Judge Ideology, SEC Enforcement, and Insider Trading

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Abstract:
The paper studies the effect of judge ideology on insider trading activities. Motivated by legal studies, we hypothesize that liberal judge ideology increases the expect litigation cost of insider trading and constrain such activities. Consistent with our hypothesis, we find that firms located in circuits with more liberal judges have less opportunistic insider sales. The deterrence effect is stronger when insiders are under stricter scrutiny, that is, when the firm is financially distressed, when it has accounting misstatements, or when it has stronger corporate governance. Next, we investigate the interplay between the Securities and Exchange Commission (SEC) and the judicial branch. We find that liberal ideology has a stronger deterrence effect when the SEC is under greater budget constraints. We further document that the SEC considers the judges' position in deciding which venue to pursue insider trading cases. When judges are more liberal, the SEC is more likely to file insider trading cases in the federal courts compared to in its internal administrative proceedings. Finally, as a validation test, we show that liberal judge ideology increases the penalty of detected insider trading. Overall, we are the first to document the importance of judicial discretion and the joint efforts of government branches in deterring opportunistic insider trading.

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Judge Ideology, SEC Enforcement, and Insider Trading

1. Introduction

The foundation of insider-trading prohibitions are common law statutory and court rulings. The fast growth and complex trading market leave much room for interpretation of what constitutes illegal insider trading. Any ambiguity in the enforcement process must be ultimately settled by the federal courts (Newkirk and Robertson 1998), and thus, the judiciary plays a critical role in defining illegal insider trading and enforcing insider-trading laws (Fisch 2018). Despite the importance of federal courts, the insider trading literature has focused more on the strictness of insider trading laws, and the subsequent investigation and prosecution by the Securities and Exchange Commission (SEC), but paid little attention to the attitude of the judiciary.[1] Our study attempts to fill this void by answering two research questions: first, whether and how the position of the judiciary affects insiders' opportunistic trading activities; and second, how the judiciary's position plays a role in the interplay between the judicial system and the SEC in insider trading enforcements.

Judicial discretion is rooted in the vast ambiguity in insider trading enforcements, because within the labyrinth of federal securities laws, there is not one statute that specifically defines insider trading.[2] Rather, insider trading laws have been developed over decades of civil litigation, criminal prosecution, and administrative enforcement (Bainbridge 2013; LaVigne and Calandra 2016). Even though the laws have widely recognized elements of insider trading claims, such as breaches of fiduciary duty or violations of a relationship of trust and confidence, and using material

[1] While several papers document the effect of legal status and precedents on insider trading (e.g., Jaffe 1974; Allen 1990; Fairfax 2018; Patel 2019; Adhikari et al. 2019), we are not aware of any study that examines the role of judiciary position in deterring insider trading.

[2] In most insider trading lawsuits, the SEC alleges that defendants violate Section 10(b) of the Securities Exchange Act of 1934 and its implementing regulation Rule 10b-5.

and non-public information in trading, there remains substantial ambiguity in determining insider-trading legitimacy. One such ambiguity concerns whether the non-public information insiders have is material (Horwich 2000, Heminway 2003, 2012, Langevoort 2010), because the threshold of materiality varies with the information user. Another ambiguity concerns whether insiders rely on the material non-public information in making their trading decisions. Although possessing the information while trading creates a strong inference that the information causes the trades, defendants can rebut by showing that they did not use the information (Langevoort 2013). The ambiguity is further complicated by the constant evolution of market conditions and new insider trading strategies (Fisch 2018). These ambiguities leave room for a judge to influence lawsuit outcomes, who exercises his/her discretion in interpreting the law in a way that is consistent with his or her personal ideology (Fedderke and Ventoruzzo 2015).

We use the ideology of federal judges to capture the judiciary's position on insider trading. Prior studies show that judges' personal ideological preferences generally lie along the conventional liberal-to-conservative continuum in U.S. politics (see George 1998 for a review), through their rulings. Compared with conservatives, liberals support more regulation over the free market, i.e., government intervention in the capital market, in an effort to protect "innocent" investors who suffer damages as a result of securities fraud. The ideological differences between liberals and conservatives manifest in their attitudes towards insider-trading enforcements (Pritchard 2013; Murdock 2014). Liberals prefer stronger enforcements than conservatives to regulate insider trading as insiders benefit from their private information by taking advantage of other uninformed traders (Bhattacharya and Daouk 2002; Beny 2005). On the other hand, conservatives are generally more inclined to view the market as efficient and are less likely to accept that investors have less information than companies and financial institutions and therefore

need protection with securities laws. As a result, conservative judges are less likely to draw a harsh position to punish insider trading as being illegal (Manne 1985; Kripke 1985; Meulbroek 1992). Consistent with these arguments, prior legal studies show that Supreme Court Justices appointed by Democratic presidents tend to vote for decisions that favor stricter enforcement of insider trading than Justices appointed by Republican presidents (Fedderke and Ventoruzzo 2015).

We conjecture that, as liberal judges lead to more adverse outcomes to defendants in insider-trading lawsuits, they increase the expected litigation costs of engaging in insider trading. Specifically, the threat of facing liberal judges in court looms over in the entire enforcement process regardless whether case ends up in the federal court. This alters the perceive costs and benefits trade-offs of insiders' trading decisions (Becker 1968). Thus, we hypothesize that when judge ideology is more liberal, insiders engage in less opportunistic trading.

Insider trading cases are litigated in the U.S. federal court system, which consists of three levels, the District Courts (the trial court), the Court of Appeals (also known as the Circuit Courts), and the Supreme Court (the highest federal court). Of the three, we focus on the judges in the Circuit Courts as it plays the greatest legal policymaking role in the United States judicial system (Cross 2007). First, District Court judges likely follow the ideology of the Circuit Courts (Randazzo 2008; Choi, Gulati, and Posner 2012). This is because decisions of district court judges are reviewed by the circuit courts on a mandatory and routine basis. A circuit court may find a district court judge's decision incorrect and reverse it. In the event of decision reversal, district court judges may suffer reputation damage. Circuit Court rulings also have binding constraints on the District Courts under their jurisdiction. Therefore, district court judges take the likely decision of the overseeing circuit courts into consideration when making their decisions (Schanzenbach and Tiller 2007; Knight and Gulati 2010). Second, although the Supreme Court is the highest federal

court and its opinion should carry the most weights in federal lawsuits, it selectively reviews appeals due to its heavy case load. In fact, the Supreme Court reviews less than 1% of appeals and rarely hears any insider-trading case (Bowie and Songer 2009).

Empirically, we follow prior studies in political science and legal research and use the partisanship of the President who nominates a judge to reflect his or her ideological preference, because presidents have almost always nominated someone whose ideology was similar to their own (Goldman 1999; Pinello 1999; Dorsen 2006).[3] That is, we label judges nominated by Republican presidents as conservative judges and those nominated by Democratic presidents as liberal judges. Because Circuit Courts assign a panel of three judges to each case, we measure Circuit Court ideology using the probability that a three-judge panel randomly selected from judges in a Circuit is dominated by appointees of Democratic presidents, with a higher probability indicating more liberal judge ideology and higher expected litigation cost of illegal insider trading.

We use U.S. public firms with insider trading transactions covered in the Thomson Reuter Insider Filing Data files from 1998 to 2018 to conduct our empirical analyses. The jurisdiction over an insider-trading case is usually based on the insider's primary residence.[4] Assuming that executives live near their company headquarters, we use each company's historical headquarters to identify the circuit with jurisdiction over the executives. We find strong evidence that firms located in more liberal circuits have fewer opportunistic insider sales, consistent with the deterrence effect of more liberal judges on opportunistic insider trading. The results are economically significant: a one standard deviation increase in liberal judge ideology is associated

[3] Judges in federal courts are appointed by the U.S. presidents, with the nomination approved by the U.S. Senate. To secure the independence of judges, the U.S. constitution (Article III, Section 1) requires a good-behavior tenure for judges and prohibits decreasing compensation for judges. With the lifetime tenure and salary protection, federal judges have great latitude to vote in a way consistent with their political ideology.

[4] In insider-trading cases, the district in which the defendant resides has the jurisdiction over the case (15 U.S. Code § 78u–1 and 15 U.S. Code § 78aa).

with 18% decrease in opportunistic sales. We further focus on a setting where insider sales are more likely to be driven by material non-public information, that is, sales that occur before large stock price declines, and find stronger results. Specifically, a one standard deviation increase in liberal judge ideology is associated with 23.8 percentage decrease in opportunistic sales prior to large stock price declines.

Next, we test the cross-sectional variations of ideology's effect on insiders' trading decisions. We consider three situations when insiders' trading is under greater scrutiny of being illegal. We expect that when firms are financially distressed, when they have accounting misstatements, or when they have stronger corporate governance, insiders face a greater likelihood that their transactions will be charged as illegal and end up in court. This in turn increases the deterrence effect of liberal judge ideology. Our findings are consistent with these predictions.

As the SEC is the main regulatory agency enforcing insider-trading laws, we further investigate the interplay between the judiciary and the SEC. First, we expect that resource constraints hinder the SEC's capacity to investigate and gather evidence, which increases case ambiguity and thus the deterrence effect of liberal judicial ideology on insider trading. We find evidence consistent with this intuition. Second, we investigate whether judge ideology plays a role in the SEC's forum selection to prosecute insider-trading cases. During insider-trading enforcements, the SEC Commissioner can either go through its internal administrative proceeding or bring the case to a federal district court.[5] We find that the SEC is more likely to file the case in a district court when circuit court judges are more liberal, indicating that the SEC factors in judge's ideology in their insider trading enforcements.

[5] The SEC issues guidance to which forum to pick (Securities Litigation & Professional Liability Practice 2015).

Finally, we validate the theoretical assumption that judge ideology influences the outcomes of insider trading cases filed in federal courts. Using penalty information for 285 civil insider trading cases manually collected from the SEC website, we find that liberal judge ideology increases the penalty to insider trading. This finding echoes those in legal research (Fedderke and Ventoruzzo 2015) and lends support to the theoretical argument that liberal judge ideology is associated with higher expected litigation cost of insider trading.

Our paper makes several contributions. First, our study improves the understanding of insiders' trading decisions from the angle of law enforcements. Whereas prior studies document the importance of legislative and executive branches in affecting insider-trading activities, we address a distinct research question concerning whether the judicial branch matters. Building on the political theory that judges' individual ideology captures their position in insider-trading cases, we hypothesize and find that the liberal ideology deters insider trading. As such, we are the first to show the position of judicial branch to be an important determinant of opportunistic insider trading.

In addition, our finding suggests the effect of judge ideology on the decisions of corporate stakeholders. Prior studies show that judge ideology can affect firm decisions such as voluntary disclosures and tax planning (Huang et al. 2019; Chow et al. 2020). We extend this literature by demonstrating the impact of judge ideology on the trading decisions of corporate executives. Given that insider trading can affect market characteristics such as liquidity and cost of equity (Cornell Sirri 1992; Bhattacharya and Daouk 2002; Beny 2005; Christensen, Hail, and Leuz 2016; Kacperzyk and Pagnotta 2019), our findings have potential implications for capital market participants.

Second, we contribute to the literature of legal and political science studies. The conventional wisdom suggests the difference between liberals and conservatives in their attitudes towards insider-trading enforcements (Pritchard 2013; Murdock 2014). Prior legal studies also confirm that judge ideology matters in determining the outcome of insider-trading lawsuits (Fedderke and Ventoruzzo 2015). However, whether and how corporate insiders weight the effect of judge ideology and responds through their decision remains an open question. Our study provides answers by documenting direct as well as cross-sectional evidence on how judge ideology has a significant effect on executives' trading decisions. As such, we extend the effect of political ideology to the financial market by documenting the first evidence of how it may affect the investor trading.

Third, this paper advances our understanding of how the SEC and the judicial branch jointly affect enforcement of insider trading. We find that the SEC's resource constraints increase the deterrence effect of liberal courts, suggesting that liberal judges make up the possible reduction in the SEC's efficiency against insider trading. In addition, we find that when there are more liberal judges, the SEC will pursue more cases in federal courts than in its internal administrative proceedings. In summary, our results offer important insights to investors, regulators and academics on the role of judicial branch and how the branches of the federal government, i.e., the judiciary and the SEC, reinforce each other in against illegal insider trading.

2. Literature review

2.1 The effect of insider-trading laws

The purpose of insider-trading laws and enforcements is to deter insiders from trading on non-public information and taking advantage of outsiders, which undermines investor confidence

in the fairness and integrity of the securities markets (SEC 2018).[6] The enforcement against illegal insider trading involves all three branches of government, legislative, executive and judicial.

The legislative branch passes laws that govern the security markets, including those used to prosecute insider trading. In the United States, there is no one single statue that prohibits insider trading in general. Rather, most insider-trading cases are based on a violation of securities laws' broader anti-fraud provisions, including fraud in the sale of securities (Section 15 of the Securities Act of 1933) and fraud related to securities trading (Section 10(b) of the Securities Exchange Act of 1934). The only law that specifically bans insider trading is Section 16(b) of the Securities Exchange Act of 1934, which prohibits short-swing profits (from any purchase and sales within any six-month period) of directors, officers and blockholders (10% or more). Prior studies document that the introduction of these laws deters insider-trading activities. For instance, Agrawal and Jaffe (1995) find that the implementation of the short-swing rule in 1934 deters managers from trading opportunistically before mergers. Seyhun (1992) and Garfinkel (1997) find that there are less "timely" insider trades following the passage of the Insider Trading Sanctions Act of 1984 and the Insider Trading and Securities Fraud Enforcement Act of 1988, both of which increased the penalties for insider trading.[7]

2.2 The SEC and insider-trading enforcement

Regulatory outcomes depend not only on the laws, but also on how the executive branch enforces them (e.g., Djankov et al. 2003). In the U.S., the SEC plays a key role in the prosecution

[6] Prior literature such as Demsetz (1986) and Seyhun (1992) has argued that insider trading can be seen as a way to compensate controlling shareholders and managers of firm-specific risks and specialized human capital. In this paper, we are agonistic about whether insider trading should be illegal, but only examine how the strength of enforcing insider-trading laws affects insiders' opportunistic trades.

[7] Using international data and coding the scope and sanctions of insider trading laws in 33 countries, Beny (2005) finds that countries with more prohibitive insider trading laws have more accurate stock prices and more liquid stock markets. Using 51 countries as their sample, Bhattacharya and Daouk (2002) show that the enactment of the prohibition has no effect on the cost of equity while the first prosecution lowers it by 5%.

of illegal insider trading by setting rules (primarily Rule 10b-5) and enforcements.[8] By function as the executive branch in insider-trading enforcements, the SEC's Division of Enforcement conducts private investigations to collect evidence of wrongdoing.[9, 10] Once the SEC collects sufficient evidence during the investigations, its commissioner file a case in the federal court or bring an administrative action.

No surprisingly, prior studies provide the empirical evidence that stronger SEC enforcement deters illegal insider trading. For instance, illegal insider trading is negatively related to the intensity of SEC enforcements (Cohen, Malloy and Pomorski 2012, Del Guercio et al. 2017). Similarly, Thevenot (2012) suggests that insider selling decreases when firms are faced with potential private and public enforcement upon discovery of accounting misstatements.[11] Gider (2014) finds that public detection of insider trading by the SEC leads to a decrease in insider-trading activities for the defendant firms and their industry peers, consistent with SEC enforcements prompting insiders to revise upward the estimated probability of getting caught.

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[8] The SEC works closely with other agencies to uncover illegal insider trading. For instance, the Financial Industry Regulatory Authority (FINRA) is responsible for overseeing and examining more than 635,000 brokers and more than 3,900 securities firms' business with the U.S. public. FINRA's Office of Fraud Detection and Market Intelligence (OFDMI) conducts front-line insider trading surveillance for the U.S. markets. Stock exchanges such as the NASDAQ's MarketWatch unit (https://www.nasdaqtrader.com/Trader.aspx?id=MarketWatch) and NYSE Regulation (https://www.nyse.com/regulation) also monitor insider-trading activities and share information with the SEC.

[9] The SEC's Division of Enforcement conducts private investigations into the violations. These investigations start with informal inquiries such as interviewing witnesses, examining brokerage records, and reviewing trading data, and may proceed to formal investigations. With a formal order of investigation, the division's staff may compel witnesses by subpoena to testify and produce books, records, and other relevant documents.

[10] The SEC may call upon U.S. Department of Justice (DOJ) to conduct an independent parallel investigation. In the process conducting a civil action, the commission files a complaint with a U.S. District Court and asks the court for a sanction or remedy. The commission often asks for a court order, called an injunction, which prohibits any further acts or practices that violate the law or the commission rules. The court may also bar or suspend an individual from serving as a corporate officer or director in the firm. A person who violates the court's order may be found in contempt and be subject to additional fines or imprisonment. If the DOJ finds criminal wrongdoing, it may file criminal charges.

[11] The literature also shows that attention from other watchdogs, such as the media, reduces insider trading (Dai, Parwada and Zhang 2015).

2.3 Judicial branch and insider trading

Although the SEC is the primary enforcer of insider-trading violations, all its enforcement actions and decisions, including those that arise from the administrative law judge (hereafter, ALJ), are subject to review by the judicial branch. Due to its status as the final arbiter in insider-trading cases, the federal courts, through their decisions, have played a major role in defining what is illegal insider trading (FINRA Staff 2017).[12] For example, the Second Circuit's decision in *SEC v. Texas Gulf Sulphur Co.* was the first time a federal court held that insider trading is securities fraud, which became the basis of almost all subsequent insider-trading prosecutions (Fairfax 2018).[13]

Although judicial branch is an integral part of enforcement against illegal insider trading, prior studies that examine the effect of the judiciary on insider-trading decisions is limited in judicial rulings as legal precedents. For example, Jaffe (1974) and Allen (1990) find that district and circuit court rulings in the Texas Gulf Sulphur (TGS) case reduced insiders' trades on negative non-public information and their profitability. Similarly, using the stock-price run-ups of merger targets to capture the extent of insider trading, Patel (2019) finds that insider trading intensifies after the Second Circuit's seminal ruling in 2014 in *U.S. v. Newman* significantly weakens insider-trading law by increasing the hurdle of prosecuting tippees. As such, despite the few studies on the effect of court rulings and associated law changes, there is little evidence on how the position of the federal judiciary, i.e., as reflected by judge ideology, affects the prevalence of insider trading. We aim to fill the gap in the literature.

[12] Besides the enforcements of insider trading per se, other types of lawsuits may also affect the litigation risk of insider trading, such as the merits and rigorousness of securities class action litigation (Cheng, Huang, and Li, 2016); and the risk of shareholder-initiated derivative lawsuits in state courts where the companies are incorporated (Jung, Nam, and Shu 2018, Adhikari, Agrawal and Sharma 2019).

[13] Specifically, the SEC alleged that insider trading violates 10b of the Securities Exchange Act of 1934 and SEC rule 10b-5.

2.4 Ambiguity in determining legal or illegal insider trading

Despite the various securities laws against illegal insider trading, there remains much ambiguity concerning which types of insider trading are illegal. Such ambiguity provides room for judges to exercise their discretion that affects trading decisions. As commented in Henderson, Jagolinzer and Muller (2014), "*The result of executive agency ambiguity layered on top of congressional ambiguity is judicial power to decide what is and what is not illegal.*" The SEC Assistant General Counsel Frank E. Kennamer, Jr. also commented during the TGS trial that it is "*nearly impossible . . . to define a rule fitting all situations"* in which corporate insiders may or may not trade in their companies' stock (Phalon 1966).

One of the ambiguities in the legality of insider trading is whether the information insiders have is material and non-public (Horwich 2000; Heminway 2003, 2012; Langevoort 2010). Materiality is difficult to apply, because it depends on the users of the information. Courts have defined information as material if either (a) "*there is substantial likelihood that a reasonable shareholder would consider it important*" in trading decisions or (b) there is substantial likelihood that the information "*would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available*" (see TSC Industries, Inc. v. Northway, Inc., 426 U.S. 438 (1976) and Basic Inc. v. Levinson - 485 U.S. 224, 108 S. Ct. 978 (1988)). To stipulate how a reasonable investor views a piece of information is not a straightforward task and requires professional judgements given the diversity of investors. Indeed, as discussed in Langevoort (2013), "*Materiality is one of the hardest fact determinations in the securities laws*." An SEC commissioner also admitted that regulators themselves struggle with the meaning of materiality

(Atkins 2008).[14] Similarly, courts have disagreed on whether a piece of information is non-public when it has been leaked, but not disseminated to the general public (Sinai 2000).

Another example of the ambiguities stems from whether insiders rely on the material non-public information in their trading or simply "possess" the information while trading. The SEC needs to show that there are "unusual" and "suspicious" levels of insider trading, criteria that are subjective and hard to define precisely (Bainbridge and Gulati 2002). Courts have ruled that although possessing information creates a strong inference that it would be used in trading, defendants can rebut the inference by showing that they do not use the information in trading (Langevoort 2013, SEC v. Adler, 137 F.3d 1325, 11th Cir. 1998).[15]

Last, simply relying on a statutory definition of insider trading promulgated when Congress adopted § 10(b) in 1934 seems insufficient to provide guidance because of the continued evolution of the market, such as traders developing new product, practices and strategies (Fisch 2018).[16] In sum, due to these ambiguities concerning what constitutes illegal insider trading, judges can exercise their discretion in deciding case outcomes, and thus, judge ideology can influence the expected litigation costs and insiders' trading decisions.

3. Hypothesis development

Judge ideology can be defined along the conventional liberal-to-conservative continuum in U.S. politics. Liberals are more protective of "have-nots" over the "haves", and are more likely

[14] In a speech to the Practicing Law Institute, former SEC commissioner Paul S. Atkins said that "*One of the most glaring examples of lack of predictability is determining what constitutes materiality*" and "*Issuers, investors, and regulators have struggled with applying the materiality test since the enactment of the securities laws*" (Atkins 2008).
[15] In SEC v. Adler, the Eleventh Circuit stated "*We believe that the use test best comports with precedent and Congressional intent, and that mere knowing possession-i.e., proof that an insider traded while in possession of material nonpublic information-is not a per se violation.*" (SEC v. Adler, 137 F.3d 1325 (11th Cir. 1998))
[16] For example, in *SEC v. Dorozhko, 574 F.3d 42, 43–44 (2d Cir. 2009)*, the defendant hacked into a computer to obtain non-public information.

to emphasize market failures and assert that investors are unable to fend for themselves (Lind, Rankin, and Harris 2016). Therefore, they support more regulation over the free market, i.e., government intervention in the capital market, in an effort to protect "innocent" investors, who suffer damages as a result of securities fraud. The ideological differences between liberals and conservatives manifest in their attitudes towards insider-trading enforcements (Pritchard 2013; Murdock 2014). Liberals prefer more strident enforcements to regulate insider trading as insiders benefit from their private information by taking advantage of other uninformed traders (Fishman and Hagerty 1992; Bhattacharya and Daouk 2002; Benny 2005). On the other hand, conservatives are generally more inclined to view the market as efficient and advocate for less regulation (McCraw 2009). With such beliefs, they are less likely to accept that investors have less information than companies and financial institutions, and therefore need protection with securities laws. Because of the ambiguities in defining what is illegal insider trading, conservative judges are thus less likely to draw a harsh position to punish insider trading as being illegal (Manne 1985; Kripke 1985; Meulbroek 1992).

Consistent with these arguments, prior legal studies show that judge ideology matters in determining the outcome of insider-trading lawsuits. For instance, Fedderke and Ventoruzzo (2015) find that Supreme Court Justices appointed by Republican presidents tend to vote for decisions that reduce the scope of application of insider trading and that justices appointed by Democratic presidents favor strict enforcement of insider trading.

We hypotheses that insiders consider judge ideology in their trading decisions. As argued in the seminal work in Becker (1968), the decision to commit a crime is based on the assessment of the expected benefits and costs of the commission. Specifically, the perceived adverse outcome of legal trials imposes a direct cost to corporate insiders' trading decisions, if the case reaches the

federal court. The adverse effect may also result indirect costs against illegal insider trading even if the case doesn't end up in court, because the expectation of adverse trial outcomes may loom throughout the entire enforcement process. For instance, during investigation and prosecution, the SEC may benefit from the higher winning odds against illegal insider trading, and thus increases its enforcement efforts. Many insider trading cases are also settled before trial or go through the administrative proceedings. Even in those procedures, with the threat that the cases may end up in the hands of liberal judges, involved parties may consider the expected outcome of lawsuits if the cases are unable to be settled, which also increase the indirect costs imposed by liberal judge ideology. Therefore, given both the direct and indirect costs of judge ideology, we conjecture that, as liberal judges lead to more adverse outcomes to defendants in insider-trading lawsuits, they increase the expected litigation costs of engaging in insider trading, and in anticipation of this, insiders are less likely to trade opportunistically when there are more liberal judges.

However, there are also reasons that judge ideology may not affect insider trading. First, as discussed in the introduction, the SEC may prosecute insider-trading violation internally through its administrative process.[17] As such, insider-trading cases would not reach the federal courts, and the judicial branch would not play a direct role in determining enforcement outcomes.[18] Second, insiders may have difficulty predicting the ideology of the judge that handles the future lawsuit. It takes substantial amount of time for regulators to collect evidence and prosecute an insider-trading case, and the time can be even longer for cases that reach the federal courts. During this period, circuit court judges' ideological leaning can change with judge appointments and departures. Thus,

[17] In fact, 67% of the cases associated with executives in the U.S. public firms between 1998 and 2018 are prosecuted in federal courts, while 33% are resolved through an administrative process.
[18] Note that the SEC's decisions through administrative proceedings can be appealed to an appropriate U.S. Federal Court of Appeals [https://www.sec.gov/page/aljsectionlanding].

insiders may give little weight to judge ideology when making trading decisions.[19] Nonetheless, we state our hypothesis (H1) in an alternative form:

H1: Insiders make less opportunistic trades when judge ideology is more liberal.

4. Variable definition and research design

4.1 Definition of main variables

4.1.1 Judge ideology

We measure judge ideology in the circuit court. As discussed in the introduction, judges in circuit courts are usually the final adjudicators of cases related to securities laws. Therefore, we expect judge ideology of circuit courts to have the greatest impact on the expected case outcomes and thus to be most relevant for managers' trading behavior.[20]

Empirically, we follow Huang et al. (2019) and use the probability that a three-judge panel randomly selected from a circuit court has at least two judges appointed by Democratic presidents to measure how liberal the judges are in the circuit court (*LiberalCourt*). For each firm-calendar year observation, we use the average of monthly *LiberalCourt* in the calendar year of the circuit where the firm's headquarter resides (hereafter, home circuit). We define home circuits using firms' headquarters because in insider trading cases, the district where the defendant resides has the jurisdiction over the case (15 U.S. Code § 78u–1 and 15 U.S. Code § 78aa). As a result, we focus our tests on trades of executives under the assumption that executives reside in the same

[19] Further, judges are constrained by legal precedents. However, they can ignore a precedent if they believe that it is not precisely on point. They can also choose which precedent to follow when conflicting lines of precedent exist (Wald 1987).

[20] In untabulated analysis, we find that the judge ideology in the district court with jurisdiction over the firm does not have significant effect on the magnitude of insider trading.

circuit as the company headquarters.[21] Since directors, especially independent directors, are more likely to live out-of-state, and we do not know which court has jurisdiction over them, we do not include their trades in our analyses. Also note that by using circuit judge composition during the year, we assume that insiders use contemporaneous judge ideology as the predicted judge position that would affect a potential lawsuit outcome.[22]

4.1.2 Opportunistic insider trades

Insiders can trade for a variety of reasons, for example, to pay for personal expenditure, to diversify their portfolio, or to make a profit based on non-public information. Of these trades, only the last one violates securities laws and thus might be affected by judge ideology. To focus on these trades only, we follow Cohen et al. (2012) and label trades that deviate from insiders' trading history as "opportunistic" trades, when insiders are likely to benefit from their private information.[23] Specifically, we classify a trade as routine if the insider places a trade in the same direction in the same month during all three preceding years, and opportunistic otherwise.[24] We define the nature of insider trading at the *trade* level to allow a given trader to have both routine and opportunistic trades.[25] We exclude insider-year observations where the insider has not placed at least one trade in each of the three preceding years.

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[21] We check a sample of insider trading cases involving employees during 2017 and 2018, and note that 82% of cases are filed in the firms' headquarter circuits. To the extent that executives may not live in the headquarter state, this assumption may introduce noise in our empirical measure and bias towards finding insignificant results.

[22] In untabulated robustness test, we obtain consistent results if we use the judge ideology in the years t+1 and t+2 as the main independent variable of interest respectively. Our results are also similar if we use the *LiberalCourt* measure at the beginning of the calendar year.

[23] We measure opportunistic insider trading within the observed transactions that insiders filed with the SEC, while it is possible that insiders might violate the filing requirements intentionally to cover up their trading, leading to a potential concern that some opportunistic transactions are not included in our sample. However, this should bias against our findings.

[24] Cohen et al. (2012) find that a portfolio strategy following "opportunistic traders" generates abnormal returns of 82 basis points per month, while that following "routine traders" does not. They also document that opportunistic trading, but not routine trading, leads to higher likelihood of future SEC enforcement actions.

[25] We obtain consistent results if the classification is defined at the trader level. That is, an insider is classified as a routine trader if she places a trade regardless of the direction in the same month during all three preceding years, and

Next, we aggregate opportunistic insider purchases and sales of all executives, respectively, for each firm-year, both by the number of shares traded and by the dollar value of shares traded. Following this procedure, we obtain four variables, *OppBuy_N*, *OppSale_N*, *OppBuy_D* and *OppSale_D* that capture the total number of shares purchased, the total number of shares sold, the total dollar value of shares purchased, and the total dollar value of shares sold, respectively. We scale *OppBuy_N* and *OppSale_N* by the number of shares outstanding at the beginning of the year, and *OppBuy_D* and *OppSale_D* by the beginning market value of equity.

4.2 Research design

To test the deterrent effect of liberal judge ideology on opportunistic insider trading activities, we estimate the following equation at the firm-calendar year level:

$$Opp_Trade_{i,t} = \beta_0 + \beta_1 LiberalCourt_{i,t} + Controls + \text{Year FE} + \text{Circuit FE} + \varepsilon_{i,t}, \qquad (1)$$

where $Opp_Trade_{i,t}$ includes *OppBuy_N*, *OppSale_N*, *OppBuy_D*, and *OppSale_D*. $LiberalCourt_{i,t}$ is the independent variable of interest. *Controls* include firm- and macro-level control variables that might confound the relationship between judge ideology and insider trading. First, we include firm characteristics that affect the level of insider trading as documented in the prior literature. Specifically, we include the natural logarithm of the market value of equity (*Size*) as insiders at small firms are more likely to buy and insiders at large firms are more likely to sell (Cheng and Lo 2006; Huddart, Ke, and Shi 2007; Cheng, Huang, and Li, 2016). We also include market-to-book ratio (*MtoB*) as insiders from growth firms tend to sell and those from value firms tend to buy (Cheng and Lo 2006; Huddart, Ke, and Shi, 2007; Cheng, Huang, and Li, 2016). Furthermore, we control for the proportion of shares that are traded over the year (*Turnover*) as

an opportunistic trader otherwise. All the following trades placed by a routine (opportunistic) trade are labeled as routine (opportunistic) trades.

the more trading there is, the more likely that an informed trade goes unnoticed (Thevenot 2012). In addition, we include buy-and-hold abnormal returns over the previous year (*PriorReturn*) to control for the general trend of performance as well as the fact that insiders tend to be contrarians (Rozeff and Zaman 1998; Lakonishok and Lee 2001; Cheng and Lo 2006). Second, we include an indicator variable (*HighLitiInd*) to capture whether a firm belongs to an industry with relatively high securities class action litigation risk (e.g., biotechnology, computers, electronics, and retail) following Francis, Philbrick, and Schipper (1994), because many such lawsuits use insider trading as evidence of fraud (Johnson, Kasznik and Nelson 2000; Ke, Huddart and Petroni 2003; Dai, Parwada and Zhang 2015). Third, we control for demographic variables that may be correlated with both judge ideology and insider trading, including state economic growth (*GDPGR*), state-level unemployment rate (*Unemp*), and the political leaning of firms' headquarters states (*BlueState*). Detailed variable definitions are provided in the Appendix.

We further include year fixed effects to control for macroeconomic condition as well as other factors varying with general time trends such as the regulatory environment changes related to the President, the SEC, and financial markets. We also include circuit fixed effects to mitigate the concern that any association between judge ideology and insider trading is driven by omitted correlated variables at the circuit level.[26] Standard errors are clustered by state.[27] Because insider trading variables are left-censored at zero, we use Tobit models to estimate Equation (1) and all

[26] We find consistent results (untabulated) when we additionally include industry-fixed effects in the model, or when we replace circuit fixed-effects with firm-fixed effects in the model.

[27] Standard errors are clustered by state rather than by circuit because a low number of clusters may bias the critical values used for rejecting the null hypothesis (Cameron, Gelbach, and Miller, 2008). We find similar results (untabulated) if standard errors are clustered by circuit. Our results are also robust to clustering standard errors by both state and year, by firm, or by both firm and year. In addition, we follow Conley et al. (2018) and adopt a Fama-MacBeth-style sample splitting approach. Specifically, we first purge the variation in variables used in Equation (1) of year effects. We then estimate the regression by each of the 12 circuits and run a t-test using the 12 estimated coefficients as observations. We find consistent results using this approach.

following equations with insider trades as the dependent variable. Hypothesis 1 predicts that the coefficient estimate on judge ideology, β_1, is negative.

5. Empirical analyses and results

5.1 Sample selection and descriptive statistics

The sample selection procedure is reported in Panel A of Table 1. We begin with 60,388 firm-years with executives' insider-trading transactions covered in the Thomson Reuter Insider Filing Data files over the period from 1998 to 2018.[28] We include trades of executives in their own accounts and through accounts they control.[29] We also limit the transactions to open market purchases and sales, and exclude non-open market transactions such as option grants and exercises.[30] We exclude penny stocks with price less than $2 at the beginning of each calendar year. We eliminate 38,609 firm-year observations for which we cannot classify the trades as either opportunistic or routine because the insiders do not have trading in all previous three years (see Section 4.1 for details). Next, we drop 557 firm-year observations missing data on historical headquarters locations which are necessary for identifying the corresponding circuit courts. Finally, we eliminate 2,271 firm-year observations missing data from Compustat's Fundamentals Annual Table or CRSP to construct the control variables used in our analyses. Our final sample includes 19,005 firm-year observations comprised of 4,091 unique firms.

[28] Our sample starts in year 1998 because the Thomson Reuter Insider Filing Data have spotty coverage prior to 1995 and we need three years' of historical trading data to identify opportunistic trades.

[29] Insiders are required to file with the SEC the indirect trades that they place through accounts they control, including family, retirement, foundation, and trust accounts.

[30] While insiders can trade options or other derivatives, we focus on common share trading in our paper since enforcement actions through civil cases more frequently involve insider trades on common shares. For example, Perino (2019) show that for a sample of insider trading civil cases from 2011 to 2015, 75% use common shares, among which 60% only use common shares and 15% use both common shares and options.

Panel B of Table 1 reports the sample distribution and the mean of our measure of judge ideology (*LiberalCourt*) by circuit. A large portion (25%) of firms are headquartered in the 9th Circuit which covers the west coast states including California and Washington; in contrast, only 3.77% and 0.4% of firms are headquartered in the 10th Circuit and D.C. Circuit, respectively. The distribution of firms' headquarters in other circuits is relatively even. For our sample firms, mean *LiberalCourt* is 40.8%, that is, there is a 40.8% change that a three-judge panel randomly drawn is dominated by liberal judges. Mean *LiberalCourt* varies greatly across circuits, ranging from 0.144 for the 8th Circuit to 0.635 for the 9th Circuit. Panel C of Table 1 reports the sample distribution and the mean of *LiberalCourt* by year. *LiberalCourt* on average increased from 0.380 in 1998 to 0.442 in 2002, and then decreased to 0.323 in 2009, after which it increased steadily to 0.480 in 2018. In addition, untabulated descriptive statistics show that circuit's judge ideology does not change in tandem. That is, over the same time period, some circuits become more liberal and some become more conservative. This time-series and cross-sectional variation enhances our testing power.

Table 2 Panel A reports the descriptive statistics for the variables used in our main analyses. With regard to opportunistic insider trading during the sample period, executives on average buy 0.022% and sell 0.193% of the outstanding shares of their firms, or 0.018% and 0.224% of market value of equity, respectively. The considerably larger amount of insider sale compared to insider purchase is in line with the pattern documented in prior literature (e.g., Lakonishok and Lee 2001; Rodgers 2008; Brochet 2010; Cohen et al. 2012; Skaife et al. 2013; Cheng et al. 2016) and is consistent with insiders liquidating the equity they receive as compensation. Our sample firms have average total market capitalization of $1,334 million and market-to-book ratio of 3.57, with 23.5% operating in industries with high-litigation risk as defined by Francis et al. (1994). Over our

sample period, state-level GDP has an average annual growth rate of 4.3% and unemployment rate averages 0.059%.

Table 2 Panel B presents the Pearson and Spearman correlations of the variables. *LiberalCourt* exhibits low correlations with firm characteristics, suggesting that the variation in judge ideology is relatively exogenous to firm-level economic conditions. The correlations among control variables are low as well, indicating that multi-collinearity is not a significant concern for our regressions.

5.2 Judge ideology's effect on insider trading

Table 3 reports the results from estimating Equation (1), which tests the effect of judge ideology on insider trading (H1). The scaled numbers (dollar values) of shares traded are used as the dependent variables in the specifications reported in Columns (1) and (2) (Columns (3) and (4)). For both insider opportunistic sales measures, the coefficients on *LiberalCourt* are negative and statistically significant at the 1% level. This result suggests that corporate insiders are less likely to opportunistically sell their shares when there are more liberal judges in their home circuit. In terms of economic significance, a one standard deviation increase in *LiberalCourt* is associated with a 3.5% decrease in *OppSale_N*, or approximately 18% of the unconditional mean of *OppSale_N*. To illustrate the economic effect in a practical example, from 2007 to 2014, as judges retired and President Obama appointed six new judges, the 4th Circuit became more liberal (*LiberalCourt* changed from 0.355 to 0.684), which translates into a decrease in the insider selling for an average firm in the circuit by 0.06% (or 35.3% in relative terms) of outstanding shares, or a decrease of $558,000 (or 68% in relative terms) of insider selling, all else being equal.[31] On the

[31] In untabulated analyses, we find that the disciplining effect of liberal judges on insider selling activities is stronger for non-CEO officers than CEOs. One potential explanation is that CEOs already have higher reputational costs if their insider trades are detected, and thus the deterrence of litigation costs may not have much incremental effect on their trading decisions. We also find that liberal judges deter not only trades in insiders' own accounts but also

other hand, the coefficient estimates on *LiberalCourt* are not significant for the opportunistic insider purchase measures (i.e., *OppBuy_N* and *OppBuy_D*), suggesting that judge ideology does not elicit a change in insider purchases. This finding is intuitive and consistent with prior literature because investors are usually more outraged by insider sales prior to stock price drops (Cheng and Lo, 2006; Eth and Dicke, 1994), as the SEC is more likely to prosecute insider sales than insider purchase for illegal insider trading, and thus insider sales is more likely to be affected by judge ideology.[32]

The estimated coefficients on control variables are in general consistent with the intuition and prior literature. For example, the coefficients on market-to-book ratio (*MtoB*) are positive and significant in Columns (2) and (4), consistent with insiders at growth firms selling more. The coefficients on buy-and-hold abnormal returns over the previous year (*PriorReturn*) are negative for insider purchases and positive for insider sales, consistent with insiders being contrarian (Rozeff and Zaman 1998; Lakonishok and Lee 2001). The coefficient on *HighLitiInd* is positive and statistically significant for insider sales. One interpretation is that although firms in these industries (i.e., biotechnology, computers, electronics, and retail) have higher securities class action litigation risks, insiders in those firms might possess more non-public information to trade on due to a greater level of information asymmetry.

We perform several (untabulated) robustness tests for the deterrence effect of liberal judges. First, we restrict our sample to firms that have never changed their headquarters location and find consistent results. Second, our findings are robust if we exclude firms in the 2nd and 9th

transactions in indirect accounts controlled by insiders, e.g., those of their relatives, consistent with the proposition in prior literature (e.g., Goldie, Jiang, Koch, and Wintoki, 2020) that indirect accounts may represent one way that corporate insiders channel and camouflage information-based trading.

[32] During the period of 1996 to 2018, of all SEC enforcements (197 cases) against illegal insider trading by executives on common stocks, 49,24% involve only insider sales, 16.75% target only insider purchase, and 34.01% involve both insider sales and purchase.

circuits – the two circuits with relatively high proportion of liberal judges and high percentage of large firms. Third, since the appointment of federal judges must be confirmed by the U.S. Senate, we consider the partisan makeup of the Senate in our judge ideology measure following Huang et al. (2019).[33] Our results remain similar. Fourth, given existing evidence on the deterrence effect of derivative litigation risk on insider trading (Jung et al. 2018; Adhikari et al. 2019), we control for derivative litigation risk by including dummies for the combination of firms' state of incorporation and year. We find consistent results.

Next, we focus on insider trading before large stock price movements, a setting where insider trades are more likely to be driven by material non-public information, to reduce type I error in our classification of opportunistic insider trades. Marin and Olivier (2008) document that sales by insiders peak several months before a large drop in stock price and contain high information content. Illegal insider sales prosecuted by the SEC usually precede events associated with stock price declines such as negative earnings, bankruptcy, and financial frauds (Meulbroek 1992; Kacperzyk and Pagnotta 2019). Combined with our results in Table 3, we focus only on insider sales prior to stock price declines.

We follow Marin and Olivier (2008) to identify months with significant stock price declines. Specifically, we first compute the monthly excess returns for each firm-month, $ABRET_{i,t}$, as the raw return subtracts the CRSP value weighted market portfolio return. We then define a firm-month as experiencing a significant stock price decline if the month's excess return is more than two standard deviations below the average excess monthly return in the past 60 months (i.e., $ABRET_{i,t} <= Mean(ABRET_{i,(t-60,t-1)}) - 2 \times SD\ (ABRET_{i,(t-60,t-1)})$. We re-estimate Equation (1) including only firm-months with significant stock price decline and calculate *OPPSALE_N*,

[33] Please refer to Table IA18 in the Internet Appendix of Huang et al. (2019) for details on the variable construction.

OPPSALE_D, and *LiberalCourt* based on opportunistic sales and judge ideology over prior 12 months respectively.

Table 4 reports the regression results. We find that the coefficient on *LiberalCourt* continues to be negative and significant for insider sales. The result corroborates our findings in Table 3 that liberal judge ideology constrains opportunistic information-driven insider sales. Not surprisingly, the economic significance is greater than what we find in Table 3: a one standard deviation increase in *LiberalCourt* is associated with a 23.8% (25.5%) decrease in *OppSale_N* (*OppSale_D*). Based on the average stock price decline of 22% during the sample firm-months, and the average market capital of $10.282 million dollars, we estimate that insiders experience an additional loss of $577,000 on average due to a one standard deviation increase in *LiberalCourt*.

Taken together, our findings are consistent with H1 that corporate insiders consider judge ideology in their trading decisions: they are less likely to sell opportunistically, especially prior to significant stock price declines, when the judge ideology in the home circuit is more liberal. Since judge ideology mainly affects the extent of insider sales rather than insider purchases, we limit our attention to insider sales in all subsequent analyses.

5.3 Judge ideology's effect on insider trading: Cross-sectional analyses

In this section, we investigate the cross-sectional variations in judge ideology's impact on insiders' trading decisions. Ex-ante, we expect that judge ideology should have a larger influence on insider trading when insiders are more likely to be charged for illegal insider trading.

We identify three situations that may affect insiders' likelihood of getting sued. The first two scenarios are when the firm is financially distressed and when the firm has accounting misstatements. Prior studies such as Cox and Thomas (2003) and Thevenot (2012) find that the

SEC is more likely to take enforcement actions (including both civil actions and administrative proceedings) against firms with financial distress or accounting misstatements. This is because the SEC can achieve higher conviction rates by arguing that managers of these firms intent to defraud investors. As such, corporate insiders in these firms might expect that their trades are more likely to get sued and thus put more weight on judge ideology in their trading decisions. The third scenario is when firms have stronger corporate governance. Firms with strong corporate governance can better facilitate regulators in investigating insider trading allegations, such as using internal investigations or encouraging whistleblowers, which helps to build a case to be filed in court (Meisner 2004; Henning 2018). Thus, we expect that stronger governance can increase the likelihood that insider trading cases will end up in court and increase the deterrence of liberal judge ideology.[34]

Empirically, to measure financial distress, we use Altman (1968)'s bankruptcy prediction model (Altman's Z Score). A higher Altman's Z Score indicates a higher likelihood of bankruptcy. $DISTRESS_{i,t}$ is an indicator variable that equals one if firm *i*'s Altman's Z score in the bottom decile and zero otherwise. To measure accounting misstatements, $Fraud_{i,t-1}$ is an indicator variable that equals one if firm *i* has committed an accounting fraud on its financial results of year *t-1* that is later under enforcement actions by the SEC as reported in Accounting and Auditing Enforcement Releases (AAER). $CorpGov_{i,t}$ is captured by the Entrenchment Index (E-Index) of Bebchuk, Cohen and Ferrell (2009) multiplied by negative one. E-Index measures how shareholder rights are restricted by counting the number of relevant governance provisions. We then include

[34] Alternatively, judge ideology may play a less important role if firms already have strong corporate governance mechanisms that collects stronger evidence against insiders and reduces the ambiguity of trials, i.e., corporate governance and judicial scrutiny are substitutes. Therefore, how the deterrence effect of liberal court varies with the corporate governance is ex-ante unclear.

these variables and their respective interactions with *LiberalCourt* in Eq. (1) and re-estimate the regressions, and expect a negative coefficient on all interactions.

Columns (1) and (2) of Table 5 display the results of financial distress. Consistent with our prediction, the coefficient on $LiberalCourt_{i,t}$ * $DISTRESS_{i,t}$ is negative and significant at the 10% level, suggesting that corporate insiders in financially distressed firms view liberal court ideology as a greater deterrence to their trading behaviors. Economically, the effect of *LiberalCourt* on *OppSale_N* for financially distressed firm-years is 76.69% (0.102/0.133) higher than the effect of *LiberalCourt* for non-distressed firms.

Columns (3) and (4) of Table 5 report the moderating effect of accounting misstatements. For both *OppSale_N* and *OppSale_D*, we find a negative and significant coefficient on $LiberalCourt_{i,t}$ * $Fraud_{i,t-1}$ (at the 5% level), which supports our prediction that the deterrent effect of liberal judge ideology on insider sales is more pronounced if the firm has committed other wrongdoings such as accounting fraud. As for the economic significance, the effect of *LiberalCourt* on *OppSale_N* for firms with accounting misstatements, is 273.91% (0.567/0.207) higher than the effect of *LiberalCourt* for other firms.

Columns (5) and (6) of Table 5 report the results of how corporate governance affects the deterrence effect of liberal judge ideology. The coefficient on $LiberalCourt_{i,t}$ * $CorpGov_{i,t}$ is negative and significant for both *OppSale_N* and *OppSale_D* (at the 5% level), consistent with corporate insiders being more concerned with judge ideology in their trading decisions when the firm has strong corporate governance system in place. In terms of economic significance, the effect of *LiberalCourt* on *OppSale_N* for firm-years with stronger governance is 13.87% (0.043/0.310) greater than the effect of *LiberalCourt* for other firm-years. Collectively, results in Table 5 suggest

that the deterrent effect of liberal judge ideology is stronger when insiders are more likely to be sued for illegal insider trading.

5.4 The SEC and Judge Ideology

In this section, we explore how the interplay between the SEC and the judicial branch affects insider trading and its enforcement. We study two questions: first, how the SEC's resource constraints affect the deterrence of liberal judge ideology on insider trading; and second, whether judge ideology affects the SEC forum choice to pursue insider trading enforcements.[35]

5.4.1 SEC Resource Constraints

Anecdotal evidence shows that the SEC faces resource constraints when investigating potential misconducts and must be selective about which cases to pursue (Thomsen 2009). While prior literature has documented that the SEC's resource constraints affect insiders' proclivity to trade (Del Guercio, Odders-White, and Ready 2017), it is less obvious how they affect liberal judge ideology's deterrent effect on insider trading. On the one hand, when the SEC is more resource constrained, it may investigate fewer cases, decreasing the likelihood of detecting insider trading. Insiders that anticipates a lower probability of detection should be less concerned about lawsuits, decreasing the deterrence effect of judge ideology. On the other hand, more severe budgetary constraints will hamper the SEC's enforcement efforts to investigate a case and gather evidence, which results in more ambiguous cases and provide judges more room to exercise discretion. This implies that judge ideology should have a stronger effect on insider trading when the SEC's resource is more constrained.

[35] In an (untabulated) additional analysis, we examine how the ideology of SEC commissioners affects the deterrence of liberal judge ideology on insider trading. We find modest evidence that the effect of judge ideology is less pronounced when there are more Democratic than Republican commissioners in the SEC. It suggests that liberal SEC ideology increases the SEC's efforts in investigating a case, thereby reducing case ambiguity and providing less room for judges to exercise discretion.

Empirically, to test how the SEC's resource constraints affects the deterrent effect of judge ideology, we estimate the following equation:

$$Opp_Trade_{i,t} = \beta_0 + \beta_1 LiberalCourt_{i,t} + \beta_2 LiberalCourt_{i,t} * SEC_Constraints_t + \beta_3\, SEC_Constraints_t + \text{Controls} + \text{Circuit FE} + \varepsilon_{i,t}, \quad (2)$$

where $SEC_Constraints_t$ is an indicator variable that equals one if the budget authority of the SEC scaled by total market capitalization in year t is lower than the top tercile for the period of 1998 to 2018, and zero otherwise. We collect information on SEC budgets from the SEC website.[36] Other variables are defined in previous sections and the Appendix.

Columns (3) and (4) of Table 6 report the results from estimating Equation (2). Consistent with prior literature (e.g., Guercio et al. 2017), we noticed that insiders' propensity to trade on private information is positively related to the SEC's resource constraints. More importantly, we find that the coefficient on $LiberalCourt_{i,t} * SEC_Constraints_t$ is negative for both *OppSale_N* and *OppSale_D* and significant at the 1% level, suggesting that SEC budget constraints strengthen the effect of judge ideology on opportunistic insider sales. The findings are consistent with the argument that insufficient resources limit SEC investigation, which results in more ambiguous cases and judges having more discretion in case outcomes. In terms of economic magnitude, the effect of *LiberalCourt* on *OppSale_N* for the firm-years with more severe SEC budget constraints is 44% (0.100/0.229) higher than the effect of *LiberalCourt* for the firm-years with less severe SEC constraints.

5.4.2 Judge ideology's effect on SEC forum selection

Our findings thus far suggest that corporate insiders take judge ideology into account when they trade. The SEC, as the main enforcer, might also consider judge ideology in where to prosecute insider trading cases. The SEC can prosecute illegal insider trading in either its own

[36] The SEC budgets are obtained from https://www.sec.gov/foia/docs/budgetact.htm.

administrative proceeding process or in a district court. If the division collects sufficient evidence, it can choose between two venues to litigate a case, i.e., internally with an administrative enforcement action or in a federal court.

The two trial venues differ significantly in several aspects. In an administrative enforcement action, one of the SEC's own administrative law judge (hereafter, ALJ) adjudicates the case, whereas in a federal court, a federal judge nominated by the U.S. president adjudicates the case. Compared to a federal judge, who can preside over a variety of cases, an ALJ focuses exclusively on SEC enforcement actions, and thus has more expertise in this area. The administrative proceeding usually provides a quicker resolution because SEC rules mandate an initial decision in administrative proceeding within 300 days, whereas federal court cases usually take years. More importantly, administrative proceedings give the SEC a "home court" advantage. A *Wall Street Journal* study found that the SEC won 90 percent of its cases before administrative judges between October 2010 and March 2015, compared with 69 percent of cases filed in federal court during that period (Henning 2015). All ALJ decisions can be appealed to the SEC commissioner, and if lost, to the circuit court with jurisdiction.

This legal procedure provides the SEC the option to forum select the trial venues. Specifically, during enforcements, the SEC clearly cares about winning cases. Losing a case not only damages the SEC attorney's reputation and career prospects (DeHaan, Kedia, Koh, and Rajgopal 2015), but also emboldens other insiders to trade opportunistically. The GAO (2013) report comments that SEC staffs do not take risks for fear of criticism from media and congress after enforcement failure.[37] Because liberal judge ideology is associated with more pro-plaintiff

[37] GAO, Securities Exchange Commission: Improving Personnel Management Is Critical For Agency's Effectiveness, GAO-13-621, at 36 (July 2013), (https://www.gao.gov/assets/660/655989.pdf), Page 15 ("senior officers and staff surveyed remarked that recent enforcement failures and related, sustained criticism ... has contributed to their unwillingness to take risk and innovate.").

(i.e., pro-SEC) outcomes (e.g., Fedderke and Ventoruzzo 2015), the SEC should therefore be more likely to prosecute violations in district courts as opposed to through administrative proceedings when the chance of winning in the federal court is higher. As the district court judges follow the ideology of the circuit court in making decisions (Schanzenbach and Tiller 2007; Knight and Gulati 2010), we expect that the SEC is more likely to select the district court as opposed to ALJ when the ideology of the federal circuit court judges is more liberal.[38]

To test this prediction, we manually collect all SEC insider-trading enforcements associated with common stock trading by executives in US public firms, including civil actions in federal courts from SEC litigation releases, and SEC administrative proceedings. We obtain 109 civil cases and 29 administrative cases from the period 1998-2018.[39] We then examine the effect of judge ideology on the forum that the SEC elected to file the case by estimating the following Probit model:

$$FederalCourt_{i,t} = \beta_0 + \beta_1 LiberalCourt_{i,t-1} + \text{Controls} + \text{Year FE} + \text{Circuit FE} + \varepsilon_{i,t}, \qquad (3)$$

where $FederalCourt_{i,t}$ is an indicator variable that equals one if the insider-trading case is filed in federal court through a civil action, and zero if the case is brought in an administrative proceeding. $LiberalCourt_{i,t-1}$ is the ideology of court judges in the year preceding the public announcement of the enforcement.[40] We control for firm size, leverage, market-to-book ratio, turnover, abnormal returns as well as demographic variables (*GDPGR*, *Unemp*, and *BlueState*).

[38] ALJ decision can be appealed to the circuit court. However, circuit courts usually defer to the ALJ's rulings unless the ALJ did not have "substantial evidence" to reach the conclusion. Consistent with this, many defendants settle with the SEC in administrative proceedings and forfeit the right to appeal (Breon and Vicens 2016).

[39] The SEC's enforcement action could also be brought in a combination of both federal court and an administrative proceeding. We exclude such cases since we are interested in the SEC's selection of one forum over the other.

[40] The median gap between the last year that insider trading occurred and the disclosure of SEC litigation release concerning civil lawsuit is three years, and the median gap between the last year that insider trading occurred and the institution of SEC administrative proceedings is two years. Although the exact year that the SEC decided on the forum to pursue the case is unknown, we believe it is reasonable to assume that the SEC made the decision in the year before the lawsuit/proceeding.

The results from estimating Equation (3) are reported in Table 7. In Column (1), we find that all else being equal, the SEC is more likely to pursue federal court actions as opposed to administrative proceeding process when the court is more liberal. In terms of economic magnitude, with an increase in *LiberalCourt* from Q1 to Q3 (from 0.332 to 0.651), the odds of the SEC selecting the federal courts as the venue increases by 47.36% (from 33.93% to 81.29%). Thus, our results are consistent with judge ideology playing a significant role in the SEC's selection of a forum to prosecute illegal insider trading.

The SEC's penalty authority in its administrative proceedings has been expanded over time. In its proposal in the Securities and Enforcement Remedies and Penny Stock Reform Act of 1990, the SEC sought and gained the power to issue temporary and permanent "cease-and-desist" orders against entities not directly regulated by the Commission.[41] However, although the SEC charged penalties on insider-trading cases increases drastically over time, it is only after the Dodd-Frank Act in 2010 that the SEC was given the authority to pursue civil penalties against all entities through administrative proceedings. Therefore, we further test whether the effect of judge ideology on forum selection varies after the expansion of the SEC's authority in 2010.

We expect that the effect of judge ideology in the SEC's forum selection is more pronounced after 2010, because the Dodd-Frank Act strengthens the SEC's option to litigate through administrative proceedings as oppose to federal courts. To test this conjecture, we estimate Equation (3) adding the interaction of *LiberalCourt* and *Post2010*, where *Post2010* an indicator variable that equals one if the enforcement was taken after 2010, and zero otherwise. Results in Table 7 Column (2) shows that the coefficient on *LiberalCourt* * *Post2010* is positive and

[41] Most publicly traded companies and their related personnel are non-regulated entities and personnel. Entities and individuals that are directly regulated by the SEC include securities exchanges, brokers, dealers, investment companies, investment advisors, and auditors (Zheng 2020).

significant at the 1% level, confirming our prediction that the SEC is more likely to consider judge ideology in its forum choice after 2010.

5.5 Judge Ideology and Insider Trading Penalty

Our analyses rely on an important assumption that judge ideology influences the outcomes of the insider trading cases filed in federal courts. While the political science and law literature has provided theoretical foundation as well as some empirical evidence for this assumption (e.g., Fedderke and Ventoruzzo, 2015), we validate it more directly by examining whether judge ideology is associated with the penalty charged for defendants in insider trading cases. Specifically, we estimate the following equation:

$$Penalty_j = \beta_0 + \beta_1 Disgorgement_j + \beta_2 LiberalCourt_j * Disgorgement_j + \beta_3 LiberalCourt_j + \text{Controls} + \text{Year FE} + \text{Circuit FE} + \varepsilon_{i,t}\,, \quad (4)$$

where $Penalty_j$ and $Disgorgement_j$ are the natural logarithm of the dollar amount of civil penalty and profit disgorgement that defendants pay, respectively. We measure $LiberalCourt_j$ based on the judge ideology of the Circuit Court that oversees the District Court in which case j was filed. To ease interpretation, in addition to the continuous measure of judge ideology ($LiberalCourt_j$), we also define a dummy variable, $High_LiberalCourt_j$, that equals one if judge ideology is in the top tercile and zero otherwise. Our variable of interest is the interaction between $LiberalCourt_j$ (or $High_LiberalCourt_j$) and $Disgorgement_j$. Penalties in insider trading cases usually depend on the profits insiders obtain from the illegal trades. We expect a positive coefficient on β_2. That is, more liberal judges impose a heavier penalty for each dollar of illegal profit. To account for the heterogeneity of cases, we control for the number of defendants as well as an indicator variable that equals one if defendants include corporate executives and zero otherwise. We also include demographic variables (*GDPGR*, *Unemp*, and *BlueState*), year-fixed effects, and circuit-fixed

effects to control for economic environments and other differences over time or across geographic regions that may affect penalty.

We manually collect the amount of penalty and disgorgement of profits for civil insider trading cases from SEC website for 285 out of 577 insider trading civil cases from 1998-2018.[42] The SEC does not provide details for the remaining cases. Table 8 presents the results. We find that liberal judge ideology increases the penalty to insider trading. In terms of economic magnitude, the most liberal tercile Circuit Courts impose 25.72% (0.171/0.665) higher penalty per dollar of profit than the bottom two terciles. This analysis provides support for our assumption that liberal judge ideology is associated with more adverse outcomes in insider trading litigations.

6. Conclusion

We empirically investigate the effect of judicial position on insiders' trading decisions. Federal courts not only serve as an important component that establishes the laws against illegal insider trading, but also make the ultimate decision on insider-trading lawsuits. However, despite the ample evidence on how the laws and the SEC affect insider trading decisions, little is known about the effect of judicial position.

Our evidence fills the gap in the literature by documenting that judge ideology has a significant effect on executives' trading decisions. Thus, our evidence extends the existing literature by providing a more comprehensive picture of insider-trading deterrence. In addition, we find that the SEC's resources constraint affects the deterrence of liberal judge ideology, and that the SEC considers ideology when selecting venue to prosecute illegal insider trading. Our results

[42] In 35 cases, the amount of disgorgement is stated as a sum with prejudgment interests in SEC litigation releases. To preserve these cases, we include prejudgment interests, if any, in our measurement of disgorgement. Our results are consistent if we measure disgorgement without prejudgment interests and remove these 35 cases.

thus demonstrate the joint effect of the two branches of the federal government against illegal insider trading. The understanding of the cost and benefit trade-offs in insider trading and prosecution provides important regulatory insights. Finally, while the documented effect of judge ideology on insider trading is limited to the trades of executives in public companies due to data availability, our findings may apply to other insiders who might trade on non-public information, such as independent directors, non-executive employees, consultants, and friends of corporate insiders, which represents one potential avenue for future research.

References

Adhikari, B., Agrawal, A., & Sharma, B. (2019). Does litigation risk deter insider trading? Evidence from universal demand laws. Evidence from Universal Demand Laws (June 2019).

Agrawal, A., & Jaffe, J. F. (1995). Does Section 16b deter insider trading by target managers?. Journal of Financial Economics, 39(2-3), 295-319.

Allen, S. A. (1990). The response of insider trading to changes in regulatory standards. Quarterly Journal of Business and Economics, 47-78.

Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. The Journal of Finance, 23(4), 589-609.

Atkins, P. S. (2008). Speech by SEC Commissioner: Remarks to the 'SEC Speaks in 2008' Program of the Practising Law Institute. U.S. Securities and Exchange Commission. https://www.sec.gov/news/speech/2008/spch020808psa.htm

Atkins, P. S., & Bondi, B. J. (2008). Evaluating the mission: A critical review of the history and evolution of the SEC enforcement program. Fordham J. Corp. & Fin. L., 13, 367.

Bainbridge, S. M., & Gulati, G. M. (2002). How do judges maximize-the same way everybody else does-boundedly: Rules of thumb in securities fraud opinions. Emory LJ, 51, 83.

Bainbridge, S. M. (2013). An overview of insider trading law and policy: an introduction to the insider trading research handbook. Research Handbook on Insider Trading, Stephen Bainbridge, ed., Edward Elgar Publishing Ltd, 12-15.

Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance?. The Review of financial studies, 22(2), 783-827.

Becker, G. S. (1968). Crime and punishment: An economic approach. In The economic dimensions of crime (pp. 13-68). Palgrave Macmillan, London.

Beny, L. N. (2005). Do insider trading laws matter? Some preliminary comparative evidence. American Law and Economics Review, 7(1), 144-183.

Bhattacharya, U., & Daouk, H. (2002). The world price of insider trading. Journal of Finance, 57(1), 75-108.

Bowie, B. J., & Songer, D. R. (2009). Assessing the applicability of strategic theory to explain decision making on the courts of appeals. Political Research Quarterly, 62(2), 393-407.

Brochet, F. (2010). Information content of insider trades before and after the Sarbanes - Oxley Act. The Accounting Review, 85(2), 419-446.

Breon P. and Vicens E. (2016) Changes and challenges in the SEC's ALJ proceedings. Harvard Law School Forum, November.

Cameron, A. C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. Review of Economics and Statistics, 90(3), 414-427.

Cheng, C. A., Huang, H. H., & Li, Y. (2016). Does shareholder litigation deter insider trading?. Journal of Law, Finance, and Accounting, 1(2), 275-318.

Cheng, Q., & Lo, K. (2006). Insider trading and voluntary disclosures. Journal of Accounting Research, 44(5), 815-848.

Choi, S. J., Gulati, M., & Posner, E. A. (2012). What do federal district judges want? An analysis of publications, citations, and reversals. Journal of Law, Economics, & Organization, 28(3), 518-549.

Chow, T., Huang, A., Hui, K. W., & Shevlin, T. J. (2019). Judge ideology and corporate tax planning. *Available at SSRN*.

Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. The Review of Financial Studies, 29(11), 2885-2924.

Cohen, L., Malloy, C., & Pomorski, L. (2012). Decoding inside information. Journal of Finance, 67(3), 1009-1043.

Cornell, B., & Sirri, E. R. (1992). The reaction of investors and stock prices to insider trading. The Journal of Finance, 47(3), 1031-1059.

Cox, J. D., Thomas, R. S., & Kiku, D. (2003). SEC enforcement heuristics: An empirical inquiry. Duke LJ, 53, 737.

Dai, L., Parwada, J. T., & Zhang, B. (2015). The governance effect of the media's news dissemination role: Evidence from insider trading. Journal of Accounting Research, 53(2), 331-366.

DeHaan, E., Kedia, S., Koh, K., & Rajgopal, S. (2015). The revolving door and the SEC's enforcement outcomes: Initial evidence from civil litigation. Journal of Accounting and Economics, 60(2-3), 65-96.

Del Guercio, D., Odders-White, E. R., & Ready, M. J. (2017). The deterrent effect of the Securities and Exchange Commission's enforcement intensity on illegal insider trading: Evidence from run-up before news events. Journal of Law and Economics, 60(2), 269-307.

Demsetz, H. (1986). Corporate control, insider trading, and rates of return. The American Economic Review, 76(2), 313-316.

Djankov, S., Glaeser, E., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2003). The new comparative economics. Journal of comparative economics, 31(4), 595-619.

Dorsen, N. (2006). The selection of US Supreme Court justices. International Journal of Constitutional Law, 4(4), 652-663.

Eth, J., & Dicke, M. (1994). Insider stock sales in Rule 10b-5 corporate disclosure cases: Separating the innocent from the suspicious. Stan. JL Bus. & Fin., 1, 97.

Fairfax, L. M. (2018). The Securities Law Implications of Financial Illiteracy. Virginia Law Review, 104(6), 1065-1122.

Fedderke, J. W., & Ventoruzzo, M. (2015). Do Conservative Justices Favor Wall Street: Ideology and the Supreme Court's Securities Regulation Decisions. Fla. L. Rev., 67, 1211.

FINRA Staff. (2017). Five Surprising Facts About Insider Trading. https://www.finra.org/investors/insights/5-surprising-facts-about-insider-trading

Fisch, J. E., (2018). Constructive Ambiguity and Judicial Development of Insider Trading. Penn Law: Legal Scholarship Repository, 71, 749-766.

Fishman, M. J., & Hagerty, K. M. (1992). Insider trading and the efficiency of stock prices. The RAND Journal of Economics, 106-122.

Francis, J., Philbrick, D., & Schipper, K. (1994). Shareholder litigation and corporate disclosures. Journal of accounting research, 32(2), 137-164.

Garfinkel, J. A. (1997). New evidence on the effects of federal regulations on insider trading: the Insider Trading and Securities Fraud Enforcement Act (ITSFEA). Journal of Corporate Finance, 3(2), 89-111.

George, T. E. (1998). Developing a positive theory of decisionmaking on US Courts of Appeals. Ohio St. LJ, 58, 1635.

Gider, J. (2014). Do SEC detections deter insider trading? Evidence from earnings announcements. Working Paper.

Goldie, B. A., Jiang, C., Koch, P. D., & Wintoki, M. B. (2020). Indirect insider trading. Available at SSRN 3270095.

Goldman, S. (1999). Picking federal judges: Lower court selection from Roosevelt through Reagan. Yale University Press.

Gulati, G. M., & Knight, J. (2010). Talking judges. Duke Law Journal, Forthcoming.

Heminway, J. M. (2003). Materiality Guidance in the Context of Insider Trading: A Call for Action. Am. UL Rev., 52, 1131.

Heminway, J. M. (2012). Just Do It-Specific Rulemaking on Materiality Guidance in Insider Training. La. L. Rev., 72, 999.

Henderson, M. T., Jagolinzer, A. D., & Muller III, K. A. (2014). Offensive disclosure: How voluntary disclosure can increase returns from insider trading. Geo. LJ, 103, 1275.

Henning, P. J. (2015). Court Strikes on Insider Trading, and Congress Lobs Back. New York Times.

Henning, P. J. (2018). Making up insider trading law as you go. Wash. UJL & Pol'y, 56, 101.

Horwich, A. (2000). The Neglected Relationship of Materiality and Recklessness in Actions Under Rule 10b-5. The Business Lawyer, 1023-1038.

Huang, A., Hui, K. W., & Li, R. Z. (2019). Federal judge ideology: A new measure of ex ante litigation risk. Journal of Accounting Research, 57(2), 431-489.

Huddart, S., Ke, B., & Shi, C. (2007). Jeopardy, non-public information, and insider trading around SEC 10-K and 10-Q filings. Journal of Accounting and Economics, 43(1), 3-36.

Jaffe, J. F. (1974). Special information and insider trading. Journal of Business, 47(3), 410-428.

Johnson, M. F., Kasznik, R., & Nelson, K. K. (2000). Shareholder wealth effects of the private securities litigation reform act of 1995. Review of Accounting Studies, 5(3), 217-233.

Jung, S., Nam, J., & Shu, S. (2018, July). Shareholder Litigation and Insider Trading: Evidence from Derivative Litigation. In Asian Finance Association (AsianFA) 2018 Conference.

Kacperczyk, M. T., & Pagnotta, E. (2019). Becker meets Kyle: Inside insider trading. Working Paper.

Kacperczyk, M., & Pagnotta, E. S. (2019). Chasing private information. The Review of Financial Studies, 32(12), 4997-5047.

Ke, B., Huddart, S., & Petroni, K. (2003). What insiders know about future earnings and how they use it: Evidence from insider trades. Journal of Accounting and Economics, 35(3), 315-346.

Kedia, S., & Rajgopal, S. (2011). Do the SEC's enforcement preferences affect corporate misconduct?. Journal of Accounting and Economics, 51(3), 259-278.

Kripke, H. (1985). Law and economics: measuring the economic efficiency of commercial law in a vacuum of fact. University of Pennsylvania Law Review, 133(5), 929-985.

Lakonishok, J., & Lee, I. (2001). Are insider trades informative?. The Review of Financial Studies, 14(1), 79-111.

Langevoort, D. C. (2010). Global Securities Regulation after the Financial Crisis. Journal of International Economic Law, 13(3), 799-815.

Langevoort, D. C. (2013). Fine Distinctions in the Contemporary Law of Insider Trading. Colum. Bus. L. Rev., 429.

Lang, M., Lins, K., & Maffett, M. (2011). Transparency, Liquidity and Valuation: International Evidence. University of North Carolina at Chapel Hill. Unpublished Working Paper.

LaVigne, C., & Calandra, B. (2016). Insider Trading Laws and Enforcement.

Leland, H. E. (1992). Insider trading: Should it be prohibited?. Journal of Political Economy, 100(4), 859-887.

Lind, N. S., Rankin, E. T., & Harris, G. (2016). Today's Economic Issues: Democrats and Republicans: Democrats and Republicans. ABC-CLIO.

Manne, H. G. (1984). Insider trading and property rights in new information. Cato J., 4, 933.

Marin, J. M., & Olivier, J. P. (2008). The dog that did not bark: Insider trading and crashes. The Journal of Finance, 63(5), 2429-2476.

McCraw, T. K. (2009). Prophets of regulation. Harvard University Press.

Meisner, D. M. (2004). Internal Investigations: An Essential Component to Cooperation in an SEC Inquiry. Securities Regulation Law Journal, 32, 310-314.

Meulbroek, L. K. (1992). An empirical analysis of illegal insider trading. Journal of Finance, 47(5), 1661-1699.

Murdock, C. W. (2014). Janus Capital Group, Inc v. First Derivative Traders: The Culmination of the Supreme Court's Evolution from Liberal to Reactionary in Rule 10B-5 Actions. Denv. UL Rev., 91, 369.

Newkirk, T. C., & Robertson, M. A. (1998, September). Insider trading–a US perspective. In Speech at the 16 th International Symposium on Economic Crime, Jesus College, Cambridge, England, September (Vol. 19, p. 1998).

Ohlson, J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy. Journal of accounting research, 109-131.

Patel, M. S. (2019). Does Insider Trading Law Change Behavior: An Empirical Analysis. UCDL Rev., 53, 447.

Perino, M. (2019). Real Insider Trading. St. John's Legal Studies Research Paper, (19-0005).

Phalon, R. (1966). S.E.C. Aide Says Insider Curb Is Varied from ‘Case to Case’, N. Y. TIMES, June 22, B63.

Pinello, D. R. (1999). Linking party to judicial ideology in American courts: A meta-analysis. The Justice System Journal, 219-254.

Pritchard, A. C. (2013). Launching the insider trading revolution: SEC v. Capital Gains Research Bureau. In Research Handbook on Insider Trading. Edward Elgar Publishing.

Randazzo, K. A. (2008). Strategic anticipation and the hierarchy of justice in US district courts. American Politics Research, 36(5), 669-693.

Rogers, J. L. (2008). Disclosure quality and management trading incentives. Journal of Accounting Research, 46(5), 1265-1296.

Rozeff, M. S., & Zaman, M. A. (1998). Overreaction and insider trading: Evidence from growth and value portfolios. Journal of Finance, 53(2), 701-716.

Schanzenbach, M. M., & Tiller, E. H. (2007). Strategic judging under the US sentencing guidelines: Positive political theory and evidence. Journal of Law, Economics, & Organization, 23(1), 24-56.

Seyhun, H. N. (1992). The effectiveness of the insider-trading sanctions. Journal of Law and Economics, 35(1), 149-182.

Sinai, S. (2000). Rumors, Possession v. Use, Fiduciary Duty and Other Current Insider Trading Considerations. The Business Lawyer, 743-798.

Skaife, H. A., Veenman, D., & Wangerin, D. (2013). Internal control over financial reporting and managerial rent extraction: Evidence from the profitability of insider trading. Journal of Accounting and Economics, 55(1), 91-110.

Thevenot, M. (2012). The factors affecting illegal insider trading in firms with violations of GAAP. Journal of Accounting and Economics, 53(1-2), 375-390.

Thomsen, L. (2009). Testimony of Linda Chatman Thomsen before the United States Senate Committee on Banking, Housing and Urban Affairs Concerning Investigations and Examinations by the Securities and Exchange Commission and Issues Raised by the Bernard L. Madoff Investment Securities Matter Tuesday, January 27, 2009.

Wald, P. 1987. Some thoughts on judging as gleaned from one hundred years of the Harvard Law Review and other great books. Harvard Law Review, 100, 887.

Zheng, X. (2020). A Tale of Two Enforcement Venues: Determinants and Consequences of the SEC's Choice of Enforcement Venue After the Dodd-Frank Act. Working Paper. Available at SSRN 3666336.

Appendix: Variable Definitions

Variable	Definition
Main Variables	
LiberalCourt	The probability that a three-judge panel randomly selected from a circuit court has at least two judges appointed by Democratic presidents, that is, $[C(x, 3)+C(x, 2) \times C(y-x, 1)] / C(y, 3)$, where y is the total number of judges in the circuit court, and x is the number of judges in the circuit court who were appointed by Democratic presidents. (a, b) is the number of combinations of selecting b objects from a distinct objects. For each firm-year observation, we use the average of $Liberal_Court$ measure of the firm's headquarters in year t. Historical headquarters information is extracted from firms' 10-K filings. Circuit court judges' appointing presidents are from the Federal Judicial Center's website.
OppSale_N	Total number of opportunistic insider sales in year t, divided by the number of common shares outstanding at the end of year t-1, multiplied by 100. We follow Cohen et al. (2012) to identify opportunistic insider trades based on the trading history of the insider. We require the insider to place at least one trade in all three preceding years to define his/her trade as either opportunistic or routine. We classify the trade from an insider as a routine trade if he/she places a trade in the same calendar month for the three preceding years. An inside trade is classified as an opportunistic trade if there is no discernible pattern in his or her trading history.
OppBuy_N	Total number of opportunistic insider purchases in year t, divided by the number of common shares outstanding at the end of year t-1, multiplied by 100. We identify opportunistic insider trades as described in the definition of *OppSale_N*.
OppSale_D	Total dollar value of opportunistic insider sales in year t, divided by market value of equity at the end of year t-1, multiplied by 100. We identify opportunistic insider trades as described in the definition of *OppSale_N*.
OppBuy_D	Total dollar value of opportunistic insider purchases in year t, divided by market value of equity at the end of year t-1, multiplied by 100. We identify opportunistic insider trades as described in the definition of *OppSale_N*.
Control Variables	
Size	The natural logarithm of the market value of equity (PRCC_F*CSHO) at the end of year t-1.
MtoB	Market-to-book ratio (PRCC_F×CSHO/CEQ) at the end of year t-1.
Turnover	The proportion of shares that are traded in year t, calculated as the total trading volume(VOL) scaled by the average number of shares outstanding in year t.
PriorReturn	Buy-and-hold abnormal returns over year t-1.
HighLitiInd	High-litigation risk industry indicator. An indicator variable that equals 1 if the firm's historical SIC code in year t belongs to one of the following groups: biotech (2833–36, 8731–34), computer (3570–77, 7370–74), electronics (3670–74), or retail (5200–5961), and 0 otherwise.
GDPGR	The percentage change in real GDP of the firm's headquarters state from year t – 1 to year t.
Unemp	The average annual unemployment rate of the firm's headquarters state in year t.

BlueState	An indicator variable that equals 1 if the firm's headquarters state favors a Democratic candidate in the most recent presidential election prior to year t, and 0 otherwise.
Other Variables	
Distress	An indicator variable that equals 1 if the firm's Altman's Z score is in the bottom decile of all firms in year t, and 0 otherwise. Altman's Z score is computed as 3.3*OIADP/AT + 1.2*(ACT - LCT)/AT + SALE/AT + 0.6*PRCC_F*CSHO/ (DLTT + DLC) + 1.4*RE/AT.
AAER	An indicator variable that equals 1 if the firms engaged in accounting misconduct in year t that is later under enforcement actions as listed in SEC Accounting and Auditing Enforcement Releases.
CorpGov	The Entrenchment Index (E-Index) of Bebchuck, Cohen and Ferrell (2009), multiplied by (-1).
SEC_Constraints	An indicator variable that equals 1 if the budget authority of the SEC (converted into 1998 dollars) scaled by total market capitalization in year t is lower than the top tercile for the period of 1998 to 2018, and zero otherwise.
FederalCourt	An indicator variable that equals 1 if the insider-trading case is filed in federal court through a civil action, and zero if the case is brought in an administrative proceeding.
Penalty	The natural logarithm of the dollar amount of civil penalty that defendants pay.
Disgorgement	The natural logarithm of the sum of the dollar amount of profit disgorgement and prejudgment interests that defendants pay.
High_LiberalCourt	A dummy variable that equals one if judge ideology is in the top tercile and zero otherwise.
NDefendants	The natural logarithm of the number of defendants.
ExecutiveCase	An indicator variable that equals one if defendants include corporate executives and zero otherwise.

Table 1. Sample Selection and Distribution

The table presents the sample selection process and distribution. Panel A presents the sample selection and filtering process. Panel B presents the sample distribution and average *LiberalCourt* by circuit. Panel C presents the sample distribution and average *LiberalCourt* by year. Variable definitions are in the Appendix.

Panel A: Sample Selection

Circuit	Firm-years
Open-market insider trades from officers from 1998 to 2018 provided by Thomson Reuters Insider Filings Data Files	60,388
(-) Firm-year without any insider trade that can be defined as opportunistic or routine trades	(38,609)
(-) Firm-years missing data on historical headquarter location	(557)
(-) Firm-years missing data on control variables from Compustat and CRSP	(2,217)
Final firm-year observations for the main test	19,005

Panel B: Sample Distribution by Circuit

Circuit	**Observations**	**Percentage**	**Average *LiberalCourt* of firm-years**
1st	1,220	6.42%	0.267
2nd	1,892	9.96%	0.582
3rd	1,655	8.71%	0.314
4th	1,374	7.23%	0.499
5th	1,779	9.36%	0.231
6th	1,524	8.02%	0.284
7th	1,478	7.78%	0.173
8th	1,278	6.72%	0.144
9th	4,806	25.29%	0.635
10th	716	3.77%	0.338
11th	1,207	6.35%	0.431
D.C.	76	0.4%	0.264
Total	19,005	100%	0.408

Table 1 Continued

Panel C: Sample Distribution by Year

Year	Observations	Percentage	Average *LiberalCourt*
1998	222	1.17%	0.380
1999	877	4.61%	0.404
2000	869	4.57%	0.449
2001	811	4.27%	0.462
2002	774	4.07%	0.442
2003	794	4.18%	0.402
2004	906	4.77%	0.370
2005	985	5.18%	0.357
2006	1,126	5.92%	0.347
2007	1,163	6.12%	0.325
2008	1,029	5.41%	0.320
2009	892	4.69%	0.323
2010	890	4.68%	0.359
2011	852	4.48%	0.398
2012	872	4.59%	0.423
2013	994	5.23%	0.435
2014	1,103	5.80%	0.459
2015	1,095	5.76%	0.473
2016	1,040	5.47%	0.476
2017	1,030	5.42%	0.491
2018	681	3.58%	0.480
Total	19,005	100%	0.408

Table 2. Descriptive Statistics

This table reports descriptive statistics and correlations for the variables used in our main analyses. Panel A reports the descriptive statistics for the main variables. Panel B reports the correlations among the main variables. The lower (upper) diagonal presents Pearson (Spearman) correlation coefficients. Correlation coefficients that appear in boldface are significant at the 5% level. All variables are defined in the Appendix.

Panel A: Descriptive Statistics

	N	MEAN	SD	MIN	P25	P50	P75	MAX
LiberalCourt	19,005	0.408	0.198	0.007	0.240	0.396	0.593	0.720
OppBuy_N	19,005	0.022	0.096	0.000	0.000	0.000	0.000	0.750
OppSale_N	19,005	0.193	0.391	0.000	0.005	0.047	0.187	2.510
OppBuy_D	19,005	0.018	0.080	0.000	0.000	0.000	0.000	0.628
OppSale_D	19,005	0.224	0.471	0.000	0.006	0.050	0.206	3.051
Size	19,005	7.196	1.926	2.912	5.873	7.159	8.454	11.932
MtoB	19,005	3.568	4.688	-10.553	1.515	2.435	4.096	31.582
Turnover	19,005	0.023	0.019	0.001	0.010	0.018	0.030	0.106
PriorReturn	19,005	0.104	0.501	-0.772	-0.176	0.026	0.267	2.546
HighLitiInd	19,005	0.235	0.424	0.000	0.000	0.000	0.000	1.000
GDPGR	19,005	0.043	0.027	-0.088	0.029	0.043	0.060	0.247
UNemp	19,005	5.928	2.007	2.300	4.600	5.400	6.800	13.700
BlueState	19,005	0.701	0.458	0.000	0.000	1.000	1.000	1.000

Table 2 Continued

Panel B: Correlation Table

	LiberalCourt	*Size*	*MtoB*	*Turnover*	*PriorBHAR*	*HighLitiInd*	*GDPGR*	*Unemp*	*BlueState*
LiberalCourt	1	**0.032**	**0.062**	**0.084**	0.005	**0.117**	**0.135**	**0.116**	**0.319**
Size	**0.040**	1	**0.388**	**0.339**	**0.112**	**0.053**	**-0.024**	**-0.007**	**0.023**
MtoB	**0.073**	**0.210**	1	**0.288**	**0.227**	**0.199**	**0.109**	**-0.112**	**0.071**
Turnover	**0.100**	**0.192**	**0.163**	1	**0.1**	**0.242**	**-0.015**	**0.091**	**0.030**
PriorReturn	**0.022**	**0.033**	**0.181**	**0.181**	1	0.002	0.002	0.052	-0.015
HighLitiInd	**0.120**	**0.060**	**0.123**	**0.225**	**0.039**	1	**0.057**	**0.045**	**0.068**
GDPGR	**0.123**	**-0.015**	**0.061**	**-0.029**	**0.056**	**0.052**	1	**-0.321**	**-0.085**
Unemp	**0.134**	-0.010	**-0.065**	**0.082**	**0.022**	**0.042**	**-0.379**	1	**0.158**
BlueState	**0.325**	**0.033**	**0.057**	**0.034**	-0.008	**0.068**	**-0.073**	**0.173**	1

Table 3. Judge Ideology and Insider Trading

This table reports the results from estimating Equations (1), which tests the effect of judge ideology on the intensity of insider trading. The sample includes 19,005 firm-year observations from 1998 to 2018. All variables are defined in the Appendix. Year- and circuit-fixed effects are included in each regression. The *p*-values (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	OppBuy_N	*OppSale_N*	*OppBuy_D*	*OppSale_D*
	(1)	(2)	(3)	(4)
LiberalCourt	0.015	-0.180***	0.012	-0.229***
	(0.706)	(0.003)	(0.721)	(0.003)
Size	-0.065***	-0.011***	-0.054***	-0.017***
	(0.000)	(0.001)	(0.000)	(0.000)
MtoB	-0.001	0.005***	-0.001	0.005***
	(0.338)	(0.000)	(0.338)	(0.000)
Turnover	-0.281*	3.369***	-0.289**	4.689***
	(0.094)	(0.000)	(0.047)	(0.000)
PriorReturn	-0.027***	0.107***	-0.023***	0.108***
	(0.000)	(0.000)	(0.000)	(0.000)
HighLitiInd	-0.005	0.038***	-0.006	0.046***
	(0.650)	(0.005)	(0.451)	(0.001)
GDPGR	-0.108	0.491***	-0.082	0.710***
	(0.398)	(0.007)	(0.432)	(0.005)
Unemp	0.000	0.000	0.001	0.003
	(0.892)	(0.998)	(0.821)	(0.724)
BlueState	-0.007	0.003	-0.005	-0.001
	(0.509)	(0.828)	(0.613)	(0.942)
Constant	0.271***	0.152***	0.220***	0.175***
	(0.000)	(0.002)	(0.000)	(0.002)
Year Fixed Effects	Yes	Yes	Yes	Yes
Circuit Fixed Effects	Yes	Yes	Yes	Yes
SE Clustered by	State	State	State	State
Observations	19,005	19,005	19,005	19,005
Pseudo R-squared	0.326	0.061	0.383	0.051

Table 4. Judge Ideology and Insider Trading Before Large Stock Price Declines

This table reports the results from estimating Equations (1) for insider trading in the 12 months before the firm-month with large stock price declines. We define a firm-month as one experiencing large stock price decline if the excess monthly return is more than two standard deviations away and below the average excess monthly return in the past 60 months All variables are defined in the Appendix. Year- and circuit-fixed effects are included in each regression. The *p*-values (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	OppSale_N	*OppSale_D*
	(1)	(2)
LiberalCourt	-1.203***	-1.292***
	(0.004)	(0.005)
Size	0.033**	0.034**
	(0.031)	(0.029)
MtoB	0.003	0.004
	(0.612)	(0.428)
Turnover	0.059*	0.057
	(0.090)	(0.102)
PriorReturn	0.201**	0.215**
	(0.017)	(0.024)
HighLitiInd	0.103	0.132
	(0.192)	(0.135)
GDPGR	3.456*	4.562*
	(0.084)	(0.054)
Unemp	0.005	0.011
	(0.900)	(0.799)
BlueState	0.015	0.022
	(0.783)	(0.698)
Constant	-0.595*	-0.677**
	(0.054)	(0.034)
Year Fixed Effects	Yes	Yes
Circuit Fixed Effects	Yes	Yes
SE Clustered By	State	State
Observations	600	600
Pseudo R-squared	0.156	0.159

Table 5. Judge Ideology and Insider Trading: Cross-Sectional Tests

This table reports the results from our cross-section tests, which examines whether the deterrent effect of liberal ideology on opportunistic insider sales is stronger when the firm is under greater scrutiny, i.e., when the firm is financially distressed, has accounting misstatement, or has stronger corporate governance. All variables are defined in the Appendix. Year- and circuit-fixed effects are included in each regression. The *p*-values (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	OppSale_N	*OppSale_D*	*OppSale_N*	*OppSale_D*	*OppSale_N*	*OppSale_D*
	(1)	(2)	(3)	(4)	(5)	(6)
LiberalCourt	-0.133*	-0.181*	-0.207**	-0.275***	-0.310***	-0.375***
	(0.066)	(0.051)	(0.013)	(0.009)	(0.003)	(0.003)
*LiberalCourt*DISTRESS*	-0.102*	-0.102*				
	(0.068)	(0.092)				
*LiberalCourt*AAER*			-0.567**	-0.725**		
			(0.043)	(0.044)		
*LiberalCourt*CORPGOV*					-0.043**	-0.057**
					(0.044)	(0.039)
DISTRESS	-0.154***	-0.199***				
	(0.000)	(0.000)				
AAER			0.245*	0.312*		
			(0.087)	(0.089)		
CORPGOV					0.025***	0.030***
					(0.002)	(0.002)
Size	-0.027***	-0.037***	-0.011***	-0.019***	-0.044***	-0.054***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
MtoB	0.004***	0.004***	0.005***	0.005***	0.006***	0.007***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Turnover	2.658***	3.850***	3.824***	5.396***	1.254***	1.742***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
PriorReturn	0.098***	0.098***	0.105***	0.105***	0.130***	0.125***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
HighLitiInd	0.016	0.018	0.048***	0.055***	0.047***	0.058***
	(0.152)	(0.126)	(0.001)	(0.001)	(0.005)	(0.001)
GDPGR	0.480**	0.714**	0.541**	0.781***	0.701***	0.827***
	(0.025)	(0.015)	(0.017)	(0.009)	(0.001)	(0.001)
Unemp	0.003	0.008	0.002	0.006	0.003	0.005
	(0.616)	(0.336)	(0.768)	(0.517)	(0.633)	(0.480)
BlueState	-0.006	-0.013	-0.001	-0.007	0.010	0.004
	(0.713)	(0.463)	(0.976)	(0.741)	(0.523)	(0.816)
Constant	0.257***	0.307***	0.129**	0.151**	0.479***	0.583***
	(0.000)	(0.000)	(0.020)	(0.019)	(0.000)	(0.000)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Circuit Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
SE Clustered by	State	State	State	State	State	State
Observations	15,224	15,224	15,159	15,159	11,022	11,022
Pseudo R-squared	0.067	0.056	0.059	0.051	0.123	0.086

Table 6. Judge Ideology and Insider Trading:
SEC Resource Constraints

This table reports the results from estimating Equations (2), which examines how the SEC's resource constraints affects the deterring effect of liberal judge ideology. All variables are defined in the Appendix. Circuit-fixed effects are included in each regression. The *p*-values (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	OppSale_N	*OppSale_D*
	(1)	(2)
LiberalCourt	-0.229***	-0.246***
	(0.000)	(0.000)
*LiberalCourt*SEC_Constraints*	-0.100***	-0.104***
	(0.001)	(0.007)
SEC_Constraints	0.082***	0.104***
	(0.000)	(0.000)
Size	-0.009***	-0.015***
	(0.003)	(0.000)
MtoB	0.004***	0.004***
	(0.000)	(0.000)
Turnover	3.351***	4.641***
	(0.000)	(0.000)
PriorReturn	0.101***	0.100***
	(0.000)	(0.000)
HighLitiInd	0.037***	0.045***
	(0.008)	(0.002)
GDPGR	0.961***	1.136***
	(0.000)	(0.000)
Unemp	0.010***	0.015***
	(0.002)	(0.000)
BlueState	-0.006	-0.009
	(0.687)	(0.632)
Constant	0.090**	0.096**
	(0.020)	(0.037)
Year Fixed Effects	No	No
Circuit Fixed Effects	Yes	Yes
SE Clustered by	State	State
Observations	19,005	19,005
Pseudo R-squared	0.050	0.042

Table 7. Judge Ideology and SEC Enforcement on Illegal Insider Trading: Civil Action versus Administrative Proceeding

This table reports the results from estimating Equations (3), which examines whether judge ideology affects the likelihood of SEC enforcement on illegal insider trading by bringing civil actions in federal court as opposed to administrative proceeding. All variables are defined in the Appendix. Year-fixed effects and circuit-fixed effects are included in each regression. The *p*-values (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	FederalCourt	
	(1)	(2)
LiberalCourt	13.916**	10.030
	(0.042)	(0.194)
*LiberalCourt * Post2010*		8.962***
		(0.003)
Size	-0.064	-0.037
	(0.515)	(0.760)
MtoB	-0.005	-0.009
	(0.678)	(0.549)
Leverage	0.020	0.090
	(0.977)	(0.907)
Turnover	9.141	11.641*
	(0.198)	(0.060)
Return	0.373***	0.437***
	(0.003)	(0.003)
HighLitiInd	-0.911	-0.854
	(0.124)	(0.131)
GDPGR	21.178*	17.935
	(0.062)	(0.118)
Unemp	-0.268	-0.447
	(0.486)	(0.299)
BlueState	-0.948	-1.211**
	(0.101)	(0.030)
Constant	-6.177**	-9.812***
	(0.038)	(0.002)
Year Fixed Effects	Yes	Yes
Circuit Fixed Effects	Yes	Yes
SE Clustered by	State	State
Observations	78	78
Pseudo R-squared	0.337	0.403

Table 8. Judge Ideology and Civil Penalty for Insider Trading

This table reports the results from estimating Equation (4), which examines whether judge ideology affects the sensitivity of civil penalty to profit disgorgement for insider trading violations. All variables are defined in the Appendix. Year-fixed effects and circuit-fixed effects are included in each regression. The *t*-statistics (in parentheses) are calculated using standard errors clustered by state. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	Penalty	
	(1)	(2)
Disgorgement	0.462**	0.655***
	(0.016)	(0.000)
*LiberalCourt * Disgorgement*	0.652*	
	(0.052)	
LiberalCourt	-6.493*	
	(0.088)	
*High_LiberalCourt * Disgorgement*		0.171*
		(0.065)
High_LiberalCourt		-1.438
		(0.181)
NDefendants	0.141	0.169
	(0.377)	(0.284)
ExecutiveCase	0.208	0.204
	(0.238)	(0.227)
GDPGR	-4.477**	-4.940**
	(0.041)	(0.011)
Unemp	0.044	0.055
	(0.689)	(0.590)
BlueState	-0.100	-0.130
	(0.721)	(0.628)
Constant	5.045***	3.183***
	(0.006)	(0.001)
Year Fixed Effects	Yes	Yes
Circuit Fixed Effects	Yes	Yes
SE Clustered by	State	State
Observations	285	285
Adjusted R-squared	0.640	0.639