Free Speech, the Right to Petition, and Corporate Innovation

Abstract: Using the passage of state-level anti-SLAPP (strategic lawsuits against public participation) legislation as a plausible shock to free speech and the right to petition, we hypothesize and find that corporate innovation success increases following the passage of state anti-SLAPP laws. Our results suggest that the increase occurs through two channels: (i) a reduction in information asymmetry between the firm and outside investors on innovation investments and (ii) a reallocation of external capital to firms with higher growth prospects. Consistent with an informational channel, we find the increase is stronger for firms with an *ex-ante* lower quality information environment. Consistent with an external capital channel, our results also support the theory that outside capital providers are better able to distinguish between superior and inferior innovators in allocating their capital after the enactment of anti-SLAPP laws in a state. Our results hold under a battery of robustness tests. Overall, our results do not support the alternative view that firms use SLAPP lawsuits to stifle the release of public information contrary to their interests (e.g., proprietary information on trade secrets). Our study contributes to the accounting, law, and economics literatures by documenting a potentially unintended economic consequence for corporate innovation of state-level anti-SLAPP legislation.

JEL Classification: D80, K15, K22, O32

Keywords: Free speech; anti-SLAPP legislation; innovation success; information asymmetry; external capital

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1 Introduction

Innovation, which includes the creation of new business methods, the development of new technologies, and the introduction of new products and services to consumers, is the lifeblood of firms' long-term success and survival (Romer 1990; Solow 1957). Recognizing the importance of corporate innovation, an extensive body of literature has investigated the drivers of the success of firms' innovation, including corporate disclosure and governance, institutional characteristics, patent laws, and financing choices. Unstudied in this literature are situations whereby sensitive information is revealed about the firm to outsiders by persons inside the firm through channels not authorized or condoned by top management. We attempt to fill this void in the literature by using the enactment of anti-SLAPP (i.e., strategic lawsuits against public participation) laws. Anti-SLAPP laws are mainly designed to protect stakeholders', especially, employee's exercise of free speech and their right to petition to reveal bad news about their place of employment, often contrary to the wishes of top management. While legal scholars and courts have discussed these issues in depth, conspicuously lacking in this literature is whether the staggered adoption of anti-SLAPP legislation may have economic consequences. In this study, we investigate one important economic consequence, namely, the impact of SLAPP legislation on corporate innovation.

Successful innovation is created by firm stakeholders, especially, employees, and involves employees′ long-term human capital investment in innovation (Chang et al. 2015). These employees generate innovative products, services, or business models and investment projects, which are typically long-term, multi-stage, and labor-intensive (Holmstrom 1989). Employees, thus, should have superior information on innovation projects, including the likelihood of success or failure at all stages of development and production. Other firm stakeholders such as customers

and suppliers are also likely to have direct access to private information on innovation projects, and their economic activities are expected to be closely linked (Pandit et al. 2011). This direct access means that the disclosure of negative information by stakeholders, especially employees, can profoundly impact corporate innovation compared to other types of corporate disclosure. In firms affected by an anti-SLAPP law, corporate stakeholders' right to divulge negative information on their own firm is strengthened, which in turn may affect corporate decision making, including strategies for innovation investments. Does the expansion of the pool of negative information about a firm under the protection of anti-SLAPP legislation help or hinder corporate innovation by reshaping the public information environment for outside investors? This question suggests two competing scenarios with respect to the impact of anti-SLAPP legislation on innovation.

In the first scenario, to the extent that anti-SLAPP legislation expands and facilitates the dissemination of negative news to outside stakeholders, such capital providers can be expected to reallocate their capital from firms with inferior innovation to those with superior innovation, thus, improving the efficiency of investments in innovation (Wilford 2021). Adverse selection theory (Akerlof 1970) indicates that this informational uncertainty engenders a pooling equilibrium for all the firms with respect to value rather than an equilibrium that separates lower- from higher-quality firms. This lack of separation may prevent external capital providers from distinguishing between firms with low- versus high-quality innovation projects. By decreasing information asymmetry, stakeholders' knowledge of otherwise nonpublic negative news allows external capital providers to allocate their capital to the right firm with higher-quality innovation projects. This improved capital allocation efficiency is especially important for corporate innovation since the results of innovation projects can take a long time to materialize and are often subject to information uncertainty and a higher frequency of failure (Hall and Lerner 2010), generating

financing frictions. Stakeholders' timelier revelation of negative news from anti-SLAPP legislation can mitigate these frictions, thus enabling firms with higher-quality innovation projects to obtain favorable financing.

In the second scenario, firm stakeholders' divulgence of bad news in the presence of anti-SLAPP legislation may negatively affect corporate innovation activities by inviting unwanted attention to the firm, which in turn could have a chilling effect on managers' risk-taking behavior. The revelation of negative information could exacerbate manager's career concerns and reputation in the executive labor market. Moreover, this negative consequence could be intensified for risk-averse managers, who are naturally inclined to protect their career prospects by terminating or reducing risky investments in innovation (Amihud and Lev 1981; Holmström 1999; Jensen and Meckling 1976; Smith and Stulz 1985). However, this negative effect of anti-SLAPP laws on innovation could be moderated, depending on the dynamics of the SLAPP/anti-SLAPP actions. For instance, firms may use SLAPP lawsuits to protect trade secrets or, more generally, proprietary information, that if disclosed would interfere with what legal scholars term a "prospective economic advantage". To the extent that a plaintiff wins on an action of tortious economic interference from public disclosure using a SLAPP lawsuit, this may benefit innovation, in much the same way that firms restricting public disclosure of proprietary information tend to be better innovators (Griffin et al. 2022). Overall, it is an open empirical question whether the enactment of anti-SLAPP law improves or worsens corporate innovation.

Using 122,426 firm-year observations from 1988 to 2017, we test empirically whether corporate innovation alters following the exogenous shock to the adoption of an initial anti-SLAPP law across states. The staggered timing of the enactment of these laws allows us to use a natural experiment research design to study their effects on innovation. Our sample includes firms whose

headquarters are located in 24 states plus the District of Columbia with anti-SLAPP laws and 26 states without anti-SLAPP laws.[1] To test for a relation, we employ the Bertrand and Mullainathan (2003) generalized difference-in-difference (DiD) research design applied to three alternative proxies for the success of innovation: the number of patents, the number of patent citations, and the economic value of patents (Kogan et al. 2017) in the three years after a state's enactment of anti-SLAPP legislation. While the first measure represents the quantity of corporate innovation, the other two proxy for the quality of innovation.

Based on the DiD estimation, we find that firm innovation becomes more successful with respect to quantity, quality, and economic significance in the three years following the enactment of anti-SLAPP legislation in a state. Our results are also economically significant. For example, when a firm moves from an environment without anti-SLAPP laws to those with anti-SLAPP laws, the quantity and quality of innovation for the average sample firm based on the number of patents and value of patents increases by 5.54 percent and 6.09 percent, respectively. Our results, thus, do not support the alternative view that firms on average that use SLAPP lawsuits in non-anti-SLAPP states to stifle the release of public information contrary to their alleged interests (e.g., proprietary information on trade secrets) are better innovators.

To address the concern that our results could be driven by unobservable time invariant characteristics (i.e., that some firms are better innovators in general), we include firm fixed effects in our models instead of industry fixed effects. Our results are robust to the inclusion of firm fixed effects. Second, to further address this concern, we perform both propensity score matching and

[1] These data are as of 2017. By June 2021, 31 states and the District of Columbia had anti-SLAPP laws, namely, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Massachusetts, Missouri, Nebraska, Nevada, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, Vermont, Virginia, and Washington. Minnesota previously passed an anti-SLAPP law, but it was struck down as unconstitutional. Appendix A, Panel A summarizes states with anti-SLAPP laws and their adoption years. See https://www.rcfp.org/introduction-anti-slapp-guide/ for more details.

entropy balancing procedures to narrow the differences in the innovation activity of firms treated and not treated to the passage of anti-SLAPP legislation and find that our results still hold.

To strengthen a plausible causal relation between anti-SLAPP laws and innovation success, we perform a dynamic analysis and find that innovation success is observed only after the adoption of anti-SLAPP legislation and not before the adoption of anti-SLAPP legislation when no effect is expected. We also perform placebo tests by randomizing the enactment years and locations and find that randomized anti-SLAPP laws do not increase innovation success, suggesting that our results are indeed driven by the anti-SLAPP laws. We also check the robustness of our results to alternative measures of anti-SLAPP legislation (e.g., based on effectiveness). Our results based on these alternative measures of the anti-SLAPP laws are qualitatively similar.

We conduct several cross-sectional analyses to corroborate our main results and provide further evidence on the channels of how anti-SLAPP laws improve innovation activity. First, we examine the effect of firms' information environment on the positive relation between anti-SLAPP legislation and innovation. Since our contention is that anti-SLAPP legislation improves corporate innovation activity by reducing firms' informational frictions to external capital providers (i.e., the informational channel), we further expect that the positive effect of anti-SLAPP legislation on innovation is more pronounced for firms with an *ex-ante* lower quality of public information environment. To test this prediction, we employ the following four information environment variables: financial reporting quality, stock liquidity, bid ask spread, and firm size. Consistent with our expectation, across all information environment variables, we find that the positive relation between anti-SLAPP legislation and innovation success is weaker when firms' existing public information environment is stronger.

Second, we examine whether the anti-SLAPP legislation improves innovation by facilitating capital allocation (i.e., through the external capital channel). To test this, we employ the standard model of the sensitivity of external financing to growth opportunities. The finance literature documents that external financing increases with growth opportunities (McLean and Zhao 2014). We further expect that anti-SLAPP legislation strengthens the positive relation between growth opportunities and external financing if the anti-SLAPP laws enhance external capital reallocation. Using both share issuance and debt issuance, we find that anti-SLAPP legislation increases the sensitivity of both share issuances and debt issuances to growth opportunities.

Recently, Contigiani et al. (2018) examine how employer-friendly trade secrecy protection affects inventor-level innovation by exploiting the state-level Inevitable Disclosure Doctrine (IDD). They document that IDD hinders innovation since it discourages inventors' external labor market prospects. Considering IDD's impact on innovation, we examine whether and how the interaction between IDD and anti-SLAPP passage affects innovation success. We expect that IDD weakens the positive effect of anti-SLAPP legislation on innovation since employer-friendly trade secrecy protection (e.g., restricting former employees' use of information by a new employer) may conflict with the right to freedom of speech. Consistent with our prediction, we find that the positive effect of the anti-SLAPP laws on innovation is weaker in states with IDD statutes.

Recently, Jung et al. (2022) predict and find that employees of firms affected by anti-SLAPP laws more freely reveal negative reviews of their firms on social media. They use the ratings on Glassdoor.com to document a negative effect of anti-SLAPP laws on employees' ratings of business outlook. Based on this finding, we predict that if anti-SLAPP laws facilitate employees' information sharing about their firms' negative news, the relation between anti-SLAPP laws and

innovation will be more pronounced for firms receiving lower employees' rating. We provide consistent evidence with our prediction.

We contribute to two strands of literature. We are the first to document a relation between the passage of anti-SLAPP legislation and innovation success. As such, we contribute to the law and economics literature on a possible unintended important consequence of anti-SLAPP legislation, as we are not aware that anti-SLAPP legislation was designed to generate a higher level of innovation success for corporations. Second, we identify an important ingredient of innovation success, namely, the role of anti-SLAPP legislation in shaping a firm's public information environment, a topic not studied in the prior work (e.g., Atanassov 2013; Atanassov and Liu 2020; Griffin et al. 2021). While firms' public information environment is shaped by many factors (equity analysts, institutional investors, insider trading laws, SEC disclosure regulations, accounting choices, and many other well-studied factors), not investigated in this literature to our knowledge is how laws pertaining to the exercise of free speech and the right to petition in matters of public interest potentially affect corporate innovation success. As such, we contribute to the literature on corporate innovation in general and the accounting literature in particular, the latter of which examines how corporate innovation interacts with corporate information environment, including information quality and financial reporting choices (e.g., Laux and Stocken 2018; Laux and Ray 2020).

2 Literature and hypothesis development

2.1 Institutional background on anti-SLAPP laws

We investigate how state laws that shape the First Amendment rights of citizens relate to corporate innovation in the context of public disclosure theory. In American jurisprudence, persons have strong constitutional protections for the exercise of free speech and the right to petition the government for the redress of grievances. These democratic rights, however, often conflict with

the rights of organizations to manage their operations without unfair competition in private market settings (Schumpeter 2010) and their rights to protection under the commercial speech doctrine (McGowan 1990). These conflicting rights, including commercial speech rights, are sometimes balanced in specific legislation or regulation, such as Section 230 of the Communications Decency Act, the state law Uniform Trade Secrets Act and, more recently, the federal law Defend Trade Secrets Act (18 U.S.C. §1831-1839), the last of which now regularly delivers near-billion-dollar damage awards to harmed plaintiffs (Rothstein et al. 2021).

Layered onto and arguably in response to these constitutional right issues is another important and growing jurisprudential development, namely, the use of lawsuits in state courts by corporations and other organizations to stifle free speech by suing and in some cases unmasking anonymous individuals whose views run counter to the interests of the plaintiff organization. Known as strategic lawsuits against public participation (SLAPP), SLAPP litigation has become increasingly used by corporations as a pretext to curtail or eliminate criticism by outsiders through retaliatory legal action (i.e., a SLAPP lawsuit) (Barker 1993; Rowe 2009; Shapiro 2010; Tu and Stump 2021). A recent case involves ExxonMobil that used a SLAPP lawsuit to conduct discovery on outside critics of ExxonMobil's actions to combat climate change as outlined in a civil action filed in 2019 (McGreal 2022)[2]. A better-resourced plaintiff can make it prohibitively expensive for a defendant to proceed. Even though plaintiffs' allegations in a SLAPP lawsuit are usually meritless (otherwise plaintiffs would argue on different legal grounds) and fail much of the time (Pring and Canan 1996), the goal is to use the courts to tie up the resources and time for extended periods of the defendant individuals and groups publicly criticizing corporate behavior (Hurley and Shogren 1997). This expected high cost can coerce defendants to settle, effectively

[2] The original complaint was filed as Commonwealth of Massachusetts v. ExxonMobil Corporation, CV 19-333, October 24, 2019.

nullifying their right to free speech and the right to petition.[3] Taking note of the advantage to a plaintiff of a SLAPP action, individuals and groups in similar situations then hesitate to engage in public debate on issues that run counter to the interests of the plaintiff (e.g., a corporation). Legal scholars contend that the greatest impact of SLAPP litigation is not whether a particular case is won or lost but its chilling effect on public discourse (Shapiro 2010; Tu and Stump 2021) due to fear of punishment, retaliation, or humiliation. According to Pring and Canan (1996), SLAPPs have been a significant factor for those speaking publicly for decades, initially on environmental matters and later on issues pertinent to health and welfare, workplace harassment, public official misconduct, and political appointments. Today, the public interest aspect of speaking out is broad. Even SEC filings now afford the protection of anti-SLAPP law, as at least one court has deemed SEC disclosures as information essential for public discourse in a healthy democracy.

In response to this power imbalance, U.S. states and many countries outside of the United States (Bayer et al. 2021) have responded with SLAPP-back or anti-SLAPP legislation. Anti-SLAPP laws are designed to discourage the overuse or misuse of SLAPP lawsuits by curbing the potential threat of a lawsuit to intimidate people exercising their First Amendment rights. Under most anti-SLAPP statutes, the First Amendment rights are protected by mandatory coverage of the SLAPP defendant's legal fees by the plaintiff and the SLAPP defendant's immediate right of appeal against a court's denial of an anti-SLAPP motion. In addition, frivolous lawsuits (Tu and Stump 2021) can be dropped, and more burdens are put on plaintiffs to establish the merits of the case, which can nullify the justification for a SLAPP lawsuit in the first place (Jung et al. 2021).

[3] The right to petition is the right under the U.S. First Amendment to make a complaint to or seek the assistance of the government without the fear of punishment or reprisal.

2.2 Literature on anti-SLAPP laws

The literature on the economic consequences of SLAPP and anti-SLAPP actions is sparse. We were able to identify only four relevant empirical studies. In one study on environmental monitoring, Ashenmiller and Norman (2011) document that state inspections under the Clean Air Act (CAA) increased by 50 percent, and findings of non-compliance with CAA law doubled after a state passed anti-SLAPP legislation. The authors explain their findings as due to a shift in the balance of power from the CAA regulator to environmental watchdogs who advocate for stronger public enforcement of the CAA laws. Giles and Murphy (2016) find that SLAPP actions by corporations against environmental watchdogs had the effect of increasing a SLAPP plaintiff's disclosure of ESG information. They claim that by silencing their critics for full information on ESG matters using a SLAPP suit, SLAPP plaintiff firms could expand ESG disclosures on topics of their choice with an emphasis on positive rather than negative outcomes, thus legitimizing the firm as a virtuous organization regardless of outsiders' views (e.g., on animal welfare, employee rights, and environmental damage).

Two other studies investigate the intersection of SLAPP lawsuits and social media reviews as part of a broader literature on the effects of employees' social media ratings (e.g., Dube and Zhu 2021; Hales et al. 2018; Huang et al. 2019). Consistent with the notion that SLAPP lawsuits have a chilling effect on actual and potential future defendants, Chemmanur et al. (2020) find that the warming effect of anti-SLAPP legislation encourages employees to express more honest views on their firms, with the outcome that online employee ratings are more informative, thus inducing investors to place more weight on employees' voluntary disclosures. Similarly, Jung et al. (2021) find that anti-SLAPP legislation moderates the mostly positive views that employees express about their employers' six-month business outlook, also making Glassdoor ratings more informative. To

the best of our knowledge, there is no study on the effect of anti-SLAPP laws on investment behavior in general or innovation activity in particular.

While legal scholars and courts have discussed these issues as precedingly illustrated, conspicuously lacking in this literature is whether the increasing use of SLAPP lawsuits and state-level anti-SLAPP legislation may have economic consequences beyond imposing costs on SLAPP defendants and anti-SLAPP plaintiffs (often the same parties), as well as on multiple levels of the state court system (i.e., District, Appeals, Supreme court). In this study, we investigate one such consequence, namely, the impact of SLAPP lawsuits and anti-SLAPP legislation on corporate innovation. We view this consequence as unintended and indirect, in that state legislatures are generally not obliged to consider indirect impacts when writing legislation.

2.3 Hypothesis development

Given the chilling effect of SLAPP lawsuits (and the countervailing warming effect of anti-SLAPP legislation) and their extensive use by corporations to stifle unwanted negative information in the public domain, we plausibly contend that these anti-SLAPP legal actions may shape firms' public information environment. We contend that states' adoption of anti-SLAPP legislation potentially changes firms' public information environment in two ways: first by expanding the pool of public information about a firm (thereby reducing information asymmetry) and, second, by allowing that pool of public information to include a larger share of information that runs counter to the interests of the firm or the corporate manager (mainly negative information). This contention suggests two competing scenarios of the impact of anti-SLAPP legislation on innovation. The goal of our study is to provide evidence that discriminates between these two scenarios.

As discussed earlier, with the first scenario capital providers will more easily and effectively be able to distinguish between firms with low-quality and high-quality innovation projects. This

means that public knowledge of stakeholders' negative nonpublic information should allow external capital providers to allocate their capital to the right firm with higher-quality innovation projects. Improved capital allocation efficiency is also important for corporate innovation since it can mitigate external financing frictions, which is another reason to expect an impact. By mitigating external financing frictions, the timelier revelation of negative news from anti-SLAPP legislation should enable firms with higher-quality innovation projects to finance their projects. Relatedly, anti-SLAPP legislation can also allow an innovator to withstand the cost and distraction of a SLAPP lawsuit brought by a larger competitor designed to weaken the smaller entrepreneur. This, too, should allow external capital providers to allocate their capital to the right firm with higher-quality innovation projects.

Two examples illustrate this scenario. First, in 2015, ADP filed a SLAPP lawsuit against startup Zenefits (Case 4:15-cv-02560-DMR U.S. District Court, Northern District of California) alleging defamation from statements by Zenefits; but, in reality, the lawsuit was an attempt to weaken or eliminate ADP's new competition. Zenefits fired back with an anti-SLAPP lawsuit. The parties eventually settled, thus enabling Zenefits to compete fairly and develop its innovation. Without the anti-SLAPP action, ADP would have weakened its competition and Zenefits' ability to innovate. Second, on December 27, 2021, the California_Court_of_Appeal (2021) held that disclosures in SEC filings are protected by California's anti-SLAPP legislation, meaning that SEC disclosures are considered speech in connection with an issue of public interest, and cannot be stifled by a SLAPP motion to withdraw or modify a disclosure. With SEC filings protected by anti-SLAPP legislation, this adds another layer of protection for outsiders that the filings contain full and fair information.

In the second scenario, firm stakeholders' divulgence of bad news in the presence of anti-SLAPP legislation may negatively affect corporate innovation activities by inviting unwanted attention to the firm, which in turn can exacerbate manager's career concerns and reputation in the executive labor market. While concerns with negative publicity on their innovation projects may still prompt firms to use SLAPP litigation to quell outside disclosure, SLAPP poorly used can hurt firm value and reputation, and the negative information disclosure under anti-SLAPP can intensify those effects. Moreover, these effects could be compounded for risk-averse managers, who are naturally inclined to protect their career prospects by terminating or reducing risky investments in innovation (Amihud and Lev 1981; Holmström 1999; Jensen and Meckling 1976; Smith and Stulz 1985). For example, in the presence of anti-SLAPP legislation some managers may cut their R&D budget to achieve an immediate earnings target (Bushee 1998). By contrast, it can take many years for innovative projects to bear fruit (Holmstrom 1989). This negative effect of anti-SLAPP legislation on innovation could be moderated however, depending on the dynamics of the SLAPP/anti-SLAPP actions.

While some anti-SLAPP cases are responses to SLAPP cases brought by corporations to silence future discussion of information already in the public domain, firms may also use SLAPP lawsuits to protect trade secrets or, more generally, to protect proprietary information, that if disclosed and/or discussed publicly would interfere with a "prospective economic advantage". A recent example is the case of Xu v. Huang (Los Angeles County Super. Ct. No. 20PSCV00695), where the California court denied an anti-SLAPP lawsuit by Huang, arguing that Huang (the plaintiff in the anti-SLAPP lawsuit) was using the so-called protected information of Xu to advance plaintiff Huang's business. As distinct from protected free speech, the court concluded that Huang's disclosures constituted commercial speech that was intended to increase Huang's

sales and profits, thus, interfering with a "prospective economic advantage". In the context of our study, that prospective economic advantage would be the unfettered ability of Xu to innovate. Hence, building on this example, and as discussed earlier, a SLAPP lawsuit could benefit innovation.[4]

Nonetheless, the use and threat of an anti-SLAPP action could reverse this relation through effects of the anti-SLAPP action on corporate reputation and incentives (e.g., from media attention). Thus, the direction of the relation between anti-SLAPP legislation and innovations in cases involving trade secrets could be positive or negative depending on the outcome of the SLAPP and anti-SLAPP actions and the relative strength of the anti-SLAPP legislation.[5] Thus, it is ultimately an empirical question whether the staggered enactment of anti-SLAPP laws positively or negative affects corporate innovation. The preceding discussion leads to our main hypothesis as follows (in the null form):

> **Hypothesis:** There is no relation between the staggered enactment of anti-SLAPP laws and corporate innovation.

3 Sample and research design

3.1 Sample

Our sample consists of 122,426 firm-years (11,162 distinct firms) over 1988-2017. The firms are located in all 50 states plus the District of Columbia. Our sample period starts with 1988 to ensure the pre–anti-SLAPP period of sufficient observations to test pre-and post-anti SLAPP innovation activity in the states with the earliest enactment dates, namely 1992 in California and

[4] For a similar case, see FilmOn.com v. DoubleVerify, Inc. 439 P.3d 1156 (Cal. 2019).
[5] For example, in a still unresolved case (Anheuser Busch v. Clark, 17-15571, 9th Cir. 2019), the U.S. Court of Appeals for the Ninth Circuit denied an anti-SLAPP lawsuit brought by a former employee alleging that a certain Anheuser-Busch beer recipe was not a trade secret and already in the public domain. Thus, the denied anti-SLAPP lawsuit may have protected the firm from economic interference from public disclosure, thus protecting its trade secrets and indirectly furthering its ability to innovate. However, the defendant in this ongoing case has requested a jury trial, so the case is still unsettled.

New York. Panel B and Panel C of Appendix B show the sample distribution by fiscal year and state, respectively. We extract firm innovation data from the patent database of Kogan et al. (2017), which covers all patents awarded by the U.S. Patent and Trademark Office (USPTO) during our study period. We collect the first year of anti-SLAPP enactment from each state's legislation website and the anti-SLAPP scores from the Institute for Free Speech website (https://www.ifs.org/anti-slapp-states/). To measure the control variables, we collect financial statement data from Compustat, institutional ownership data from Thomson's 13F filing dataset, and analyst coverage from I/B/E/S. We exclude firm-year observations with missing or less than one-million-dollar values for total assets or sales. Because of their regulated nature, we also exclude firms in the financial industries (SIC 6000–6999). Panels A shows the distribution of enactment dates in 24 states and the District of Columbia. Panel B of Appendix B shows that the number of firms adopting the anti-SLAPP law increases over our sample period from 999 firm-years in 1992, to over 2,000 in most years, and 2,004 in 2017. The number of anti-SLAPP observation remains reasonably level after 1997. Panel C summarizes the distribution of states with and without anti-SLAPP enactment. The states with the earliest enactment dates, which also have the most firm years with anti-SLAPP protection, are California (17,223) and New York (8,013). Connecticut, the state with the latest enactment date, has many fewer observations (50).

3.2 Research design

To test the effect of anti-SLAPP laws on firm innovation, we estimate the following multivariate regression model.

$$INNO_{t+3} = \alpha + \beta_1 Anti\text{-}SLAPP + \beta_2 LNFIRMAGE + \beta_3 LNAT + \beta_4 ROA + \beta_5 PPE + \beta_6 LEV + \beta_7 CAPEX + \beta_8 RDEXP + \beta_9 TOBINQ + \beta_{10} SURPLUSCASH + \beta_{11} KZINDEX + \beta_{12} HHI + \beta_{13} SGROW + Year\ FE + Firm\ FE + \varepsilon. \quad (1)$$

where, innovation (*INNO*) is represented by three proxies: the natural logarithm of one plus the number of patents (*LNPAT*) filed by each firm in each year, the natural logarithm of one plus the total number of citation count of patents during the year, adjusted by technology class (*LNCIT*), and the natural logarithm of one plus the value of innovation (Kogan et al. 2017) in each year (*LNSM*). *LNPAT* captures the quantity of innovation whereas *LNCIT* (*LNSM*) measures innovation quality (the market value of innovation). We date-stamp the patent data according to the application (filing) date rather than the grant date, because prior studies have shown that the application is closer to the actual timing of innovation (Griliches et al. 1991). Because the firm innovation process generally takes longer than one year, we investigate the effect of anti-SLAPP laws on firm innovation three years ahead of the application date (He and Tian 2013).[6] Our key interest variable is *Anti-SLAPP*, equal to one if a firm is headquartered in a state in a given year with anti-SLAPP laws enacted in that year and zero otherwise.

Our choice of controls follows the literature (Fang et al. 2014; He and Tian 2013). The firm-characteristic controls are firm age (*LNFIRMAGE*), firm size (*LNAT*), profitability (*ROA*), the ratio of property, plant, and equipment to total assets (*PPE*), leverage (*LEV*), the ratio of capital expenditure to total assets (*CAPEX*), the ratio of R&D expense to total assets (*RDEXP*), Tobin's Q (*TOBINQ*), cash availability (*SURPLUSCASH*), financial constraint (*KZINDEX*), product market competition (*HHI*), and sales growth (*SGROW*). *Year FE* and *Firm FE* represent year and firm fixed effects, respectively. The *t*-statistics are based on standard errors clustered at the firm level. Appendix A lists detailed definitions of the variables.

[6] We replace missing values of patents and citations with zeroes for firms without patent or citation information (He and Tian 2013; Tian and Wang 2011).

4 Results

4.1 Descriptive statistics

Table 1 reports descriptive statistics of our baseline regression variables winsorized at the top and bottom one percent for the continuous variables. The mean value of *Anti-SLAPP* is 0.4225, indicating that 42.25 percent of a firm is headquartered in a state having enacted anti-SLAPP laws in a given year. The mean values for $LNPAT_{t+3}$, $LNCIT_{t+3}$ and $LNSM_{t+3}$ are 0.4436, 0.7797, and 0.6958, respectively. In unlogged form, these data imply that our sample firm-years have 0.5538 patents and 1.1808 patent citations on average. The descriptive statistics of other variables are generally consistent with those reported in the literature (e.g., Fang et al. 2014; Griffin et al. 2018).

Table 2 reports the Pearson and Spearman correlations among the variables in the main regressions in the upper and the lower correlation matrix, respectively, with significant correlations shown in bold ($p<0.10$). The correlations between *Anti-SLAPP* and $LNPAT_{t+3}$, $LNCIT_{t+3}$ and $LNSM_{t+3}$ are significantly positive, respectively, suggesting that a firm after the adoption of an anti-SLAPP law has a higher level of innovation success across the three measures of innovation. These correlations coefficients are consistent with our primary hypothesis on a univariate basis. Consistent with the prior literature, corporate innovation success varies positively with firm maturity (*LNFIRMAGE*), profitability (*ROA*), R&D expenditure (*RDEXP*), growth options (*TOBINQ*), surplus cash (*SURPLUSCASH*), industry concentration (*HHI)* and sales growth (*SGROW*). Corporate innovation success is negatively correlated with property, plant, and equipment (*PPE*), leverage (*LEV*), and capital expenditure (*CAPEX*).

4.2 Main results

This section examines the association between innovation success and the staggered introduction of the anti-SLAPP laws. In firms affected by an anti-SLAPP law, corporate stakeholders are likely to divulge negative information on their firm, which in turn affects

corporate decisions, including investment and innovative activities. An anti-SLAPP law, however, can be a double-edged sword. On the one hand, the law could lead to more innovation if firm stakeholders reveal firms' negative information to outsiders, for example, on investments, which in turn should reduce informational asymmetry, allowing external capital providers to allocate their capital to the firms with high quality innovation projects. On the other hand, the law could lead to less innovation if the protected negative news revealed by stakeholders has a chilling effect on managerial risk-taking, thus discouraging investments in innovation and/or weakening their success. We explore the relationship between innovation success and the staggered introduction of anti-SLAPP laws in Table 3, based on our benchmark regression model (Eq. (1)).

Table 3 reports that A*nti-SLAPP* is significantly positively related ($p < 0.01$) to innovation across all three measures. These results indicate that the enactment of anti-SLAPP laws associates with the quantity and quality of firm innovation three years later ($LNPAT_{t+3}$ and $LNCIT_{t+3}$), respectively. We also find that the economic significance of innovation ($LNSM_{t+3}$) increases in the next three years. The impact of anti-SLAPP law is also economically significant. The impact of anti-SLAPP laws leads to a 5.54 percent, 12.61 percent, and 6.09 percent increase in $LNPAT_{t+3}$, $LNCIT_{t+3}$, and $LNSM_{t+3}$, respectively.[7] These results suggest that firms operating in states with anti-SLAPP laws have higher levels of innovation quantity and quality than firms operating elsewhere within three years after enactment. The inclusion of controls and firm- and year-fixed effects in the model minimizes the impact of omitted variables and any other idiosyncratic shocks that might occur in different years in the sample period. The signs of coefficients on control variables are largely consistent with those reported by prior studies (Fang et al. 2014; He and Tian

[7] While R&D expenditures are an input for innovation, as these expenses might never materialize into a product or process, we perform additional analysis where the dependent variable is *RDEXP* and the independent variable is *anti-SLAPP*. In untabulated analysis, we find that the coefficients associated with *anti-SLAPP* are positive and significant.

2013). For example, the coefficients on *LNFIRMAGE, LNAT, PPE, RDEXP, TOBINQ* and *SURPLUSCASH* are positive and significant, indicating that firms with a deep pocket and growth opportunities are more likely to be successful in innovation.

5 Robustness and sensitivity tests

5.1 Propensity score matching

To address an endogeneity bias, we conduct a propensity score matching (PSM) analysis. Results based on the PSM analysis are reported in Panel A of Table 4. In the first stage, we examine what firm characteristics and industry membership affect the likelihood of a firm's headquarters being located in Anti-SLAPP states. Using logistic regression, in the column of Panel A, we find that firms that are younger, larger, more profitable, less capital intensive, less levered, and with less capital expenditure, more R&D expense, and higher growth potentials are more likely to be located in anti-SLAPP states. We therefore match (with replacement) each anti-SLAPP firm with a control firm that has the most similar propensity, based on the propensity scores, following the results in the first column. Covariate balance analysis provides the standardized differences in the key variables between anti-SLAPP firms and non-anti-SLAPP firms. While not tabulated, we find that the standardized differences are not economically significant, indicating the success of our propensity score matching procedure. More importantly, we find that consistent with our main results in Table 3, *Anti-SLAPP* is significantly positively related ($p<0.01$) to all innovation measures, suggesting that our results are robust to propensity score matching.

5.2 Entropy balanced matching

Although we alleviate an endogeneity concern with propensity score matching, we also conduct entropy balancing. Recent research indicates that entropy balancing is more effective than propensity score matching because it achieves balance for multiple moments of the covariate distribution, avoids sample reduction, and relies on less restrictive assumptions (e.g., Hainmueller

2012). Entropy balancing adjusts random and systematic inequalities in the variable distributions between the treatment and control groups (Hainmueller 2012). After adjusting covariate balance, we re-estimate Eq. (1). Results in Panel B of Table 4 show that the coefficients on *Anti-SLAPP* remain positive and significant ($p<0.01$), consistent with our Table 3 results. Overall, the results suggest that the positive association between anti-SLAPP laws and firm innovation is robust to entropy balancing.

5.3 Dynamic analysis

To corroborate our main results, we also examine the dynamic time-series effect of anti-SLAPP registration adoption on innovation. Specifically, we create seven indicator variables, *T*-3, *T*-2, *T*-1, *T=0, T*+1*, T+2,* and *T*+3, where *T=0* is the year of enactment of anti-SLAPP legislation in a state. For example, *T*-1 *T=0*, and *T*+1*,* denotes one year prior to the adoption of anti-SLAPP law, the year of adoption, and one year after adoption, respectively. We then replace our main variable, *anti-SLAPP*, with these indicator variables in our main regression model. Table 5 shows that across all the innovation measures, the *Anti_SLAPP* coefficients on *T+2,* and *T*+3 are generally significantly positive, but not in the other earlier years. Thus, our dynamic analysis shows an overall increase in innovation in years 2 and 3 after the adoption for firms with anti-SLAPP legislation in year *T=0*. These results also reduce the reverse causality concern that the adoption of anti-SLAPP laws is more likely in states where innovation activities become more successful, lending further support to the positive effect of the adoption of anti-SLAPP on innovation.

5.4 Placebo tests

To ensure that our results are driven by the adoption of anti-SLAPP laws, not by spurious correlations, including research design issue, we also perform placebo tests by randomizing dates and locations. Specifically, we re-estimate Eq. (1) by replacing *Anti_SLAPP* with two placebo

variables. For time falsification, we create *Placebo_year*, an indicator variable by randomly selecting years for each anti-SLAPP adoption. For the placebo test based on location falsification, we create *Placebo_location*, another indicator variable by randomly assigning a firm's headquarters location in a state. For the placebo test, we expect to observe insignificant coefficients on both *Placebo_year* and *Placebo_location* if our main results reported in Table 3 are indeed driven by the adoption of anti-SLAPP laws. We present the results in Table 6. Consistent with our expectation, we find that the coefficients on both *Placebo_year* and *Placebo_location* in Eq. (1) are all insignificant.

5.5 Results based on alternative measures of anti-SLAPP laws

As another robustness test, we re-estimate Eq. (1) by using alternative measures of the anti-SLAPP laws. We collect three alternative measures of anti-SLAPP laws from The Institute for Free Speech: *Anti-SLAPP score, Covered Speech score, and Anti-SLAPP procedures*. The Institute for Free Speech provides quantitative assessments that cover two broad categories. First, *Covered Speech score* is the scope of speech that is covered by each jurisdiction's anti-SLAPP law. Second, *Anti-SLAPP procedures* is how comprehensive the protections for speakers by each jurisdiction's anti-SLAPP law are. Our third alternative measure, *Anti-SLAPP score* is a composite measure derived from *Covered Speech score*, and *Anti-SLAPP procedures*. We employ these three alternative measures based on rankings instead of our primary dummy variable of anti-SLAPP law adoption to all post-enactment years. By nature of variable definition, the pre-enactment years are assigned a zero ranking. Results with these alternative measures are reported in Table 7. We find that the coefficients on all these measures indicating variations in the strength of a state's anti-SLAPP law are significantly positive, consistent with our main results.

6 Additional Analysis

6.1 Underlying mechanism: Information spillover

In this section, we examine an underlying mechanism supporting our main results on the positive association between the enactment of anti-SLAPP law and corporate innovation. Specifically, we examine whether differences in the effect of the enactment of anti-SLAPP law in improving innovation across firms vary predictably with differences in the level of *ex-ante* public information quality. We expect that these effects are stronger for firms with higher *ex-ante* informational frictions (lower quality) because when the frictions are *ex-ante* higher, the potential for anti-SLAPP legislation to ease those frictions and improve the quality of the information for outsiders is higher (e.g., it reduces informational uncertainty, requires less costly information processing effort, and/or reflects less ambiguity). Specifically, we partition the firm-year observations into terciles, contingent upon the level of informational friction. To avoid the possibility that the frictions and anti-SLAPP laws are contemporaneously related, we measure the frictions in a pre-period of anti-SLAPP law enactment. We also examine differences in the effect of anti-SLAPP law on innovation in the extreme terciles to increase the power of our tests.

Following the literature, we use four proxies for informational frictions: financial reporting quality (*DDAQ*), the Amihud (2002) measure of illiquidity (*Amihud*), firm size (*MktV*), and bid ask spread (*Bid-Ask*). *DDAQ* is the standard deviation of the firm-level residuals from estimating the Dechow and Dichev (2002) model as modified by McNichols (2002) over three years and then multiplied by negative one. The model is the regression of working capital accruals on lagged, current, and future cash flows plus the change in revenue and property, plant, and equipment. We then estimate the modified Dechow and Dichev (2002) model cross-sectionally for each industry

with at least 20 observations in a given year.[8] A higher value of *DDAQ* indicates higher financial reporting quality and, thus, lower informational frictions. *Amihud* is an average value of absolute daily returns scaled by daily dollar trading volume per year. For higher values of *Amihud*, firms face lower liquidity and, thus, higher informational frictions. *MktV* is a firm market capitalization. The lower value of *MktV* indicates that a firm is likely to face higher informational frictions (Vermaelen 1981). Bid-ask spread, *Bid-Ask*, captures the information asymmetry between existing and new shareholders (Francis and Martin 2010). To test this potential mechanism underlying the positive relation between the enactment of anti-SLAPP law and innovation, we estimate the following regression model (2):

$$INNO_{t+3} = \alpha + \beta_1 Anti\text{-}SLAPP + \beta_2\ Info\ Quality + \beta_3 Anti\text{-}SLAPP \times Info\ Quality + \sum b_K CONTROLS + Year\ FE + Firm\ FE + \varepsilon. \quad (2)$$

where, *Info Quality* =1 (i) when the firm is in the *lowest* tercile of *DDAQ,* (ii) when the firm is in the *highest* tercile based on the Amihud illiquidity ratio, (iii) when the firm is in the *lowest* tercile based on market value and (iv) the firm is in the *highest* tercile based on the bid-ask spread prior to the enactment of anti-SLAPP law.

We report the results of estimating Equation (2) in Table 8. The variable of our interest is the interaction term of *Anti-SLAPP×Info Quality*. Panels A and B report the results when a firm's financial reporting quality and Amihud (2002)'s illiquidity are used as measures for *Info Quality*. The coefficients on *Anti-SLAPP×Low tercile PreDDAQ* and *Anti-SLAPP×High tercile PreAmihud* are significantly positive ($p<0.05$) except in Panel A when the dependent variable is *LNCIT*. These results are largely consistent with our prediction that the effect of anti-SLAPP on innovation is stronger for firms experiencing more informational frictions in the pre-period of anti-SLAPP law

[8] We use the Fama and French (1997) 48 industry classification to define each industry.

enactment. Panel C reports results based on firm size. The coefficient on *Anti-SLAPP×Low tercile PreMktV* is significantly positive (p-value < 0.01), indicating that the anti-SLAPP effect is stronger for small firms that face higher informational frictions. Panel D reports results based on bid-ask spread. The coefficient on *Anti-SLAPP×High tercile PreBid-Ask* is significantly positive (p< 0.01) except when the dependent variable is *LNPAT*, indicating that the anti-SLAPP effect is stronger for firms with higher bid-ask spread.

Overall, Table 8 provides evidence for the view that the effect of anti-SLAPP legislation in mitigating the informational frictions and improving innovation is more pronounced for firms that experience higher informational frictions prior to the enactment of anti-SLAPP legislation.

6.2 Underlying mechanism: Growth opportunities and external capital raising

The literature suggests that in an efficient economy external capital is allocated to projects with the positive net present value (Eisfeldt and Rampini 2006). We hypothesize that the enactment of anti-SLAPP law facilitates the reallocation of external capital to firms with higher growth opportunities than their counterparts with lower growth opportunities. The literature shows that successful innovation is created by firm stakeholders, especially, employees, and involves employees′ long-term human capital investment in innovation (Chang et al. 2015). As discussed earlier, we contend that private negative information disclosure by firm stakeholders, especially employees, can redirect external resource from firms with inferior innovation projects to those with superior innovation projects. Accordingly, we expect anti-SLAPP laws to strengthen the sensitivity of external capital financing to growth opportunities. To test this prediction, we estimate the following regression.

$$\begin{aligned} \text{Equity (Debt) Financing}_{it} = \alpha + \beta_1 \text{Anti-SLAPP} + \beta_2 MTB + \beta_3 MTB \times \text{Anti-SLAPP} + \beta_4 OCF_{it} + \\ \beta_5 OCF_{it} * OCFVOL_{it} + \beta_6 MTB_{it} + \beta_7 RET_{it} + \beta_8 ROA_{it} + \beta_9 NOLC_{it} + \\ \beta_{10} SIZE_{it} + \beta_{11} TANGIBILITY_{it} + \beta_{12} SG\&A_{it} + \beta_{13} RD_{it} + \beta_{14} LEV_{it} + \end{aligned}$$

$$\beta_{15} Industry\_LEV_{it} + \beta_{16} EPS\ Dilution\ Dummy_{it} + \beta_{17} MTB\ Dummy_{it} + Year\ FE + Firm\ FE + \varepsilon_{it} \quad (3)$$

where *Equity Financing* = equity issuance, computed as net cash received from sale (and/or purchase) of common and preferred stock less cash dividends paid, scaled by total assets prior to equity issuance; *Debt Financing* = long-term debt issuance (and/or reduction), scaled by total assets prior to debt issuance; *RET* = dividend-adjusted monthly returns cumulated over the last pre-issue year; *ROA* = earnings before interest, taxes, depreciation, and amortization, scaled by total assets at the beginning of the year; *NOLC* = net operating loss carryforwards, scaled by total assets at the beginning of the year; *SIZE* = the natural logarithm of sales; *TANGIBILITY* = the amount of property, plant, and equipment, scaled by total assets at the beginning of the year; *SG&A* = selling and administrative expenses, scaled by sales; *RD* = research and development expenses, scaled by sales; *LEV* = the sum of long-term debt and short-term debt, scaled by total assets at the beginning of the year; *Industry_LEV* = median leverage ratio of firms in the same two-digit standard industrial classification (SIC) industry group; *EPS Dilution Dummy* = an indicator variable that equals one if issuing equity dilutes earnings per share (EPS) more than issuing debt does, and zero otherwise. Specifically, *EPS Dilution Dummy* equals one if earnings-to-price ratio is greater than *rd*(1 - Tc)*, and zero otherwise, where *rd* is the yield on Moody's Baa rated debt, and the corporate tax rate, *Tc*, is assumed to be 34 percent; and *MTB* = growth opportunities, measured as [total assets – book value of equity + market value of equity]/total assets. The other variables are as previously defined.

Our primary interest is the coefficient (β_3) for *MTB*×*Anti-SLAPP*. If the staggered enactment of anti-SLAPP law facilitates the allocation of external capital to the most productive and innovative firms, β_3 is expected to be significantly positive. Our control variables closely follow those in

Hovakimian et al. (2004). Table 9 reports the results of estimating Eq. (3). The coefficient (β_3) on *MTB×Anti-SLAPP* is significantly positive ($p < 0.01$) in both equity financing and debt financing regressions, suggesting that the enactment of anti-SLAPP law facilitates the allocation of external financing to firms with strong growth opportunity. The coefficients for control variables are largely consistent with those in Hovakimian et al. (2004). The positive coefficient for *MB_Dummy* suggests that external capital is more likely to be allocated to firms with high growth opportunities. The negative coefficient for *ROA* and the positive coefficient on *NOLC* in the equity financing regression indicate that profitable firms have a propensity to not issue equity yet profitability does not appear to change a firm's choice of issuing debt (Hovakimian et al. 2004). The positive coefficient on *TANGIBILITY* for debt financing is consistent with firms with higher proportions of tangible assets with a higher collateralization value being likely to have relatively lower bankruptcy costs and, thus, entertain higher target debt ratios (Titman and Wessels 1988). The positive (negative) coefficient for *RD* in the equity (debt) financing regression is consistent with Titman (1984) contending that firms with unique assets and products could face higher bankruptcy costs and tend to have lower leverage targets. The negative (positive) coefficient for *LEV* in the equity (debt) financing regression is consistent with Hovakimian et al. (2004) showing that debt issuers (equity issuers) are more (less) leveraged. In sum, after the enactment of anti-SLAPP laws, firms with high growth opportunities in an anti-SLAPP state issue more equity and debt. The issuance of more equity or debt in the year of enactment of anti-SLAPP laws is consistent with the funds being used to finance innovation that pays off in the future.

6.3 The effect of the Inevitable Disclosure Doctrine on our results

The IDD states that courts may order employees from changing employers for a certain period of time if plaintiffs can provide evidence that it would not be possible for the employees to execute

their job without inevitably disclosing their corresponding former employer's trade secrets. Contigiani et al. (2018) show that higher thresholds for labor market mobility associated with an employer-friendly trade secrecy law exacerbates labor market frictions, thus reducing employee innovation effort and consequences. This adverse effect of IDD on corporate innovation can be mitigated by the enactment of the anti-SLAPP law, which allows firm stakeholders to freely come forth corporate negative information without any legal retaliation risk from the firm. Alternatively, the observed positive effect of the anti-SLAPP law on innovation in Table 3 can be muffled by the chilling effect of the IDD regulation that increases labor market frictions and reduces employees' endeavor of innovation. To test this prediction, we estimate the following regression model:

$$INNO_{t+3} = \alpha + \beta_1 anti\text{-}SLAPP + \beta_2 IDD + \beta_3 anti\text{-}SLAPP \times IDD + \sum \beta_k CONTROLS + Year\ FE + Firm\ FE + \varepsilon. \quad (4)$$

where *IDD* = an indicator for firms whose headquarter is located in a state where IDD is implemented, and the other variables are defined as before.

Table 10 reports the results of estimating Eq. (4). The coefficients on *IDD* are negative and significant when the dependent variable is *LNCIT*, consistent with Contigiani et al. (2018) who show that the enactment of IDD aggravates innovation by increasing labor market frictions. More importantly, the negative coefficient (β_3) on *anti-SLAPP*×*IDD* indicates that the positive impact of anti-SLAPP regulations is muffled by the adverse effect of IDD. That is, while anti-SLAPP laws allow employees to disclose negative news on their firm's innovation projects, the positive effect of anti-SLAPP is muffled by the higher thresholds for labor market mobility associated with an employer-friendly trade secrecy law (*IDD*) that creates labor market frictions, thus reducing employee innovation effort and outcomes. The examination of IDD in the context of anti-SLAPP legislation also provides novel insight for policy makers wishing to improve the efficiency of their laws or regulations on corporate trade secrecy while protecting external capital providers from

informational frictions stemming from trade secrecy. As such, we contribute to policy and regulation by documenting the net effect of substituting two contrasting statutes on firm-level trade secrecy.

6.4 Glassdoor ratings

In our hypothesis development, we claim that the positive effect of the enactment of the anti-SLAPP laws on innovation manifests in states where the enforcement of anti-SLAPP law is stronger. We contend that this occurs because stakeholders' (particularly, employees') timelier (and the expectation of timelier) revelation of negative news from anti-SLAPP legislation can mitigate information asymmetry. In this section, we attempt to triangulate this claim by using Glassdoor.com, one of the most popular social media platforms among employees to share private information publicly regarding their employers on matters such as compensation and work environment. Specifically, we predict that if the enactment of anti-SLAPP laws facilitates employees' (negative) disclosure with respect to their employers (including negative information on firm innovation projects) through a social media platform such as Glassdoor.com (Jung et al. 2021), the positive effect of anti-SLAPP laws on innovation will be more pronounced in firms where employees are permitted to divulge corporate negative information more freely through the social media platforms.

To test this prediction, we employ employees' overall satisfaction ratings regarding their own employers on the Glassdoor.com to construct our main independent variable.[9] Because Glassdoor began its service in 2008, our sample analysis is restricted to data in 2008–2017. Overall employee satisfaction rating ranges from a scale of 1 to 5 in each year for each firm rated on Glassdoor over a period of 365 days. We then create an indicator variable, *Lower_ComRating* equal to one if based

[9] On the website of Glassdoor, employees evaluate various aspects of their employers such as senior management, work-life balance, culture, compensation and benefits, among other things.

on overall employee satisfaction a firm is located in the lowest tercile of states, and zero otherwise. Similar to our previous cross-sectional analysis, we modify our main regression (Eq. (1)) by interacting *Lower_ComRating* with the anti-SLAPP law indicator. Specifically, we estimate the following regression model (5):

$$INNO_{t+3} = \alpha + \beta_1 Anti\text{-}SLAPP + \beta_2 Lower\_ComRating + \beta_3 Anti\text{-}SLAPP \times Lower\_ComRating + \sum \beta_k CONTROLS + Year\ FE + Firm\ FE + \varepsilon. \quad (5)$$

If employees' lower ratings at Glassdoor.com underlie the disclosure of negative firm-level information that leads to higher innovation success, we expect the coefficient β_3 on the interaction between *Anti-SLAPP* and *Lower_ComRating* will be positive and significant. Table 11 presents the results of estimating Eq. (5). Consistent with our expectation and corroborating our main argument, we find that the coefficient, β_3 is significantly positive for all our innovation measures. This suggests that firms domiciling in states with lower online employee ratings have higher quantity and quality of innovation as well as economically significant innovation.

7 Conclusion

To date, more than one-half of the U.S states have enacted anti-SLAPP legislation to protect individuals' rights to free speech and to petition the government for the redress of grievances. While the U.S. constitution protects these rights, firms also have the right to operate under rules of fair competition and in accordance with the commercial speech doctrine. When employees reveal negative information about their firm in ways not condoned by firms' policies for disclosure, which some firms may view as unfair, this could stifle their ability to compete and innovate. There is a counterargument to this view, however. When the public information environment of a firm includes otherwise undisclosed negative information, this may expand outsiders' knowledge of the firm, which can improve public information quality and facilitate the flow of investment to the most efficient uses of capital.

We explore this tension in the context of firms operating in states with anti-SLAPP legislation. From an economic standpoint, anti-SLAPP legislation potentially increases the likelihood that the full array of information about a firm (including negative information) conditions investors' willingness to finance risky innovation. We find that firms operating in states with anti-SLAPP statutes are better innovators despite the higher likelihood that outsiders have a more complete and possibly a less rosy picture of the firm. We contend and find that this result occurs through two channels: informational channel (facilitates the ability of outside investors to have better information) and external capital channel (facilitates the reallocation of capital to firms with high quality projects, compared to their counterparts with lower quality projects). These results hold after challenges from an array of robustness tests. In sum, our results do not support the alternative view that firms that use SLAPP lawsuits to stifle the release of public information contrary to their interests are better innovators.

A democratic capitalistic society must always strive for an ideal balance between the rights of individuals for freedom of expression and the rights of private enterprise to operate such that it is not unfairly or unjustly affected by the rights of others (Schumpeter 2010). Our findings suggest that in adopting anti-SLAPP laws, states' legislative processes may not only have made choices that appropriately balance different individuals' rights but, also, those processes as a whole may have contributed to society's greater good by promoting innovation.

References

Akerlof, G. A. 1970. The Market for "Lemons": Quality Uncertainty and the Market Mechanism. *The Quarterly Journal of Economics* 84 (3):488-500.

Amihud, Y., and B. Lev. 1981. Risk Reduction as a Managerial Motive for Conglomerate Mergers. *The Bell Journal of Economics* 12 (2):605-617.

Ashenmiller, B., and C. S. Norman. 2011. Measuring the Impact of Anti-SLAPP Legislation on Monitoring and Enforcement. *The B.E. Journal of Economic Analysis &Policy* 11 (1):1–17.

Atanassov, J. 2013. Do Hostile Takeovers Stifle Innovation? Evidence from Antitakeover Legislation and Corporate Patenting. *The Journal of Finance* 68 (3):1097-1131.

Atanassov, J., and X. Liu. 2020. Can Corporate Income Tax Cuts Stimulate Innovation? *Journal of Financial and Quantitative Analysis* 55 (5):1415-1465.

Barker, J. C. 1993. Common-Law and Statutory Solutions to the Problem of SLAPPS. *Loyola of Los Angeles Law Review* 26 (2):395–454.

Bayer, J., P. Bárd, L. Vosyliute, and N. C. Luk. 2021. *Strategic Lawsuits Against Public Participation (SLAPP) in the European Union: A comparative study*. https://ec.europa.eu/info/sites/default/files/slapp_comparative_study.pdf.

Bertrand, M., and S. Mullainathan. 2003. Enjoying the Quiet Life? Corporate Governance and Managerial Preferences. *Journal of Political Economy* 111 (5):1043-1075.

Bushee, B. J. 1998. The Influence of Institutional Investors on Myopic R&D Investment Behavior. *The Accounting Review* 73 (3):305-333.

California_Court_of_Appeal. 2021. Sugarman v. Benett, No. B307753, 2021 WL 6111725 (Cal. App. Dec. 27).

Chang, X., K. Fu, A. Low, and W. Zhang. 2015. Non-executive employee stock options and corporate innovation. *Journal of Financial Economics* 115 (1):168-188.

Chemmanur, T. J., H. Rajaiya, and J. Sheng. 2020. How does Online Employee Ratings Affect External Firm Financing? Evidence from Glassdoor. Available at SSRN: https://ssrn.com/abstract=3507695 September 15th.

Contigiani, A., D. H. Hsu, and I. Barankay. 2018. Trade secrets and innovation: Evidence from the "inevitable disclosure" doctrine. *Strategic Management Journal* 39 (11):2921-2942.

Dechow, P. M., and I. D. Dichev. 2002. The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors. *The Accounting Review* 77 (s-1):35-59.

Dube, S., and C. Zhu. 2021. The Disciplinary Effect of Social Media: Evidence from Firms' Responses to Glassdoor Reviews. *Journal of Accounting Research* 59 (5):1783-1825.

Eisfeldt, A. L., and A. A. Rampini. 2006. Capital reallocation and liquidity. *Journal of Monetary Economics* 53 (3):369-399.

Fang, V. W., X. Tian, and S. Tice. 2014. Does Stock Liquidity Enhance or Impede Firm Innovation? *The Journal of Finance* 69 (5):2085-2125.

Francis, J. R., and X. Martin. 2010. Acquisition profitability and timely loss recognition. *Journal of Accounting and Economics* 49 (1):161-178.

Giles, O., and D. Murphy. 2016. SLAPPed: the relationship between SLAPP suits and changed ESG reporting by firms. *Sustainability Accounting, Management and Policy Journal* 7 (1):44-79.

Griffin, P. A., H. A. Hong, K. Lee, and S. K. Moon. 2022. *Survival of the most secretive: Firm bankruptcy and peer firm contract redactions*. Research Paper presented at the European Accounting Association Annual Congress, Bergen, Norway. May.

Griffin, P. A., H. A. Hong, Y. Liu, and J. W. Ryou. 2021. The dark side of CEO social capital: Evidence from real earnings management and future operating performance. *Journal of Corporate Finance* 68:101920.

Griffin, P. A., H. A. Hong, and J. W. Ryou. 2018. Corporate innovative efficiency: Evidence of effects on credit ratings. *Journal of Corporate Finance* 51:352-373.

Griliches, Z., B. H. Hall, and A. Pakes. 1991. R&D, Patents, and Market Value Revisited: Is There A Second (Technological Opportunity) Factor? *Economics of Innovation and New Technology* 1 (3):183-201.
Hainmueller, J. 2012. Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies. *Political Analysis* 20 (1):25-46.
Hales, J., J. R. Moon, and L. A. Swenson. 2018. A new era of voluntary disclosure? Empirical evidence on how employee postings on social media relate to future corporate disclosures. *Accounting, Organizations and Society* 68-69:88-108.
Hall, B. H., and J. Lerner. 2010. Chapter 14 - The Financing of R&D and Innovation. In *Handbook of the Economics of Innovation*, edited by B. H. Hall and N. Rosenberg: North-Holland, 609-639.
He, J., and X. Tian. 2013. The dark side of analyst coverage: The case of innovation. *Journal of Financial Economics* 109 (3):856-878.
Holmstrom, B. 1989. Agency costs and innovation. *Journal of Economic Behavior & Organization* 12 (3):305-327.
Holmström, B. 1999. Managerial Incentive Problems: A Dynamic Perspective. *The Review of Economic Studies* 66 (1):169-182.
Hovakimian, A., G. Hovakimian, and H. Tehranian. 2004. Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics* 71 (3):517-540.
Huang, K., M. Li, and S. Markov. 2019. What Do Employees Know? Evidence from a Social Media Platform. *The Accounting Review* 95 (2):199-226.
Hurley, T., and J. Shogren. 1997. Environmental Conflicts and the SLAPP. *Journal of Environmental Economics and Management* 33 (3):253-273.
Jensen, M. C., and W. H. Meckling. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3 (4):305-360.
Jung, B., Y. Wang, S. Wei, and J. Zhang. 2021. Employees' voluntary disclosures about business outlook and labor investment efficiency. SSRN: https://ssrn.com/abstract=3861033 June 6th.
Kaplan, S. N., and L. Zingales. 1997. Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints? *The Quarterly Journal of Economics* 112 (1):169-215.
Kogan, L., D. Papanikolaou, A. Seru, and N. Stoffman. 2017. Technological Innovation, Resource Allocation, and Growth. *The Quarterly Journal of Economics* 132 (2):665-712.
McGowan, D. F. 1990. A Critical Analysis of Commercial Speech. *California Law Review* 78 (2):359-448.
McGreal, C. 2022. ExxonMobil Aims to Use a Radical Texas Law to Silence Its Critics in California. *The Guardian.org.* January 18th.
McLean, R. D., and M. Zhao. 2014. The Business Cycle, Investor Sentiment, and Costly External Finance. *The Journal of Finance* 69 (3):1377-1409.
Pandit, S., C. E. Wasley, and T. Zach. 2011. Information Externalities along the Supply Chain: The Economic Determinants of Suppliers' Stock Price Reaction to Their Customers' Earnings Announcements*. *Contemporary Accounting Research* 28 (4):1304-1343.
Pring, G. W., and P. Canan. 1996. *SLAPPs: Getting Sued for Speaking Out*. Temple University Press.
Romer, P. M. 1990. Endogenous technological change. *Journal of Political Economy* 98:S71-S102.
Rothstein, E. M., M. J. Gershoni, and B. C. Boyd. 2021. *Trade Secret Litigation Boom Continues*. The Bureau of National Affairs, Inc. https://www.arnoldporter.com/en/perspectives/publications/2021/03/trade-secret-litigation-boom-continues March 1st.
Rowe, E. A. 2009. Trade Secret Litigation and Free Speech: Is It Time to Restrain the Plaintiffs. *Boston College Law Review* 50 (5):1425–1456.
Schumpeter, J. A. 2010. Capitalism, Socialism and Democracy. 1st Edition. eBook Published 17 March 2010. London: Routledge.
Shapiro, P. 2010. SLAPPs: Intent or Content? Anti-SLAPP Legislation Goes International. *Review of European Community & International Environmental Law* 19 (1):14-27.

Smith, C. W., and R. M. Stulz. 1985. The Determinants of Firms' Hedging Policies. *The Journal of Financial and Quantitative Analysis* 20 (4):391-405.
Solow, R. M. 1957. Technical change and the aggregate production function. *The Review of Economics and Statistics* 39 (3):312-320.
Tian, X., and T. Y. Wang. 2011. Tolerance for Failure and Corporate Innovation. *The Review of Financial Studies* 27 (1):211-255.
Titman, S. 1984. The effect of capital structure on a firm's liquidation decision. *Journal of Financial Economics* 13 (1):137-151.
Titman, S., and R. Wessels. 1988. The Determinants of Capital Structure Choice. *The Journal of Finance* 43 (1):1-19.
Tu, S. S., and N. F. Stump. 2021. Free Speech in the Balance: Judicial Sanctions and Frivolous SLAPP Suits. *Loyola of Los Angeles Law Review* 54 (2):623–674.
Vermaelen, T. 1981. Common stock repurchases and market signalling: An empirical study. *Journal of Financial Economics* 9 (2):139-183.
Wilford, A. 2021. Free Speech and Innovation Would Benefit From Federal Anti-SLAPP Law. National Taxpayers Union Foundation. February 2nd.

Appendix A
Variable definitions

Variables	Definition
Anti-SLAPP	An indicator variable equal to one if a firm is headquartered in a state in a given year having enacted anti-SLAPP laws in that year and zero otherwise.
$LNPAT_{t+3}$	The natural logarithm of one plus firm *i*'s total number of patents in year *t+3*.
$LNCIT_{t+3}$	The natural logarithm of one plus firm *i*'s total number of citations received on the firm's patents in year *t+3*.
$LNSM_{t+3}$	The natural logarithm of one plus firm *i*'s economic value of patents in year *t+3* (Kogan et al. 2017).
LNFIRMAGE	The natural log of firm i's age, approximated by the number of years listed on COMPUSTAT.
LNAT	The natural log of total assets at the end of fiscal year *t*.
ROA	Return on assets ratio defined as net income before extraordinary items divided by total assets at the end of fiscal year *t*.
PPE	Property, plant & equipment divided by total assets at the end of fiscal year *t*.
LEV	Firm i's leverage ratio, defined as total debt divided by total assets at the end of fiscal year *t*.
CAPEX	Capital expenditures scaled by total assets at the end of fiscal year *t*.
RDEXP	Research and development (R&D) expenditure divided by total assets at the end of fiscal year *t*, set to 0 if missing.
TOBINQ	Market value of equity plus the book value of total assets minus the book value of equity, scaled by the book value of total assets of the focal firm.
SURPLUSCASH	Cash from assets-in-place divided by total assets. Calculated as operating activities net cash flow minus depreciation and amortization plus research and development expense at the end of fiscal year *t*.
KZINDEX	Firm i's Kaplan and Zingales (1997) index measured at the end of fiscal year *t*, calculated as -1.001909 × operating cash flow/property plant and equipmen$_{t-1}$ + 0.2826389 × *TOBINQ* + 3.139193 × *LEV* - 39.3678 × dividends/property plant and equipment $_{t-1}$ - 1.314759 × (cash + short-term investments)/property plant and equipment $_{t-1}$.
HHI	Herfindahl index of four-digit standard industrial classification (SIC) industry *j* where firm *i* belongs, measured at the end of fiscal year *t*.
SGROW	Change in net sales in year *t* divided by net sales in year *t*-1.
Equity Financing	Magnitude of equity issued, scaled by the last pre-issue total assets. The magnitude of equity issued is net equity financing measured as the proceeds from the sale of common and preferred stock (SSTK) less cash payments for the purchase of common and preferred stock (PRSTKC) less cash payments for dividends (DV).
Debt Financing	Magnitude of long-term debt issued (DLTIS – DLTR), scaled by the last pre-issue total assets.
Anti-SLAPP score	A composite measure from *Covered Speech score, and Anti-SLAPP procedures* as the quantitative assess grade for each jurisdiction's statute.
Covered Speech score	An Index of the scope of speech that is covered by each jurisdiction's anti-SLAPP law from the Institute for Free Speech
Anti-SLAPP procedure	An index of how comprehensive are the protections for speakers by each jurisdiction's anti-SLAPP law, from the Institute for Free Speech.
PreDDAQ	Mean of DDAQ prior to the inception of anti-SLAPP law. DDAQ is -1 times the standard deviation of three firm-year residual change in working capital

	(ΔWC) on a rolling basis, ending in the measurement year, obtained from the following cross-sectional estimation.
PreAmihud	Mean of Amihud ratio prior to the inception of anti-SLAPP law.
PreMktV	Mean of Market Value of equity prior to the inception of anti-SLAPP law.
PreBid-Ask	Mean of Bid-Ask Spread prior to the inception of anti-SLAPP law.
MTB	Firm growth opportunities, as measured as [total assets – book value of equity + market value of equity]/total assets.
RET	Dividend-adjusted monthly returns cumulated over the last pre-issue year.
NOLC	Net operating loss carryforwards, scaled by total assets at the beginning of the year
TANGIBILITY	Property, plant, and equipment, scaled by total assets at the beginning of the year.
SG&AINT	Selling and administrative expenses, scaled by sales
RDINT	Research and development expenses, scaled by sales
Industry_LEV	Median leverage ratio of firms in the same two-digit standard industrial classification (SIC) industry group
EPS_dilution_dummy	An indicator variable that equals one if issuing equity dilutes the firm's earnings per share (EPS) more than issuing debt does, and zero otherwise. i.e., *EPS Dilution Dummy* equals one if E/P is greater than *rd**(1 - *Tc*), and zero otherwise. E/P is the firm's earnings-to-price ratio, *rd* is the yield on Moody's Baa rated debt, and the corporate tax rate, *Tc*, is assumed to be 34%.
MB_dummy	= one for *MTB* > median *MTB* by year and zero otherwise.
Lower_ComRating	An indicator variable equal to one if a firm is in the lowest tercile based on Glassdoor.com and zero otherwise.
IDD	An indicator for firms whose headquarters are located in a state where IDD is implemented.

Appendix B
Anti-SLAPP observations

Panel A: Enactment years of Anti-SLAPP in U.S. States

States	Anti-SLAPP law adoption year
Arizona	2006
Arkansas	2005
California	1992
Connecticut	2017
Delaware	1992
District of Columbia	2010
Florida	2000
Georgia	1996
Hawaii	2002
Illinois	2007
Indiana	1998
Kansas	2016
Louisiana	1999
Maine	1995
Maryland	2004
Massachusetts	1994
Missouri	2004
Nebraska	1994
Nevada	1993
New Mexico	2001
New York	1992
Oklahoma	2014
Oregon	2001
Pennsylvania	2000
Rhode Island	1995
Texas	2011
Tennessee	1997
Utah	2001
Vermont	2005
Virginia	2017
Washington	2010

Panel B: Anti-SLAPP observations by year

Year	Anti-SLAPP=0	Anti-SLAPP=1	Total
1988	3,576	0	3,576
1989	4,006	0	4,006
1990	4,012	0	4,012
1991	4,120	0	4,120
1992	3,327	999	4,326
1993	3,520	1,112	4,632
1994	3,456	1,424	4,880
1995	3,671	1,624	5,295
1996	3,774	1,934	5,708
1997	3,746	2,043	5,789
1998	3,557	2,031	5,588
1999	3,380	2,051	5,431
2000	2,708	2,496	5,204
2001	2,409	2,398	4,807
2002	2,282	2,239	4,521
2003	2,132	2,087	4,219

2004	1,959	2,157	4,116
2005	1,871	2,098	3,969
2006	1,761	2,103	3,864
2007	1,554	2,161	3,715
2008	1,476	2,044	3,520
2009	1,417	1,943	3,360
2010	1,311	1,920	3,231
2011	882	2,224	3,106
2012	862	2,155	3,017
2013	865	2,126	2,991
2014	831	2,190	3,021
2015	793	2,144	2,937
2016	805	2,023	2,828
2017	633	2,004	2,637
Total	70,696	51,730	122,426

Panel C: Anti-SLAPP observations by state

State	Anti-SLAPP=0	Anti-SLAPP=1	Total	State	Anti-SLAPP=0	Anti-SLAPP=1	Total
AK	29	0	29	MT	130	0	130
AL	677	0	677	NC	2,617	0	2,617
AR	327	174	501	ND	77	0	77
AZ	1,360	601	1,961	NE	75	394	469
CA	2,127	17,223	19,350	NH	602	0	602
CO	3,650	0	3,650	NJ	5,741	0	5,741
CT	2,618	52	2,670	NM	93	25	118
DC	194	68	262	NV	182	1,056	1,238
DE	63	413	476	NY	1,412	8,013	9,425
FL	2,950	3,155	6,105	OH	4,163	0	4,163
GA	943	2,474	3,417	OK	1,057	142	1,199
HI	98	108	206	OR	663	587	1,250
IA	535	0	535	PA	2,287	2,539	4,826
ID	322	0	322	RI	120	323	443
IL	3,713	1,448	5,161	SC	557	0	557
IN	523	853	1,376	SD	180	0	180
KS	640	32	672	TN	599	1,132	1,731
KY	617	0	617	TX	10,784	2,687	13,471
LA	327	388	715	UT	570	577	1,147
MA	1,246	5,355	6,601	VA	3,062	70	3,132
MD	1,201	640	1,841	VT	139	28	167
ME	63	120	183	WA	1,746	343	2,089
MI	2,477	0	2,477	WI	1,858	0	1,858
MN	3,704	0	3,704	WV	143	0	143
MO	1,191	710	1,901	WY	47	0	47
MS	197	0	197	Total	70,696	51,730	122,426

Table 1
Descriptive statistics

Variable	N	Mean	SD	p25	p50	p75
Anti-SLAPP	122,426	0.4225	0.4940	0.0000	0.0000	1.0000
LNPAT t+3	122,426	0.4436	1.0519	0.0000	0.0000	0.0000
LNCIT t+3	122,426	0.7797	1.8120	0.0000	0.0000	0.0000
LNSM t+3	122,426	0.6958	1.7235	0.0000	0.0000	0.0000
LNFIRMAGE	122,426	2.4776	0.9203	1.7918	2.4849	3.2189
LNAT	122,426	5.2475	2.2231	3.6092	5.1303	6.7782
ROA	122,426	-0.0508	0.2618	-0.0565	0.0271	0.0696
PPE	122,426	0.2826	0.2400	0.0888	0.2061	0.4183
LEV	122,426	0.2504	0.2426	0.0351	0.2085	0.3802
CAPEX	122,426	0.0622	0.0697	0.0189	0.0403	0.0775
RDEXP	122,426	0.0497	0.0993	0.0000	0.0000	0.0558
TOBINQ	122,426	1.9942	1.6164	1.0698	1.4423	2.2294
SURPLUSCASH	122,426	-0.0780	0.2694	-0.1038	-0.0002	0.0537
KZINDEX	122,426	0.9731	2.1779	0.1900	0.8814	1.6548
HHI	122,426	0.2290	0.1772	0.1055	0.1790	0.2897
SGROW	122,426	0.1057	0.3402	-0.0296	0.0782	0.2193

Table 2
Correlations

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
1 Anti-SLAPP	1	**0.04**	**0.01**	**0.04**	**0.02**	**0.06**	**-0.07**	**-0.20**	**-0.12**	**-0.14**	**0.17**	**0.11**	**-0.10**	**0.15**	**-0.01**	**-0.02**
2 LNPAT$_{t+3}$	**0.06**	1	**0.94**	**1.00**	**0.11**	**0.23**	**0.11**	**-0.07**	**-0.12**	**0.01**	**0.37**	**0.17**	**-0.03**	**-0.01**	**0.03**	**0.03**
3 LNCIT$_{t+3}$	0.00	**0.89**	1	**0.94**	**0.08**	**0.19**	**0.11**	**-0.05**	**-0.11**	**0.03**	**0.35**	**0.15**	**-0.03**	**-0.02**	**0.03**	**0.04**
4 LNSM$_{t+3}$	**0.06**	**0.95**	**0.83**	1	**0.12**	**0.24**	**0.11**	**-0.07**	**-0.11**	**0.01**	**0.37**	**0.17**	**-0.02**	**-0.02**	**0.03**	**0.04**
5 LNFIRMAGE	**0.03**	**0.15**	**0.07**	**0.17**	1	**0.37**	**0.16**	**0.15**	**0.08**	**-0.02**	**-0.08**	**-0.17**	**0.24**	**-0.34**	**0.07**	**-0.23**
6 LNAT	**0.07**	**0.32**	**0.23**	**0.39**	**0.38**	1	**0.27**	**0.23**	**0.21**	**0.13**	**-0.20**	**-0.07**	**0.39**	**-0.28**	**-0.09**	**0.01**
7 ROA	**-0.09**	**0.09**	**0.08**	**0.10**	**0.16**	**0.34**	1	**0.06**	**-0.18**	**0.17**	**-0.16**	**0.18**	**0.65**	**-0.40**	**0.05**	**0.23**
8 PPE	**-0.17**	**-0.10**	**-0.08**	**-0.08**	**0.12**	**0.22**	**0.10**	1	**0.35**	**0.62**	**-0.38**	**-0.21**	**0.24**	**-0.30**	**-0.14**	**-0.05**
9 LEV	**-0.09**	**-0.10**	**-0.11**	**-0.08**	**0.05**	**0.13**	**-0.16**	**0.29**	1	**0.08**	**-0.32**	**-0.21**	**0.01**	**-0.07**	**-0.03**	**-0.06**
10 CAPEX	**-0.11**	**-0.04**	**-0.02**	**-0.04**	**-0.09**	**0.03**	**0.05**	**0.53**	**0.07**	1	**-0.17**	**0.03**	**0.16**	**-0.15**	**-0.13**	**0.12**
11 RDEXP	**0.17**	**0.14**	**0.15**	**0.12**	**-0.14**	**-0.27**	**-0.48**	**-0.29**	**-0.16**	**-0.10**	1	**0.32**	**-0.47**	**0.31**	0.00	**0.01**
12 TOBINQ	**0.11**	**0.11**	**0.12**	**0.13**	**-0.19**	**-0.16**	**-0.21**	**-0.20**	**-0.09**	**0.01**	**0.36**	1	**-0.03**	**0.14**	**-0.04**	**0.27**
13 SURPLUSCASH	**-0.12**	**0.02**	0.00	**0.04**	**0.20**	**0.38**	**0.79**	**0.20**	**-0.03**	**0.06**	**-0.75**	**-0.30**	1	**-0.40**	**0.04**	**0.05**
14 KZINDEX	**-0.01**	**-0.03**	**-0.03**	**-0.02**	**-0.08**	**-0.05**	**-0.20**	**0.03**	**0.38**	**0.02**	**0.04**	**0.19**	**-0.15**	1	**-0.02**	**0.09**
15 HHI	**-0.01**	**0.02**	**0.02**	**0.02**	**0.08**	**-0.06**	**0.04**	**-0.14**	**-0.03**	**-0.11**	**-0.08**	**-0.05**	**0.06**	**-0.05**	1	**-0.06**
16 SGROW	**-0.01**	**0.02**	**0.04**	**0.02**	**-0.23**	**0.02**	**0.15**	**-0.03**	**-0.05**	**0.10**	**-0.02**	**0.19**	**0.06**	**0.04**	**-0.05**	1

Table 3
The effect of anti-SLAPP enactment on corporate innovation

Dependent variable	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0554	0.1261	0.0609
	(4.05)***	(4.29)***	(2.75)***
LNFIRMAGE	0.0077	0.0446	0.0154
	(0.64)	(1.66)*	(0.77)
LNAT	0.0764	0.0566	0.0905
	(12.20)***	(4.45)***	(9.15)***
ROA	-0.0083	-0.0109	0.0047
	(-0.78)	(-0.45)	(0.31)
PPE	0.1196	0.4470	0.1374
	(3.47)***	(6.19)***	(2.41)**
LEV	-0.1084	-0.2575	-0.1439
	(-6.19)***	(-6.46)***	(-5.29)***
CAPEX	-0.0019	0.0140	-0.0347
	(-0.06)	(0.18)	(-0.67)
RDEXP	0.1397	0.1363	0.3661
	(1.96)*	(0.92)	(3.39)***
TOBINQ	0.0243	0.0508	0.0398
	(10.15)***	(9.54)***	(10.41)***
SURPLUSCASH	0.0290	0.0232	0.0533
	(1.97)**	(0.68)	(2.49)**
KZINDEX	-0.0022	-0.0055	-0.0020
	(-2.12)**	(-2.41)**	(-1.20)
HHI	0.0455	0.2062	0.0797
	(0.92)	(2.08)**	(0.98)
SGROW	0.0013	0.0480	0.0129
	(0.25)	(4.18)***	(1.69)*
Observations	122,426	122,426	122,426
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.766	0.641	0.780

This table regresses three different measures of future innovation on *anti-SLAPP*, control variables, and fixed effects. *Anti-SLAPP* is an indicator variable equal to one if a firm is headquartered in a state in a given year having enacted anti-SLAPP laws in that year and zero otherwise. The positive coefficients for *anti-SLAPP* mean that innovation three years after passage of a law in a particular state is significantly higher than innovation in states and years that do not experience passage of anti-SLAPP laws, after controlling for other reasons for an increase in innovation such as higher growth prospects (*TOBINQ*), level of investment (*CAPEX*), and R&D spending (*RDEXP*). Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 4
Results based on PSM and entropy matching

Panel A: Results based on PSM matching

Dependent variable	*Treated*	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP		0.0656	0.1566	0.0697
		(4.29)***	(4.80)***	(2.72)***
LNFIRMAGE	-0.0541	0.0122	0.0567	0.0203
	(-11.60)***	(0.88)	(1.84)*	(0.88)
LNAT	0.0425	0.0714	0.0457	0.0804
	(20.17)***	(10.18)***	(3.02)***	(7.04)***
ROA	0.0708	-0.0152	-0.0306	-0.0059
	(2.82)***	(-1.01)	(-0.85)	(-0.29)
PPE	-0.2151	0.1255	0.4618	0.1470
	(-9.41)***	(3.05)***	(5.40)***	(2.13)**
LEV	-0.2366	-0.1115	-0.2564	-0.1472
	(-12.94)***	(-5.23)***	(-5.42)***	(-4.43)***
CAPEX	-0.2226	-0.0099	0.0329	-0.0901
	(-3.39)***	(-0.22)	(0.31)	(-1.31)
RDEXP	1.0614	0.1541	0.1095	0.3815
	(16.33)***	(1.86)*	(0.62)	(3.09)***
TOBINQ	0.0200	0.0235	0.0502	0.0399
	(7.43)***	(8.06)***	(7.72)***	(8.35)***
SURPLUSCASH	-0.0436	0.0567	0.0633	0.1094
	(-1.39)	(3.04)***	(1.47)	(3.91)***
KZINDEX	0.0030	-0.0022	-0.0044	-0.0021
	(1.53)	(-1.72)*	(-1.60)	(-1.01)
HHI	-0.0932	0.0736	0.2726	0.1371
	(-4.16)***	(1.25)	(2.37)**	(1.39)
SGROW	0.0277	-0.0031	0.0445	0.0027
	(2.33)**	(-0.44)	(2.88)***	(0.26)
Observations	122,426	138,726	138,726	138,726
Year FE	Yes	Yes	Yes	Yes
Industry FE	YES	No	No	No
Firm FE	No	Yes	Yes	Yes
Adj. R^2/ R2 Pseudo	0.0469	0.776	0.654	0.789

Table 4, contd.

Panel B: Results based on entropy balancing

Dependent variable	*Treated*	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0738	0.1617	0.0877	0.0738
	(4.95)***	(5.09)***	(3.48)***	(4.95)***
LNFIRMAGE	0.0127	0.0549	0.0284	0.0127
	(0.94)	(1.86)*	(1.28)	(0.94)
LNAT	0.0741	0.0496	0.0847	0.0741
	(11.01)***	(3.42)***	(8.04)***	(11.01)***
ROA	-0.0052	-0.0109	0.0150	-0.0052
	(-0.40)	(-0.37)	(0.83)	(-0.40)
PPE	0.1360	0.4891	0.1542	0.1360
	(3.58)***	(6.07)***	(2.45)**	(3.58)***
LEV	-0.1079	-0.2472	-0.1402	-0.1079
	(-5.24)***	(-5.51)***	(-4.27)***	(-5.24)***
CAPEX	-0.0087	-0.0240	-0.0632	-0.0087
	(-0.23)	(-0.28)	(-1.04)	(-0.23)
RDEXP	0.1477	0.1427	0.3679	0.1477
	(1.93)*	(0.91)	(3.29)***	(1.93)*
TOBINQ	0.0220	0.0462	0.0370	0.0220
	(8.27)***	(7.84)***	(8.67)***	(8.27)***
SURPLUSCASH	0.0429	0.0378	0.0711	0.0429
	(2.54)**	(0.98)	(2.86)***	(2.54)**
KZINDEX	-0.0016	-0.0038	-0.0020	-0.0016
	(-1.34)	(-1.55)	(-1.04)	(-1.34)
HHI	0.0603	0.2286	0.1201	0.0603
	(1.07)	(2.04)**	(1.25)	(1.07)
SGROW	-0.0017	0.0420	0.0064	-0.0017
	(-0.27)	(3.27)***	(0.71)	(-0.27)
Observations	122,426	122,426	122,426	122,426
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Adj. R^2/ R2 Pseudo	0.765	0.634	0.778	0.765

This table shows that the main result in Table 3 is robust to firm-years without anti-SLAPP legislation when those firm-years are matched to firm-years with anti-SLAPP legislation on the basis of propensity score matching (Panel A) and entropy matching (Panel B). With these matching techniques, each firm-year without anti-SLAPP legislation is matched to a firm-year with anti-SLAPP legislation with similar measures of the control variables. In Panel A, the number of observations of 138,726 is larger because PSM matching generates some duplicated observations in the control group. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 5
Dynamic analysis

Dependent variable	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
T-3	-0.0132	-0.0301	-0.0163
	(-1.15)	(-1.22)	(-0.93)
T-2	-0.0128	-0.0194	-0.0112
	(-1.08)	(-0.77)	(-0.61)
T-1	-0.0037	0.0057	-0.0007
	(-0.30)	(0.22)	(-0.04)
T=0	0.0008	0.0293	0.0117
	(0.07)	(1.13)	(0.59)
T+1	0.0064	0.0486	0.0096
	(0.55)	(1.89)*	(0.51)
T+2	0.0220	0.0348	0.0393
	(1.94)*	(1.37)	(2.09)**
T+3	0.0102	0.0722	0.0336
	(0.95)	(2.93)***	(1.82)*
LNFIRMAGE	0.0088	0.0419	0.0167
	(0.72)	(1.73)*	(0.83)
LNAT	0.0768	0.1771	0.0908
	(12.21)***	(13.96)***	(9.15)***
ROA	-0.0088	-0.0001	0.0042
	(-0.83)	(-0.00)	(0.28)
PPE	0.1205	0.3877	0.1385
	(3.49)***	(5.68)***	(2.43)**
LEV	-0.1098	-0.3114	-0.1452
	(-6.26)***	(-8.05)***	(-5.34)***
CAPEX	-0.0045	-0.0343	-0.0372
	(-0.13)	(-0.45)	(-0.72)
RDEXP	0.1407	0.5273	0.3667
	(1.97)**	(3.49)***	(3.40)***
TOBINQ	0.0244	0.0631	0.0400
	(10.21)***	(12.48)***	(10.46)***
SURPLUSCASH	0.0284	0.0225	0.0525
	(1.93)*	(0.63)	(2.45)**
KZINDEX	-0.0022	-0.0034	-0.0020
	(-2.10)**	(-1.46)	(-1.20)
HHI	0.0445	0.2615	0.0788
	(0.90)	(2.88)***	(0.97)
SGROW	0.0010	0.0227	0.0125
	(0.20)	(1.85)*	(1.64)
Observations	122,426	122,426	122,426
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2/ R2 Pseudo	0.765	0.687	0.780

This table aligns the observations in the year of enactment of anti-SLAPP legislation in a state, set at *T*=0. After controlling for different calendar years and other regressors, it shows that innovation increases in years *T+2* and *T+3* but not in the other years. Firm-years *T-3* to *T+3* without anti-SLAPP legislation at *T*=0 are assigned randomly to firm-years *T-3* to *T+3* with anti-SLAPP legislation. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 6
Placebo analysis

Dependent variable	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Placebo year	-0.0001	0.0061	-0.0050			
	(-0.01)	(0.23)	(-0.24)			
Placebo location				-0.0005	0.0087	-0.0033
				(-0.15)	(1.16)	(-0.54)
LNFIRMAGE	0.0088	0.0471	0.0167	0.0088	0.0472	0.0167
	(0.73)	(1.75)*	(0.83)	(0.73)	(1.75)*	(0.83)
LNAT	0.0769	0.0577	0.0910	0.0769	0.0577	0.0910
	(12.25)***	(4.53)***	(9.19)***	(12.25)***	(4.53)***	(9.19)***
ROA	-0.0090	-0.0125	0.0039	-0.0090	-0.0124	0.0039
	(-0.85)	(-0.51)	(0.26)	(-0.85)	(-0.51)	(0.26)
PPE	0.1205	0.4490	0.1382	0.1205	0.4488	0.1384
	(3.49)***	(6.22)***	(2.42)**	(3.49)***	(6.21)***	(2.42)**
LEV	-0.1100	-0.2611	-0.1456	-0.1100	-0.2611	-0.1456
	(-6.27)***	(-6.54)***	(-5.35)***	(-6.27)***	(-6.54)***	(-5.35)***
CAPEX	-0.0052	0.0067	-0.0383	-0.0052	0.0068	-0.0383
	(-0.16)	(0.09)	(-0.74)	(-0.16)	(0.09)	(-0.74)
RDEXP	0.1413	0.1405	0.3676	0.1413	0.1400	0.3680
	(1.98)**	(0.95)	(3.40)***	(1.98)**	(0.95)	(3.41)***
TOBINQ	0.0244	0.0512	0.0400	0.0244	0.0512	0.0400
	(10.21)***	(9.60)***	(10.46)***	(10.21)***	(9.60)***	(10.46)***
SURPLUSCASH	0.0288	0.0228	0.0531	0.0288	0.0227	0.0531
	(1.96)*	(0.67)	(2.47)**	(1.96)*	(0.67)	(2.48)**
KZINDEX	-0.0021	-0.0054	-0.0019	-0.0021	-0.0054	-0.0019
	(-2.08)**	(-2.36)**	(-1.17)	(-2.08)**	(-2.36)**	(-1.17)
HHI	0.0445	0.2037	0.0789	0.0445	0.2039	0.0786
	(0.91)	(2.05)**	(0.97)	(0.90)	(2.05)**	(0.96)
SGROW	0.0010	0.0475	0.0126	0.0010	0.0475	0.0126
	(0.21)	(4.14)***	(1.66)*	(0.21)	(4.14)***	(1.65)*
Observations	122,426	122,426	122,426	122,426	122,426	122,426
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R^2	0.765	0.641	0.780	0.765	0.641	0.780

This table randomizes the year of anti-SLAPP legislation in a particular state across firm-years *T-3* to *T+3* (first three cols.) and across the 50 states (second three columns). In all cases, the placebo year of anti-SLAPP has no relation to innovation. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 7
Results based on alternative measures of anti-SLAPP laws

Dependent variable	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP score	0.0870	0.1881	0.0915						
	(5.21)***	(5.19)***	(3.40)***						
Covered Speech score				0.0880	0.2046	0.0951			
				(5.45)***	(5.87)***	(3.68)***			
Anti-SLAPP procedures							0.0658	0.1135	0.0645
							(3.86)***	(3.06)***	(2.28)**
LNFIRMAGE	0.0069	0.0428	0.0146	0.0065	0.0416	0.0141	0.0078	0.0454	0.0157
	(0.57)	(1.59)	(0.73)	(0.54)	(1.55)	(0.71)	(0.65)	(1.69)*	(0.78)
LNAT	0.0763	0.0564	0.0904	0.0763	0.0564	0.0904	0.0764	0.0569	0.0906
	(12.20)***	(4.44)***	(9.14)***	(12.20)***	(4.44)***	(9.14)***	(12.21)***	(4.47)***	(9.15)***
ROA	-0.0080	-0.0103	0.0050	-0.0081	-0.0104	0.0049	-0.0081	-0.0109	0.0049
	(-0.75)	(-0.42)	(0.33)	(-0.76)	(-0.43)	(0.32)	(-0.76)	(-0.45)	(0.32)
PPE	0.1183	0.4442	0.1361	0.1180	0.4432	0.1357	0.1193	0.4468	0.1372
	(3.44)***	(6.17)***	(2.38)**	(3.43)***	(6.16)***	(2.38)**	(3.46)***	(6.19)***	(2.40)**
LEV	-0.1080	-0.2568	-0.1435	-0.1080	-0.2564	-0.1434	-0.1086	-0.2586	-0.1442
	(-6.17)***	(-6.44)***	(-5.28)***	(-6.17)***	(-6.43)***	(-5.28)***	(-6.20)***	(-6.48)***	(-5.30)***
CAPEX	-0.0006	0.0165	-0.0334	-0.0005	0.0175	-0.0332	-0.0018	0.0125	-0.0349
	(-0.02)	(0.21)	(-0.65)	(-0.01)	(0.23)	(-0.64)	(-0.05)	(0.16)	(-0.68)
RDEXP	0.1388	0.1347	0.3653	0.1381	0.1325	0.3644	0.1405	0.1387	0.3671
	(1.94)*	(0.91)	(3.39)***	(1.93)*	(0.90)	(3.38)***	(1.97)**	(0.94)	(3.40)***
TOBINQ	0.0242	0.0507	0.0397	0.0242	0.0506	0.0397	0.0243	0.0509	0.0398
	(10.13)***	(9.53)***	(10.40)***	(10.13)***	(9.52)***	(10.40)***	(10.16)***	(9.56)***	(10.42)***
SURPLUSCASH	0.0291	0.0234	0.0534	0.0289	0.0230	0.0532	0.0293	0.0237	0.0536
	(1.98)**	(0.69)	(2.49)**	(1.97)**	(0.68)	(2.48)**	(2.00)**	(0.70)	(2.50)**
KZINDEX	-0.0022	-0.0055	-0.0020	-0.0022	-0.0055	-0.0020	-0.0022	-0.0055	-0.0020
	(-2.13)**	(-2.41)**	(-1.21)	(-2.12)**	(-2.41)**	(-1.20)	(-2.14)**	(-2.41)**	(-1.21)
HHI	0.0439	0.2027	0.0780	0.0431	0.2007	0.0771	0.0453	0.2052	0.0793
	(0.89)	(2.04)**	(0.96)	(0.88)	(2.02)**	(0.95)	(0.92)	(2.06)**	(0.97)
SGROW	0.0014	0.0482	0.0130	0.0014	0.0484	0.0131	0.0012	0.0479	0.0128
	(0.28)	(4.21)***	(1.70)*	(0.28)	(4.22)***	(1.71)*	(0.25)	(4.17)***	(1.68)*
Observations	122,426	122,426	122,426	122,426	122,426	122,426	122,426	122,426	122,426
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R^2/ R2 Pseudo	0.766	0.641	0.780	0.766	0.642	0.780	0.766	0.641	0.780

This table uses measures of the strength of the anti-SLAPP laws in a particular state based on the ranking of a state's anti-SLAPP laws subsequent to the enactment of the legislation. We extract the three qualitative measures of anti-SLAPP laws from The Institute for Free Speech: *Anti-SLAPP quality* score*, Covered Speech* score*, and Anti-SLAPP procedures* score. We apply these rankings to all post-enactment years. The pre-enactment years are assigned a zero ranking. The positive coefficients indicate that the strength of a state's anti-SLAPP law varies positively with future innovation by firms in that state. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 8
Cross-sectional analysis: The effect of information environment

Panel A: The effect of superior financial reporting quality

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0191	0.0493	0.0058
	(1.49)	(1.33)	(0.30)
*Low Tercile PreDDAQ*Anti-SLAPP*	0.0407	0.0379	0.0606
	(3.43)***	(1.18)	(1.97)**
Controls	Yes	Yes	Yes
Observations	97,448	97,448	97,448
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.758	0.636	0.715

Panel B: The effect of high liquidity

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0102	-0.0706	-0.0196
	(0.49)	(-1.66)*	(-0.58)
*High Tercile PreAmihud*Anti-SLAPP*	0.0936	0.4409	0.1670
	(3.97)***	(8.57)***	(4.69)***
Controls	Yes	Yes	Yes
Observations	83,651	83,651	83,651
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.770	0.646	0.779

Panel C: The effect of large firm size

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0051	-0.0761	-0.0214
	(0.28)	(-2.03)**	(-0.72)
*Low Tercile PreMktV*Anti-SLAPP*	0.0921	0.4424	0.1612
	(4.52)***	(9.81)***	(5.30)***
Controls	Yes	Yes	Yes
Observations	99,761	99,761	99,761
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.772	0.650	0.784

Panel D: The effect of low bid-ask spread

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.0161	0.0236	0.0131
	(1.63)	(0.56)	(0.61)
*High tercile PreBid-Ask*Anti-SLAPP*	0.0119	0.1423	0.0611
	(1.53)	(2.55)**	(2.77)***
Controls	Yes	Yes	Yes
Observations	84,157	84,157	84,157
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.677	0.650	0.782

This table regresses three different measures of future innovation on the interaction of *Anti-SLAPP* on financial reporting quality (Panel A), stock price liquidity (Panel B), market value (Panel C), and bid-ask spread (Panel D), respectively. *Anti-SLAPP* is an indicator variable equal to one if a firm is headquartered in a state in a given year having enacted anti-SLAPP laws in that year and zero otherwise. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 9
The effect of anti-SLAPP laws on the sensitivity of external finance to growth opportunities

Dependent variable =	*EQUITY*	*DEBT*
Anti-SLAPP (1)	-0.0176	-0.0199
	(-5.61)***	(-2.93)***
MTB	0.0004	0.0002
	(0.65)	(0.39)
MTB×Anti-SLAPP (2)	0.0105	0.0071
	(6.38)***	(3.98)***
RET	0.0060	0.0162
	(6.17)***	(8.32)***
ROA	-0.0157	-0.0085
	(-2.87)***	(-0.99)
NOLC	0.0090	-0.0025
	(5.69)***	(-1.26)
SIZE	-0.0133	-0.0887
	(-8.86)***	(-26.43)***
TANGIBILITY	0.0061	0.0517
	(0.78)	(2.60)***
SG&A	-0.0091	-0.1356
	(-3.67)***	(-21.38)***
RD	0.0032	-0.0414
	(0.71)	(-8.14)***
LEV	-0.0426	0.5823
	(-9.03)***	(44.15)***
Industry_LEV	0.0535	-0.4379
	(3.44)***	(-9.35)***
EPS_dilution_dummy	-0.0025	0.0304
	(-2.80)***	(9.89)***
MB_dummy	0.0036	0.0452
	(2.71)***	(10.40)***
F-stat: (1) + (2)	10.75	4.28
Prob > F	0.001	0.0386
Observations	81,521	81,521
Year FE	Yes	Yes
Firm FE	Yes	Yes
Adj. R^2	0.306	0.290

This table regresses the level of equity or debt on a firm's balance sheet on the interaction of anti-SLAPP and a firm's market-to-book ratio (i.e., a measure of its growth opportunities). In years with the enactment of anti-SLAPP laws, firms with high growth opportunities (*MTBxAnti_SLAPP*) in an anti-SLAPP state issue more debt and equity. The issuance of more debt or equity in the year of enactment of anti-SLAPP laws is consistent with the funds being used to finance innovation that pays off three years into the future. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. *** = $p<0.01$, ** = $p<0.05$, ** = $p<0.10$.

Table 10
The effect of the inevitable disclosure doctrine

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP (1)	0.0882	0.1999	0.0993
	(5.22)***	(5.64)***	(3.71)***
IDD	-0.0027	-0.0483	0.0054
	(-0.16)	(-1.41)	(0.20)
*Anti-SLAPP*IDD (2)*	-0.0717	-0.1670	-0.0831
	(-2.94)***	(-3.28)***	(-2.13)**
LNFIRMAGE	0.0063	0.0407	0.0139
	(0.52)	(1.52)	(0.69)
LNAT	0.0758	0.0548	0.0899
	(12.14)***	(4.32)***	(9.08)***
ROA	-0.0081	-0.0105	0.0050
	(-0.76)	(-0.43)	(0.33)
PPE	0.1183	0.4438	0.1359
	(3.43)***	(6.16)***	(2.38)**
LEV	-0.1082	-0.2559	-0.1438
	(-6.18)***	(-6.43)***	(-5.29)***
CAPEX	0.0000	0.0185	-0.0325
	(0.00)	(0.24)	(-0.63)
RDEXP	0.1402	0.1365	0.3669
	(1.96)**	(0.92)	(3.40)***
TOBINQ	0.0241	0.0504	0.0396
	(10.11)***	(9.48)***	(10.38)***
SURPLUSCASH	0.0296	0.0249	0.0541
	(2.02)**	(0.73)	(2.52)**
KZINDEX	-0.0022	-0.0055	-0.0020
	(-2.13)**	(-2.42)**	(-1.20)
HHI	0.0450	0.2036	0.0794
	(0.92)	(2.05)**	(0.97)
SGROW	0.0016	0.0490	0.0132
	(0.32)	(4.28)***	(1.73)*
F-stat: (1) + (2)	0.69	0.61	0.25
Prob > F	0.4077	0.4360	0.6175
Observations	122,426	122,426	122,426
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.766	0.642	0.780

This table shows that the inevitable disclosure doctrine (*IDD*) weakens future innovation and significantly more when anti-SLAPP legislation occurs in the same year as the IDD legislation. This occurs because the IDD legislation allows former employees to use sensitive firm information in their new position, which weakens the ability of the firm to innovate successfully. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.

Table 11
The effect of Glassdoor ratings on the relation between anti-SLAPP laws and innovation

Dependent variable =	$LNPAT_{t+3}$	$LNCIT_{t+3}$	$LNSM_{t+3}$
Anti-SLAPP	0.1253	0.2356	0.1113
	(5.52)***	(6.02)***	(2.92)***
Lower_ComRating	-0.0307	-0.0306	-0.0208
	(-2.53)**	(-1.58)	(-1.04)
*Anti-SLAPP*Lower ComRating*	0.0580	0.0801	0.0613
	(3.23)***	(2.72)***	(2.16)**
LNFIRMAGE	0.1253	0.2796	0.2289
	(3.52)***	(4.50)***	(4.32)***
LNAT	-0.0543	-0.1499	-0.1488
	(-3.77)***	(-6.11)***	(-6.55)***
ROA	0.0029	-0.0317	0.0497
	(0.13)	(-0.88)	(1.74)*
PPE	0.1243	0.2096	0.1073
	(1.80)*	(1.79)*	(1.01)
LEV	-0.0660	-0.1047	-0.0987
	(-1.80)*	(-1.74)*	(-1.76)*
CAPEX	-0.0407	-0.0083	-0.1513
	(-0.57)	(-0.08)	(-1.45)
RDEXP	0.0391	0.0696	0.0271
	(0.27)	(0.33)	(0.13)
TOBINQ	-0.0063	-0.0383	-0.0097
	(-1.18)	(-4.27)***	(-1.13)
SURPLUSCASH	0.0740	0.0575	0.0656
	(2.37)**	(1.17)	(1.48)
KZINDEX	-0.0033	-0.0055	-0.0030
	(-1.84)*	(-1.84)*	(-1.00)
HHI	-0.0443	-0.1631	0.1377
	(-0.41)	(-0.95)	(0.89)
SGROW	0.0211	0.0504	0.0367
	(2.04)**	(3.25)***	(2.20)**
Observations	30,348	30,348	30,348
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Adj. R^2	0.799	0.638	0.816

This table regresses three different measures of future innovation on the interaction of *Anti-SLAPP* and firms with more negative Glassdoor ratings by employees. *Lower_ComRating* is an indicator variable equal to 1 if a firm's overall Glassdoor.com rating is in the lowest tercile, and zero otherwise. Appendix A defines the variables. Regression coefficient standard errors are clustered by firm. ***=p<0.01, **=p<0.05, **=p<0.10.