.11	0.07	0.01	0.03	0.04	0.16	0.10	0.00	0.07	0.01	0.07	0.02	0.02	0.01	0.01
<i>LiberalCourt</i>	0.04	0.11	-0.04	-0.01	0.06	0.13	0.04	-0.01	-0.11	0.06	-0.03	-0.08	0.01	0.02	0.13	-0.10	0.05	0.30	0.15
<i>FPS</i>	0.06	0.12	0.04	0.06	0.24	0.29	0.07	0.05	0.26	0.25	0.06	0.23	0.07	0.00	0.38	0.03	0.00	0.08	0.11
<i>Size</i>	0.14	-0.03	-0.03	0.16	0.30	0.36	0.23	0.29	0.46	0.42	0.57	0.20	0.15	0.16	0.23	0.01	0.08	0.10	0.02
<i>SalesGR</i>	0.08	-0.01	0.03	0.08	0.12	0.02	0.02	0.17	0.04	0.17	0.13	0.02	0.14	0.05	0.05	0.06	0.18	0.08	0.01
<i>Beta</i>	0.12	0.08	0.25	0.23	0.10	0.40	0.01	0.03	0.27	0.61	0.31	0.05	0.16	0.02	0.34	0.00	0.00	0.15	0.06
<i>RetVol</i>	0.05	0.13	0.26	-0.34	0.02	0.41	0.30	0.11	0.77	0.31	0.09	0.13	0.08	0.03	0.76	0.08	0.01	0.05	0.06
<i>RetSkw</i>	-0.01	0.04	0.07	-0.23	0.00	0.04	0.40	0.10	0.10	0.06	0.17	0.07	0.00	0.06	0.19	0.05	0.06	0.01	0.02
<i>Return</i>	0.05	0.02	0.02	0.18	0.15	0.10	0.15	0.15	0.31	0.03	0.12	0.00	0.08	0.61	0.09	0.04	0.06	0.05	0.04
<i>MinRet</i>	-0.03	-0.10	-0.22	0.42	0.03	-0.26	-0.65	-0.07	0.18	0.21	0.14	0.14	0.00	0.15	0.63	0.15	0.03	0.02	0.05
<i>Turnover</i>	0.16	0.08	0.23	0.29	0.12	0.52	0.32	0.00	0.10	-0.23	0.47	0.00	0.19	0.04	0.29	0.05	0.03	0.17	0.05
<i>IO</i>	0.10	-0.02	0.05	0.56	0.05	0.25	-0.15	-0.18	0.06	0.15	0.36	0.05	0.06	0.05	0.00	0.06	0.11	0.12	0.01
<i>Leverage</i>	0.01	-0.04	-0.17	0.13	-0.01	-0.02	-0.05	-0.04	-0.03	0.05	0.00	0.03	0.25	0.02	0.15	0.01	0.00	0.08	0.12
<i>Financing</i>	0.03	0.00	0.06	-0.05	0.06	0.06	0.13	0.07	0.09	-0.06	0.04	-0.06	0.11	0.03	0.10	0.04	0.05	0.04	0.03
<i>IndRet</i>	0.03	0.04	0.03	0.12	0.06	0.06	0.11	0.09	0.61	0.09	0.07	0.04	-0.02	0.04	0.01	0.03	0.10	0.08	0.04
<i>IndRetVol</i>	0.07	0.14	0.35	-0.22	0.03	0.37	0.72	0.24	0.09	-0.52	0.27	-0.05	-0.08	0.09	0.15	-0.08	-0.01	0.04	0.08
<i>MktRet</i>	-0.02	-0.11	-0.03	0.02	0.07	0.00	-0.12	0.05	-0.02	0.18	-0.06	-0.04	-0.01	0.06	-0.03	-0.17	0.24	0.04	0.07
<i>GDPR</i>	0.02	0.05	0.00	-0.07	0.15	0.02	-0.03	0.05	-0.03	0.05	-0.06	-0.11	0.01	0.05	-0.06	-0.05	0.26	-0.25	-0.16
<i>UNEMP</i>	0.00	0.33	0.09	0.09	-0.06	0.12	0.03	-0.01	0.03	-0.02	0.16	0.12	-0.05	0.01	0.04	0.02	0.04	-0.30	0.23
<i>BlueState</i>	0.01	0.16	0.11	-0.02	-0.01	0.06	0.06	0.02	-0.02	-0.05	0.04	0.00	-0.10	-0.02	-0.03	0.07	0.05	-0.15	0.23

Panel A reports the descriptive statistics for the variables used in the lawsuit occurrence test. Panel B reports the correlation coefficients of the variables used in the lawsuit occurrence test. The Pearson (Spearman) correlations are in the lower left (upper right) corner. Bold fonts indicate significance at the 0.01 level. Variable definitions are in appendix B.

TABLE 5
Relation Between Judge Ideology and Firm Characteristics and Geographic Variables

Dependent Variable	(1)	(2)
	<i>LiberalCourt</i>	
<i>FPS</i>	0.013 (1.08)	0.005** (2.09)
<i>Size</i>	0.001 (0.50)	0.000 (0.32)
<i>SalesGR</i>	-0.004 (-0.48)	0.001 (0.96)
<i>Beta</i>	-0.003 (-0.92)	-0.003 (-1.35)
<i>RetVol</i>	0.040* (1.94)	-0.001 (-0.16)
<i>RetSkw</i>	0.001 (0.74)	0.000 (1.15)
<i>Return</i>	-0.000 (-0.21)	-0.001 (-1.12)
<i>MinRet</i>	-0.009 (-0.62)	-0.009 (-1.49)
<i>Turnover</i>	-0.000 (-0.13)	-0.001 (-1.16)
<i>IO</i>	-0.027*** (-2.74)	0.003 (0.68)
<i>Leverage</i>	-0.001 (-0.12)	0.001 (0.55)
<i>Financing</i>	-0.006** (-2.36)	-0.001 (-0.81)
<i>IndRet</i>	0.016** (2.15)	0.005** (2.09)
<i>IndRetVol</i>	0.193*** (5.76)	-0.008 (-0.56)
<i>MktRet</i>	-0.139*** (-3.02)	-0.013** (-1.97)
<i>GDPGR</i>	1.291*** (3.20)	-0.175 (-0.76)
<i>UNEMP</i>	2.028*** (3.28)	0.114 (0.28)
<i>BlueState</i>	0.032 (0.75)	0.064*** (2.89)
<i>Intercept</i>	0.136** (2.66)	0.493*** (16.47)
State FE	No	Yes
Year FE	No	Yes
Adjusted- R^2	19.09%	74.88%
Number of observations	91,698	91,698

This table reports the OLS regression results on the relation between *LiberalCourt* and firm characteristics and demographic variables. We estimate the OLS regression of $LiberalCourt = f(FPS, Controls_SUED) + \varepsilon$. *Controls_SUED* includes *Size*, *SalesGR*, *Beta*, *RetVol*, *RetSkw*, *Return*, *MinRet*, *Turnover*, *IO*, *Leverage*, *Financing*, *IndRet*, *IndRetVol*, *MktRet*, *GDPGR*, *UNEMP*, and *BlueState*. *t*-Statistics based on standard errors estimated clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the two-tailed 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

control for these trends if they use judge ideology as a measure of litigation risk.

Table 6 reports the results from the logistic regression model for the lawsuit occurrence test on judge ideology and the control variables. From the results in column 1, we see that the estimated coefficient for *LiberalCourt* is positive and significant at the two-tailed 1% level, which is consistent with plaintiffs taking judge ideology into account when making filing decisions. The effect of judge ideology is economically significant after controlling for firm, industry, market, and demographic characteristics. Reported at the bottom of the table, results further show that an increase in *LiberalCourt* from Q1 to Q3 (from 0.247 to 0.500) implies an increase in the predicted odds of being sued by 33.5% in relative terms (from 2.45% to 3.27% in absolute terms). In comparison, an increase in *FPS* from 0 to 1 leads to a 13.9% increase in the predicted odds of being sued (from 2.73% to 3.11%). To illustrate the economic effect in a practical example, judge retirements, followed by President Obama's appointments of six judges to the 4th Circuit, increased the chance of being sued for firms located in the circuit from 2.69% to 4.06% (or 50.9% in relative terms) between 2006 and 2014. All of our findings remain consistent when we replace circuit fixed effects with state fixed effects in column 2, and use a linear probability model in columns 3 and 4. Together with the results presented in table 3, the regression analysis shows that judge ideology identifies an aspect of litigation risk that is incremental to that explained by risk measures currently used in the literature.

The estimated coefficients of the control variables are generally consistent with findings in prior studies (e.g., Kim and Skinner [2012]). In particular, larger firms and firms with higher sales growth, higher beta, more volatile returns, higher share turnover, more institutional holdings, and larger negative minimum returns are more likely to be subjects of lawsuits. Firms in *FPS* industries and industries with more negative and volatile returns also have higher litigation risks. Finally, state GDP growth is significantly positive, suggesting that firms located in higher growth states are more likely to be sued.

5.3 ADDITIONAL ANALYSIS ON THE ECONOMIC IMPACT OF JUDGE IDEOLOGY ON LITIGATION RISK

To further understand the economic significance of *LiberalCourt* for firms' litigation risk, we re-estimate the logit model in table 6, replacing circuit fixed effects with firm fixed effects to control for time-invariant firm characteristics (tabulated in column 1 of online appendix table 5). Note that we exclude *FPS* in this regression because of the inclusion of firm fixed effects. The estimated coefficient on *LiberalCourt* (1.816, significant at the 5% level) shows that even after controlling for time-invariant firm characteristics, judge ideology still has a sizeable influence on firms' litigation risk. For an average firm in this sample, the probability of being sued increases by a relative magnitude of 53.9% (from 12.5% to 19.3% in absolute terms)

TABLE 6
Relation Between Judge Ideology and Lawsuit Occurrence

Dependent Variable	(1)	(2)	(3)	(4)
	<i>SUED</i>			
<i>LiberalCourt</i>	1.182*** (4.71)	1.137*** (4.41)	0.044*** (4.74)	0.040*** (4.10)
<i>FPS</i>	0.136** (2.14)	0.148** (2.29)	0.006** (1.97)	0.006** (2.06)
<i>Size</i>	0.358*** (10.24)	0.357*** (10.25)	0.014*** (8.07)	0.014*** (8.05)
<i>SalesGR</i>	0.554*** (10.03)	0.546*** (9.86)	0.032*** (7.53)	0.031*** (7.48)
<i>Beta</i>	0.137*** (3.24)	0.144*** (3.51)	0.004 (1.58)	0.004* (1.68)
<i>RetVol</i>	0.699** (1.99)	0.663* (1.85)	0.004 (0.26)	0.003 (0.18)
<i>RetSkw</i>	-0.034 (-1.50)	-0.034 (-1.51)	-0.001 (-0.89)	-0.001 (-0.88)
<i>Return</i>	0.037 (0.96)	0.038 (0.99)	0.006*** (2.69)	0.006*** (2.73)
<i>MinRet</i>	-1.432*** (-4.88)	-1.436*** (-4.86)	-0.077*** (-4.85)	-0.078*** (-4.86)
<i>Turnover</i>	0.146** (14.17)	0.144** (14.41)	0.012*** (13.16)	0.012*** (12.85)
<i>IO</i>	0.363*** (3.26)	0.371*** (3.45)	0.000 (0.09)	0.001 (0.13)
<i>Leverage</i>	0.051 (0.40)	0.035 (0.26)	-0.008 (-1.53)	-0.009 (-1.59)
<i>Financing</i>	0.358*** (11.92)	0.358*** (12.03)	0.013*** (7.95)	0.014*** (8.04)
<i>IndRet</i>	-0.202*** (-5.30)	-0.199*** (-5.28)	-0.014*** (-5.73)	-0.014*** (-5.74)
<i>IndRetVol</i>	1.071** (1.99)	0.968* (1.83)	0.073*** (2.98)	0.069*** (2.85)
<i>MktRet</i>	0.237 (1.16)	0.226 (1.14)	0.009 (1.21)	0.009 (1.18)
<i>GDPGR</i>	2.197** (2.22)	1.903* (1.81)	0.074* (1.79)	0.063 (1.39)
<i>UNEMP</i>	4.561*** (2.63)	2.247 (1.17)	0.136** (2.30)	0.023 (0.37)
<i>BlueState</i>	-0.142 (-1.63)	-0.112 (-0.89)	-0.005 (-1.42)	-0.003 (-0.57)
<i>Intercept</i>	-7.224*** (-25.05)	-21.741*** (-21.02)	-0.102*** (-9.01)	-0.136*** (-12.00)
Circuit FE	Yes	-	Yes	-
State FE	-	Yes	-	Yes
Year FE	Yes	Yes	Yes	Yes
Pseudo (adjusted)- R^2	12.93%	13.35%	5.17%	5.25%
Number of observations	91,698	91,698	91,698	91,698
% Δ Pred.(<i>SUED</i>) if <i>LiberalCourt</i> increases from Q1 to Q3	33.5%	31.9%	27.7%	25.1%
% Δ Pred.(<i>SUED</i>) if <i>FPS</i> increases from 0 to 1	13.9%	15.6%	13.9%	14.4%

This table reports the regression results on the relation between securities class action lawsuit occurrences and circuit court judge ideology. We estimate the model $SUED = f(LiberalCourt, FPS, Controls_SUED) + \varepsilon$; *Controls_SUED* includes *Size*, *SalesGR*, *Beta*, *RetVol*, *RetSkw*, *Return*, *MinRet*, *Turnover*, *IO*, *Leverage*, *Financing*, *IndRet*, *IndRetVol*, *MktRet*, *GDPGR*, *UNEMP*, and *BlueState*. Columns 1 and 2 report the logit regression results and columns 3 and 4 report the OLS regression results. z-Statistics (t-statistics) based on standard errors estimated clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the two-tailed 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

when *LiberalCourt* increases from Q1 to Q3.^{30,31} The economic magnitude detected in this test is larger than for specifications with circuit and state fixed effects, suggesting that judge ideology has greater predictive power for firms already more likely to be subject to securities class action lawsuits.

Next, we investigate how much statistical explanatory power of *LiberalCourt* adds to existing ex ante litigation risk models based on firm and industry characteristics (Johnson, Kasznik, and Nelson [2001], Rogers and Stocken [2005], Kim and Skinner [2012]) by comparing with that of the *FPS* variable.³² We use *FPS* as a comparison benchmark for *LiberalCourt* because both measures are parsimonious and more exogenous than other firm characteristics, which make them more desirable for studies requiring proxies of ex ante litigation risk.³³ To compare the performance of the prediction models, we calculate the models' area under the receiver operating characteristic (ROC) curve, or AUC, which measures the models' ability to discriminate (Hobson, Mayew, and Venkatachalam [2012], Kim and Skinner [2012], Larcker and Zakolyukina [2012]). In online appendix table 6, the results in columns 1–3 show that both *LiberalCourt* and *FPS* increase the model's AUC (significant at the 1% and the 5% levels, respectively), but that the incremental information provided by *LiberalCourt* is greater than that of *FPS*; that is, the AUC of column 2 is larger than that of column 3 (statistically significant at the 10% level). Columns 3 and 4 further suggest that even after including *FPS*, *LiberalCourt* still improves the model's AUC (statistically significant at the 1% level), and that this improvement is almost identical to *LiberalCourt*'s improvement to the model without *FPS* (comparing columns 1 and 2). This suggests that including *FPS* does not seem to affect judge ideology's improvement of the litigation prediction model, which is consistent with judge ideology as measuring an aspect of litigation risk that is orthogonal to the one measured by industry membership.³⁴

In summary, our results from these two sets of analyses show, first, that judge ideology provides incremental information that improves the ex ante

³⁰ This sample has a much higher unconditional probability of being sued, as it is composed only of firms that have been sued during the sample period.

³¹ After controlling for firm fixed effects, we find that judge turnovers in the 4th Circuit from 2006 to 2014 increased the chance of being sued for firms located there by 61.9% in relative terms (from 14.0% to 22.7%).

³² Note that this specification has fewer variables than the main specification in table 5 because we want to show that judge ideology improves upon ex ante litigation risk measures used in prior studies, which usually do not include demographic variables, such as economic growth, unemployment rate, and political ideology.

³³ Firm characteristics, such as firm size and stock return volatility, may be directly associated with operating decisions (Kim and Skinner [2012]). This creates a correlated omitted variable problem for studies requiring proxies for ex ante litigation risk. See section 2 for a detailed discussion.

³⁴ Our conclusion is unchanged if we replace the logit regression with a linear probability model and test the difference in adjusted R^2 's across specifications (reported in online appendix table 7).

litigation prediction models currently used in the literature, and second, that variation in ex ante litigation risk captured by judge ideology is economically significant, indicating the importance of political appointments for firms.

5.4 ROBUSTNESS CHECKS OF THE EFFECT OF JUDGE IDEOLOGY

We run a battery of sensitivity tests to ensure the robustness of our main results. First, we ensure that our results in table 6 are not driven by certain subsamples. We report the tests in online appendix table 8. We start by examining whether our results are driven by a particular circuit. Specifically, we focus on the 9th and 2nd Circuits, as the former includes 22% of the lawsuit firm-years in the sample and is the most liberal circuit in our sample, while the latter houses most of the IPO and foreign firms-related cases in our sample. In columns 1 and 2, we repeat our main test, but exclude the 9th and 2nd Circuits, respectively, and find that the estimated coefficients for *LiberalCourt* are not affected. Next, we confirm that our main findings are consistent if we remove firm-year observations from finance industries (tabulated in column 3) or cases involving IPO allocations, underwriters, analysts, or mutual funds (tabulated in column 4). Finally, we run our analyses again, now excluding observations that occurred prior to the passage of the SLUSA on November 3, 1998, when plaintiffs had the ability to file state securities class action lawsuits (Walker, Levine, and Pritchard [1997], Martin et al. [1999]). Our results tabulated in column 5 remain similar.

Second, given that all federal judges must be confirmed by the Senate before being appointed, we consider the U.S. Senate's effect on the ideology of federal judge appointees. In this sensitivity test, we incorporate the partisan makeup of the Senate to estimate judge ideology and find consistent results (tabulated in online appendix table 9).

Third, we explore the effect of district court judge ideology. As discussed in section 4, we expect the effect of a district court's judge ideology on litigation risk to be dominated by that of the circuit court: district court judge ideology may matter, but only if it is consistent with that of the circuit court judge. Empirically, we measure district court judge ideology (*DistrictCourt*) using the percentage of district court judges appointed by Democratic presidents, as district courts only assign one judge to each case.

To execute this test, we first re-estimate equation (2), retaining all of the control variables but replacing *LiberalCourt* with *DistrictCourt*. The results, tabulated in online appendix table 10 column 1, show a significantly positive coefficient for *DistrictCourt*. After we include *LiberalCourt* in our estimation, however, the coefficient for *DistrictCourt* is no longer significant (column 2). This suggests that district court judge ideology's effects are dominated by the judge ideology of the circuit court.³⁵ As a further confirmation, we partition the sample into two subsets based on whether

³⁵ The coefficient of *DistrictCourt* is also no longer significant if we include circuit and year fixed effects (tabulated in column (3) of online appendix table 10).

the ideology of district court judges conforms to that of their circuit court judges (i.e., both are above or below their respective sample median). The results tabulated in online appendix table 11 show that *DistrictCourt* is significantly positive only when the district court ideology conforms to the circuit court ideology. Thus, consistent with prior studies that examine other types of lawsuits (Randazzo [2008], Choi, Gulati, and Posner [2012]), the ideology of circuit court judges, rather than that of district court judges, appears to be the dominant factor driving litigation risk in securities class action lawsuits. In conclusion, our findings for the effect of a circuit court's judge ideology on securities class action lawsuit occurrence are robust to alternative samples and research designs.³⁶

5.5 SUPREME COURT'S *TELLABS* DECISION

Next, we examine how the Supreme Court's decision in *Tellabs Inc. v. Makor Issues & Rights, Ltd.* (551 U.S. 308 [2007]) affects judge ideology's ability to predict lawsuit occurrence. Prior to *Tellabs*, judges were governed by the pleading standards of their respective circuits. This constrained individual judges in exercising discretion and thus inhibited ideological influence in their decision making. For example, the case law precedents in several circuits (1st, 4th, 6th, and 9th Circuits, also referred to as the Preponderance Circuits) guided judges to grant motions to dismiss, irrespective of their personal preferences. However, in *Tellabs*, the Supreme Court attempts to consolidate the longstanding differences across circuits over the interpretations of the strong inference standard (Choi and Pritchard [2012]). By providing an opinion at the Supreme Court level, the *Tellabs* decision essentially overturned the circuit courts' previous governing standings, opening the door for greater latitude in judicial decision making. In addition, the *Tellabs* ruling prescribes that circuit courts must assess "all the allegations holistically," conduct a "comparative assessment of plausible inferences," and consider all "competing inferences" when determining whether a given complaint "gives rise to a strong inference." Judges are thus required to investigate all relevant information pertaining to the inference, from both within and outside of defendants' complaints, and to rely on their own judgment when evaluating competing inferences (Cox, Thomas, and Bai [2009]). As a result, the *Tellabs* ruling may allow judges a higher degree of discretion when deciding whether to issue a motion to dismiss (Miller [2009]); this, in turn, provides further room for presiding judges' individual perspectives to shape case outcomes (Cox, Thomas, and Bai [2009]). For these reasons, we expect the effect of ideology on securities class action lawsuits to be greater after the *Tellabs* ruling.

³⁶ In online appendix table 12, we examine whether judge ideology's effect varies with firms' political donations (Hassan, Hollander, van Lent, and Tahoun [2017]). Our main findings remain robust after including the firms' political donations and its interaction with *LiberalCourt*. We also find that judge ideology's effect on litigation occurrence does not vary with firms' political donations.

To test the effect of *Tellabs* on securities class action lawsuits, we re-run our analyses adding an indicator variable, *AfterTellabs*, to denote whether the lawsuit filing date is after the *Tellabs* decision (i.e., whether the plaintiffs have knowledge of the ruling). We then test its interaction with *LiberalCourt* in the regression of the lawsuit occurrence test (equation (2)). We match each nonsued firm-year with a sued firm-year in the same industry and year, and with the closest predicted firm-specific litigation risk (*Pred_FirmRisk*). For sued firm-years, we use the actual lawsuit filing date to define *AfterTellabs*. Following Rogers and Van Buskrik [2009], for nonsued firm-years, we use matched sued firm-years' lawsuit filing dates as pseudo-filing dates to define *AfterTellabs*.³⁷ Our findings, presented in table 7 column 1, show that *LiberalCourt* · *AfterTellabs* (z-statistics of 2.81) is positive and significant, suggesting that circuit court judge ideology has a significantly stronger effect in explaining lawsuit filings after *Tellabs*.³⁸ In terms of economic significance, an increase in *LiberalCourt* from Q1 to Q3 (from 0.247 to 0.500) implies an increase in the predicted odds of being sued by 43.44% in relative terms (from 2.44% to 3.50% in absolute terms) after *Tellabs*, compared to 18.04% in relative terms (from 2.55% to 3.01% in absolute terms) before *Tellabs*. Our result is robust if we replace circuit fixed effects with state fixed effects (in column 2), if we use linear probability models (in columns 3 and 4), or if we include interactions of *AfterTellabs* with our control variables (online appendix table 13).³⁹

5.6 THE EFFECT OF JUDGE IDEOLOGY—CROSS-SECTIONAL TESTS

To investigate circumstances where judge ideology is more important, we conduct three cross-sectional tests. Because the effect of judge ideology on plaintiffs' filing decisions depends on the plaintiffs' ability and incentive to consider the implications of judge ideology for lawsuit outcomes, we expect judge ideology to have a stronger effect when shareholders are more sophisticated or when the expected payoffs from the lawsuits are higher.

We first measure a potential plaintiff's sophistication using the proportion of institutional investors. The PSLRA's lead plaintiff provision dictates that the most adequate plaintiff, that is, the one with the largest financial

³⁷ We include year fixed effects in the regression to control for macroeconomic events and lawsuit filing trends. Year fixed effects are defined based on the fiscal year of the firm-year observation, while *AfterTellabs* is defined based on the actual or pseudo lawsuit filing dates. In an untabulated sensitivity test, we exclude year fixed effects and find similar results.

³⁸ For brevity, we report the coefficient estimates of the control variables in the online appendix table 13.

³⁹ We also use a one-to-one matched sample, in which each sued firm-year is matched to a non-sued firm year, to test the effect of the *Tellabs* decision. The results are consistent with circuit court judge ideology having a stronger effect after the *Tellabs* case (reported in online appendix table 14). Note that using this sample, the main effect of *LiberalCourt* is positive but not statistically significant, probably owing to the small sample size (less than 10% of the full sample), which reduces the power of the test.

TABLE 7
Relation Between Judge Ideology and Lawsuit Occurrence Before and After Tellabs

Dependent Variable	(1)	(2)	(3)	(4)
	<i>SUED</i>			
<i>LiberalCourt</i>	0.668** (2.42)	0.591** (2.09)	0.030** (2.46)	0.024* (1.90)
<i>AfterTellabs</i>	-0.241 (-1.32)	-0.260 (-1.39)	0.000 (0.03)	-0.001 (-0.13)
<i>LiberalCourt·AfterTellabs</i>	0.792*** (2.81)	0.833*** (2.90)	0.020* (1.91)	0.023** (2.13)
<i>FPS</i>	0.135** (2.15)	0.147** (2.30)	0.006** (2.01)	0.006** (2.10)
<i>Controls_SUED</i>	Yes	Yes	Yes	Yes
Circuit FE	Yes	-	Yes	-
State FE	-	Yes	-	Yes
Year FE	Yes	Yes	Yes	Yes
Pseudo (adjusted)-R ²	12.97%	13.39%	5.18%	5.26%
Number of observations	91,698	91,698	91,698	91,698
When <i>AfterTellabs</i> = 0:				
% Δ <i>Pred.</i> (<i>SUED</i>) if <i>LiberalCourt</i> increases from Q1 to Q3	18.04%	15.66%	19.38%	15.74%
When <i>AfterTellabs</i> = 1:				
% Δ <i>Pred.</i> (<i>SUED</i>) if <i>LiberalCourt</i> increases from Q1 to Q3	43.44%	41.95%	28.93%	27.15%
Wald test: <i>LiberalCourt</i> + <i>LiberalCourt</i> · <i>AfterTellabs</i> = 0				
Chi-square	28.751***	25.965***	27.078***	21.534***

This table reports the regression results on the relation between securities class action lawsuit occurrences and circuit court judge ideology before and after Supreme Court’s *Tellabs* ruling. We estimate the regression of $SUED = f(Liberal\ Court, After\ Tellabs, Liberal\ Court \cdot After\ Tellabs, FPS, Controls_SUED) + \varepsilon$. *Controls_SUED* include *Size, SalesGR, Beta, RetVol, RetSkw, Return, MinRet, Turnover, IO, Leverage, Financing, IndRet, IndRetVol, MktRet, GDPGR, UNEMP*, and *BlueState*. Columns 1 and 2 report the logit regression results and columns 3 and 4 report the OLS regression results. z-Statistics (t-statistics) based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

interest in the case, shall be the lead plaintiff and will select and retain counsel to represent the class (Choi [2011]). Institutional lead plaintiffs are sophisticated players in securities class action litigations. They have resources to supervise a case more closely (Weiss and Beckerman [1995], Perino [2003, 2012]). Cox, Thomas, and Kiku [2006] and Cheng et al. [2010], for example, find that cases with an institutional lead plaintiff are less likely to be dismissed and have a significantly larger settlement after controlling for a variety of factors. With greater sophistication, more experience in securities class action lawsuits, and access to resources, institutional investors are likely better able to incorporate judge ideology information into their decision-making process than individual investors. Therefore, we expect judge ideology to exhibit a stronger influence on litigation occurrence for firms with higher institutional ownership.

We next use the expected payoffs from a lawsuit to measure plaintiffs’ incentives to take judge ideology into consideration. Here, we expect that the higher the expected payoffs, the more likely plaintiffs are to consider

TABLE 8
Relation Between Judge Ideology and Litigation Occurrence in Subsamples

Partition Variables	<i>IO</i>		<i>Size</i>		<i>Phat_Firm</i>	
	High (1)	Low (2)	High (3)	Low (4)	High (5)	Low (6)
Dependent Variable	<i>SUED</i>					
<i>LiberalCourt</i>	1.544*** (5.59)	0.831** (2.10)	1.419*** (4.84)	0.282 (0.80)	1.357*** (5.45)	0.615 (1.15)
<i>FPS</i>	0.062 (0.76)	0.261*** (2.70)	0.143** (1.96)	0.137 (1.42)	0.150** (2.30)	0.066 (0.45)
<i>Controls_SUED</i>	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo- <i>R</i> ²	10.59%	13.86%	9.99%	10.28%	8.33%	8.25%
Number of observations	44,245	47,453	45,834	45,864	45,834	45,864
Testing the equality of coefficients of <i>LiberalCourt</i> between High and Low subsamples:						
Chi-square	4.627**		7.140***		6.754***	

This table reports the logit regression results on the relation between securities class action lawsuit occurrences and circuit court judge ideology in various subsamples. We estimate the logit regression of $SUED = f(\text{LiberalCourt}, FPS, \text{Controls_SUED}) + \varepsilon$. *Controls_SUED* include *Size*, *SalesGR*, *Beta*, *RetVol*, *RetSkw*, *Return*, *MinRet*, *Turnover*, *IO*, *Leverage*, *Financing*, *IndRet*, *IndRetVol*, *MktRet*, *GDPGR*, *UNEMP*, and *BlueState*. Columns 1, 3, and 5 use firm-years with above sample median values of *IO*, *Size*, and *Phat_Firm*, respectively; columns 2, 4, and 6 use firm-years with below sample median values of *IO*, *Size*, and *Phat_Firm*, respectively. z-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. ** and *** indicate significance at the 0.05 and 0.01 levels, respectively. Variable definitions are in appendix B.

judge ideology in their filing decisions. As proxies for the expected payoffs from the lawsuits, we use firm size and predicted litigation risk, measured using firm characteristics. First, because larger firms are better able to pay a settlement, they are more likely to settle a case, which increases lawsuits' expected payoffs (House Conference Report [1995], Choi and Pritchard [2012]). This is consistent with the "deep-pocket strategy" used by plaintiff lawyers, where lawsuits, even completely meritless ones, are routinely filed against firms with deep pockets whenever there is a significant drop in their stock prices (Kasznik and Lev [1995], Skinner [1997]). Given the higher expected payoffs of litigation against larger companies, we expect plaintiffs will be more likely to assess judge ideology when deciding whether to file lawsuits against these firms. In addition to firm size, we use a composite measure of predicted firm-specific litigation risk as a proxy for lawsuits' expected payoff (*Pred_FirmRisk*). Previous research shows that shareholders expect to receive higher payoffs from lawsuits against firms with higher predicted litigation risk (Finnerty and Pushner [2002]). Similar to firm size, we expect that shareholders are more likely to consider judge ideology for these firms.

We estimate equation (2) separately for subsamples based on the median value of these three measures and report the results in table 8. In the first cross-sectional test, we partition the sample firms by their institutional holdings. We expect judge ideology to have a larger effect for firms with

higher institutional holdings. The results show that the coefficient for *LiberalCourt* is higher for high institutional ownership firms (column 1) than for low institutional ownership firms (column 2) and is significant at the 5% level. Next, we partition firms based on firm size, and expect the effect of judge ideology to be stronger for larger firms. The results show that *LiberalCourt* is positive and significant (1.419, z-statistics of 4.84) for larger firms (column 3) but not significant (0.282, z-statistics of 0.80) for smaller ones (column 4). The chi-square test result shows that the difference is significant at the 1% level. Finally, we partition our sample firms based on high and low predicted firm-specific litigation risk. We expect the effect of judge ideology to be stronger for firms with high litigation risk due to the higher expected payoffs from these firms. The results from this test show that the estimated coefficient for *LiberalCourt* is positive and significant only for firms with high litigation risk (column 5), but not for those with low litigation risk (column 6), with the difference between columns significant at the 1% level. Taken together, the cross-sectional tests presented in table 8 highlight the conditions under which judge ideology has a stronger effect, providing further support for its ability to measure ex ante litigation risk.

5.7 JUDICIAL APPOINTMENT TEST

To further validate judge ideology as a measure of litigation risk and to demonstrate the effect of political appointments, we explore how judicial appointments affect the likelihood of lawsuit filings and whether investors understand its implications. To test this empirically, we focus on firms located in circuits that experience new judicial appointments. The average time between the departure of one judge and the confirmation of a new judge is about two and a half years (Jennewine [2016]). The official judicial appointment is thus the event that marks the final confirmation of the change in judge ideology. Table 9, panel A, shows the descriptive statistics for judicial appointments over time and across circuits. Altogether, there were 141 judicial appointments in our sample period from 1996 to 2014, including 82 Democratic and 59 Republican appointees.

First, to verify the effect of judicial appointments on lawsuit filings, we compare the likelihood that lawsuit filings occur before and after judicial appointments. We expect an increase in lawsuit filings in a given circuit after a Democratic judicial appointment and a decrease after a Republican judge is appointed. Specifically, we compare the percentages of firms sued in the two years before and the two years after the judicial appointment dates, respectively. The results in table 9, panel B, show that a firm's lawsuit filing rate increases by 0.81% after a Democratic appointee arrives, translating to a 59.6% increase in the unconditional probability of being sued. In contrast, a firm's likelihood of being sued decreases by 0.77% following a Republican judge's appointment, a 36.3% decrease in the unconditional probability of being sued. Both changes are statistically significant at the 1% level.

TABLE 9
Consequence of Circuit Court Judicial Appointments

Panel A: Summary statistics of circuit court judicial appointments by year and circuit																																						
Year	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14																			
Appointing presidents			Clinton						Bush								Obama																					
Number of liberal judicial appointments	2	6	13	6	8									3	11	7	6	8	12																			
Number of conservative judicial appointments					4	11	13	7	6	8	6	4																										
Circuit	Number of liberal judicial appointments																			Number of conservative judicial appointments																		
1st	4																			1																		
2nd	10																			5																		
3rd	8																			7																		
4th	10																			3																		
5th	3																			7																		
6th	4																			9																		
7th	2																			2																		
8th	3																			7																		
9th	20																			7																		
10th	5																			6																		
11th	8																			1																		
D.C.	5																			4																		
Total	82																			59																		

(Continued)

TABLE 9—Continued

Panel B: Lawsuit filing rates before and after judicial appointments					
Appointing President Partisanship	Number of Judicial Appointments	Number of Firms	Lawsuit Filing Rate Before	Lawsuit Filing Rate After	Difference in Lawsuit Filing Rate
Democrat	82	11,651	1.36%	2.17%	0.81%***
Republican	59	8,793	2.12%	1.35%	-0.77%***

Panel C: Stock price reaction to judicial appointments					
Appointing President Partisanship	Number of Judicial Appointments	Number of Firms	Number of Observations	Mean CAR	Median CAR
Democrat	82	10,185	48,528	-0.261%**	-0.263%***
Republican	59	7,565	26,989	0.272%***	0.045%**
Democrat – Republican				-0.533%***	-0.308%***

Panel A reports the number of judicial appointments by year circuit and the party affiliation of the appointing presidents. Panel B reports the likelihood of lawsuit filings in the two years before and the two years after judicial appointment dates for firms located in the affected circuits. *** indicates significance at the 0.01 level, respectively, with standard errors clustered by states. Panel C reports the market reaction to judicial appointments for firms located in the circuit affected. The market reaction (CAR) is the three-day cumulative market-adjusted returns surrounding the judicial appointment date. The statistical significance of mean CAR is based on the *t*-test of the difference between the CAR and 0, with standard errors clustered by states. The statistical significance of the median CAR is based on the nonparametric sign test of the difference between the CAR and 0. ** and *** indicate significance at the 0.05 and 0.01 levels, respectively.

Next, as securities class action lawsuits are costly to firms (Romano [1991]), we examine market reactions surrounding judicial appointment dates and expect that the market will react positively (negatively) to a Republican (Democratic) judicial appointments. Table 9, panel C, reports the mean and median three-day market-adjusted returns (*CAR*) surrounding judicial appointment dates for firms located in the corresponding circuit. The results show that stock returns are significantly negative (mean and median of -0.261% and -0.263% , respectively) for firms affected by a Democratic appointment and significantly positive (mean and median of 0.272% and 0.045% , respectively) for those affected by a Republican appointment. This is consistent with the market pricing the influence of judge ideology on litigation risk.

Because judicial appointments can affect litigation risks not only for securities class action lawsuits but also for other types of lawsuits, we conduct an additional test to ensure that market reactions following judicial appointment dates are driven mainly by changes in securities class action lawsuit risk. To do so, we regress *CAR* on an indicator variable for whether the new judge is appointed by a Democratic President (*DemAppoint*) and its interaction with *FPS*, controlling for size, book-to-market, beta, and momentum (Larcker, Ormazabal, and Taylor [2011]). We expect our findings to be stronger for firms in high litigation risk industries (Johnson, Kasznik, and Nelson [2000]). Our findings (tabulated in online appendix table 15) show that although firms experience a negative market reaction to Democratic judge appointments in general (columns 1 and 3), the magnitude is substantially larger for firms in high litigation risk industries (*DemAppoint* · *FPS* significant at the 5% levels). This suggests that our earlier findings are driven specifically by the effect of judge ideology on securities class action lawsuits.

5.8 THE EFFECT OF JUDGE IDEOLOGY ON LAWSUIT OUTCOME

We next test the association between circuit court judge ideology and securities class action lawsuits' outcomes for two reasons. First, in proposing judge ideology as a measure of litigation risk, we draw on the political science literature to argue that judge ideology influences securities class action lawsuit rulings. In this section, we provide empirical evidence to corroborate our argument. Second, the test measures judge ideology's effect on the costs of litigation. Compared with dismissed lawsuits, settled lawsuits can cost firms much more due to lengthy discovery periods, expensive legal fees (Klausner, Hegland, and Goforth [2013]), increased director and officer insurance premiums (Donelson and Yust [2017]), and, of course, the settlement payout itself.

Our findings, discussed in detail in online appendix I and tabulated in online appendix table 16, indicate that securities class action lawsuits filed in more liberal circuits are less likely to be dismissed and, for those not dismissed, to be settled for larger amounts. The effect is both statistically and economically significant. An increase in *LiberalCourt* from Q1 to Q3 results

in a 14.6% decrease in the odds of cases being dismissed (from 34.8% to 29.7% in absolute terms), and for cases that are not dismissed, an average increase of \$907,274 in the settlement amount. The significant magnitude not only confirms that judge ideology influences judicial decisions, but also suggests that it serves as an important driver of litigation costs.⁴⁰

6. *Litigation Risk and Firm Disclosures*

We now test the effect of judge ideology in a specific economic problem: how ex ante litigation risk affects firms' voluntary disclosure decisions. On the one hand, prior studies have conflicting views on the preemption effect of litigation risk, that is, litigation risk motivates firms to disclose bad news promptly. Skinner [1994] and Marinovic and Varas [2016], for example, argue that firms have an incentive to warn investors of bad news to reduce the likelihood of litigation and the amount of potential settlements. Several other studies document evidence consistent with this argument (Kasznik and Lev [1995], Field, Lowry, and Shu [2005]). However, voluntary disclosure of bad news can also contribute to shareholder lawsuits (Francis, Philbrick and Schipper [1994b], Skinner [1997], Bliss, Partnoy, and Furchtgott [2018]). Consistent with the latter view, Johnson, Kasznik, and Nelson (2001) find an increase in earnings warnings following the passage of the PSLRA in 1995, which reduced firms' litigation exposure.

On the other hand, the literature also argues that litigation risk has a chilling effect on disclosure, that is, litigation risk may deter firms, in general, from making voluntary disclosures because plaintiffs in a potential lawsuit can use information provided in the disclosure as a rationale for bringing suit. Rogers and Van Buskirk [2009], for example, find that firms reduce voluntary disclosures after being the target of actual litigation. They interpret this as an indication that firms perceive plaintiffs to use disclosures as a pretext for litigation. To examine whether managers understand judge ideology's effect on litigation risk, and to apply our measure of litigation risk to the voluntary disclosure literature, we estimate the following regression:

$$Issue = f(LiberalCourt, Controls_Disclosure) + \varepsilon, \quad (3)$$

where *Issue* is the natural log of one plus the number of earnings guidance. We use earnings guidance as a measure of voluntary disclosure because we can accurately measure its timeliness, that is, the future fiscal

⁴⁰ Note that this magnitude may understate judge ideology's effect on actual lawsuit outcomes for two reasons. First, the lawsuit outcome tests use all securities class action lawsuits as samples, including cases that ended in district courts and did not reach circuit courts, for which circuit court judge ideology only has an indirect effect. Second, because we are interested in whether ex ante litigation risk affects case outcomes, we use *LiberalCourt*, the ex ante expected judge ideology in our tests, which may be different from actual judge ideology after the case is filed to the circuit. As such, *LiberalCourt* is a noisy measure of actual judge ideology and may understate judge ideology's true impact.

period to which the disclosure is referring. In addition to controlling for firm characteristics and demographic variables, we control for earnings news (*EarningsNews*), earnings decreases (*EPSDecrease*), earnings per share (EPS) change (*EPSChange*), earnings to price ratio (*EPRatio*), loss (*Loss*), and past earnings guidance (*LagIssue*). Following prior disclosure studies (e.g., Ajinkya, Bhojraj, and Sengupta [2005], Bergman and Roychowdhury [2008], Lerman and Livnat [2010]), we also include indicator variables for significant regulation changes related to disclosure, as new regulations can change the litigation risk of voluntary disclosures; these include the Regulation Fair Disclosure (*RegFD*) and the SEC 2004 rule on 8-K disclosure requirements (*New8K*). Finally, we include circuit or firm fixed effects to control for omitted variables that may correlate with judge ideology.⁴¹ *t*-Statistics are based on robust standard errors clustered by states. Detailed variable definitions are in appendix B.

To study the preemption effect, we test whether firms facing negative earnings news in more liberal circuits are more likely to disclose quarterly earnings warnings before the forthcoming earnings announcements.⁴² We present the results in panel A of table 10.⁴³ In specifications with circuit and firm fixed effects (columns 1–4), we find that the coefficients for *LiberalCourt* are positive and significant. This is consistent with firms in more liberal circuits facing higher litigation risk and being more likely to issue earnings warnings to preempt an adverse earnings outcome. However, while the coefficients for *FPS* and *Pred_Firm Risk* are positive and significant when circuit fixed effects are included (in columns 1 and 2), as is consistent with prior findings (Francis, Philbrick, and Schipper [1994b], Skinner [1997], Field, Lowry, and Shu [2005]), both turn insignificant when firm fixed effects are included (in columns 3 and 4, and 7 and 8). Finally, while *LiberalCourt* is positively significant in columns 1–4, when year fixed effects are included, it is also no longer statistically significant as a predictor of earnings warnings. This finding is consistent with the ambiguity of the net legal cost of earnings warnings, that is, whether it increases or decreases the expected litigation costs (Leuz and Wysocki [2016]). Another possibility is that firms bundle earnings warnings with positive information or noise to lower expected litigation costs (Bliss, Partnoy, and Furchogott [2018]). Further research may be needed to disentangle the various effects.

To examine whether our results support a chilling effect, we measure a firm's tendency to issue upward annual forecasts relative to the analyst consensus prior to the fourth quarter and perform the test on the same

⁴¹ Our finding is similar if we replace circuit fixed effects with state fixed effects (tabulated in online appendix table 17).

⁴² Compared with annual forecasts, quarterly forecasts have shorter horizons, and are thus more likely to be used for the "preemption" of negative earnings news (Skinner [1994], Baginski, Hassell, and Kimbrough [2002], Rogers and Stocken [2005]).

⁴³ For brevity, we report the coefficient estimates of the control variables in online appendix table 17.

TABLE 10
Relation Between Litigation Risk and Earnings Guidance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Litigation risk and short-horizon earnings guidance								
Dependent Variable				<i>Issue_Short</i>				
<i>LiberalCourt</i>	0.080*** (2.82)	0.079*** (2.80)	0.078*** (3.14)	0.078*** (3.13)	0.018 (0.80)	0.022 (0.88)	0.003 (0.11)	0.003 (0.10)
<i>EPS</i>	0.045*** (8.25)		0.008 (0.40)		0.047*** (8.63)		0.007 (0.35)	
<i>Pred_FirmRisk</i>		0.318*** (6.08)		0.040 (0.50)		0.294*** (5.43)		0.018 (0.23)
<i>Controls_Disclosure</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	—	—	Yes	Yes	—	—
Firm FE	—	—	Yes	Yes	—	—	Yes	Yes
Year FE	—	—	—	—	Yes	Yes	Yes	Yes
Adjusted-R ²	27.13%	26.83%	30.70%	30.70%	27.57%	27.25%	31.26%	31.26%
Number of observations	35,890	35,890	35,890	35,890	35,890	35,890	35,890	35,890

(Continued)

TABLE 10—Continued

Panel B: Litigation risk and long-horizon earnings guidance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent Variable				<i>Issue_Long</i>				
<i>LiberalCourt</i>	-0.031** (-2.09)	-0.0311** (-2.06)	-0.036* (-1.65)	-0.036* (-1.66)	-0.030** (-1.73)	-0.029 (-1.66)	-0.045* (-1.72)	-0.045* (-1.71)
<i>FPS</i>	0.012** (2.15)		-0.004 (-0.23)		0.012*** (2.16)		-0.005 (-0.26)	
<i>Pred_FirmRisk</i>		0.055 (0.86)		0.109 (1.63)		0.047 (0.78)		0.103 (1.53)
<i>Controls_Disclosure</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	-	-	Yes	Yes	-	-
Firm FE	-	-	Yes	Yes	-	-	Yes	Yes
Year FE	-	-	-	-	Yes	Yes	Yes	Yes
Adjusted- <i>R</i> ²	20.45%	20.42%	20.35%	20.36%	20.60%	20.56%	20.55%	20.56%
Number of observations	35,890	35,890	35,890	35,890	35,890	35,890	35,890	35,890

Panel A reports the OLS regression results on the relation between the number of negative short-horizon earnings guidance and litigation risk. The sample consists of 35,890 firm-year observations with negative earnings news during the 1995–2013 period. In columns 1, 3, 5, and 7, we estimate the OLS regression $Issue_Short = f(LiberalCourt, FPS, Controls_Disclosure) + \varepsilon$. *Controls_Disclosure* includes *Size*, *Return*, *RetVol*, *RetSkw*, *Turnover*, *IndRetVol*, *IO*, *Financing*, *GDPCR*, *UNEMP*, *BlueState*, *EarningsNews*, *EPSDecrease*, *EPSChange*, *EPRatio*, *Loss*, *RegFD*, *News8K*, and *LagIssue*. In columns 2, 4, 6, and 8, we replace *FPS* with *Pred_FirmRisk*. *t*-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. Panel B reports the OLS regression results on the relation between the number of positive long-horizon earnings guidance and litigation risk. The sample consists of 35,890 firm-year observations during the 1995–2013 period with negative earnings news. In column (1), we estimate the OLS regression: $Issue_Long = f(LiberalCourt, FPS, Controls_Disclosure) + \varepsilon$. *Controls_Disclosure* includes *Size*, *Return*, *RetVol*, *RetSkw*, *Turnover*, *IndRetVol*, *IO*, *Financing*, *GDPCR*, *UNEMP*, *BlueState*, *EarningsNews*, *EPSDecrease*, *EPSChange*, *EPRatio*, *Loss*, *RegFD*, *News8K*, and *LagIssue*. In columns 2, 4, 6, and 8, we replace *FPS* with *Pred_FirmRisk*. *t*-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

firm-year sample as the preemption test. In this case, we expect the chilling effect to be more pronounced for positive, longer horizon forecasts, as these are less likely to be used to preempt forthcoming negative earnings surprises, and managers still bear litigation costs for issuing biased forecasts (Rogers and Stocken [2005]). Consistent with this prediction, Baginski, Hassell, and Kimbrough [2002] show that Canadian firms, which face a less litigious environment than U.S. firms, issue more annual forecasts than U.S. firms but not more interim forecasts. Similarly, Huang, Shen, and Zang [2018] find that when firms reduce their litigation risk by increasing disclosure of meaningful cautionary statements, they are more likely to issue annual earnings forecasts. Our results of negative coefficient for *LiberalCourt* in table 10, panel B, suggest that litigation risk reduces managers' incentive to issue positive long-horizon forecasts. The results also indicate that managers are aware of judge ideology's effect on litigation risk in making decisions.

However, unlike the results in the preemption test, we find that in this test, *Pred_FirmRisk* is not significant and *FPS* is significant in the direction opposite to the chilling effect (in columns 1 and 5 when firm fixed effects are not included). This suggests that in this setting, judge ideology is a superior measure of litigation risk compared to existing measures. This result is intuitive, as litigation risk associated with the chilling effect is more closely related to the legal system, which can be captured by judge ideology. In particular, the PSLRA, which was designed to curb frivolous lawsuits, provides companies with a safe harbor for forward-looking statements made in good faith and accompanied by "meaningful cautionary statements." However, the PSLRA does not clearly specify what qualifies as a meaningful cautionary statement. This ambiguity leaves room for judges to exert discretion in their judicial decisions.⁴⁴ Within this context, the presence of a liberal judge increases litigation risk, as he or she will be more likely to take a stricter view of whether a cautionary statement constitutes a "meaningful cautionary statements" as defined in the PSLRA, and of whether such statements can protect a firm from disclosure-related securities class action lawsuits. Thus, compared with firm and industry characteristics, judge ideology is a more direct and powerful measure of litigation risk for the chilling effect.

Finally, as a placebo test, we investigate the relation between judge ideology and firms' mandatory disclosures. Because issuing mandatory disclosures is not a choice for firms, we do not expect it to be related to judge ideology. We separately examine firms' positive and negative mandatory disclosures such that the results are comparable with the management guidance test.⁴⁵ To measure the number of positive and

⁴⁴Judge Easterbrook points out in *Asher v. Baxter Int'l Inc.*, 377 F.3d 727 (7th Cir. 2004) that "the fundamental problem is that the statutory requirement of 'meaningful cautionary statements' is not itself meaningful" (Easterbrook [2004]).

⁴⁵In a sensitivity test, we use firms' overall mandatory disclosure and find similar results.

TABLE 11
Relation Between Litigation Risk and Mandatory Disclosure

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Relation between litigation risk and positive mandatory 8-Ks								
Dependent Variable				<i>Mandatory_Pos</i>				
<i>LiberalCourt</i>	-0.005 (-0.14)	-0.004 (-0.12)	-0.039 (-0.76)	-0.039 (-0.77)	-0.021 (-0.51)	-0.020 (-0.49)	-0.056 (-0.94)	-0.056 (-0.95)
<i>FPS</i>	0.007 (0.82)		0.014 (0.33)		0.005 (0.60)		0.013 (0.32)	
<i>Pred_FirmRisk</i>		-0.059 (-0.59)		0.077 (0.60)		-0.072 (-0.76)		0.083 (0.65)
<i>Controls_Disclosure</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	-	-	Yes	Yes	-	-
Firm FE	-	-	Yes	Yes	-	-	Yes	Yes
Year FE	-	-	-	-	Yes	Yes	Yes	Yes
Adjusted-R ²	34.19%	34.19%	43.61%	43.61%	34.52%	34.52%	44.00%	44.00%
Number of observations	35,890	35,890	35,890	35,890	35,890	35,890	35,890	35,890

(Continued)

TABLE 11—Continued

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel B: Relation between litigation risk and negative mandatory 8-Ks								
Dependent Variable					Mandatory_Neg			
<i>LiberalCourt</i>	0.016 (0.37)	0.017 (0.40)	-0.049 (-1.04)	-0.048 (-1.02)	-0.037 (-0.96)	-0.036 (-0.94)	-0.081 (-1.51)	-0.080 (-1.50)
<i>FPS</i>	0.004 (0.67)		-0.023 (-0.62)		0.005 (0.81)		-0.022 (-0.61)	
<i>Pred_FirmRisk</i>		-0.114 (-1.43)		-0.122 (-0.96)		-0.117 (-1.49)		-0.110 (-0.87)
<i>Controls_Disclosure</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Circuit FE	Yes	Yes	-	-	Yes	Yes	-	-
Firm FE	-	-	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	-	-	-	-	Yes	Yes	Yes	Yes
Adjusted-R ²	47.21%	47.22%	51.50%	51.50%	47.69%	47.69%	51.95%	51.95%
Number of observations	35,890	35,890	35,890	35,890	35,890	35,890	35,890	35,890

Panel A reports the OLS regression results on the relation between the number of positive mandatory 8-Ks and litigation risks. The sample consists of 35,890 firm-year observations with negative earnings news during the 1995–2013 period. In columns 1, 3, 5, and 7, we estimate the OLS regression: $Mandatory_Pos = f(LiberalCourt, FPS, Controls_Disclosure) + \epsilon$. *Controls_Disclosure* includes *Size*, *Return*, *ReVol*, *RebShu*, *Turnover*, *IndRetVol*, *IO*, *Financing*, *GDPGR*, *UNEMP*, *BlueState*, *EarningsNews*, *EPSDecrease*, *EPSPChange*, *EPRatio*, *Loss*, *RegFD*, *Neo8K*, and *LagIssue*. In columns 2, 4, 6, and 8, we replace *FPS* with *Pred_FirmRisk*. *t*-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. Panel B reports the OLS regression results on the relation between the number of negative mandatory 8-Ks and litigation risks. The sample consists of 35,890 firm-year observations with negative earnings news during the 1995–2013 period. In columns 1, 3, 5, and 7, we estimate the OLS regression: $Mandatory_Neg = f(LiberalCourt, FPS, Controls_Disclosure) + \epsilon$. *Controls_Disclosure* includes *Size*, *Return*, *ReVol*, *RebShu*, *Turnover*, *IndRetVol*, *IO*, *Financing*, *GDPGR*, *UNEMP*, *BlueState*, *EarningsNews*, *EPSDecrease*, *EPSPChange*, *EPRatio*, *Loss*, *RegFD*, *Neo8K*, and *LagIssue*. In columns 2, 4, 6, and 8, we replace *FPS* with *Pred_FirmRisk*. *t*-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. Variable definitions are in appendix B.

negative mandatory disclosures that a firm makes in a year, we count their 8-K filings that do not contain voluntary items 2.02, 7.01, and 8.01, and with positive or negative market reactions, respectively (Cooper, He, and Plumlee [2018]). As expected, the results in table 11, panels A and B, show no significant relation between judge ideology and mandatory disclosures, regardless of earnings' directionality.

Taken together, the results for our tests of management forecasts and mandatory disclosures suggest not only that judge ideology is a valid measure of ex ante litigation risk and that enables researchers to draw inferences beyond existing measures based on industry membership and firm characteristics; it also indicates the importance of political appointments to corporate decision making.

7. Conclusions

In this study, we introduce a new ex ante litigation risk measure, federal judge ideology, and examine its economic consequences for firms. Ideology is well documented in the political science literature as one of the most important determinants of judges' voting behavior. We measure judge ideology using the partisanship of a judge's appointing president. In securities class action litigation, judges appointed by Democratic presidents are more liberal and tend to side with shareholders, while judges appointed by Republican presidents are more conservative and tend to favor firms in their decisions. Thus, firms have a higher litigation risk if they are located in a circuit with a greater proportion of judges appointed by Democratic presidents.

We conduct three sets of empirical tests to validate the measure and demonstrate its economic consequences. First, we test whether judge ideology predicts the occurrence of lawsuits. We find strong evidence that judge ideology is economically meaningful in predicting securities class action lawsuit filings and that it improves upon the ex ante litigation prediction models currently used in the literature. Firms in more liberal circuits are more likely to be sued. We also find that the effect of judge ideology is stronger after the Supreme Court's *Tellabs* ruling, which is consistent with this precedent providing more room for judges to exercise discretion in their rulings. Second, as evidenced in the economic consequence of judicial appointments, we find that the lawsuit filing rate increases (decreases) after the appointments of liberal (conservative) judges and that the market reacts accordingly. Third, we find that lawsuits filed in more liberal circuits are less likely to be dismissed and more likely to settle in larger amounts. Finally, we use managers' voluntary disclosure decisions as a specific economic problem and show that our new measure can provide new insights that litigation risk measures based on firm and industry characteristic cannot.

Our study has implications for empirical research related to ex ante litigation risk. The judge ideology measure will enable researchers to isolate the

effects of ex ante litigation risk attributable to the legal system and to study how this affects firms' economic decisions. This will also be useful for both regulators and managers by improving their understanding of regulations' practical implications. In addition, our evidence for the occurrence of private securities class action lawsuits provides insights into the implications of the political theory of decision making for securities class action lawsuits, and highlights the economic consequences of political appointments for firms.

We acknowledge two caveats of the paper. First, judge ideology is based on geographic location of the firm's headquarters and is affected by shifting trends in the political environment. As such, depending on the research questions, future studies using the measure may need to control for these environmental variables in the tests. Second, judge ideology in our study is based on federal circuit courts. As such, our measure of litigation risk is limited to lawsuits alleging violations of federal laws and cannot provide insights to issues in state courts' jurisdiction.

APPENDIX A

Estimation of Firm-Specific Litigation Risk

Dependent Variable	<i>SUED</i>
<i>EPS</i>	0.221*** (3.30)
<i>Size</i>	0.365*** (9.50)
<i>SalesGR</i>	0.624*** (14.34)
<i>Beta</i>	0.180*** (3.62)
<i>RetVol</i>	1.977*** (6.29)
<i>RetSkw</i>	-0.041* (-1.81)
<i>Return</i>	0.004 (0.10)
<i>MinRet</i>	-1.650*** (-5.10)
<i>Turnover</i>	0.097*** (9.56)
<i>IO</i>	0.234** (2.10)
<i>Leverage</i>	0.010 (0.07)
<i>Financing</i>	0.313*** (10.15)
<i>Intercept</i>	-6.622*** (-27.82)

(Continued)

APPENDIX A—Continued

Dependent Variable	<i>SUED</i>
Pseudo- R^2	11.12%
Number of observations	91,698

This appendix reports the logit regression results on the relation between the securities class action lawsuits occurrence and industry and firm characteristics. We estimate the logistic model $SUED = f(FPS, Size, SalesGR, Beta, RetVol, RetSkw, Return, MinRet, Turnover, IO, Leverage, Financing) + \varepsilon$. *t*-Statistics based on standard errors clustered by state are reported in parentheses below the coefficients. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively. Variable definitions are in appendix B.

APPENDIX B

Variable Definitions

Variable	Definition
Judge ideology measure	
<i>LiberalCourt</i>	The probability that a three-judge panel randomly selected from a circuit court has at least two judges appointed by Democratic presidents, that is, $[C(x, 3) + C(x, 2) \times C(y - x, 1)] / C(y, 3)$, where $C(n, r)$ is a binomial coefficient indicating the number of possible combinations of r objects from a set of n distinct objects, x is the number of Democratic appointees in the circuit, and y is the total number of judges in the circuit. We measure <i>LiberalCourt</i> at the end of each month and assign each firm-year observation to a circuit court-month based on the firm's headquarters at the beginning of the year. Historical headquarters information is extracted from firms' 10-K filings. Circuit court judges' appointing presidents are obtained from the Federal Judicial Center's Web site.
Variables used in litigation risk validity tests	
<i>SUED</i>	An indicator variable that equals 1 if the firm-year overlaps with the class period of a securities class action lawsuit, and 0 otherwise. Securities class action lawsuits are obtained from the SCAC's Web site.
<i>Pred_FirmRisk</i>	The predicted firm-specific litigation risk from the logit regression of $SUED = f(FPS, Size, SalesGR, Beta, RetVol, RetSkw, Return, MinRet, Turnover, IO, Leverage, Financing) + \varepsilon$ (details in appendix A).
<i>FPS</i>	An indicator variable that equals 1 if the firm's historical SIC code in year t belongs to one of the following groups: biotech (2833–36, 8731–34), computer (3570–77, 7370–74), electronics (3670–74), or retail (5200–5961), and 0 otherwise.
<i>Size</i>	The natural log of one plus the market value of equity ($CSHO * PRCC.F$) at the end of year $t - 1$.
<i>SalesGR</i>	The change in sales (<i>SALE</i>) from year $t - 2$ to year $t - 1$, scaled by the total assets (<i>AT</i>) at the beginning of year $t - 1$.
<i>Beta</i>	The slope coefficient from regressing the firm's daily returns (<i>RET</i>) during year $t - 1$ on the contemporaneous CRSP daily equal-weighted index returns (<i>EWRETD</i>).

(Continued)

APPENDIX B—Continued

Variable	Definition
<i>RetVol</i>	The standard deviation of raw monthly returns (<i>RET</i>) in year $t-1$.
<i>RetSkw</i>	The skewness of raw monthly returns (<i>RET</i>) in year $t-1$.
<i>Return</i>	The cumulative monthly market-adjusted returns in year $t-1$; market-adjusted return equals raw monthly return (<i>RET</i>) minus the CRSP monthly value-weighted index return (<i>VWRETD</i>).
<i>MinRet</i>	The minimum daily returns during year $t-1$.
<i>Turnover</i>	The sum of monthly turnover in year $t-1$; turnover is calculated as the trading volume in the month (<i>VOL</i>), scaled by the shares outstanding at the end of the month (<i>SHROUT</i>).
<i>IO</i>	The total number of shares held by institutional investors (<i>SHARES</i>), scaled by the shares outstanding (<i>SHROUT2</i>), both measured at the end of year $t-1$. Both are obtained from Thomson Reuters Institutional (13f) Holdings database.
<i>Leverage</i>	The long-term debt (<i>DLTT</i>) scaled by the total assets (<i>AT</i>), measured at the end of year $t-1$.
<i>Financing</i>	The sum of cash flows from sales of common and preferred stocks (<i>SSTK</i>) and issuance of long-term debts (<i>DLTIS</i>) in year t , scaled by the total assets (<i>AT</i>) at the end of year $t-1$.
<i>IndRet</i>	The cumulative industry monthly returns over year $t-1$; industry return is the equal-weighted monthly returns of all firms with the same four-digit SIC code.
<i>IndRetVol</i>	The standard deviation of industry monthly return in year $t-1$.
<i>MktRet</i>	The cumulative monthly value-weighted market returns (<i>VWRETD</i>) in year $t-1$.
<i>GDPGR</i>	The percentage change in GDP of the firm's headquarters state from year $t-1$ to year t .
<i>UNEMP</i>	The unemployment rate of the firm's headquarters state at the end of year $t-1$.
<i>BlueState</i>	An indicator variable that equals 1 if the firm's headquarters state favors a Democratic candidate in the most recent presidential election prior to year t , and 0 otherwise.
<i>AfterTellabs</i>	An indicator variable that equals 1 if the actual or pseudo-lawsuit filing date of a firm-year is after the Supreme Court's ruling on the <i>Tellabs</i> case, that is, June 21, 2007, and 0 otherwise. Each nonsued firm-year is matched to a sued firm-year in the same industry and year, and with the closest <i>Pred_FirmRisk</i> ; for a sued firm-year, we use its actual lawsuit filing date; for a nonsued firm-year, we use the actual lawsuit filing date of its matched sued firm-year as its pseudo-lawsuit filing date.
<i>CAR</i>	The three-day cumulative market-adjusted returns surrounding the judicial appointment date in percentage; market-adjusted returns are return minus the value-weighted market return.
Variables used in earnings guidance and mandatory disclosure tests	
<i>Issue.Short</i>	The natural log of one plus the number of downward quarterly earnings guidance (from I/B/E/S) made between year $t-1$'s earnings announcement and year t 's fiscal year-end, and within 90 days prior to the end of the forecasted quarter; downward earnings guidance are those that are lower than the analyst consensus forecast in the prior month.

(Continued)

APPENDIX B—Continued

Variable	Definition
<i>Issue_Long</i>	The natural log of one plus the number of upward annual earnings guidance made between year $t-1$'s earnings announcement and the beginning of the fourth quarter of year t ; upward earnings guidance are those that are higher than the analyst consensus forecast in the prior month; earnings guidance and analyst consensus forecast are obtained from the I/B/E/S.
<i>Mandatory_Pos</i>	The natural log of one plus the number of mandatory 8-K filings with positive market reactions in the firm-year; market reactions are the cumulative market-adjusted returns over the three trading days surrounding the 8-K filing day; mandatory 8-K filings are defined as those that do not contain items 2.01, 7.01, or 8.01.
<i>Mandatory_Neg</i>	The natural log of one plus the number of mandatory 8-K filings with negative market reactions in the firm-year; market reactions are the cumulative market-adjusted returns over the three trading days surrounding the 8-K filing day.
<i>EarningsNews</i>	The actual earnings of year t minus the consensus analyst earnings forecast for year t one month after the earnings announcement of year $t-1$, scaled by the stock price (<i>PRCCQ</i>) at the time of the consensus forecast; analyst earnings forecasts and actual earnings are obtained from the I/B/E/S.
<i>EPSDecrease</i>	An indicator variable that equals 1 if the firm's earnings per share (<i>EPSPX</i>) in year t is lower than that in year $t-1$, and 0 otherwise.
<i>EPSChange</i>	The change in earnings per share (<i>EPSPX</i>) from year $t-1$ to year t , scaled by the stock price at the end of year $t-1$ (<i>PRCCF</i>).
<i>EPRatio</i>	The earnings per share (<i>EPSPX</i>) in year t , scaled by the stock price at the end of year $t-1$.
<i>Loss</i>	An indicator variable that equals 1 if net income (<i>NI</i>) is negative in year t , and 0 otherwise.
<i>RegFD</i>	An indicator variable that equals 1 for fiscal years after 2000, and 0 otherwise.
<i>New8K</i>	An indicator variable that equals 1 for fiscal years after 2003, and 0 otherwise.
<i>LagIssue</i>	The lagged variable of the dependent variables in the earnings guidance and the mandatory disclosure tests.

REFERENCES

- AJINKYA, B.; S. BHOJRAJ; AND P. SENGUPTA. "The Association Between Outside Directors, Institutional Investors and the Properties of Management Earnings Forecasts." *Journal of Accounting Research* 43 (2005): 343–76.
- ALI, A., AND S. KALLAPUR. "Securities Price Consequences of the Private Securities Litigation Reform Act of 1995 and Related Events." *The Accounting Review* 76 (2001): 431–60.
- ARENA, M., AND B. JULIO. "The Effects of Securities Class Action Litigation on Corporate Liquidity and Investment Policy." *Journal of Financial and Quantitative Analysis* 50 (2015): 251–75.
- BADAWI, A. "Merger Class Actions in Delaware and the Symptoms of Multi-Jurisdictional Litigation." *Washington University Law Review* 90 (2013): 965–1014.
- BAGINSKI, S. P.; J. M. HASSELL; AND M. D. KIMBROUGH. "The Effect of Legal Environment on Voluntary Disclosure: Evidence from Management Earnings Forecasts Issued in U.S. and Canadian Markets." *The Accounting Review* 77 (2002): 25–50.
- BERENSON, T. "Inside Trump's Plan to Dramatically Reshape U.S. Courts." *Time*, February, 2018, p. 19.

- BERGMAN, N. K., AND S. ROYCHOWDHURY. "Investor Sentiment and Corporate Disclosure." *Journal of Accounting Research* 46 (2008): 1057–83.
- BILLINGS, M. B., AND M. C. CEDERGREN. "Strategic Silence, Insider Selling and Litigation Risk." *Journal of Accounting and Economics* 59 (2015): 119–42.
- BLISS, B. A.; F. PARTNOY; AND M. FURCHTGOTT. "Information Bundling and Securities Litigation." *Journal of Accounting and Economics* 65 (2018): 61–84.
- BOWIE, J. B., AND D. R. SONGER. "Assessing the Applicability of Strategic Theory to Explain Decision Making on the Courts of Appeals." *Political Research Quarterly* 62 (2009): 393–407.
- BROWN, S. V., AND J. W. TUCKER. "Large-Sample Evidence on Firms' Year-Over-Year MD&A Modifications." *Journal of Accounting Research* 49 (2011): 309–46.
- BURBANK, S. B.; S. J. PLAGER; AND G. ABLAVSKY. "Leaving the Bench, 1970–2009: The Choices Federal Judges Make, What Influences Those Choices, and Their Consequences." *University of Pennsylvania Law Review* 161 (2012): 1–102.
- CAIN, M. D., AND S. M. DAVIDOFF. "Takeover Litigation in 2011." Working paper, University of California, 2012. Available at <https://ssrn.com/abstract=1998482>.
- CAMERON, A. C.; J. B. GELBACH; AND D. L. MILLER. "Bootstrap-Based Improvements for Inference with Clustered Errors." *Review of Economics and Statistics* 90 (2008): 414–27.
- CAO, Z., AND G. S. NARAYANAMOORTHY. "The Effect of Litigation Risk on Management Earnings Forecasts." *Contemporary Accounting Research* 28 (2011): 125–73.
- CHENG, C. A.; H. H. HUANG; Y. LI; AND G. LOBO. "Institutional Monitoring Through Shareholder Litigation." *Journal of Financial Economics* 95 (2010): 356–83.
- CHOI, S. J. "Motions for Lead Plaintiff in Securities Class Actions." *Journal of Legal Studies* 40 (2011): 205–44.
- CHOI, S. J., AND A. C. PRITCHARD. "The Supreme Court's Impact on Securities Class Actions: An Empirical Assessment of *Tellabs*." *Journal of Law, Economics, and Organization* 28 (2012): 850–81.
- CHOI, S. J.; M. GULATI; AND E. A. POSNER. "What Do Federal District Judges Want? An Analysis of Publications, Citations, and Reversals." *Journal of Law, Economics, and Organization* 28 (2012): 518–49.
- CHOI, S. J.; M. GULATI; AND E. A. POSNER. "How Well Do Measures of Judicial Ability Predict Judicial Performance? A Case Study Using Securities Class Actions." *International Review of Law and Economics* 33 (2013): 37–53.
- CHOI, S. J.; J. ERICKSON; AND A. C. PRITCHARD. "Piling on? An Empirical Study of Parallel Derivative Suits." *Journal of Empirical Legal Studies* 14 (2017): 653–82.
- COOPER, M. J.; J. HE; AND M. PLUMLEE. "Measuring Disclosure Using 8-K Filings." Working Paper, Available at <https://ssrn.com/abstract=2640722> (2018).
- COX, J. D.; R. S. THOMAS; AND D. KIKU. "SEC Enforcement Heuristics: An Empirical Inquiry." *Duke Law Journal* 53 (2003): 737–79.
- COX, J. D.; R. S. THOMAS; AND D. KIKU. "Does the Plaintiff Matter? An Empirical Analysis of Lead Plaintiffs in Securities Class Actions." *Columbia Law Review* 106 (2006): 1587–640.
- COX, J. D.; R. S. THOMAS; AND L. BAI. "There Are Plaintiffs and . . . There Are Plaintiffs: An Empirical Analysis of Securities Class Action Settlements." *Vanderbilt Law Review* 61 (2008): 355–86.
- COX, J. D.; R. S. THOMAS; AND L. BAI. "Do Differences in Pleading Standards Cause Forum Shopping in Securities Class Actions: Doctrinal and Empirical Analyses." *Wisconsin Law Review* 159 (2009): 421–53.
- CROSS, F. B. *Decision Making in the U.S. Courts of Appeals*. Palo Alto, CA: Stanford University Press, 2007.
- CROSS, F. B., AND E. H. TILLER. "Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals." *Yale Law Journal* 107 (1998): 2155–76.
- DAVIDOFF, S. M.; J. FISCH; AND S. J. GRIFFITH. "Confronting the Peppercorn Settlement in Merger Litigation: An Empirical Analysis and a Proposal for Reform." *Texas Law Review* 93 (2015): 557–624.
- DE FIGUEIREDO, J. M. "Strategic Plaintiffs and Ideological Judges in Telecommunications Litigation." *Journal of Law, Economics, and Organization* 21 (2005): 501–23.

- DONELSON, D. C.; J. M. MCINNIS; R. D. MERGENTHALER; AND Y. YU. "The Timeliness of Bad Earnings News and Litigation Risk." *The Accounting Review* 87 (2012): 1967–91.
- DONELSON, D. C., AND C. G. YUST. "Insurers and Lenders as Monitors During Securities Litigation: Evidence from D&O Insurance Premiums, Interest Rates, and Litigation Costs." *Journal of Risk and Insurance* (2017): Forthcoming.
- DORSEN, N. "The Selection of U.S. Supreme Court Justices." *International Journal of Constitutional Law* 4 (2006): 652–63.
- DUCHARME, L. L.; P. H. MALATESTA; AND S. E. SEFCIK. "Earnings Management, Stock Issues, and Shareholder Lawsuits." *Journal of Financial Economics* 71 (2004): 27–49.
- EASTERBROOK, F. H. "Asher v. Baxter International Incorporated." 377 F.3d 727 (7th Cir. 2004). Available at <http://caselaw.findlaw.com/us-7th-circuit/1131381.html> (2004).
- EISINGER, J. "Webcast Recap: The Rise of Corporate Impunity." *The Advocate for Institutional Investors Winter* (2017): 15.
- FEDDERKE, J.W., AND M. VENTORUZZO. "Do Conservative Justices Favor Wall Street? Ideology and the Supreme Court's Securities Regulation Decisions." *Florida Law Review* 67 (2016): 1211–80.
- Federal Judicial Center. "Federal Judicial Center Annual Report 2006." 2006. Available at <https://www.fjc.gov/sites/default/files/2012/AnnRep06.pdf>.
- Federal Judicial Center. "Deskbook for Chief Judges of U.S. District Courts." 2014. Available at <https://www.fjc.gov/sites/default/files/2017/Deskbook-Chief-Judges-US-District-Courts-4th-Public-FJC-2014.pdf>.
- FIELD, L.; M. LOWRY; AND S. SHU. "Does Disclosure Deter or Trigger Litigation?" *Journal of Accounting and Economics* 39 (2005): 487–507.
- FINNERTY, J., AND G. PUSHNER. "An Improved Two-Trader Model for Measuring Damages in Securities Fraud Class Actions." *Stanford Journal of Law, Business & Finance* 8 (2002): 213–264.
- FORD, C.L. "Toward a New Model for Securities Law Enforcement." *Administrative Law Review* 757 (2005): 757–828.
- FRANCIS, J.; D. PHILBRICK; AND K. SCHIPPER. "Determinants and Outcomes in Class Action Securities Litigation." Working paper, University of Chicago, 1994a.
- FRANCIS, J.; D. PHILBRICK, AND K. SCHIPPER. "Shareholder Litigation and Corporate Disclosures." *Journal of Accounting Research* 32 (1994b): 137–64.
- FRANKEL, R.; M. MCNICHOLS; AND G. P. WILSON. "Discretionary Disclosure and External Financing." *The Accounting Review* 70 (1995): 135–50.
- GEORGE, T. E. "Developing a Positive Theory of Decision Making on U.S. Courts of Appeals." *Ohio State Law Journal* 58 (1998): 1635–98.
- GOLDMAN, S. "Voting Behavior on the United States Courts of Appeals, 1961–1964." *American Political Science Review* 60 (1966): 374–83.
- GOLDMAN, S. "Voting Behavior on the United States Courts of Appeals Revisited." *American Political Science Review* 69 (1975): 491–506.
- GOLDMAN, S. *Picking Federal Judges: Lower Court Selection from Roosevelt Through Reagan*. New Haven, CT: Yale University Press, 1999.
- GRUNDFEST, J. A., AND A. C. PRITCHARD. "Statutes with Multiple Personality Disorders: The Value of Ambiguity in Statutory Design and Interpretation." *Stanford Law Review* 54 (2002): 627–736.
- GULIUZZA, F.; D. J. REAGAN; AND D. M. BARRETT. "The Senate Judiciary Committee and Supreme Court Nominees: Measuring the Dynamics of Confirmation Criteria." *Journal of Politics* 56 (1994): 773–87.
- HAIL, L., AND C. LEUZ. "International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter?" *Journal of Accounting Research* 44 (2006): 485–531.
- HASSAN, T. A.; S. HOLLANDER; L. VAN LENT; AND A. TAHOUN. "Firm-level Political Risk: Measurement and Effects." Working paper, Available at <https://ssrn.com/abstract=2838644> (2017).

- HAY, J. R., AND A. SHLEIFER. "Private Enforcement of Public Laws: A Theory of Legal Reform." *The American Economic Review* 88 (1998): 398–403.
- HEFLIN, F.; K. SUBRAMANYAM; AND Y. ZHANG. "Regulation FD and the Financial Information Environment: Early Evidence." *The Accounting Review* 78 (2003): 1–37.
- HENNES, K. M.; A. J. LEONE; AND B. P. MILLER. "The Importance of Distinguishing Errors from Irregularities in Restatement Research: The Case of Restatements and CEO/CFO Turnover." *The Accounting Review* 83 (2008): 1487–519.
- HOBSON, J. L.; W. J. MAYEW; AND M. VENKATACHALAM. "Analyzing Speech to Detect Financial Misreporting." *Journal of Accounting Research* 50 (2012): 349–92.
- HOUSE CONFERENCE REPORT. *Private Securities Litigation Reform Act of 1995*. House of Representatives, Report No. 369, 104th Congress, 1st Session 1995. Available at <https://www.congress.gov/104/crpt/hrpt369/CRPT-104hrpt369.pdf>.
- HUANG, A.; J. SHEN; AND A. ZANG. "An Unintended Consequence of the Risk Factor Mandate of 2005." Working paper, Hong Kong University of Science and Technology, 2018. Available at <https://ssrn.com/abstract=3219712>.
- JAYARAMAN, S., AND T. MILBOURN. "Does Equity-Based CEO Compensation Really Increase Litigation Risk." Working paper, Washington University, 2009. Available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.619.9274&rep=rep1&type=pdf>.
- JENNEWINE, J. "A Review of Judicial Vacancies." *Sixth Circuit Appellate Blog*. 2016 Available at <http://www.sixthcircuitappellateblog.com/news-and-analysis/a-review-of-judicial-vacancies/>
- JOHNSON, J. "Securities Class Actions in State Court." *University of Cincinnati Law Review* 80 (2012): 349–88.
- JOHNSON, M. F.; R. KASZNIK; AND K. K. NELSON. "Shareholder Wealth Effects of the Private Securities Litigation Reform Act of 1995." *Review of Accounting Studies* 5 (2000): 217–33.
- JOHNSON, M. F.; R. KASZNIK; AND K. K. NELSON. "The Impact of Securities Litigation Reform on the Disclosure of Forward-Looking Information by High Technology Firms." *Journal of Accounting Research* 39 (2001): 297–327.
- JOHNSON, M. F.; K. K. NELSON; R. L. PEABODY (Ed.), AND A. C. PRITCHARD. "Do the Merits Matter More? The Impact of the Private Securities Litigation Reform Act." *Journal of Law, Economics, and Organization* 23 (2007): 627–52.
- JOHNSTON, R. E. "Supreme Court Voting Behavior: A Comparison of the Warren and Burger Courts" in *Cases in American Politics*. New York: Praeger, 1976: 71–110.
- KASZNIK, R., AND B. LEV. "To Warn or Not to Warn: Management Disclosures in the Face of an Earnings Surprise." *The Accounting Review* 70 (1995): 113–34.
- KE, B.; S. HUDDART; AND K. PETRONI. "What Insiders Know About Future Earnings and How They Use It: Evidence from Insider Trades." *Journal of Accounting and Economics* 35 (2003): 315–46.
- KIM, I., AND D. J. SKINNER. "Measuring Securities Litigation Risk." *Journal of Accounting and Economics* 53 (2012): 290–310.
- KLAUSNER, M.; J. HEGLAND; AND M. GOFORTH. "When are Securities Class Actions Dismissed, When Do They Settle, and For How Much? An Update." *Plus Journal* 26 (2013): 1–5.
- KLEIN, D. E. *Making Law in the United States Courts of Appeals*. Cambridge: Cambridge University Press, 2002.
- KNIGHT, J. AND G. M. GULATI. "Talking Judges." *Duke Law Journal Online* 67 (2018): 163–73.
- LA PORTA, R.; F. LOPEZ-DE-SILANES; A. SHLEIFER; AND R.W. VISHNY. "Legal Determinants of External Financing." *Journal of Finance* 52 (1997): 1131–50.
- LA PORTA, R.; F. LOPEZ-DE-SILANES; AND A. SHLEIFER. "What Works in Securities Laws?" *Journal of Finance* 61 (2006): 1–32.
- LA PORTA, R.; F. LOPEZ-DE-SILANES; AND A. SHLEIFER. "The Economic Consequences of Legal Origins." *Journal of Economic Literature* 46 (2008): 285–332.
- LARCKER, D. F.; G. ORMAZABAL, AND D. J. TAYLOR. "The Market Reaction to Corporate Governance Regulation." *Journal of Financial Economics* 101 (2011): 431–48.
- LARCKER, D. F., AND A. A. ZAKOLYUKINA. "Detecting Deceptive Discussions in Conference Calls." *Journal of Accounting Research* 50 (2012): 495–540.

- LAUX, V. "Effects of Litigation Risk on Board Oversight and CEO Incentive Pay." *Management Science* 56 (2010): 938–48.
- LERMAN, A., AND J. LIVNAT. "The New Form 8-K Disclosure." *Review of Accounting Studies* 15 (2010): 752–78.
- LEUZ, C., AND P. D. WYSOCKI. "The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research." *Journal of Accounting Research* 54 (2016): 525–622.
- LEVINE, D. M., AND A. C. PRITCHARD. "The Securities Litigation Uniform Standards Act of 1998: The Sun Sets on California's Blue Sky Laws." *The Business Lawyer* 54 (1998): 1–54.
- LOWRY, M., AND S. SHU. "Litigation Risk and IPO Underpricing." *Journal of Financial Economics* 65 (2002): 309–35.
- MACCHIAROLA, M. C. "Hallowed by History, But Not By Reason: Judge Rakoff's Critique of the Securities and Exchange Commission's Consent Judgment Practice." *CUNY Law Review* 16 (2012): 51–96.
- MARINOVIC, I., AND F. VARAS. "No News is Good News: Voluntary Disclosure in the Face of Litigation." *The Rand Journal of Economics* 47 (2016): 822–56.
- MARTIN, D. N.; V. M. JUNEJA; T. S. FOSTER; AND F. C. DUNBAR. "Recent Trends IV: What Explains Filings and Settlements in Shareholder Class Actions." *Stanford Journal of Law, Business & Finance* 5 (1999): 121–74.
- MATSUMOTO, D. A. "Management's Incentives to Avoid Negative Earnings Surprises." *The Accounting Review* 77 (2002): 483–514.
- MILLER, G. P. "Pleading After Tellabs." *Wisconsin Law Review* 127 (2009): 507–34.
- NASH, J. R., AND R. I. PARDO. "Does Ideology Matter in Bankruptcy? Voting Behavior on the Courts of Appeals." *William & Mary Law Review* 53 (2012): 919–85.
- PENG, L., AND A. RÖELL. "Executive Pay and Shareholder Litigation." *Review of Finance* 12 (2008): 141–84.
- PERINO, M. A. "Did the Private Securities Litigation Reform Act Work." *University of Illinois Law Review* 4 (2003): 913–97.
- PERINO, M. A. "Institutional Activism Through Litigation: An Empirical Analysis of Public Pension Fund Participation in Securities Class Actions." *Journal of Empirical Legal Studies* 9 (2012): 368–92.
- PINELLO, D. R. "Linking Party to Judicial Ideology in American Courts: A Meta-Analysis." *The Justice System Journal* 20 (1999): 219–54.
- PRITCHARD, A. C. "Securities Law in the Roberts Court: Agenda or Indifference." *Journal of Corporate Law* 37 (2011): 105–45.
- RANDAZZO, K. A. "Strategic Anticipation and the Hierarchy of Justice in U.S. District Courts." *American Politics Research* 36 (2008): 669–93.
- RICHARDS, N. M. "The Supreme Court Justice and 'Boring' Cases." *The Green Bag 2D Series* 4 (2001): 401–07.
- RICHARDS, M. J., AND H. M. KRITZER. "Jurisprudential Regimes in Supreme Court Decision Making." *American Political Science Review* 96 (2002): 305–20.
- ROGERS, J. L., AND P. C. STOCKEN. "Credibility of Management Forecasts." *The Accounting Review* 80 (2005): 1233–60.
- ROGERS, J. L., AND A. VAN BUSKIRK. "Shareholder Litigation and Changes in Disclosure Behavior." *Journal of Accounting and Economics* 47 (2009): 136–56.
- ROMANO, R. "The Shareholder Suit: Litigation Without Foundation?" *Journal of Law, Economics, & Organization* 7 (1991): 55–87.
- RUCKMAN, P. S. "The Supreme Court, Critical Nominations, and the Senate Confirmation Process." *Journal of Politics* 55 (1993): 793–805.
- RYAN, J. P., AND C. N. TATE. "The Supreme Court in American Politics: Policy Through Law." *American Political Science Association* 73 (1975): 31–44.
- SAVCHAK, E. C.; T. G. HANSFORD; D. R. SONGER; K. L. MANNING; AND R. A. CARP. "Taking It to the Next Level: The Elevation of District Court Judges to the U.S. Courts of Appeals." *American Journal of Political Science* 50 (2006): 478–93.

- SCHANZENBACH, M. M., AND E. H. TILLER. "Strategic Judging Under the U.S. Sentencing Guidelines: Positive Political Theory And Evidence." *Journal of Law, Economics, and Organization* 23 (2007): 24–56.
- SCHENDLIN, S. "Trump's New Team of Judges Will Radically Change American Society." *The Guardian*, November 30, 2017.
- SCHERER, N. *Scoring Points: Politicians, Activists, and the Lower Federal Court Appointment Process*. Palo Alto, CA: Stanford University Press, 2005.
- SCHNEIDER, D. M. "Empirical Research on Judicial Reasoning: Statutory Interpretation in Federal Tax Cases." *New Mexico Law Review* 31 (2001): 325–58.
- SEGAL, J. "Senate Confirmation of Supreme Court Justices: Partisan and Institutional Politics." *Journal of Politics* 49 (1987): 998–1015.
- SEGAL, J. A., AND A. D. COVER. "Ideological Values and the Votes of U.S. Supreme Court Justices." *American Political Science Review* 83 (1989): 557–65.
- SEGAL, J. A., AND H. J. SPAETH. "The Influence of Stare Decisis on the Votes of United States Supreme Court Justices." *American Journal of Political Science* 40 (1996): 971–1003.
- SEGAL, J. A.; R. J. TIMPONE; AND R. M. HOWARD. "Buyer Beware? Presidential Success Through Supreme Court Appointments." *Political Research Quarterly* 53 (2000): 557–73.
- SHU, S. Z. "Auditor Resignations: Clientele Effects and Legal Liability." *Journal of Accounting and Economics* 29 (2000): 173–205.
- SKINNER, D. J. "Why Firms Voluntarily Disclose Bad News." *Journal of Accounting Research* 32 (1994): 38–60.
- SKINNER, D. J. "Earnings Disclosures and Stockholder Lawsuits." *Journal of Accounting and Economics* 23 (1997): 249–82.
- SONGER, D. R.; J. A. SEGAL; AND C. M. CAMERON. "The Hierarchy of Justice: Testing a Principal-Agent Model of Supreme Court-Circuit Court Interactions." *American Journal of Political Science* 38 (1994): 673–96.
- SPAETH, H. J. *The Original United States Supreme Court Judicial Database 1953–2005 Terms*. East Lansing, MI: Michigan State University, 2006.
- STAUDT, N. C.; L. EPSTEIN; AND P. WIEDENBECK. "The Ideological Component of Judging in the Taxation Context." *Washington University Law Review* 84 (2006): 1797–821.
- SULLIVAN, E. T., AND R. B. THOMPSON. "The Supreme Court and Private Law: The Vanishing Importance of Securities and Antitrust." *Emory Law Journal* 53 (2004): 1571–644.
- SUNSTEIN, C. R.; D. SCHKADE; AND L. M. ELLMAN. "Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation." *Virginia Law Review* 90 (2004): 301–54.
- TATE, C. N. "Personal Attribute Models of the Voting Behavior of U.S. Supreme Court Justices: Liberalism in Civil Liberties and Economics Decisions, 1946–1978." *American Political Science Review* 75 (1981): 355–67.
- THOMPSON, R. B., AND H. A. SALE. "Securities Fraud as Corporate Governance: Reflections upon Federalism." *Vanderbilt Law Review* 56 (2003): 859–910.
- THOMPSON, R. B., AND R. S. THOMAS. "The Public and Private Faces of Derivative Lawsuits." *Vanderbilt Law Review* 57 (2004): 1747–93.
- TOOBIN, J. "The Obama Brief: The President Considers His Judicial Legacy." *The New Yorker*, October, 2014.
- WALKER, R. H.; D. M. LEVINE; AND A. C. PRITCHARD. "The New Securities Class Action: Federal Obstacles, State Detours." *Arizona Law Review* 39 (1997): 641–85.
- WEISS, E. J., AND J. S. BECKERMAN. "Let the Money Do the Monitoring: How Institutional Investors Can Reduce Agency Costs in Securities Class Actions." *Yale Law Journal* 104 (1995): 2053–127.
- WOODFORD HOWARD, J., JR., *Courts of Appeals in the Federal Judicial System: A Study of the Second, Fifth, and District of Columbia Circuits*. New Jersey: Princeton University Press, 1981.
- ZAYENCHIK, A. "Supreme Court Justice Neil Gorsuch and Securities Litigation. Friend or Foe?" *The Advocate For Institutional Investors*, Summer, 2017, pp. 16–17.