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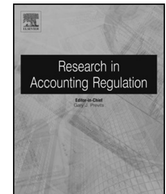

Regular Paper

Litigation risk, financial reporting and auditing: A survey of the literature ☆

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ABSTRACT

This paper surveys the literature on the determinants and consequences of securities class action lawsuits against firms and auditors from a financial reporting quality perspective. The survey is motivated by the important role that law plays in protecting stakeholders' interests against managerial misdeed. Litigation is, thus, an important topic and numerous studies investigate the determinants and consequences of firm and auditor lawsuits. The underlying premise of these studies is built on the notion that large financial and reputational penalties associated with successful securities class actions can discipline management and deter them from future wrongdoing. The survey documents that poor quality financial reporting as evidenced in earnings restatements has been the primary antecedent for class action lawsuits against the firm and auditors. Lawsuits against auditors affect audit fees, audit planning decisions and client portfolio adjustment decisions. Although significant progress has been made in terms of further understanding the causes and consequences of litigation against auditors, major challenges remain in the area of proper measurement of litigation risk.

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1. Introduction

The paper surveys the literature on the determinants and consequences of securities class action lawsuits from the financial reporting and audit quality perspectives. The survey is motivated by the important role that law plays in protecting stakeholders' interests against managerial misdeed. Some of the important functions performed by the legal system include regulation of behavior (deterrence function), resolution of conflict, and damage recovery (Simpson, 1988; Vago, 1988).

From a financial reporting and auditing perspective, the law ensures that conflicts among participants are resolved in an orderly fashion. Shareholders demand protection from the law when self-serving managers provide misleading and biased information to maximize their personal gains (Watts & Zimmerman, 1986). While out-of-pocket monetary penalties have historically been minimal for officers and directors due to director and officer (D&O) insurance, litigation entails other costs such as loss of reputation, loss of time, and the stress associated with being a defendant in a lawsuit (Black, Cheffins, & Klausner, 2006; Klausner & Hegland, 2010). Litigation risk therefore is an important external governance mechanism (Laux, 2010).[1] If certain industries are inherently more litigious, then litigation risk,

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[1] For key trends in securities class action lawsuits in the US refer to 2011 litigation study by PricewaterhouseCoopers (PwC). The PwC Securities Litigation database contains shareholder class actions filed since 1994. A variety of information including court, circuit, company location, class period, GAAP allegations, earnings restatements, SEC investigations, and lead plaintiff type, is summarized in the database. Information come from a variety of sources including case dockets, news articles, press releases, claims administrators, and SEC filings.

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at least partially, is reflected in inherent risk and is not a mechanism to be adjusted at management's discretion. However, as discussed in the survey, management may change its litigation risk by its disclosure behavior, supporting the validity of the mechanism argument.

Notwithstanding the importance of class action litigation, the success of securities litigation in deterring managerial fraudulent behavior and compensating aggrieved shareholders has been an issue of intense debate in the US (Laux & Stocken, 2012). Managers often view liability thresholds as too low, subjecting them to frivolous suits that result in unnecessary waste of time and resources. However, if the liability threshold is too high, then officers and directors will not be subject to the discipline of valid suits, thereby getting away with low punishment. This imposes additional agency costs on shareholders, as officers and directors are tempted to extract private benefits from the firm at shareholder expense. Litigation is, thus, an important research topic and numerous studies have been published. The underlying premise of these studies is that large financial and reputational penalties associated with successful securities class actions can discipline management and deter them from future wrongdoing.

The cumulative findings from prior studies concentrated in the US suggest that litigation risk matters. For example, Skinner (1994) and Kasznik and Lev (1995) report that firms are more likely to preempt large, negative earnings surprises than any other type of earnings news, in order to reduce the threat of litigation. Baginski, Hasell, and Kimbrough (2002) find that Canadian firms, which face less litigation risk, are more likely than US firms to issue management forecasts. However, it is virtually impossible to separate the impact of litigation risk to the corporation, and personal litigation risk on the officers and directors, since in almost all the lawsuits, CEOs are sued jointly with the corporation (Klausner & Hegland, 2010).

Litigation against auditors has been and continues to be a fruitful area of academic research. The classic agency problem between shareholders and corporate managers gives rise to the hiring of auditors who provide independent assurance to the investors that the firm's financial statements conform to Generally Accepted Accounting Principles (GAAP). In the absence of auditing, the degree of investor protection provided in other forms is weakened significantly. Because of the important role auditors play in the credible reporting of financial information, they are vulnerable to the threat of litigation in the event of an audit failure. Auditors are responsible for opining on whether financial statements are in accordance with GAAP. Since managers can use flexibility provided in financial reporting, some of the managerial actions may qualify as opportunistic while still legal. Therefore, auditors' legal liability pertains to managerial opportunism or expropriation not within GAAP.

The extent to which academic research on different facets of litigation risk can provide valuable insights for regulatory reforms, hinges to a large degree on the precise measurement of litigation risk faced by corporations and auditors. However, there remains significant concern as to the appropriate measure for litigation risk (Jones & Weingram, 1996; Kim & Skinner, 2012). This important strand of literature is reviewed to assess the validity of the measurement proxies used by researchers. We also evaluate studies to see whether consideration of the endogenous relationship between litigation risk and outcome measures has been appropriately accounted for. Researchers have taken various approaches to try to mitigate endogeneity concerns. Several studies focus on changes in litigation risk subsequent to an exogenous shock such as the passage of the Private Securities Litigation Reform Act of 1995 (hereafter PSLRA) (e.g., Johnson, Kasznik, & Nelson, 2001). Other studies use an instrumental variable approach to address endogeneity (e.g. Field, Lowry, & Shu, 2005).

The scope of this survey is limited to the determinants and consequences of securities class action lawsuits for firms and auditors in the US. Studies on litigation outside the US are not reviewed because private securities class action lawsuits are more common in the US than in other countries. Given the focus of this survey on financial reporting and auditing issues, almost all the surveyed papers come from accounting and auditing journals. Relevant tables summarize the research questions, sample(s) used, key findings, and litigation proxy used.

The paper proceeds as follows. The next section describes the litigation environment in the US. Section 3 reflects critically on studies that have operationalized the litigation risk construct. We discuss the various litigation measures used in academic research for a better assessment of the surveyed studies in the following two sections. Section 4 reviews the literature on financial reporting-related variables that give rise to class action lawsuits (litigation as dependent variable). Also surveyed in this section is the strand of literature that considers the effect of litigation risk on management forecasting decisions and financial reporting quality (litigation as independent variable). Section 5 reviews the auditor litigation literature, focusing on the post 1998 papers. Latham and Linville (1998), Palmrose (1998) and Cloyd, Frederickson, and Hill (1998) review the literature on the determinants and consequences of auditor litigation for the period of 1980–1998. Since then a large number of papers on or relating to auditor litigation have been published. Finally, Section 6 concludes the study.

2. Securities class action lawsuits in the US

2.1. *Origin of securities class action lawsuits*[2]

The US Congress enacted the Securities Exchange Act of 1934 to promote full disclosure of securities offerings after

[2] The discussion on the origins of securities class action lawsuits draws heavily on Rose (2008), pp. 1307–1318. For actual class action lawsuit details involving companies and auditors readers are referred to the website of Stanford Law School: Securities Class Action Lawsuits Clearinghouse. A recent example is Celera Corporation where the plaintiffs allege that during the Class Period, defendants issued false and misleading statements regarding the Company's business and financial results, repeatedly assuring investors that the Company would be able to increase the amount of its Lab Services business that was under contract. Defendants further assured investors that the Company was adequately reserving for its bad debts. However, it became evident that the company did not provide adequate

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the stock market crash of 1929 and the ensuing Great Depression. In section 4 of the Act, the Congress created the Securities and Exchange Commission (hereafter SEC) with the authority for the civil enforcement of these new statutes, and in section 10(b) the Congress authorized the Commission to enact regulations banning manipulation or deception in connection with the purchase or sale of securities. In 1942, the SEC enacted Rule 10b-5 prohibiting individuals or companies from buying securities if they engaged in fraudulent purchase; previously enacted rules prohibited only the fraudulent sale of securities. Rule 10b-5 was designed as a public enforcement mechanism to deter securities fraud in order to promote society's collective interest in the integrity and efficiency of the capital markets. This rule allows the SEC to exercise a number of remedies including civil money penalties, officer and director bars; injunctive relief; cease and desist orders; and orders requiring corrective disclosures and corporate governance changes (Rose, 2008, p. 1310).

The class action lawsuits concept, which emerged in 1966, was made applicable to securities cases by the fraud-on-the-market presumption of reliance.[3] This presumption available in rule 10b-5 allowed plaintiffs to sue against corporate defendants, so long as the plaintiffs purchased the shares from an efficient market. This is a much less onerous requirement for litigation in common law fraud cases, where plaintiffs must prove that they actually read and relied upon the allegedly misleading disclosures for investment decision making. This lighter requirement for securities litigation inevitably resulted in class actions brought on behalf of thousands of investors. While class actions are a potentially useful mechanism to discipline opportunistic managers and controlling shareholders, such a mechanism is also plagued with the problem of non-meritorious lawsuits. To protect managers from frivolous lawsuits the Congress enacted the PSLRA in 1995.

2.2. PSLRA

Many of the class action suits suffered from two primary defects: (i) the failure to explain clearly how the non-disclosure of bad news earlier than provided caused investment losses, and (ii) the tendency to plead scienter – fraudulent intent – with a high degree of generality. Notwithstanding, the perception that plaintiffs could make frequent class action lawsuits persisted among corporate managers and directors. To counter this problem, Congress passed the PSLRA in 1995, which, among other things,

> . . .required a securities fraud complaint to specify each statement alleged to have been misleading, the reason or reasons why the statement is misleading and, if an allegation regarding the statement or omission is made on information and belief, to state with, which, among other things particularity all facts on which that belief is formed and to state with particularity facts giving rise to a strong inference that the defendant acted with the required state of mind ((PSLRA, 15 U.S.C. § 78u-4(b)(1)).

The PSLRA also provided a 'safe harbor rule' whereby companies providing forward-looking disclosures are not vulnerable to lawsuits as long as the disclosures are accompanied by meaningful cautionary language or made without actual knowledge of their falsity. Because of these stringent requirements to sue, securities fraud class actions in the late 1990s and in the early 2000s tended to focus specifically on allegations of accounting fraud, fueled by the spectacular corporate collapses experienced by the US.

Academic literature on market reaction to the enactment of the PSLRA is inconclusive. Although Spiess and Tkac (1997) report positive market reaction to the passage of the PSLRA, Ali and Kallapur (2001) question the validity of these findings, citing bias from confounding effects, and actually document a negative response to the passage of the PSLRA. Nagar, Nanda, and Wysocki (2003) find increased voluntary disclosures post PSLRA by managers with stock-based incentives. Since the PSLRA lowered potential litigation costs, the net value of disclosure to the firm increased and, hence, a manager with more stock price-based incentives has more to gain by increasing disclosures. Chalmers, Naiker, and Navissi (2012) find evidence of significantly lower accruals quality for the sued firms in both the pre- and post-PSLRA periods. The effect of the PSLRA on audit quality appears to have produced undesirable consequences. On one hand, the elimination of joint and several liabilities has provided immense relief to auditors from litigation compensation (Francis & Krishnan, 2002). However, such elimination may have discouraged meritorious lawsuits, thereby having an adverse impact on audit quality.[4]

2.3. The Sarbanes–Oxley Act of 2002[5]

The passage of the Sarbanes–Oxley Act of 2002 (hereafter SOX), was believed by some to herald an increase of litigation risk for corporate officers and external auditors (Asare, Cunnigham, & Wright, 2007). Section 302 of the SOX requires CEO/CFO certifications of the financial state-

provision for bad debts. The stock price experienced a 1-day decline of nearly 25% and a 64% decline from the stock's Class Period.

[3] The fraud on the market theory is based on the hypothesis that, in an open and developed securities market, the price of a company's stock is determined by the available material information regarding the company and its business. Misleading statements will therefore defraud purchasers of stock even if the purchasers do not directly rely on the misstatements, a case which is no less significant than in a case of direct reliance on misrepresentations (Rose, 2008, pp. 1311–1312). The US Supreme Court is expected to soon decide *Halliburton Co. v. Erica P. John Fund, Inc.*, 13–317, ___ U.S. ___ (2014), which may change the application of the fraud on the market presumption of reliance.

[4] Although the express purpose of the enactment of the PSLRA was to provide relief to corporations and auditors from frivolous lawsuits, plaintiffs found a way out to continue this practice by shifting cases to state courts. To curtail this practice, the Congress enacted the Securities Litigation Uniform Standards Act (SLUSA) in 1998. Unlike research on PSLRA, we have not found any financial reporting and audit related research examining the consequences of the passage of this act.

[5] For a detailed exposition to legal aspects of the SOX, refer to Asare et al. (2007). For financial reporting implications of the section 404 of SOX, see Schneider, Gramling, Hermanson, and Ye (2009). A series of articles by Moehrle and his other co-authors synthesize in annotated bibliography form, regulation-related findings (SOX inclusive) and commentaries published in the academic literature.

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ments and the effectiveness of internal controls, thus departing from the previous law where no such requirement existed. Also, SOX introduced requirements for management reporting on internal control and CPA firm audits of internal control. However, auditor litigation risk seems to have decreased since the passage of SOX (Fuerman, 2012).

2.4. SEC public enforcement and private securities class action lawsuits

The SEC's Accounting and Auditing Enforcement Releases (AAERs) include most of their enforcement actions that involve accounting or auditing issues. Dechow, Ge, and Schrand (2010) review the literature on the determinants and consequences of the AAERs. The authors consider an AAER to be an external indicator of earnings quality. They review the strand of literature that examines the consequences of restatement in terms of the probability of a lawsuit. Restatements are positively associated with increased litigation propensity (Palmrose & Scholz, 2004).

In terms of authority, SEC can impose monetary liability on corporate officers and directors, and bar individuals from further service as officers or directors of public companies. However, SEC is constrained by resources and, hence, private class action lawsuits have been described as 'supplemental' to SEC enforcement. Jennings, Kedia, and Rajgopal (2011) find that peer firms reduce their discretionary accruals, once target firms in their industries are subject to SEC enforcement, class action lawsuits or both, confirming the 'supplemental' role of class action lawsuits. The magnitude of reversal is largest for class action lawsuits followed by SEC enforcement and, finally, for the sample experiencing both SEC enforcement and private litigation.

Section summary: Securities class action lawsuits provide a potentially useful mechanism for constraining managerial opportunistic reporting behavior. However, given the ease with which this mechanism allowed plaintiffs to sue corporate defendants and auditors, it was not surprising to see the passage of a regulation (PSLRA) that restricted frivolous class action lawsuits. Such regulation notwithstanding, litigation continues to be an active disciplining mechanism.

3. Measurement challenges and the validity of the litigation constructs

Any empirical research on the determinants and consequences of litigation risk is as good as the validity of the litigation risk measure. One example of inference problems across studies that could be attributed to measurement error in the proxies for litigation risk is the stream of literature examining the association between litigation risks and management forecasts. Brown, Hillegeist, and Lo (2005), for example, report that greater litigation risk is positively associated with the likelihood of both good and bad news management forecasts. But this positive effect is found for bad, but not for good, news forecasts by Cao and Narayanamoorthy (2011). A possible reason may be the choice of two very different litigation risk proxies.

3.1. Industry-based litigation proxy

Francis, Philbrick, and Schipper (1994) analyze four industries with a high incidence of litigation during 1988–1992: biotechnology (SIC codes 2833–2836 and 8731–8734), computers (SIC codes 3570–3577 and 7370–7374), electronics (SIC codes 3600–3674), and retailing (SIC codes 5200–5961). Jones and Weingram (1996) find that "technology firms are more likely to be sued primarily because of characteristics reflected in stock market variables. The effect of a technology dummy variable. . . is substantially diminished and insignificant at the 5% level when these additional variables are included." Despite the obvious limitation of this proxy, the bulk of the surveyed papers used an industry-based litigation measure. Clearly, there is nothing inherently litigious about these industry sectors. It is the underlying stock market characteristics which are important. Over time, it is likely that different industry sectors will have these underlying stock market characteristics. Also, the use of sophisticated technology of the sort used in 1994 is now pervasive across all industry sectors, even retailing, manufacturing, services and natural resources extraction.

3.2. Ex-post *litigation measure*

This approach considers the actual filings which are only available once a firm is sued. Under this approach, litigation risk can be estimated using a logistic model that includes firm characteristics and other governance factors most likely to give rise to potential litigation (Spiess & Tkac, 1997). The dependent variable usually is a dummy variable equal to one if the firm or the firm's auditor was a defendant in a class action securities lawsuit during a particular calendar year, and zero otherwise and hence is not able to differentiate between frivolous and serious lawsuits (Cao & Narayanamoorthy, 2011, p. 14). However, for auditor litigation research, such a variable has been developed (see, for example, Fuerman, 2012). Using polytomous regression, which differs from logistic regression in that the dependent variable has ordered categories (0 to 5 in Fuerman, 2012), it is possible to categorize each outcome for the auditor not in the simple way criticized by Cao and Narayanamoorthy (2011). The least severe outcome, 0 (auditor not named a defendant), and even the next less severe outcome, 1 (auditor named a defendant, and that is all), approximate stochastically a frivolous lawsuit. The most severe outcomes, 4 and 5 (governmental civil and criminal prosecutions of the auditor), approximate stochastically a serious or meritorious lawsuit against the auditor.

3.3. D&O liability insurance as an ex-ante *litigation risk proxy*

Cao and Narayanamoorthy (2011, 2014) show that the use of a D&O-premium-based *ex ante* litigation measure instead of the typical *ex post* measure leads to different inferences for management earnings forecasts analysis. The D&O insurance premium, which incorporates D&O insurance underwriters' forward-looking assessment of a company's litigation likelihood and damage magnitude, can be viewed as a continuous, *ex ante* measure of litigation risk

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and likely bypasses the problems discussed before. Firms purchase D&O insurance coverage for reimbursement of directors' and officers' defense costs and settlements arising from litigation.

The D&O insurance premium is an *ex ante* litigation risk measure that incorporates information about both the expected magnitude of the loss or the damage recovery amount (through the choice of a D&O insurance limit), and the expected likelihood of such losses for the policy period (through the pricing of the chosen limit) (Cao & Narayanamoorthy, 2011, p. 130). This litigation risk measure also has the desirable characteristic of distinguishing between frivolous and meritorious lawsuits. Since frivolous lawsuits are dismissed more often than not, only defense costs need to be reimbursed affecting the premium minimally. This litigation risk measure, however, is not without limitations. First, D&O insurance covers all types of claims, not just disclosure-related ones initiated by shareholders. Second, D&O policies normally exclude claims against directors and officers for actions made in bad faith that are based on behavior that is fraudulent or involves personal gain. Finally, the D&O premium critically depends on the insurance limit chosen by a firm. As such, researchers need to develop a model to filter out the "abnormal limit" (the limit amount that cannot be explained by litigation risk factors) on the insurance premium (Cao & Narayanamoorthy, 2011, p. 131).

Section summary: It is extremely important for researchers to consider the validity of their litigation proxy measure before arriving at a definitive conclusion. The industry-based litigation proxy measure of Francis et al. (1994) is used as the most popular litigation proxy in the existing literature. However, this definition is problematic, as discussed above, and additional litigation measures are needed.

4. Litigation risk and managers' reporting decisions

This section surveys the empirical archival literature that investigates the effect of corporate disclosures and accounting information quality factors on the initiation and settlement of securities class action lawsuits. Also surveyed is the literature testing for the effect of lawsuits on financial reporting quality proxies, including management earnings forecasts.

4.1. Accounting information quality and class action lawsuits (lawsuit initiation and/or lawsuit settlement as dependent variables)

The litigation against corporate officers serves the societal purposes of 'resolution of conflict', 'communication of expectations' and 'damage recovery' as functions of a civil liability system (Simpson, 1988). In the context of litigation against corporate managers, the legal system should be able to resolve disputes among participants and serve as an agent of stability by establishing expectations about the roles and responsibilities of managers through the legal concept of precedence (Table 1).

4.1.1. Management forecasts and litigation propensity

Managers' disclosure choices affect the likelihood and costs of stockholder litigation. Early disclosure of bad news can lower the likelihood of being sued for several of the following reasons: (i) early disclosure of bad news weakens the claim that managers failed to reveal private information about a firm's true performance promptly, thereby reducing the probability that investors traded at a misleading stock price (Skinner, 1994, 1997); (ii) lower potential damage also discourages investors from suing; and (iii) disclosing bad news before an earnings announcement can reduce the possibility of lawsuits by avoiding a large stock price drop following earnings announcement.

Surprisingly, Francis et al. (1994) find that early disclosure actually increases litigation risk. Skinner (1997) alludes to the possible endogeneity problem between litigation risk and disclosure choices biasing Francis et al.'s (1994) result but did not test whether early disclosure reduces litigation risk after controlling for this possible endogeneity. Field et al. (2005) explicitly control for the possible endogeneity and find a negative relation between earnings warnings and litigation likelihood but only after excluding 'dismissed suits' from their sample. All these studies examined earnings press releases to identify the timing of bad news disclosure. Donelson, McInnis, Mergenthaler, and Yu (2012a) argue that examining only press releases of bad news yields an incomplete picture of managerial disclosure, because of the prevalence of alternative methods of earnings warnings. The authors construct a new measure of the timeliness of total bad earnings news using the evolution of analysts' consensus earnings forecasts and find a strong negative relation between timely disclosure of bad news and the likelihood of litigation.

Nevertheless, early disclosure does not preclude stockholder litigation. In fact, the bad news revelation is not the source of legal liability under U.S. securities laws. Rather, what exposes firms to litigation is the existence of a failure (an omission) to disclose when there is a duty to disclose or a prior misstatement (e.g., a misleading or knowingly false earnings projection). Among costly lawsuits, inadequate and inaccurate disclosures most frequently triggered lawsuits (Tillinghast of Towers Perrin, 2002). Besides the content of disclosures, researches also examined whether disclosure tone is associated with litigation risk. Francis et al. (1994) find no statistically significant differences in the proportion of optimistic/pessimistic/neutral disclosures between sued and non-sued firms. In contrast, Rogers, Buskirk, and Zechman (2011) document that shareholder litigation increases with an increase in managers' use of an optimistic disclosure tone in earnings announcements.

The contradictory evidence from these studies is somewhat puzzling, given that the level of optimism in an earnings announcement is positively related to the market's short-term response to the announcement (Henry, 2008). A possible reason is that the study by Francis et al. (1994) was conducted using a sample from pre-PSLRA regulatory environment, but the study by Rogers et al. (2011) used sample firms subject to lawsuits over the period 2003–2008 post-PSLRA. PSLRA reduced the possibility of frivolous lawsuits significantly, thereby imposing an onerous criterion on plaintiffs for proving that the defendants intentionally

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Table 1
Effect of disclosure and financial reporting quality on litigation incidence and outcome [lawsuits and lawsuits settlement as dependent variables].

Author(s) and year	Research questions	Sample	Findings	Measurement of litigation
Francis et al. (1994)	Whether management earnings warnings via press releases, reduce litigation threat	45 and 53 litigation and control sample observations during 1988–1992	(1) A precipitous earnings decline does not by itself always result in a shareholder lawsuit. (2) Sued firms tend to issue forecasts more frequently than non-sued firms. (3) Found no statistically significant differences in the proportion of optimistic/pessimistic/neutral disclosures between sued and non-sued firms.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms] *No litigation outcome examined [settled *versus* dismissed]
Jones and Weingram (1996)	To examine the characteristics of technology and financial services firms that were subject to heightened litigation risk	112 (107) observations from technology (financial services) industry during 1989–1992	Technology firms are sued more frequently than average companies because of characteristics reflected in the stock market explanatory variables. Stock return volatility does not explain technology firms' litigation risk. Relatively high rates of share turnover explain much of these companies' vulnerability to 10b-5 litigation.	Actual class action
Skinner (1997)	Whether earlier disclosure of bad news earnings reduces stockholder litigation costs	Benchmark sample of 3440 non-lawsuit firm/quarter observations for 187 lawsuit firms	(1) No evidence that stockholder lawsuits are more likely to be dismissed *versus* settled when managers disclose earnings news 'early'. (2) Timelier disclosure of bad news earnings is associated with lower settled lawsuit amounts.	Lawsuit settlement amount; Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms]
Palmrose and Scholz (2004)	The association between accounting restatements and litigation	492 companies from 1995 to 1999	Core and pervasive restatements increase the likelihood and severity of lawsuits as well as settlement amount.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms]
Field et al. (2005)	Whether management earnings warnings via press releases, reduce litigation threat	76 sued and 76 non-sued firms; 1996–2000	(1) Found no significant relation between earnings warnings and litigation risk when examining all suits, but a negative relation after excluding dismissed suits; (2) firms with higher litigation risk are more likely to disclose bad news early.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms] *No litigation outcome examined [settled *versus* dismissed]
Johnson et al. (2007)	Explore the role of restatements, and other variables on the initiation and resolution of lawsuits for a sample of high tech firms pre- and post-PSLRA	114 computer hardware and software firms sued during 1991–2000	There is a post-PSLRA shift away from litigation based on forward-looking earnings disclosures; There is a significantly greater correlation between litigation and earnings restatements post PSLRA. The likelihood of settlement for earnings restatements-induced lawsuits has increased Post-PSLRA.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms]

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Table 1 (*continued*)

Author(s) and year	Research questions	Sample	Findings	Measurement of litigation
Lev et al. (2008)	Legal consequences of the restatements that have an impact on a firm's historical pattern of earnings	821 accounting restatements; 1977–2002	Earnings restatements eliminating or shortening histories of earnings growth or positive earnings increase the likelihood of class action lawsuits, compared to restatements having no such effect.	Lawsuit filed. *No litigation outcome examined [settled *versus* dismissed]
Gong et al. (2008)	The association between post-merger lawsuits and pre-merger abnormal accruals	392(103) non-litigation (litigation) acquisitions;1996–2002	A positive association between stock-for-stock acquirers' pre-merger abnormal accruals and post-merger announcement lawsuits	Lawsuit *vs.* non-lawsuit acquisition observations *No litigation outcome examined [settled *versus* dismissed]
Rogers et al. (2011)	Whether managers' use of an optimistic disclosure tone increases shareholder litigation	165 lawsuits filed from 2003 to 2008	Litigated firms' earnings statements are more optimistic than those of other firms experiencing similar economic circumstances. Firms experience incremental greater litigation risk when managers are both unusually optimistic and engage in abnormal selling.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms] *No litigation outcome examined [settled *versus* dismissed]
Donelson et al. (2012a)	Whether the timely revelation of bad earnings news is associated with a lower incidence of litigation	423 securities class action lawsuits [sued sample] from 1996 to 2005	Timely disclosure of bad earnings news deters not only suits that are eventually settled, but also those that are dismissed.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms]
Donelson et al. (2012b)	Whether rules-based accounting standards are related to the incidence and outcome of litigation	353 resolved securities class action lawsuits filed from 1996 to 2005	Rules-based accounting standards are associated with a lower incidence of litigation but are not associated with litigation outcomes.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms]
Chalmers et al. (2012)	Whether the association between earnings quality and Rule 10b-5 lawsuits has changed following the passage of PSLRA	149 (210) firms with accounting-related Rule 10b-5 lawsuits in the pre- (post-) PSLRA period	There is a significant association between earnings overstatement and the incidence of lawsuits in the pre- and post-PSLRA periods. Unlike Johnson et al. (2007) PSLRA did not have any differential impact.	Lawsuit *vs.* non-lawsuit observations [Matched-pairs design using sued firms and similar non-sued firms] *No litigation outcome examined [settled *versus* dismissed]
Cao and Narayanamoorthy (2014)	The effect of earnings quality concerns on firms' litigation risk	152 public firms, 351 firm-year observations, 2001–2004	(1) Firms with accounting restatements prior to the effective date of D&O coverage pay higher insurance premiums; (2) such premiums are greater in the period following SOX 2002 and for firms with financial reporting problems that linger into the future.	D&O liability insurance premiums

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altered disclosure tones in order to deceive the shareholders (plaintiffs).

Taken together, the academic evidence on the association between timely disclousre of earnings news, disclosure tone and litigation risk has not provided conclusive evidence. There should be more research on this fundamental proposition given the importance of corporate voluntary disclosures for the efficient functioning of the capital markets (Healy & Palepu, 2001). Whether the inconsistent findings are a product of measurement error in the litigation proxy, corporate disclosure construct or a combination of both, needs to be further examined after careful consideration of endogeneity problem. The fact that litigation is more probable when there is a duty to disclose but the disclosure does not emerge, means that researchers may need to identify such specific situations. Also future research should expand the regression model to test for the association between litigation risk and voluntary disclosures by incorporating the complementary effect of product market competition and capital market pressure, following the analytical model of Evans and Sridhar (2002).

4.1.2. Financial reporting quality and litigation propensity

A stream of accounting literature focuses on whether accounting information quality is an important trigger for shareholders' class action lawsuits, perhaps because accounting-related litigation constitutes a large proportion of Rule 10b-5 lawsuits (Beck & Bhagat, 1997). The theoretical foundation for this assertion rests on the notion that since investors rely on accounting figures, earnings in particular, in stock pricing, any subsequent revelation of low quality earnings will result in a sharp decline of share price, motivating shareholders to sue in order to claim their damage (Kellog, 1984). Financial restatements are regarded as an important signal of financial misconduct and misstatements. Therefore, the effect of financial restatements on litigation probability and litigation outcomes has been subject to a number of empirical studies.

Amoah and Tang (2013) find that lawsuits involving accounting irregularity-induced restatements are more likely to be settled. Johnson, Nelson, and Pritchard (2007) provide evidence that earnings restatements during class period are associated with higher litigation risk for firms in the high technology industry, both before and after the PSLRA. Chalmers et al. (2012) report similar evidence but for a broader industry group. These results suggest that lower earnings quality is a driver of securities class action lawsuits in both periods, despite the changes introduced by the PSLRA. Chalmers et al. (2012) do not provide any sensitivity analysis using observations only from high technology industry to reconcile their findings with those of Johnson et al. (2007). These two studies also do not decompose earnings restatements into core and non-core components to see which classes of restatements drive their results.

Palmrose and Scholz (2004) find that pervasive misstatement of core earnings increases the frequency and severity of litigation. In a similar vein, Lev, Ryan, and Wu (2008) report that earnings restatements eliminating or shortening histories of earnings growth, or positive earnings, increase the likelihood of class action lawsuits, compared to restatements having no impact as such. Donelson, McInnis, and Mergenthaler (2013) find evidence of achieving earnings thresholds through managing earnings in the pre-restatement earnings distributions but not in the post-restatement distributions. Research on restatements, however, requires careful consideration in order to differentiate between unintentional misstatements (errors) and intentional misstatements (irregularities). Either there should be one variable for fraud and a second variable for restatement (for example, Fuerman, 2012) or one supervariable containing both of these characteristics (for example, Hennes, Leone, & Miller, 2008). Cao and Narayanamoorthy (2014) use D&O coverage as a proxy for litigation risk and find that firms with restatements of accounting numbers prior to the effective date of D&O coverage pay higher insurance premiums.

Taken together, these studies lead us to conclude that financial restatements are associated with greater litigation risk. However, as a technical note, "fear for litigation" may also incentivize managers to issue restatements. This may explain an inflated positive effect of restatement on litigation risk. None of the studies reviewed here have addressed this concern.

Since financial reporting quality is a multidimensional concept, many studies consider the effect of alternative proxies besides accounting restatements on the probability of getting sued. Ettredge, Huang, and Zhang (2012) report a negative association between conditional conservatism and lawsuits probability. A higher degree of conditional conservatism (timelier recognition of bad news) discourages managers from making negative-net present value investments and, hence, lowers the probability of litigation.

Earnings quality, proxied by abnormal accruals, has been found to be a determinant of litigation in the study by Gong, Louis, and Sun (2008), who find that pre-merger abnormal accruals are a strong determinant of post-merger lawsuits, and such lawsuits are a result of firms' long-term underperformance. However, the association between accruals and real earnings management trade-off and the likelihood of litigation remains unexplored. Grimm (2012) documents a positive effect of accruals and restatements on lawsuit probability. The financial reporting quality constructs examined in these studies are a product of US accounting standards that many consider to be rules-based. Whether rules-based accounting standards affect the likelihood of class action lawsuits is examined by Donelson, McInnis, and Mergenthaler (2012b). They find that violation of rules-based accounting standards is less likely to result in lawsuit filing, although this violation is not associated with litigation outcomes. These results lend support to the argument that rules-based standards shield firms from litigation.

Firms with high quality financial reporting are less prone to litigation but firms are also likely to supply superior accounting information because of the potential litigation threat. In their inquiry into the effect of financial information quality on litigation outcomes, most of the aforementioned studies have not considered this possibility with the exception of Donelson et al. (2012a) and Gong et al. (2008). Donelson et al. (2012a) adopt a matched sample research design in their analysis. Specifically, they match one sued firm with one non-sued firm based on total earnings

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news and disclosure window length. This ensures that sued and non-sued firms have similar total earnings news over the same time-period. Gong et al.'s (2008) inquiry is conducted in a setting in which pre-merger-announcement abnormal accruals are unlikely to be a result of post-merger-announcement lawsuits. Therefore, the inquiry can assume a one-way effect of abnormal accruals on the litigation costs with high confidence.

Furthermore, some well-publicized corporate scandals may have been the result of corporate governance failures, including those that were accounting related. In studying the effect of financial reporting quality on litigation consequences, it is necessary to control for the impact of corporate governance because poor governance itself can contribute to undesirable accounting practices. Omitting governance variables from the analysis could lead to spurious results. In the above reviewed studies, Johnson et al. (2007) and Cao and Narayanamoorthy (2014) are the only two studies that have controlled for corporate governance in their regression analysis.

In conclusion, this stream of literature on the association between managers' discretionary disclosure behavior and litigation suggests that managers can influence the likelihood of litigation. With respect to the association between earnings quality and litigation probability, empirical evidence generally supports the notion that high quality financial information perceived by investors, and openness and accuracy of managers' communications to their shareholders, reduce the risk of shareholder litigation.

4.2. Litigation risk outcomes (litigation as independent variable)

Litigation risk serves the societal purposes of deterrence and restraint. Deterrence occurs if the negative consequences associated with the threat of litigation are sufficient to prevent wrongdoing. The threat of meritorious litigation should also be able to restrain wrongdoings. This section begins with a survey of studies examining the effect of litigation risk on managers' propensity to provide management forecasts followed by studies on the effect of litigation risk on accounting information quality (Table 2).

4.2.1. Litigation risk and management forecast decisions

The threat of shareholder litigation can have two opposing effects on managers' disclosure decisions. On the one hand, litigation risk faced by managers is identified as one of the important incentives for corporate voluntary disclosures (Healy & Palepu, 2001). Skinner (1994) finds a timelier pre-emptive bad news disclosure than good news, but does not provide any direct test of whether this effect is due to litigation motivation, or to reputation motivation. Later studies by Brown et al. (2005) and Cao and Narayanamoorthy (2011) investigate this issue, but they have provided inconsistent results. Brown et al. (2005) report that greater litigation risk is associated positively with the likelihood of both good and bad news management forecasts. But this positive effect is only found for bad news forecasts but not for good news forecasts in Cao and Narayanamoorthy (2011). In terms of management forecast properties, the authors report earlier, more precise bad news forecasts than good news forecasts, but such a differential effect is not evidenced in Brown et al. (2005). One possible explanation for these inconsistencies may be due to the very different measures of litigation risk employed by these two studies and the challenges associated with the interpretation of results.

On the other hand, the Jenkins Committee Report from the American Institute of Certified Public Accountants (American Institute of Certified Public Accountants (AICPA) Special Committee on Financial Reporting, 1994) identifies "fear of litigation" as an important obstacle in providing forward-looking information. Johnson et al. (2001) report an increased level of earnings forecasts post-PSLRA, consistent with the PSLRA offering a litigation shield and thereby encouraging managers to provide more forward-looking information. Nagar et al. (2003) find an increased management forecast frequency post-PSLRA for firms offering a CEO stock option. However, Rogers and Buskirk (2009) find no evidence that the firms respond to the litigation event by increasing or improving their disclosures to investors, a finding inconsistent with the aforementioned studies. A plausible explanation may relate to some managers' belief that an increase in the provision of disclosures may make them accountable later despite the protection afforded by the PSLRA. Rogers and Stocken (2005) show that greater litigation risk is associated with less optimistic and more pessimistic management forecasts.[6] Brown and Tucker (2010) find a positive impact of litigation risk on management discussion and analysis (MD&A) modification scores (the extent to which the MD&A differs from the previous disclosure). Finally, in a cross-country setting, Baginski et al. (2002) find more frequent, more precise, and longer term forecasts by Canadian managers compared to their US counterparts who are believed to operate in a highly litigious environment.

4.2.2. Litigation risk and financial reporting quality

With respect to the effect of litigation on financial reporting quality, Laux and Stocken (2012) develop a model to predict the effect of increased litigation risk on financial misreporting. Their model incorporates the intricate relationship among managerial optimism, legal frictions, and the strength of the internal control system to predict that even if a corporate executive has to pay damages, the securities laws might not deter fraudulent misreporting. Therefore, their model proposes that the SEC should have further authority to collect fines from culpable managers. However, Qiang (2007) finds that conditional conservatism is present in settings where litigation, regulatory, and tax costs are high.

Kasznik (1999) indicates that higher expected litigation costs motivate managers to use positive discretionary accruals to manage reported earnings upward to meet management forecasts. Cohen and Zarowin (2010) show a significantly positive effect of litigation on managerial decisions to engage in real earnings management in the year of the Seasoned Equity Offerings (SEOs). Tong and Miao

[6] Rogers and Stocken (2005) use a Probit model to estimate the probability of lawsuits. They regress the incidence of a lawsuit on firm-specific measures, e.g., firm size, beta, average daily trading volume, standard deviation of daily returns etc., and high-litigation industry membership.

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Table 2
Litigation risk, management earnings forecasts, and financial reporting quality.

Author(s) and year	Research questions	Sample	Findings	Measurement of litigation
Johnson et al. (2001)	Examine the impact of the PSLRA 1995 on firms' voluntary disclosure of earnings and sales forecasts	523 firms in high technology industries; 1994 (pre-PSLRA) and 1996 (post-PSLRA)	(1) Find a significant increase in both the frequency and the number of forecasts issued in the first year after the PSLRA; (2) the increase is particularly pronounced for firms with a relatively high risk of litigation before the PSLRA passage; and (3) firms increase both short and long horizon forecasts of good news, but only short horizon forecasts of bad news.	Estimate the probability of litigation using a probit specification
Baginski et al. (2002)	The effect of cross-country differences in litigation risk on management earnings forecasts	US and Canada	More frequent, more precise, and longer-term forecasts by Canadian managers compared to their US counterparts. US managers are relatively more likely to issue forecasts during the interim period when earnings are increasing.	An indicator variable (US or Canada) to proxy for litigation risk
Nagar et al. (2003)	Stock-based compensation as incentives of management forecasts	1109 observations during 1995–1997	The change in managerial forecast frequency is related positively to CEOs' stock option incentives surrounding the PSLRA passage, suggesting that lower litigation costs brought about by the PSLRA passage might induce voluntary disclosures to affect stock prices.	The passage of the PSLRA interpreted as a proxy for firms' reduced litigation risk
Brown et al. (2005)	The effect of litigation risks on management earnings forecasts	129,241 firm-quarter observations between 1996 and 2002 (972 actual filings)	(1) Litigation risk is associated positively with the likelihood of issuing a forecast for *both* good- and bad-news firms; (2) higher litigation risk is associated with forecasts being released earlier and being more precise.	Estimate the probability of litigation using a probit specification
Rogers and Stocken (2005)	The association between managerial incentives (litigation environment is one such incentive) on management earnings forecasts	595 firms with 925 firm-year observations, 1996–2000	Managers of firms more prone to litigation threat issue less optimistic or more pessimistic forecasts than managers less likely to face litigation, and this bias is attenuated when it is more difficult for investors to detect misrepresentation.	Estimate the probability of litigation using a probit specification
Matsumoto (2002)	The association between firm characteristics (including litigation risk) and avoiding negative earnings surprises	22,755 firm-year observations, sample period 1985–1997	Managers have greater incentives to meet analyst earnings expectations, and to avoid negative earnings surprises in the presence of higher *ex ante* litigation risk	Francis et al. (1994) industry-based litigation proxy
Qiang (2007)	Whether litigation costs, regulatory costs and tax costs are explanations for accounting conservatism	633 observations; sample period 1988–1999	Unconditional conservatism is present in settings where litigation, regulatory, and tax costs are high. Conditional conservatism is present where contracting and litigation costs are high.	Firm litigation risk is measured by the first principal component of five market variables (Equity Beta, Share Turnover, Market Value, Return Skewness, and Annual Return)
Chang et al. (2012)	The predictive ability of discretionary accruals for future cash flows for the litigious industries in the pre and post-SOX period	22,172 firm-year observations from 1999 to 2009	(1) Litigious industry firms use DAC to communicate relevant information for future cash flows to a greater degree than non-litigious industry firms during the pre-SOX period; (2) the predictive power of DAC with respect to future cash flows in litigious industries increases post-SOX as well, but to a lesser extent than the increase in other industries.	Francis et al. (1994) industry-based litigation proxy

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(2011) find that litigation risk facing firms is positively associated with earnings quality. Chang, Suh, Werner, and Zhou (2012) find that litigation risk increases the informational content of discretionary accruals for future cash flows in both the pre- and post-SOX period. However, this effect is weaker in the post-SOX period, probably because the informational content of discretionary accruals may already be rich owing to the greater threat of legal liability in the pre-SOX era.

The literature on the effect of litigation risk on meeting or beating earnings benchmarks is very inconclusive. Frankel, Johnson, and Nelson (2002) find a positive and significant effect of litigation on income-decreasing discretionary accruals choices, but no effect on income-increasing accruals choices. But Matsumoto (2002) and Cheng and Warfield (2005) find a positive and significant effect of litigation risk on managers' propensity to meet analyst earnings expectations. Barton and Simko (2002) and McGregor (2012) find no significant effect of litigation risk on benchmark beating. These studies considered litigation risk as one of the many other control variables in testing for the effect of a particular variable of interest on meeting or beating analyst forecasts. A more direct evidence of the effect of benchmark beating incentives on lawsuits can be estimated by modeling restatement-induced litigation as the dependent variable and a proxy for benchmark beating as the primary independent variable (see Donelson et al., 2013 for evidence).

The effect of litigation risk on the cost of capital has been examined in order to understand the effect of lawsuits on market valuation. Mishra and Salavei (2010) use a sample of 91 financial restatements initiated from 1997 to 2002 to examine the 'cost of equity' effect. They find that although all restating firms experience an increase in the cost of equity subsequent to a restatement, the increase is substantially greater for firms exposed to litigation as a result of the restatement. However, whether this substantial increase in cost of capital is lessened by increased voluntary disclosures after the litigation filing remains unexplored. Rogers and Buskirk (2009) provide disturbing evidence that sued firms do not increase their level of disclosures post litigation.

Overall, the inconsistent findings on the impact of litigation risk on firms' financial reporting quality may be due to the difficulty of building the theoretical link between litigation and certain financial reporting quality proxy. As stated by Dechow et al. (2010), different earnings quality proxies often measure very different constructs. Thus, although litigation risk may serve as a deterrent to managerial opportunistic reporting leading to high financial reporting quality, the relation between litigation risk and financial reporting quality proxies is often an open research question.

4.3. *Corporate governance and litigation risks*

Whether litigation risk should be associated positively or negatively with corporate governance is theoretically an open question, given that both litigation risk and corporate governance are elements of a broad system of control mechanisms. Romano (1991) argues that certain "good" corporate governance mechanisms make litigation easier. Imposing personal liability on corporate officers and directors for breaching duties of care (negligence) and loyalty (conflict of interest) facilitates litigation and can help align the interests of the managers with those of the shareholders. This suggests a positive association between good governance and litigation risk. However, poor corporate governance that leads to ineffective disciplining of managers can imply higher litigation risk, indicating a negative relation between corporate governance and litigation risk.

Amoah and Tang (2010) find a negative relationship between board independence and the probability of lawsuits, implying that shareholders perceive litigation against firms with less independent board members to have more merit. Cheng, Huang, Li, and Lobo (2010) reveal that the defendant firms with institutional lead plaintiffs experience greater improvement in their board independence after lawsuit filings than do defendant firms with individual lead plaintiffs. The findings suggest that institutional investors can use litigation risk as a credible threat to discipline the defendant firms.

Dai, Jin, and Zhang (2014) examine the effect of various stages of the litigation process on the association between risk (proxied by stock return volatility) and pay-for-performance sensitivity. They find that, pay-for-performance sensitivity of executives in sued firms drops post lawsuit filing, and rises after the cases are closed. Jayaraman and Milbourn (2009) find no evidence that higher equity-based compensation causally affects the probability of a lawsuit finding. This is consistent with the theoretical model of Goldman and Slezak (2006), who demonstrate that stock-based compensation is higher for firms where the probability of detection is higher (e.g., firms with high *ex-ante* litigation risk). Class action lawsuits have also resulted in CEO/CFO turnover as evidenced by Collins, Reitenga, and Sanchez (2008). However, Helland (2006) finds that directors accused of fraud actually increase their net number of board positions, calling into question the merit of private class action lawsuits. Although he finds that when the SEC and private lawsuits target the same offenders, directors do suffer because they experience a decrease in net board positions.

Litigation risk and corporate governance are mechanisms that shareholders can employ to curb managerial opportunism and to protect shareholders' wealth. Literature on the effect of these two mechanisms on managerial reporting behaviors and financial reporting quality, however, has advanced in separate directions. Extant literature therefore fails to explain whether litigation and corporate governance are complements or substitutes in shaping managers' reporting behaviors, and improving financial reporting quality. On the other hand, it is also unclear whether poor reporting quality or sub-optimal corporate governance, or the combination of both, are the direct cause of shareholder litigation. Based on the above argument, we call for future research to address this shortcoming: e.g. investigations into whether post-lawsuit changes in corporate governance structure improve information quality.

Section summary: This section surveys the literature on the determinants and consequences of securities class action lawsuits from a financial reporting perspective. Early literature predominantly examines the effect of pre-emptive

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disclosures on the probability of a lawsuit, since failure to disclose bad news in a timely manner provides shareholders with a strong ground for suing the corporate managers. To answer whether financial information quality is a determinant of litigation risk, most researchers use financial statement restatements to proxy for deteriorated accounting information, and the resulting research in this area is fruitful. The downside of restatement research is obviously the fact that this represents an extreme case of financial misreporting while companies have engaged in many other forms of financial reporting manipulation. While not as powerful as the restatement proxy, proxies like discretionary accruals and reporting conservatism also provide some evidence of the litigation risk when behaviors are "less broken." Therefore, we encourage additional research on the development of a stronger theoretical link between litigation risk and these proxies of earnings quality.

5. Auditor litigation literature

The provision of high quality auditing is the assumed outcome of auditors' concern for potential litigation risk and reputation risk (e.g., Hope & Langli, 2010). Litigation risk exposes auditors to direct financial penalties, while lost reputation impairs the auditor's ability to retain existing clients and attract new clients. Auditors face costly litigation if they provide a substandard audit, but the profession also has to spend significant time and resources settling frivolous suits. This threat of litigation makes it incumbent upon auditors to assess their exposure to lawsuits continually and to incorporate that assessment into the planning and pricing of audit services (Seetharaman, Gul, & Lynn, 2002). Two fundamental questions in the auditor litigation research are: (i) Why are auditors sued? and (ii) How do auditors respond to their litigation threat?

The concept of 'auditor litigation risk' is complicated because an auditor never faces risk for his/her deficient auditing *unless* the company is sued for its materially incorrect and/or fraudulent financial reporting. Thus, there are two types of 'auditor litigation risk.' First, the risk of the auditor being sued for his auditing, ignoring the fact that he cannot be sued unless the company is sued. The limitation of this analysis is that sometimes researchers find statistically significant differences between observations where no lawsuit occurred *versus* the observations where a lawsuit occurred with an auditor defendant. However, the researchers cannot know the reason why significant differences were found. Is it because in the latter group, a lawsuit was filed? Or is it because in the latter group, a lawsuit with an auditor defendant occurred? Or is it due to a combination of both of these factors? Second, the risk of the auditor being sued for his deficient auditing, taking into account the fact that he *cannot* be sued unless the company is sued.

Section 5.1 below surveys the literature on the determinants of class action lawsuits against auditors, mainly since the review paper of Latham and Linville in 1998, and is followed by section 5.2 which surveys the literature on consequences of class action litigation against auditors (Table 3).

5.1. Determinants of litigation risk against auditors

5.1.1. Financial reporting quality and litigation against auditors

Research in the 80s and 90s investigated the effect of client and audit firm characteristics on the probability of litigation against auditors (for a comprehensive review of that strand of the literature see Latham & Linville, 1998). Since then archival research has focused on the quality of accounting information as a precursor for litigation against auditors.

However, some of this research has been invalidated because of some apparent errors in the choice-based and matched-sample research designs (Cram, Karan, & Stuart, 2009). The choice-based research design has primarily been used "...for their power to reveal statistically significant findings following collection of relatively small data sets. Choice based and matched samples designs are frequently used...especially when outcomes of one sort are rare and few would be obtained under random selection...For example, all firms experiencing auditor litigation during a period may be identified and compared to a control sample of matched firms (e.g., matching to each litigation firm by industry and firm size) rather than gathering data for all non-litigation firms" (Stuart, Shin, Cram, & Karan, 2013). Stuart et al. (2013) provide a detailed exposition to the commonly committed errors in the choice-based and matched-sample auditor litigation research, invalidating the findings of some the early literature as well as some subsequent literatures that relied on those prior studies. The following discussion therefore, is limited to studies that are free from these errors.

Fuerman (1997) documents a positive effect of restatements of audited annual financial statements on the probability of litigation against auditors. He also documents a positive effect of SEC initiated AAERs (proxies for substandard audit and substandard financials) on litigation against auditors. Palmrose and Scholz (2004) show that when core accounting issues are restated, and when the number of accounting issues that are restated is pervasive, auditor litigation risk is particularly heightened. Finally, DeFond, Lim, and Zang (2012) find that conditional conservatism (Basu, 1997) reduces the possibility of auditors being named as defendant in class action lawsuits. DeFond and Subramanyam (1998), too, find that auditors are likely to respond to litigation threat by insisting their clients to report more conservative accounting choices.

Whether poor quality accounting information increases the probability of securities class action lawsuits against auditors is a fundamental question to this stream of literature. The accounting information used to proxy for financial reporting quality measures is based on audited accounting information. So poor quality audited accounting information provides plaintiffs with the most proximate cause for bringing in lawsuits against auditors. However, the extent to which these academic proxies for accounting information quality are actually used to sue auditors is not well understood. The estimation of abnormal accruals models is fraught with measurement error. Conditional conservatism is also an ambiguous proxy because of differential earnings persistence during bad and good news periods. Ac-

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Table 3
Determinants of auditor litigation [litigation as the dependent variable].

Author(s) and year	Research questions	Sample	Findings	Litigation measure
Kaplan and Williams (2013)	The association between going concern [GC] opinions and auditor litigation	134 firms that were subject to class action lawsuits naming the auditors between 1986 and 2008	Simultaneous equation system result shows that issuing a GC report reduces the likelihood of a class action lawsuit against auditors. However, a GC report is not associated with either the likelihood of dismissal or settlement amounts.	Binary variable coded 1 if the audit firm was involved in a securities lawsuit, and 0 otherwise
Schmidt (2012)	Whether auditor-provided non-audit services have an incremental effect on the initiation of restatement-related auditor litigation	60 audit litigation from a total of 1543 annual restatements during 2000–2007 sample period	Non-audit fee ratio is associated positively with the likelihood that audit litigation results from restatement. Auditors are more likely to settle the restatement-related litigations against them if they derive higher non-audit fees from clients.	Indicator set to 1 if the restatement results audit litigation, 0 otherwise
Arel, Jennings, Pany, and Reckers (2012)	An experimental investigation into the differences between judges and jurors in rendering liability judgments in auditor litigation cases	101 judges and 79 jurors	Judges assign more [less] liability to auditors who rely on the work of in-house internal auditors [outsourced internal auditors] while jurors assess higher liability regardless of the work done by the auditors. This difference in liability assessment is partially driven by the attitude toward the public accounting profession, with jurors' unfavorable attitudes leading to them assigning liability regardless of the work performed.	Experimental variable: auditor reliance on the work of others [relied on outsourced work, relied on in-house internal auditors' work or did not rely on either]
Fuerman (2012)	Changes in auditor litigation in the post-SOX period	1169 lawsuits filed between 2001 and 2008 and 1017 lawsuits with dollar resolution amounts	The severity of the outcome of auditors in financial reporting lawsuits decreased. The magnitude of auditor dollar resolution amount decreased as well. Restatements of audited financial statements, bankruptcy, lengthy class period, and fraud, are all positively associated with auditors being named as defendants in lawsuits	A polytomous regression with ordered categories. The least severe outcome, 0 (auditor not named a defendant), and the next less severe outcome, 1 (auditor named a defendant and nothing else) approximates a frivolous lawsuit. The most severe outcomes, 4 and 5 (governmental civil and criminal prosecutions of the auditor), approximate a meritorious lawsuit.
Palmrose and Scholz (2004)	The effect of restatements on litigation against auditors	A total of 415 firm-year observations during the 1995–1999 sample period	Auditors are significantly more likely to be sued over economic restatements than technical ones. Revenue restatements, one type of economic restatement, and overall the most frequent, primarily contribute to this result.	A 1/0 binary variable to differentiate auditors who were named as a defendant *versus* those who were not
Lowe et al. (2002)	An experimental investigation into jurors' evaluation of auditor legal liability subject to differential use of decision aids by auditors	149 jurors participated in the experiment.	Jurors concluded that auditors were less responsible when the auditors used high-reliability aids even though the aid turned out to be incorrect. Jurors attributed more responsibility for audit failure to auditors with high-reliability aids when auditors did not follow the aids.	NA
Fuerman (1997)	Determinants of litigation against auditors (naming auditor defendants in securities class actions)	Auditor defendant sample consists of 86 observations from May 1992 to November 1997	The issuance of an AAER, with the auditor and management charged by the SEC with wrongdoing; the issuance of an AAER, with only management charged with wrongdoing; client company bankruptcy; class period length; and the restatement of previously issued audited annual financial statements are each positively associated with naming the auditor a defendant.	Actual class action suits against auditors

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counting restatements are a good proxy for financial reporting quality, but a poor proxy for audit quality, since management is primarily responsible for restatements, just like they are primarily responsible for all other aspects of financial reporting. Also, researchers do not have the ability to identify the extent to which the auditors had some role in the financial misreporting that caused the restatement. Also, researchers are often unable to identify financial misreporting that did not lead to a restatement.

Additional research would provide a better understanding of the determinants of litigation against auditors. Multiple proxies of financial reporting quality must be used to test for the robustness of the findings. The effect of changing economic conditions on litigation against auditors also merits empirical examination. The recent global financial crisis has placed considerable pressure on the audit firms to reduce audit fees (Christensen, Omer, Sharp, & Shelley, 2013) and hence lessen audit efforts. Financial reporting quality may have suffered because of the combined effect of these two factors in exposing auditors to lawsuits. Interview-based research with audit partners is warranted to find out whether some unique features of the audit process make the audit firms particularly vulnerable to litigation.

5.1.2. *Client and audit-related characteristics and litigation against auditors*

Both audit and client firm characteristics influence risk assessment decisions. Schmidt (2012) examines the effect of auditor provided non-audit services on the initiation of restatement-related litigation against auditors. Schmidt (2012) finds a positive effect of non-audit service fees on class action lawsuits against auditors, supporting the 'impairment of independence' argument. However, whether the provision of non-audit services impair auditor independence or actually help in knowledge spillover is very much a contentious issue. With time, we have seen academic research incorporating more likely candidates for potential litigation against auditors. How this affects the findings of earlier studies is unknown.

Kaplan and Williams (2013) find that issuing a going concern opinion reduces the likelihood of class action lawsuits against auditors.[7] Chen, Martin, and Wang (2013) find a negative relation between insider selling and the probability of receiving a going concern opinion. This result is stronger for firms that are more economically important to their auditors but weaker for firms whose auditors have greater concern about litigation exposure. Consistent with the belief that the PSLRA reduced auditor litigation and hence audit quality, Geiger and Raghunandan (2001) and Geiger, Raghunandan, and Rama (2006) reveal that the Big 6 but not the non-Big 6 firms were significantly *less likely* to have issued a prior going concern-modified audit opinion after the passage of the PSLRA. This evidence is consistent with the notion that the PSLRA reduces auditor liability.

5.2. *Consequences of litigation risk against auditors*

Litigation against auditors has two extreme consequences. On one hand, the litigated audit firm could make required audit risk adjustments to avoid future litigation. On the other hand, the client firm could dismiss the audit firm (auditor dismissal). Between these two extremes, litigation against auditors could affect client portfolio adjustment decisions (Ayers & Kaplan, 1998; Johnstone, 2000); audit planning decisions (Barron, Pratt, & Stice, 2001); and audit pricing and audit quality (Venkataraman, Weber, & Willenborg, 2008). Litigation against an audit firm also affects the market value of its publicly traded clients not involved in the lawsuit. Franz, Crawford, and Johnson (1998) find that clients not involved in the litigation experience significant negative returns at the announcement of litigation against their audit firm (Table 4).

Ayers and Kaplan (1998) find that risk review partners become more conservative in accepting clients compared to engagement partners. Francis and Krishnan (2002) provide evidence that auditors (both Big 6 and non-Big 6) demanded less conservative reporting and accepted riskier clients after the passage of the PSLRA. The evidence is consistent with PSLRA reducing auditors' legal exposure and, hence, the adoption of more lenient risk-management policies. Recent evidence on the client portfolio adjustment is provided by Hsieh, Lin, and Chang (2012). They document that national industry specialists are more likely to accept clients with higher financial risk, but large Big 4 offices are less likely to accept clients with higher audit risk in the post SOX regime.

Whether litigation against auditors affects audit fees and financial reporting quality is an important research question given the societal expectations of 'deterrence' and 'restraint' outlined above. Increased auditor liability should generate higher damage recoveries for investors following litigation. This financial risk to auditors causes increased fees. A positive association between litigation against auditors, and audit fees, therefore, is expected. Venkataraman et al. (2008) document that auditors earn significantly higher audit fees for pre-IPO engagements than for post-IPO engagements. Badertscher, Jorgensen, Katz, and Kinney (2014) document that audit fees of public firms (characterized by public debt and public equity) are 17% higher than those of private firms (characterized by public debt but private equity) indicating higher litigation risk arising from public equity ownership for the latter group. Seetharaman et al. (2002) adopt an innovative approach to examine whether audit fees incorporate litigation risk by examining whether auditors of UK firms charge higher fees for their services when their clients access US, but not non-US, capital markets.

With respect to the effect of litigation against auditors on financial reporting quality, Boone, Khurana, and Raman (2011) find that earnings quality, proxied by abnormal accruals, decreases when auditor litigation risk increases. However, this evidence is inconsistent with an early study by Lee and Mande (2003) who document an increase in

[7] However, litigation risk also affects auditors' propensity to issue going concern opinion (litigation as independent variable). The authors employ a 2SLS approach to control for this relationship and find that issuing a going concern report lessens the likelihood of a class action lawsuit against the auditor. Their use of a simultaneous equation approach to address the complex relationship among financial distress, issuance of going concern reports, and litigation probability provides an important contribution to the existing auditor litigation literature.

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Table 4
Consequences of auditor litigation [litigation as the independent variable].

Author and year	Research questions	Sample	Findings	Litigation risk proxy
Boone et al. (2011)	The relation between auditor litigation risk and abnormal accruals in a simultaneous equation system	A total of 28,289 firm-year observations with 146 lawsuit observations over 1989–2007	(1) A negative association between client-specific auditor litigation risk and abnormal accruals is documented consistent with 'litigation avoidance' hypothesis; (2) abnormal accruals increase the likelihood of auditor litigation consistent with 'litigation likelihood' effect.	1 for company year of alleged wrongdoing as identified in the auditor lawsuit, 0 otherwise
Hwang and Chang (2010)	An experimental investigation into the effect of litigation environment on auditors' decisions to accept clients' aggressive reporting	59 US and 61 Hong Kong auditors employed by the Big-4 accounting firms participated in this study	Auditors who practice in more litigious environments (US) tend to be less willing to go along with clients' aggressive reporting than those who practice in less litigious environments (Hong Kong). A three-way interaction exists among litigation environment, client business risk, and client retention pressure.	A simple 1/0 dummy to distinguish US from Hong Kong
Krishnan and Lee (2009)	The effect of litigation risk on the probability of appointing an audit committee accounting financial expert	Fortune 1000 firms, 2003–2004	Companies with higher litigation risk are more likely to appoint an accounting expert but only in the presence of strong governance environment.	Rogers and Stocken (2005) litigation risk score
Venkataraman et al. (2008)	Whether abnormal accruals and audit fees vary with auditors' legal liability exposure in an IPO setting	350 and 142 IPO observations for accruals and audit fee model respectively between 2000 and 2002	(1) Auditors earn significantly higher audit fees for IPO engagements [due to increased liability for SEC 1933 registration requirements] than for post-IPO engagements; (2) audit quality test reveals higher earnings quality in the pre-IPO engagements than in the post IPO engagements consistent with litigation exposure theory.	IPO dummy is considered to contain litigation risk. However, a litigation risk variable measured following Francis et al. is included in models where IPO is not present.
Geiger et al. (2006)	The effect of the PSLRA on auditors' propensity to issue GC opinions	694 financially stressed firms that entered into bankruptcy during the period from 1991 to 2001	The Big 6 but not the non-Big 6 audit firms were significantly *less likely* to have issued a prior GC-modified audit opinion after the passage of the PSLRA. This evidence is consistent with the PSLRA reducing auditor liability.	A dummy variable to differentiate pre-PSLRA from post-PSLRA
Lee and Mande (2003)	The effect of the passage of the PSLRA on opportunistic earnings management	15, 600 firm-year observations over the period from 1992 to 1998	Income-increasing DAC increases for Big 6 clients but not for non-Big 6 clients in the post PSLRA regime consistent with the PSLRA reducing auditor liability.	A dummy variable to differentiate pre-PSLRA from post-PSLRA
Seetharaman et al. (2002)	Whether audit fees vary in different auditor litigation environments	UK firms, 275 cross listed and 275 non-cross listed matched by firm size and industry	UK auditor charges higher audit fees for their services when their client accesses US, but not non-US, capital markets.	UK *versus* US litigation environment
Geiger and Raghunandan (2001)	The effect of PSLRA on auditors' propensity to issue GC-modified audit opinions	383 bankrupt companies during 1991 to 1998	Auditors were less likely to have issued prior going-concern modified audit reports for bankrupt companies in the post PSLRA period.	A dummy variable to differentiate pre-PSLRA from post-PSLRA
Barron et al. (2001)	To examine the auditor assessment of litigation risk and planned audit investment	68 managers and 32 partners	The auditor assessments of litigation risk and planned audit investment are higher when potential errors overstate financial performance than when those errors understate performance. This result is stronger on high level of litigation risk for client industry.	Assess the exposure to litigation associated with auditing the client

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income-increasing discretionary accruals for the Big 6 audit firms after the passage of the PSLRA. Garcia Lara, Osma, and Penalva (2009) find that reporting conservatism increases with an increase in the litigation risk exposure of auditors. Whether firms reporting more conservatively are litigated less is not addressed by Garcia Lara et al. (2009).

Litigation risk and its effect on financial reporting quality should be considered along with a number of other factors. First: the unambiguous interpretation of abnormal accruals as opportunistic is too naïve. Managers also use discretionary accruals to signal private value-relevant information (informativeness perspective) (Subramanyam, 1996; Tucker & Zarowin, 2006). Second: measurement of discretionary accruals is not without error. For example, Lee and Mande (2003) follow an indirect approach to define 'accruals' when, in fact, Hribar and Collins (2002) find estimation error with this approach, and called for using a direct approach for estimating accruals. Third: in the absence of proper consideration of the endogenous relationship between litigation risk and reporting quality, the results of the published studies may be biased. Fourth: studies that examined the change in reporting behavior after the passage of a regulation with significant audit implications report "relative" changes only.

The auditor litigation survey provided in this section offers some interesting insights into the potential reasons for bringing lawsuits against auditors and the likely effect of such litigation on financial reporting attributes. However, these studies do not investigate the mechanism of dispute resolution, aimed at understanding the actual process for resolving disputes between the defendants (auditors in this case) and plaintiffs (shareholders). Two of these dispute resolution mechanisms are adjudication or settlement (Vago, 1988), although academic research primarily focused on 'adjudication in a courtroom trial'.

Lowe, Reckers, and Whitecotton (2002), conduct an experimental study to investigate jurors' evaluations of auditor legal liability, subject to the differential use of auditing decision aids. In rendering their verdicts, jurors were significantly influenced by the use of auditing decision aids.[8] Reckers, Jennings, Lowe, and Pany (2004) report that attitudes of judges toward the auditing profession eroded significantly between 1997 and 2003, due primarily to major audit failures. However, Iyer and Jennings (2010) find judges' attitudes to be more positive toward the audit profession compared to attitudes during the 1997–2003 regime, in part because of federal reforms to the auditing profession and a lack of recent accounting scandals. However, some fundamental unanswered questions remain. Why do auditors have a higher success rate in trial by judge, than in trial by a jury? Why are auditors exposed to more trials when compared to trial rates for general securities litigation? Answers to these questions will be of great use in any discussion on reforming auditor liability in the US.

Section summary: This section summarized the determinants and the consequences of litigation against external auditors and highlighted some potential areas for future research. Although poor quality accounting information appears to be the proximate cause for lawsuits against auditors, the lack of consensus regarding the appropriate definition of financial reporting quality may hinder the interpretation of the findings. Furthermore, the possibility of a strong endogenous relationship between financial reporting quality and litigation against auditors may weaken some of the findings.

6. Concluding remarks

This paper surveys a broad stream of literature on the determinants and consequences of securities class action lawsuits from the financial reporting and auditing perspectives. Although proponents of class action lawsuits provide convincing arguments that this legal mechanism allows investors to protect themselves from managerial misreporting, opponents find that the system encourages frivolous lawsuits. So much so, the Congress enacted PSLRA in 1995 to put a check on frivolous lawsuits. Academic research can provide useful insights into this ongoing debate and, consistent with this, a substantial volume of academic research exists on the causes and consequences of class action lawsuits against corporate managers, directors, and external auditors.

Early literature was concerned about disclosures: in particular, bad news disclosures; in a timely manner. The evidence on this still remains inconclusive. One of the primary reasons for this inconclusive evidence on a fundamental question of this nature is the cause–effect relationship between variables. Although poor quality accounting information has been found to be incrementally useful in predicting lawsuits, it is not clear why managers should produce such reports in a very litigious environment. The challenge for researchers is to provide evidence on the association between disclosures and litigation after properly accounting for the endogenous relationship. A simultaneous equation system with litigation as both a dependent and an independent variable is promising.

Research on litigation against auditors continues to be a popular research topic despite the fact that outright audit failures, as evidenced by litigation against auditors in the US, are relatively low (Francis, 2004). Nonetheless, a sizable volume of archival research documents a positive association between litigation against auditors' and clients' poor quality financial reporting, e.g., earnings restatement. Auditors' responses to class action lawsuits include increased audit fees, client portfolio adjustment, issuing going concern opinions, and a tendency to adjust for the financial reporting quality. Although significant progress has been made in terms of further understanding the causes and consequences of litigation against auditors, major challenges remain, e.g., endogeneity concerns, and proper measurement of reporting quality, to name two. Very little is known of the impact of specific audit processes on litigation risk. More research is encouraged to improve our

[8] Jurors deemed auditors to be less responsible for audit failure when they used high-reliability aids, even though the aid turned out to be incorrect. Jurors attributed more responsibility to auditors for audit failure when auditors did not follow the aids.

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understanding of the interaction among external audit functions, corporate governance mechanisms (both internal and external) and litigation risk.

Finally, the interpretation of the results from published studies is hindered because of measurement difficulties associated with the litigation risk proxy. Although the industry-based litigation measure of Francis et al. (1994) has been widely used, there remains significant concern about the ability of this measure to meaningfully proxy for litigation risk. The D&O liability insurance scheme has been preferred over the industry-based model, but the D&O measure is not without limitations. Future research should benefit from the development of additional proxies for *ex-ante* litigation risk.

References

Ali, A., & Kallapur, S. (2001). Securities price consequences of the Private Securities Litigation Reform Act of 1995 and related events. *The Accounting Review*, *76*(3), 431–460.

American Institute of Certified Public Accountants (AICPA) Special Committee on Financial Reporting (1994). *Improving business reporting – A customer focus*. New York, NY: AICPA.

Amoah, N. Y., & Tang, A. P. (2010). Board, audit committee and restatement-induced class action lawsuits. *Advances in Accounting, incorporating Advances in International Accounting*, *26*, 155–169.

Amoah, N. Y., & Tang, A. P. (2013). Resolution of restatement-induced lawsuits after the Private Securities Litigation Reform Act. *Research in Accounting Regulation*, *25*(1), 41–46.

Arel, B., Jennings, M. M., Pany, K., & Reckers, P. M. J. (2012). Auditor liability: A comparison of judge and juror verdicts. *Journal of Accounting and Public Policy*, *31*, 516–532.

Asare, S. K., Cunnigham, L. A., & Wright, A. (2007). The Sarbanes-Oxley Act: Legal implications and research opportunities. *Research in Accounting Regulation*, *19*, 81–105.

Ayers, S., & Kaplan, S. (1998). Potential differences between engagement and risk review partners and their effect on client acceptance judgments. *Accounting Horizons*, *12*(2), 139–153.

Badertscher, B., Jorgensen, B., Katz, S., & Kinney, W., Jr. (2014). Public equity and audit pricing in the United States. *Journal of Accounting Research*, *52*(2), 303–339.

Baginski, S. P., Hasell, J. M., & Kimbrough, M. D. (2002). The effect of legal environment on voluntary disclosure: Evidence from management earnings forecasts issued in U.S. and Canadian markets. *The Accounting Review*, *77*(1), 25–50.

Barron, O., Pratt, J., & Stice, J. D. (2001). Misstatement direction, litigation risk, and planned audit investment. *Journal of Accounting Research*, *39*(3), 449–462.

Barton, J., & Simko, P. J. (2002). The balance sheet as an earnings management constraint. *The Accounting Review*, *77*, 1–27.

Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics*, *24*, 3–37.

Beck, J. D., & Bhagat, S. (1997). Shareholder litigation: Share price movements, news releases, and settlement amounts. *Managerial and Decision Economics*, *18*, 563–586.

Black, B., Cheffins, B., & Klausner, M. (2006). Outside director liability. *Stanford Law Review*, *58*(4), 1055–1159.

Boone, J. P., Khurana, I. K., & Raman, K. (2011). Litigation risk and abnormal accruals. *AUDITING: A Journal of Practice & Theory*, *30*(2), 231–256.

Brown, S., Hillegeist, S. A., & Lo, K. (2005). Management forecasts and litigation risk. Working paper, Emory University.

Brown, S. V., & Tucker, J. W. (2010). Large-sample evidence on firms' year-over-year MD&A modifications. *Journal of Accounting Research*, *49*(2), 309–346.

Cao, Z., & Narayanamoorthy, G. S. (2011). The effect of litigation risk on management earnings forecasts. *Contemporary Accounting Research*, *28*(1), 125–173.

Cao, Z., & Narayanamoorthy, G. S. (2014). Accounting and litigation risk: Evidence from directors' and officers' insurance pricing. *Review of Accounting Studies*, *19*, 1–42.

Chalmers, K., Naiker, V., & Navissi, F. (2012). Earnings quality and Rule 10b-5 securities class action lawsuits. *Journal of Accounting and Public Policy*, *31*, 22–43.

Chang, H., Suh, S. H., Werner, E. M., & Zhou, J. (2012). The effect of SOX on the predictability of future cash flows in litigious and non-litigious industries. *Asia-Pacific Journal of Accounting and Economics*, *19*(2), 210–226.

Chen, C., Martin, X., & Wang, X. (2013). Insider trading, litigation concerns, and auditor going-concern opinions. *The Accounting Review*, *88*(2), 365–393.

Cheng, C. S., Huang, H., Li, Y., & Lobo, G. (2010). Institutional monitoring through shareholder litigation. *Journal of Financial Economics*, *95*, 356–383.

Cheng, Q., & Warfield, T. D. (2005). Equity incentives and earnings management. *The Accounting Review*, *80*, 441–476.

Christensen, B. E., Omer, T. C., Sharp, N. Y., & Shelley, M. K. (2013). Pork bellies and public company audits: Have audits once again become just another commodity? Working paper, Texas A&M University.

Cloyd, C. B., Frederickson, J. R., & Hill, J. W. (1998). Independent auditor litigation: Recent events and related research. *Journal of Accounting and Public Policy*, *17*(2), 121–142.

Cohen, D. A., & Zarowin, P. (2010). Accrual-based and real earnings management activities around seasoned equity offerings. *Journal of Accounting and Economics*, *50*, 2–19.

Collins, D., Reitenga, A. L., & Sanchez, J. M. (2008). The impact of accounting restatements on CFO turnover and bonus compensation: Does securities litigation matter? *Advances in Accounting, incorporating Advances in International Accounting*, *24*, 162–171.

Cram, D. P., Karan, V., & Stuart, I. (2009). Three threats to validity of choice-based and matched sample studies in accounting research. *Contemporary Accounting Research*, *26*(2), 477–516.

Dai, Z., Jin, L., & Zhang, W. (2014). Executive pay-performance sensitivity and litigation. *Contemporary Accounting Research*, *31*(1), 152–177.

Dechow, P., Ge, W., & Schrand, C. M. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, *50*, 344–401.

DeFond, M. L., Lim, C. Y., & Zang, Y. (2012). Client conservatism and auditor-client contracting. Working Paper, University of Southern California and Singapore Management University.

DeFond, M. L., & Subramanyam, K. R. (1998). Auditor changes and discretionary accruals. *Journal of Accounting and Economics*, *25*(1), 35–67.

Donelson, D. C., McInnis, J. M., & Mergenthaler, R. D. (2012b). Rules-based accounting standards and litigation. *The Accounting Review*, *87*(4), 1247–1279.

Donelson, D. C., McInnis, J. M., & Mergenthaler, R. D. (2013). Discontinuities and earnings management: Evidence from restatements related to securities litigation. *Contemporary Accounting Research*, *30*(1), 242–268.

Donelson, D. C., McInnis, J. M., Mergenthaler, R. D., & Yu, Y. (2012a). The timeliness of bad earnings news and litigation risk. *The Accounting Review*, *87*(6), 1967–1991.

Ettredge, M., Huang, Y., & Zhang, W. (2012). Does accounting conservatism deter litigation? Working paper, University of Kansas.

Evans, J. H., & Sridhar, S. S. (2002). Disclosure-disciplining mechanisms: Capital markets, product markets, and shareholder litigation. *The Accounting Review*, *77*(3), 595–626.

Field, L., Lowry, M., & Shu, S. (2005). Does disclosure deter or trigger litigation? *Journal of Accounting and Economics*, *39*(3), 487–507.

Francis, J. (2004). What do we know about audit quality? *The British Accounting Review*, *34*(4), 345–368.

Francis, J., & Krishnan, J. (2002). Evidence on auditor risk-management strategies before and after the Private Securities Litigation Reform Act of 1995. *Asia-Pacific Journal of Accounting and Economics*, *9*(2), 135–157.

Francis, J., Philbrick, D., & Schipper, K. (1994). Shareholder litigation and corporate disclosures. *Journal of Accounting Research*, *32*(2), 137–164.

Frankel, R. M., Johnson, M. F., & Nelson, K. K. (2002). The relation between auditors' fees for nonaudit services and earnings management. *The Accounting Review*, *77*(S1), 71–105.

Franz, D. R., Crawford, D., & Johnson, E. N. (1998). The impact of litigation against an audit firm on the market value of nonlitigating clients. *Journal of Accounting, Auditing and Finance*, *13*(2), 117–134.

Fuerman, R. D. (1997). Naming auditor defendants in securities class actions. *Journal of Legal Economics*, *7*(1), 72–91.

Fuerman, R. D. (2012). Auditors and the post-2002 litigation environment. *Research in Accounting Regulation*, *24*, 40–44.

Garcia Lara, J. M., Osma, B. G., & Penalva, F. (2009). The economic determinants of conditional conservatism. *Journal of Business Finance and Accounting*, *36*(3–4), 336–372.

Geiger, M., & Raghunandan, K. (2001). Bankruptcies, audit reports, and the reform act. *AUDITING: A Journal of Practice & Theory*, *20*(1), 187–196.
Geiger, M., Raghunandan, K., & Rama, D. V. (2006). Auditor decision-making in different litigation environments: The Private Securities Litigation Reform Act, audit reports and audit firm size. *Journal of Accounting and Public Policy*, *25*(3), 332–353.
Goldman, E., & Slezak, S. L. (2006). An equilibrium model of incentive contracts in the presence of information manipulation. *Journal of Financial Economics*, *80*(3), 603–626.
Gong, G., Louis, H., & Sun, A. (2008). Earnings management, lawsuits, and stock-for-stock acquirers' market performance. *Journal of Accounting and Economics*, *46*, 62–77.
Grimm, S. D. (2012). The role of accounting quality in securities class action lawsuits. *Journal of Forensic and Investigative Accounting*, *4*(1), 147–185.
Healy, P., & Palepu, K. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*(1–3), 405–440.
Helland, E. (2006). Reputational penalties and the merits of class-action securities litigation. *Journal of Law and Economics*, *49*(2), 365–395.
Hennes, K. M., Leone, A. J., & Miller, B. P. (2008). The importance of distinguishing errors from irregularities in restatement research: The case of restatements and CEO/CFO turnover. *The Accounting Review*, *83*(6), 1487–1519.
Henry, E. (2008). Are investors influenced by how earnings press releases are written? *Journal of Business Communication*, *45*(4), 363–407.
Hope, O. K., & Langli, J. C. (2010). Auditor independence in a private firm and low litigation risk setting. *The Accounting Review*, *85*(2), 573–605.
Hribar, P., & Collins, D. W. (2002). Errors in estimating accruals: Implications for empirical research. *Journal of Accounting Research*, *40*(1), 105–134.
Hsieh, Y. T., Lin, C. J., & Chang, H. (2012). Big 4 accounting firms' client acceptance decisions after SOX: The moderating effect of industry specialization and office size. Working paper, National Taiwan University and Drexel University.
Hwang, N. R., & Chang, C. J. (2010). Litigation environment and auditors' decisions to accept clients' aggressive reporting. *Journal of Accounting and Public Policy*, *29*, 281–295.
Iyer, G., & Jennings, M. (2010). Judges' attitudes toward the public accounting profession: An update. *Advances in Accounting, incorporating Advances in International Accounting*, *26*(2), 25–28.
Jayaraman, S., & Milbourn, T. (2009). Does equity-based CEO compensation really increase litigation risk? Working paper, Washington University.
Jennings, J., Kedia, S., & Rajgopal, S. (2011). The deterrent effects of SEC enforcement and class action litigation. Working paper, University of Washington, Rutgers Business School and Emory University.
Johnson, M., Kasznik, R., & Nelson, K. K. (2001). The impact of Securities Litigation Reform on the disclosure of forward-looking information by high technology firms. *Journal of Accounting Research*, *39*(2), 297–328.
Johnson, M., Nelson, K. K., & Pritchard, A. C. (2007). Do the merits matter more? The impact of the Private Securities Litigation Reform Act. *The Journal of Law, Economics, & Organization*, *23*(3), 627–652.
Johnstone, K. M. (2000). Client-acceptance decisions: Simultaneous effects of client business risk, audit risk, auditor business risk, and risk adaptation. *AUDITING: A Journal of Practice & Theory*, *19*(1), 1–25.
Jones, C. L., & Weingram, S. E. (1996). Why 10b.5 litigation risk is higher for technology and financial services firms. Working paper, Stanford University.
Kaplan, S. E., & Williams, D. D. (2013). Do going concern audit reports protect auditors from litigation? A simultaneous equations approach. *The Accounting Review*, *88*(1), 199–232.
Kasznik, R. (1999). On the association between voluntary disclosures and earnings management. *Journal of Accounting Research*, *37*(1), 57–81.
Kasznik, R., & Lev, B. (1995). To warn or not to warn – Management disclosures in the face of an earnings surprise. *The Accounting Review*, *70*(1), 113–134.
Kellog, R. (1984). Accounting activities, security prices, and class action lawsuits. *Journal of Accounting and Economics*, *6*(3), 185–204.
Kim, I., & Skinner, D. (2012). Measuring securities litigation risk. *Journal of Accounting and Economics*, *53*, 290–310.
Klausner, M., & Hegland, J. (2010). How protective is D&O insurance in securities class actions? – Part I. *Professional Liability Underwriting Society Journal*, *23*(2), 1–4.
Krishnan, J., & Lee, J. E. (2009). Audit committee financial expertise, litigation risk, and corporate governance. *AUDITING: A Journal of Practice & Theory*, *28*(1), 241–261.
Latham, C. K., & Linville, M. (1998). A review of the literature in audit litigation. *Journal of Accounting Literature*, *17*, 175–213.
Laux, V. (2010). Effects of litigation risk on board oversight and CEO incentive pay. *Management Science*, *56*(6), 938–948.
Laux, V., & Stocken, R. (2012). Managerial reporting, overoptimism, and litigation risk. *Journal of Accounting and Economics*, *53*, 577–591.
Lee, H. Y., & Mande, V. (2003). The effect of the Private Securities Litigation Reform Act of 1995 on accounting discretion of client managers of Big 6 and non-Big 6 auditors. *AUDITING: A Journal of Practice & Theory*, *22*(1), 93–108.
Lev, B., Ryan, S., & Wu, M. (2008). Rewriting earnings history. *Review of Accounting Studies*, *13*, 1–33.
Lowe, D. J., Reckers, P. M. J., & Whitecotton, S. M. (2002). The effects of decision-aid use and reliability on jurors' evaluations of auditor liability. *The Accounting Review*, *77*(1), 185–202.
Matsumoto, D. A. (2002). Management's incentives to avoid negative earnings surprises. *The Accounting Review*, *77*(3), 483–514.
McGregor, J. (2012). Audit committee equity holdings, the risk of reporting problems, and the achievement of earnings thresholds. *Journal of Accounting and Public Policy*, *31*(5), 471–491.
Mishra, D., & Salavei, K., (2010). Earnings restatements, litigation risk, and implied cost of equity. American Accounting Association annual meeting, San Francisco, CA.
Nagar, V., Nanda, D., & Wysocki, P. (2003). Discretionary disclosure and stock-based incentives. *Journal of Accounting and Economics*, *34*, 283–309.
Palmrose, Z., & Scholz, S. (2004). The circumstances and legal consequences of non-GAAP reporting: Evidence from restatements. *Contemporary Accounting Research*, *21*, 139–180.
Palmrose, Z.-V. (1998). Audit litigation research: Do the merits matter? An assessment and directions for future research. *Journal of Accounting and Public Policy*, *16*(4), 355–378.
Qiang, X. (2007). The effects of contracting, litigation, regulation, and tax costs on conditional and unconditional conservatism: Cross-sectional evidence at the firm level. *The Accounting Review*, *82*(3), 759–796.
Reckers, P. M. J., Jennings, M. M., Lowe, D. J., & Pany, K. (2004). Changing attitudes of the American judiciary regarding auditor liability. *European Accounting Review*, *16*(3), 625–645.
Rogers, J. L., & Buskirk, A. V. (2009). Shareholder litigation and changes in disclosure behaviour. *Journal of Accounting and Economics*, *47*(1/2), 136–156.
Rogers, J. L., Buskirk, A. V., & Zechman, S. L. C. (2011). Disclosure tone and shareholder litigation. *The Accounting Review*, *86*(6), 2155–2183.
Rogers, J., & Stocken, P. (2005). Credibility of management forecasts. *The Accounting Review*, *80*, 1233–1260.
Romano, R. (1991). The shareholders suit: Litigation without foundation. *The Journal of Law, Economics, & Organization*, *7*, 55–87.
Rose, A. M. (2008). Reforming securities litigation reform: Restructuring the relationship between public and private enforcement of Rule 10b-5. *Columbia Law Review*, *108*(6), 1301–1364.
Schmidt, J. J. (2012). Perceived auditor independence and audit litigation: The role of nonaudit services fees. *The Accounting Review*, *87*(3), 1033–1065.
Schneider, A., Gramling, A. A., Hermanson, D. R., & Ye, Z. (2009). A review of academic literature on internal control reporting under SOX. *Journal of Accounting Literature*, *28*, 1–46.
Seetharaman, A., Gul, F. A., & Lynn, S. G. (2002). Litigation risk and audit fees: Evidence from UK firms cross-listed on US markets. *Journal of Accounting and Economics*, *33*(1), 91–115.
Simpson, A. (1988). *Invitation to law*. New York: Basil Blackwell.
Skinner, D. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, *32*, 38–60.
Skinner, D. (1997). Earnings disclosure and stockholder lawsuits. *Journal of Accounting and Economics*, *23*, 249–282.
Spiess, D. K., & Tkac, P. (1997). The Private Securities Litigation Reform Act of 1995: The stock market casts its vote. *Managerial and Decision Economics*, *18*, 545–561.
Stuart, I., Shin, Y. C., Cram, D. P., & Karan, V. (2013). Review of choice-based, matched, and other stratified sample studies in auditing research. *Journal of Accounting Literature*, *32*, 88–113.
Subramanyam, K. R. (1996). The pricing of discretionary accruals. *Journal of Accounting and economics*, *22*, 249–281.
Tillinghast of Towers Perrin (2002). Directors and officers liability survey.

Tong, Y. H., & Miao, B. (2011). Are dividends associated with the quality of earnings? *Accounting Horizons*, *25*(1), 183–205.

Tucker, J. W., & Zarowin, P. A. (2006). Does income smoothing improve earnings informativeness? *The Accounting Review*, *81*(1), 251–270.

Vago, S. (1988). *Law and society*. Englewood Cliffs, NJ: Prentice Hall.

Venkataraman, R., Weber, J. P., & Willenborg, M. (2008). Litigation risk, audit quality, and audit fees: Evidence from initial public offerings. *The Accounting Review*, *83*(5), 1315–1345.

Watts, R., & Zimmerman, J. (1986). *Positive accounting theory*. Englewood Cliffs, NJ: Prentice-Hall.