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Corporate Audits and How to Fix Them

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Auditors are supposed to be watchdogs, but in the last decade or so, they sometimes looked like lapdogs—more interested in serving the companies they audited than in assuring a flow of accurate information to investors. The auditing profession is based on what looks like a structural infirmity: auditors are paid by the companies they audit. An old German proverb holds: "Whose bread I eat, his song I sing." While this saying was originally meant as a prayer of thanksgiving, the old proverb takes on a darker meaning for those who study the auditing profession. If rational investors cannot trust financial statements from companies, they will be less willing to invest, which in turn will depress stock prices and increase the cost of capital for all firms (as a starting point in this literature, see Hughes, Liu, and Liu, 2007; Lambert, Leuz, and Verrecchia, 2007, and references cited therein).

This paper begins with an overview of the practice of audits, the auditing profession, and the problems that auditors continue to face in terms not only of providing audits of high quality, but also in providing audits that investors feel comfortable trusting to be of high quality. It then turns to a number of reforms that have been proposed, including ways of building reputation, liability reform, capitalizing or insuring auditing firms, and greater competition in the auditing profession. However, none of these suggested reforms, individually or collectively, severs the agency relation between the client management and the auditors. As a result, the conflict of interest, although it can be mitigated by some of these reforms, continues to threaten auditors' independence, both real and perceived. In conclusion, I'll discuss my own proposal for "financial statements insurance,"

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which would redefine the relationship between auditors and firms in such a way that auditors would no longer be beholden to management.

A Snapshot of Audits and the Auditing Profession

What Does an Audit Involve?

Under the Securities and Exchange Act of 1934, public companies in the United States are required to file audited financial statements with the Securities and Exchange Commission (SEC) each year. "Independent" auditors, external to the client, must perform these audits. Regulators, together with courts, establish standards for auditors' practices and impose sanctions in the case of material errors or frauds.

Before the passage of the Sarbanes–Oxley Act of 2002, the auditing profession itself decided how audits are to be conducted and codified the results in generally accepted standards. Since Sarbanes–Oxley, the codification has been taken away from auditors and assigned to the Public Company Accounting Oversight Board (PCAOB), a body that was created by Sarbanes–Oxley to establish (subject to SEC approval): "auditing, quality control, ethics, independence, and other standards relating to the preparation of audit reports for [public] issuers."[1]

The starting point for any audit is the financial statements prepared by corporate management, which bears primary responsibility for preparing financial statements that are free of material error or bias. These annual financial statements consist of the balance sheet and the related statement of income, retained earnings, and cash flows for the completed fiscal year, along with notes. Financial statements require applying bookkeeping procedures to business transactions that have taken place over the fiscal year. Clearly, financial statements do not contain all there is to know about the company. For example, they reveal nothing about management's future plans.

A financial audit is a process of obtaining and evaluating evidence regarding the assertions of corporate management and ascertaining whether the assertions conform to Generally Accepted Accounting Principles (GAAP). GAAP are the accounting standards that have been developed by accounting standards-setting bodies in the United States. They reflect decisions standards-setters made regarding "recognition, measurement, and disclosure" criteria that are designed to give rise to data that are both relevant to investors' decisions, and reliable in the sense of being accurate and trustworthy. As one example, the item "inventories . . . $3,750,000" in a balance sheet of a manufacturing entity embodies the following assertions, among others: the inventories physically exist; they are held for sale or use in operations; they include all products and materials; $3,750,000 is the lower of their "cost" or "market value" (as both terms are defined in applicable rules); they are properly

[1] Sarbanes–Oxley Act of 2002 (Pub. L. 107-204, 116 Stat. 745, Enacted July 30, 2002), Section 101(c)(2).

classified on the balance sheet; and appropriate disclosures related to inventories have been made, such as their major categories and amounts pledged or assigned.

Evidence about the degree of conformity with Generally Accepted Accounting Principles consists of examining various sources of accounting data, including journals, which are chronological records of transactions; ledgers, which are financial effects of transactions grouped into classifications of assets, liabilities equities, revenues and expenses; and corroborating information, such as invoices, checks, and information obtained by inquiry, observation, physical inspection of assets, and correspondence with third parties. Judgments about whether firms have applied accounting principles appropriately often call for analytical and interpretive skills. For example, judging whether inventories are properly valued requires the auditor to understand and evaluate how management estimated replacement cost, selling price, and normal profit margins. The auditor must further evaluate whether provisions for losses on obsolete and slow-moving items are adequate. Finally the auditor must understand the firm's method of using this information, which can be quite complex, and decide whether it follows accepted principles. Conclusive evidence is rarely available to support these judgments, but judgments must be made nonetheless.

The audit process itself can be divided into three steps: setting the scope, gathering and evaluating evidence, and reporting (O'Reilly, McDonnell, Winograd, Gerson, and Jaenicke, 1998). The scope of an audit is determined on the basis of the assessed risk of omissions or misrepresentations in the financial statements provided by management. In turn, these risks depend on the size and complexity of the company, the adequacy of its internal controls, and the auditor's assessment of the trustworthiness of management. Once the audit scope has been determined, the auditor performs substantive tests, like looking at details of transactions and account balances, on a sample of the business's transactions. If the substantive tests uncover problems or additional risk factors, the scope of the audit is reset. Once the substantive tests satisfy the auditor that there is an appropriately low risk that the audit will result in an inappropriate opinion (even the appropriate risk level is subject to judgment!), the auditor reports an opinion.

If the auditor finds no material problems with the statements, or if such problems are corrected before issuance of the statements, the auditor issues its report with a standardized statement of assurance: "In our opinion, the financial statements above fairly present, in all material respects, the financial position of __________ Co., as of (date) and the results of its operations and its cash flows for the year then ended in conformity with GAAP." If the auditor's attempt to correct the accounting misstatements is unsuccessful, then the auditor issues a qualified opinion that refers to either limitations on the scope of the audit (such as inability to access information) or departures from GAAP. Since 1989, two types of audit reports have been issued: the standard clean unmodified report, and a modified report for "going concern" uncertainty, which is issued under a requirement that auditors evaluate whether there is substantial doubt about an entity's ability to continue as a going concern for a period not to exceed one year from the date of the financial statements being audited. Modified going concern reports make up less than 10 percent of all audit reports (Francis, 2004), and there is considerable doubt as to whether they accurately provide information about the risk of a firm.[2]

Throughout this process, the importance of independence of the auditor cannot be overestimated. Accounting standards require, among other things, that audits be performed by a person or persons having adequate technical training and proficiency as an auditor; who have "independence in mental attitude"; and who will exercise due professional care in performing the audit and preparing the auditor's report. Independence requires that the auditor maintains an impartial attitude in selecting and evaluating evidence and the absence of bias in the audit reports rendered. After all, for capital markets to function properly, investors must have access to credible information to mitigate hazards of misrepresentation by management.

Unfortunately, throughout the history of auditing, independence proved to be the requirement that the auditing profession had the most difficulty in satisfying. The primary reason is that when auditors are hired and paid by the companies they audit, auditors are tempted, at a minimum, to shade all gray area judgments in the direction of companies' managements. Lack of independence has been suspected as an important factor in the major accounting scandals of recent years. As one example, Arthur Andersen's independence was questioned in the cases of Enron, for whom it provided $52 million in auditing and consulting services in 2000. The charges of obstruction of justice filed against Andersen upon its announcement on January 10, 2002, that it shredded significant documents brought about the firm's demise by the time it was convicted on June 15, 2002.[3] Allegedly, the shredded documents would have implicated the firm in either knowing that it misleadingly issued unqualified audit opinions, or that it knowingly and purposefully neglected to gather evidence that would have caused it not to issue a clean opinion, causing losses and risks to go undetected for years.

In extreme cases, after problems have surfaced, it will be possible to determine in retrospect that an audit was performed poorly. However, as will be discussed below, audit quality of any given company is notoriously difficult if not impossible to observe in real time, and even in retrospect, it can be hard to make fine-tuned

[2] Chen and Church (1996) document a 13 percent less-negative market response to bankruptcy announcements following a going concern audit report, implying that bankruptcy is less of a surprise to investors. However, Carcello and Palmrose (1994) report that seven in ten bankruptcies have a clean audit report. Moreover, auditors appear to over-issue going concern reports: six out of seven were "false positives" over the period 1990–1994 (Francis and Krishnan, 2002). Based on AuditAnalytics data for 2006 and bankruptcies filings over the subsequent two and a half years, the probability of bankruptcy (relative to all audit opinions issued) is 2.1 percent, the probability of bankruptcy given *no* going concern report is 1.9 percent, and the probability of bankruptcy given a going concern report is 2.9 percent. In short, these auditing qualifications have both high numbers of false positives and false negatives, which means that the quality of the information they contain is limited.

[3] A subsequent unanimous Supreme Court opinion in *Arthur Andersen LLP v. United States* (544 U.S. 696 [2005]) overturned the conviction of Arthur Andersen on the grounds that the instructions to the jury failed to portray accurately the law that the firm was accused of breaking.

judgments about whether an audit was quite strong, only somewhat strong, average, or somewhat below average.[4]

Audit Profession Evolution and Concentration

In the late 1980s, the eight largest auditing firms began merging with each other, leaving five large firms accounting for the majority of revenue from auditing public companies. In 2002, following the legal troubles faced by Arthur Andersen, the U.S. audit profession had only four large firms: Deloitte & Touche, Ernst & Young, Price Waterhouse Coopers, and KPMG.

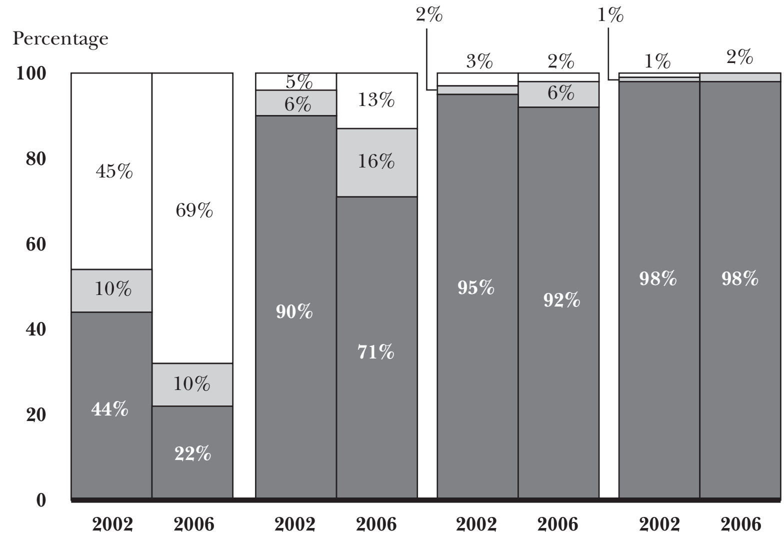
These four firms audited 98 percent of the 1,500 largest public companies with annual revenues over $1 billion and 92 percent of public companies with annual revenues of between $500 million and $1 billion, according to Audit Analytics. In addition, these four firms collected 94 percent of all audit fees paid by public companies in 2006. However, audits of small and mid-size public companies were more open to smaller firms, as shown in Figure 1. The figure shows the percentage of companies (distinguished into groups by size) using auditing firms in the smaller, midsize, and largest categories. For small public companies (those with annual revenues under $100 million), the share audited by the largest firms declined from 44 percent in 2002 to 22 percent in 2006; for mid-size public companies with annual revenues between $100 million and $500 million, the share audited by the largest firms fell from 90 percent in 2002 to 71 percent in 2006.

Audit fees appear relatively small from the company's point of view, but they loom large to the auditing firm. For example, using 2002–2003 audit fee disclosure data in the United States, Francis (2004) reports that aggregate audit fees for 5,500 large U.S.-listed companies represented no more than 0.04 percent of sales and 0.03 percent of market value, and average fees as a percentage of sales decrease as firms become larger. In absolute terms, based on 2008 AuditAnalytics available data, the average audit fee was $634,000 for companies with market capitalization below $1 billion, and $7.5 million for the companies with market capitalization above $1 billion—although fees for some firms can greatly exceed these averages. From the auditor's perspective, however, combined audit and consulting fees can be quite substantial. The combined fees of the biggest four audit firms were $16.89 billion (94 percent of the total fees earned by all audit firms): Deloitte & Touche, $3.84 billion; Ernst & Young, $3.88 billion; KPMG, $3.29 billion; and Pricewaterhouse Coopers, $4.81 billion.

In a number of ways, it seems reasonable to think about the auditing profession in two parts: the largest firms and their large auditors, and the rest of the

[4] One of the indices of audit quality that accounting researchers (improperly, it will be argued) often examine is the amount of "abnormal accruals." Accounting accruals generally are defined to be the excess of reported income over the difference between the cash receipts and cash disbursements that are related to operations. The portion of such excess that seems justified by the magnitude of sales or fixed durable assets (for example, credit sales are recognized as revenue even though not received in cash) is referred to as "nondiscretionary" or "normal" accruals. The excess of the actual amount of accruals over normal accruals is referred to as "discretionary" or "abnormal" accruals.

Figure 1
Public Companies and Their Auditing Firms, 2002 and 2006



Total companies	3,617	3,643	1,329	1,272	522	561	1,241	1,544
Company revenue	**<$100 million**		**$100 million – $500 million**		**>$500 million – $1 billion**		**>$1 billion**	

Smaller auditing firms — Midsize auditing firms — Largest auditing firms

Source: Figure 2 of GAO (2008), *Audits of Public Companies: Continued Concentration in Audit Market for Large Public Companies Does Not Call for Immediate Action: Report to Congressional Addressees.*
Note: The figure shows the percentage of companies (distinguished into groups by size) using auditing firms in the smaller, midsize, and largest categories.

market. In a survey conducted by the GAO (2008), 82 percent of the large companies saw their choice of auditor as limited to the Big Four because those firms have the technical expertise, capacity (like international offices), and reputation to undertake complex audits. The need for an independent auditor further limits firms' choices. Almost all (96 percent) of the large companies reported that they had used one of the Big Four for some nonaudit services, which under current rules means that it becomes more difficult to hire that firm as an auditor. In addition, many large firms would prefer not to use the auditor of a main competitor, which further constrained their choices. Further, many small and mid-sized audit firms shun large public companies in view of the higher risk of such an audit going wrong—and the higher costs that would be incurred if one did go wrong. As a result, the GAO study found that many industries and regions have audit markets even more concentrated than the totals in Figure 1 might suggest: for example, Ernst & Young alone accounts for 77 percent of fees collected in the agricultural sector. Little wonder that in the GAO survey, 60 percent of the large companies viewed competition in the audit sector as inadequate. Most small public companies, on the other hand, seemed to be satisfied with their audit choices.

The existing empirical evidence does not show that the seemingly high level of concentration in this market is leading to an exercise of market power and higher fees (for example, GAO, 2008). Perhaps a more interesting question for present purposes is whether high concentration can compromise incentives for high-quality audits—an issue to which we will return.

Empirical Evidence on Audit Quality

Have auditors been doing their jobs sufficiently well? The quality of their performance is a contentious issue because while experts can judge individual audits as being of high or low quality on a case by case basis after the fact, no systematic data exists on whether audits as a group are of high or low quality.[5] The empirical literature thus has attempted to use a variety of measures to proxy for audit quality, all of which have their difficulties.

The usual proxies rely on counting events that might signal a poorly performed audit: the quantity of certain kinds of litigation; SEC investigations of and enforcement actions against auditors (including those in which an auditing firm does not admit wrongdoing but pays a fine and agrees to halt a certain practice); and restatements of corporate earnings (reissuance of past financial statements to correct errors or misapplication of GAAP). Francis (2004) reviews this kind of evidence and concludes that these proxies for failed audits occur at a low frequency—less than 1 percent annually, based on a population of around 10,000 publicly listed companies in the United States. A major problem with these proxies, even if otherwise valid (and below I argue they mostly are not), is that they are binary in nature, suggesting that audits are either "good" or "bad." However, quality varies along a continuum, and it would be desirable to know the average quality of audit for the economy as a whole. At some times, trends in the proxies may reveal trends in the average quality. In many cases, however, like a down stock market or a change in the enforcement regime, these proxies may rise or fall for reasons other than an average audit quality.[6]

Yet another proxy sometimes used for the quality of audit has been the size of the auditor, with the presumption that no single client is so important to a large auditor that it will risk losing its reputation by misreporting (DeAngelo, 1981). But this argument sounds somewhat dated by the late 2000s! For example, if the audit firm's incentive structure rewards each of its offices separately for its profitability, the local audit team's independence may be compromised even if the whole firm is

[5] The PCAOB, as discussed further below, reviews audit engagements and the quality control systems of accounting firms, but only limited information contained in its reports is made public. In particular, the public portion of the reports does not include any discussion of potential defects in the firm's quality control systems unless the defects are not addressed satisfactorily within 12 months.

[6] I thank Timothy Taylor, the managing editor of this journal, for making this point.

not. Large audit firms may face a situation where gains from not asking too many hard questions are reaped by the auditor at hand, in terms of higher fees, while losses from a poor audit will be carried by the firm as a whole. Nor can the fact that Big Four audits have been found to have higher fees (DeFond, Francis, and Wong, 2000; Ferguson, Francis, and Stokes 2003) be seen as an indication of higher quality. Higher audit fees may imply greater effort (hours) or greater expertise (higher billing rates), but they could also reflect more monopolistic price power or even incentives for the auditor to lean toward management's view of how the firm's transactions should be reflected in the financial statements.[7]

While the number of clearly failed audits is relatively low, major difficulties arise when using such proxies to evaluate auditors. These outcomes emerge from an interaction among different parties: corporate management, the auditing firm, government regulators, and other watchdogs like investors and the financial press. For example, if management becomes for some reason more likely to engage in aggressive management of earnings in a way that tiptoes up to the line of abuse—and sometimes crosses it—auditors may not be well-prepared to react to such a change. If and when auditing failures occur and are observed depends to some extent on the actions of all these parties.

Ultimately, the important question is whether investors feel that they can trust the results of audits. From that perspective, even a small number of clearly failed audits can cause major disruptions. After all, a lawsuit affects not just one relationship between an auditing firm and a client, but the extent to which any of the audits from that firm—or even whether certain decisions being made by auditors as a group—can be trusted. Such lawsuits have been common in recent years. In 2002, Arthur Andersen, at that time one of the five largest firms in the United States, dissolved after it was indicted on obstruction of justice charges. KPMG recently faced potential criminal indictment in connection with the provision of tax-related services, but it entered into a deferred prosecution agreement with the Department of Justice (GAO, 2008). BDO Seidman, a midsize auditing firm, is appealing a $521 million state judgment related to a private audit client, and according to its chief executive the judgment would threaten the firm's viability (Associated Press, 2007).

The current economic downturn seems sure to increase skepticism about audit quality because, when many firms are losing money, lawsuits blossom and often focus attention on whether auditors should have issued reports with more qualifications. Data on federal securities class action filings show 110 filings during the first half of 2008, which considerably exceeded the semiannual average of 63 filings between July 2005 and June 2007, as well as the annual average between January 1997 and December 2007. Of course, not every lawsuit is justified or will eventually be upheld. But when stock prices are falling, a resulting wave of lawsuits will put

[7] Another argument sometimes made is that firms audited by the Big Four accounting firms tend to have lower abnormal accruals, which can be interpreted to imply higher earnings quality on the part of the audited firms (Becker, DeFond, Jiambalvo, and Subramanyam, 1998; Francis and Krishnan, 1999). However, these lower levels of abnormal accruals could also lead to worse predictions of future cash flows, depending on how they are defined (Brochet, Nam, and Ronen, 2008).

auditors and their reports under a microscope, and some of the audits will surely come off badly.

Current Incentives for Quality Audits

There are currently a number of potential incentives to encourage quality audits, including regulation, rules that attempt to ensure a degree of auditor independence, along with incentives that audit firms have for competing and building reputation. But each of these methods has its weaknesses, and even taken together, they have not overcome widespread doubts about the quality of audits.

Regulatory Structure

Auditing occurs under a regulatory structure that was overhauled by the Sarbanes–Oxley Act of 2002. The Act created the Public Company Accounting Oversight Board (PCAOB), a private-sector, nonprofit corporation that oversees the auditors of public companies. This board has sweeping powers: the power to register public accounting firms; to set auditing, quality-control, ethics, independence, and other standards; to conduct inspections of registered public accounting firms; to conduct investigations and disciplinary proceedings and to impose sanctions on registered public accounting firms if justified (including fines of up to $100,000 against individual auditors and $2 million against audit firms). The PCAOB can also set rules to regulate the nonaudit services that audit firms may offer their clients, such as consulting or tax services. In addition, the board is empowered to require audit firms to provide testimony or documents in its possession and may suspend or debar audit firms or auditors that fail to comply; it may also seek the SEC's assistance in issuing subpoenas for testimony or documents from individuals or entities not registered with the PCAOB.[8]

Between 2004 and 2006, the Public Company Accounting Oversight Board performed 497 inspections of registered U.S. "triennial" firms—firms auditing no more than 100 entities and which are subject under law to being examined at least once every three years—the number of which ranged from 893 at the end of 2004 to 986 at the end of 2006 (PCAOB, 2007). Although numerous deficiencies were identified, not much light has been shed on the extent to which these deficiencies affected actual quality of the audited financial statements. Moreover, the PCOAB

[8] A prominent rule from Sarbanes–Oxley is that the chief executive and financial officers must certify personally that financial statements "fairly present…, in all material respects, the financial condition and results of operations of the issuer" (18 U.S.C. § 1315(b)); violations can result in a maximum fine of $1 million and up to 10 years in prison, or $5 million and 20 years if the wrongful certification is "willful" (18 U.S.C. § 1350(c)). This latter requirement has been linked to a record number of restatements correcting errors in financial statements, suggesting some degree of effectiveness, although statutes already provided significant penalties in terms of prison time but did not deter the major violations of 2001 and 2002 (Shapiro, 2005). This experience also illustrates that failed audits are not just the outcome of efforts by audit firms, but result from an interaction among regulators, firm executives, audit firms, and other gatekeepers.

conducted disciplinary proceedings involving violations of audit standards against no more than 17 audit firms in this time, only one of which was a Big Four firm (Deloitte & Touche) (PCOAB, 2008).

For all the powers of the Public Company Accounting Oversight Board, it does not change the basic contractual arrangement under which auditors operate: corporations still engage their own auditors and compensate them for their services. Thus, although the Act addressed some of the deficiencies of the pre-existing system, the perverse incentives built into the relationships among the auditor, the client, and the public still linger.

The Limitations of Auditor Independence

The Sarbanes–Oxley Act included two provisions particularly aimed at improving the independence of auditors. First, audit committees, rather than management, must appoint auditors and decide on their pay. (An audit committee is an operating committee of the Board of Directors, typically charged with oversight of financial reporting and disclosure). Second, audit firms are prohibited from providing their clients certain nonaudit services, including bookkeeping, information system design and implementation, appraisal, actuarial services, internal audit outsourcing, human resource functions, investment banking, legal and expert services unrelated to the audit, and others—unless a firm's audit committee grants an exception from these rules. The firm's audit committee must also resolve disputes between auditors and management, and establish a confidential and anonymous procedure for employees to report questionable accounting procedures.

The use of audit committees, while potentially mitigating the problem of auditor independence, obviously does not eliminate the "conflict of interest" dilemma. After all, independent audit committee members are paid out of the company's coffers and can also be dependent on top corporate management for a variety of benefits, including referrals as a possible member on the board and audit committee of other firms.[9]

As to the proscribed nonaudit services, controversy is rife. Some argue that such a ban is inappropriate, because auditing firms can provide scope and expertise gained through their auditing work—and that the other work can improve the quality of audits as well. Supporting the ban is the argument that the audit's value is diminished when independence is compromised by the lure of nonaudit service revenue, whether real or perceived (Beattie and Fearnley, 2004; Canning and Gwilliam, 2003). In empirical studies, Frankel, Johnson, and Nelson (2002) found that auditees whose auditors are paid more nonaudit fees have larger abnormal accruals and are more likely to meet or beat analysts' forecasts of earnings suggesting lower audit and earnings quality. Subsequent studies, however, have

[9] In the December 9, 2008, issue of the *Wall Street Journal*, Jonathan Macey in an opinion piece offered some strong comments about committee members: "Little if anything has changed at GM since dissident director H. Ross Perot dubbed his board colleagues 'pet rocks' for their blind support of then CEO Roger Smith. The broader problem is that there are far too many pet rocks on the boards of other U.S. companies."

refuted some or all of these findings (Ashbaugh, Lafond, and Mayhew, 2003; Chung and Kallapur, 2003; Larcker and Richardson, 2004; Reynolds, Deis, and Francis, 2004). DeFond, Raghunandan, and Subramanyam (2002) observe no link between the auditor's opinions and the level of nonaudit fees. In any case, the grave difficulties in observing audit quality or other indices of independence limit the utility of the studies for policy purposes.

The Limits of Reputation in Promoting Audit Quality

Might market forces, either alone or as facilitated by regulation, provide sufficient incentives for auditors to exercise professional judgment independently? Consider the situation of auditors who wish to build a reputation by providing higher quality and refraining from opportunistic behavior; for example, Craswell, Francis, and Taylor (1995) discuss the cost of developing such a reputation. The more valuable this credibility, the greater the risk of reputation loss; at some point, no additional incentives are necessary (Goldberg, 1988). However, this happy outcome is not likely under the existing market structure, wherein the auditees hire the auditor (Ronen, 2006).

At the very least, some segment of the market, which could be large, seeks opportunistic auditors that are willing to render a clean opinion on financial statements even when they suspect the statements might include omissions and misrepresentations. In other words, some auditors may seek to develop reputations with managers for acquiescence and empathy (Ronen, 2006).

Another common diagnosis of misaligned incentives is related to behavior at the partner level. Thus, for example, while it may be irrational for a large audit firm (such as Arthur Andersen LLP) to sacrifice its reputational capital for a single client (such as WorldCom), it may be quite rational for particular partners to do so (Macey, 2004; Painter, 2004; Ribstein, 2004).

Furthermore, the beneficial effects of building reputation would be accomplished only if there is a reasonable chance that misreporting will be uncovered in a way that damages reputation. But auditors may believe that they can "turn a blind eye" and not be found out, especially in a climate of economic prosperity. Penalties will not be imposed unless the misdeeds are detected, and even then, errant clients will reimburse litigation costs. In a sense, auditors may enhance their reputation among opportunistic clients by advertising and otherwise demonstrating their willingness to cooperate with the clients to the detriment of investors (Ronen, 2006).

The shift by the audit firms from partnerships to limited liability entities (Ribstein, 2004) also reduced incentives to improve reputation and quality relative to the prior regime in which partners were jointly and severally liable for negligence.

Limited Competition and the Danger to Audit Quality

The GAO (2008) study of the audit profession observed that interviewees had noted improvement in recent years in audit quality, including auditors' technical expertise, responsiveness to client needs, and ability to identify material financial reporting matters. However, there were also suggestions that the lack of competition may not provide sufficient incentives for dominant auditing firms to deliver high-quality and innovative audit services (pp. 31–32). In addition, the GAO warned that if one of the Big Four firms was to go out of business, or if two of the large firms were to merge, the resulting higher concentration could allow the remaining firms to raise prices, reduce the quality of their services, or lobby in a coordinated fashion for accounting standards that raise costs for their customers.

The risk of further shrinkage of the audit profession seems very real. Using historical data on lawsuits, Talley (2006) assesses the likelihood that at least one of the four large audit firms will fail in the near term because of liability they face in federal securities fraud class actions. He relates alternative viability thresholds of audit firms (the critical exposure at which the "pivotal partner" in a large firm decides that the firm should exit) to the risk of liability exposure over the next one to five years. One of his conclusions is that over a five-year horizon, such an event is quite likely. Clearly, a balancing act is required if the two goals are to encourage greater competition and to keep existing firms healthy and independent.

Proposed Reforms

A successful reform of the audit profession should address the agency problem that arises because the auditor is hired and paid by the firm. As a result of a successful reform, auditing firms should face financial rewards for doing good audits and penalties for bad audits; these financial incentives should ideally be provided by a firm's investors, not its managers. Ideally, audit quality should become visible enough so that firms that provide better audits should be able to command a premium for their services. By these standards, most of the proposed reforms fall well short.

The ACAP Reforms

On May 17, 2007, Secretary of the Treasury Henry Paulson announced an Advisory Committee on the Auditing Profession (ACAP). In its final report, released in October 2008, ACAP made numerous recommendations designed to improve the transparency, effectiveness, and competitiveness of the auditing profession. (The report also included recommendations concerning human capital and recruiting of personnel in the auditing profession, which I will not discuss here.) The recommendations entail incremental steps to facilitate the improvement of audit quality. Many call for voluntary action by members of the profession.

For example, some of the recommendations involve the Public Company Accounting Oversight Board. The Board is urged, among other steps: to set a requirement that the larger auditing firms produce a public annual report that includes key indicators of quality and effectiveness and to file with the Board on a confidential basis audited financial statements; to mandate the engagement partner's signature on the auditor's report; to determine the feasibility of developing key indicators of audit quality and effectiveness and requiring and monitoring the disclosure of these indicators; to communicate the role of auditors in finding and reporting fraud; and to create a national center for best practices on fraud prevention and detection.

States are urged to make their boards of accountancy, which govern the licensing and regulation of both individuals and firms who practice as certified public accountants, more independent and stronger enforcement agencies. Federal and state authorities are urged to avoid duplicate oversight of audits and accounting across states.

Other recommendations would require that auditing firms, even though they are partnerships, set up advisory boards with independent members to improve governance and transparency. Audit firms would be required to train partners and mid-career professionals on independence and whether a potential conflict of interest may compromise integrity or create an appearance of doing so. Companies that hire auditors would have to disclose any provisions in agreements with third parties that limit their choice of auditor. In addition, public companies would need to disclose every auditor change, including the audit committee's reason for the change and a response from the auditor. All public companies would have an annual shareholder vote to ratify the auditors. Other recommendations suggest planning for risks and for the preservation and rehabilitation of troubled larger auditing firms.

The Advisory Committee on the Auditing Profession (2008) report has many other proposals, and while it is hard to argue that any of them would have a negative effect, none of these proposals addresses the deep-rooted structural problem: auditors would still be paid by firms, with the attendant conflict of interest.

Increasing Independence of Auditors

A number of ways have been proposed to increase the independence of auditors: some focus on altering the relationship between the firm and the auditor; others on how auditors might be paid.

For example, one proposal is to mandate rotation of audit firms (Arrunada, 1997). This, however, still leaves the auditor without a strong principal to prevent its capture by the issuer's management. Moreover, rotation is a viable policy option only if a sufficient number of suitable firms could compete (Cunningham, 2006). If the rotation were to be implemented among the Big Four, plus perhaps a few other firms, the result is likely to be a government-enforced cartel in which all members split up the business (Coffee, 2006). Moreover, Carcello and Nagy (2004) find that fraudulent reporting is more likely in the first three years of an auditor–client relationship.

Other proposals have suggested finding alternative ways to pay auditors. For example, Schwarcz (2004) suggests but ultimately discounts the possibility of using public funding to pay auditors. He argues that if auditors are selected by companies but paid by the public, then the auditors would still want to please their client companies. Moreover, he argues that choosing and paying auditors through public-sector mechanisms would merely constitute another form of government regulation with all the attendant risks, including regulatory capture, competing political demands for funding, and inefficiency.

More Competition among Auditing Firms

A competitive market with audit firms that were smaller (but still able to serve global markets) might induce a higher degree of fear over possible loss of reputation. Given the existing barriers to entry, largely imposed by the scale and reputation of the Big Four auditing firms, a natural transition to a competitive environment is not likely. Coffee (2006) muses about the radical option of breaking up the major accounting firms: for example, Congress could in theory break up the Big Four into smaller, more competitive firms on grounds unrelated to antitrust violations.

But whether greater competition would lead to a higher quality of audits is unclear. In a competitive environment, it becomes easier for clients to change auditors. In addition, building a reputation with clients for being more accommodating may seem more beneficial than building a reputation for toughness. A large segment of the auditing market might well seek a reputation for ease, rather than toughness.

A Voucher Financing Proposal for Intermediaries

Choi and Fisch (2003) advance a voucher financing proposal under which the issuer of a security would distribute vouchers to its shareholders, who could use them to purchase services such as securities research from the analysts of their choice, with the analysts redeeming the voucher for cash from the issuer. This proposal successfully creates a subsidy that the issuer cannot control, hence financing the research activity without inducing bias.

Practical issues of implementation and fundamental ones of structure and strategy, however, detract from the proposal's effectiveness for financial intermediaries (Coffee, 2006). In addition, Choi and Fisch (2003, pp. 336–38) themselves discredit the idea in the case of auditors on various practical grounds. How are holders of vouchers to agree on a single auditor? Auditors will face a risk that their funding may change capriciously, and auditors may respond with a less-than-a comprehensive audit. Because audit quality is not transparent, it is not especially suitable for this kind of shareholder choice.

Stock Exchanges Hiring Auditors

Healy and Palepu (2003, p. 76) argue that stock exchanges, wanting to signal their reputations in competition for listing fees, have incentives to ensure that listed companies provide high-quality information to investors. They therefore suggest that the exchanges hire the audit firms, negotiate their fees, and oversee the outcome of the audits themselves. The exchanges could cover the audit fees through an increase in stock-trading fees, through additional listing fees, or a combination of the two.

While this proposal is intriguing, it's concerning to note that the exchanges do not have "skin in the game." They are not liable for damages suffered by investors relying on misleading information. The interests of stock exchanges are not closely aligned with those of investors; indeed, executives at stock exchanges may prefer pleasing their listed members to safeguarding the interests of long-horizon investors.

Increased Liability

Auditors typically face legal liability under tort law (Talley, 2006). The empirical literature offers some evidence that auditors increase effort and become more conservative in response to litigation risk, which imposes both direct costs and reputation costs (see, for example, Davis and Simon, 1992).[10] Perhaps some movement along these lines is worthwhile. But the current sanctions under the Sarbanes–Oxley act are quite extensive. At some point, high standards of liability will push auditors mainly to protect themselves against that liability, which may not be the same as providing the most accurate audit. Too high a level of legal liability could also cause a reduction in the number of firms in the market.

Could changes to liability rules strike a better balance in the incentives for auditors to provide high-quality audits, without risking undesired outcomes? In their review of the theoretical research on whether litigation risk improves audit quality, Latham and Linville (1998) stress that liability is an effective deterrent to poor audits only if meritorious suits against auditors are more successful than nonmeritorious ones. Whether this condition holds is difficult to establish, especially because suits against auditors rarely reach trial (Palmrose, 1997). A proposed reform (Partnoy, 2004) that advocates raising the stakes auditors face for audit failure by imposing "strict" liability for some share of losses regardless of fault is fraught with the difficulty of establishing an appropriate formula.

For other reasons, it is questionable whether increased liability will increase quality to a sufficient degree. First, expected liability costs depend on the perceived probability of detection and enforcement by the regulators and on the effectiveness of civil litigation. With respect to the former, if the past performance of the SEC and other regulatory agencies is any indication, detection and enforcement seem to be doubtful and distant (consider Enron and Bernard Madoff as two cases in point). Such shortcomings may not be surprising where regulators' budgets are buffeted by shifting political priorities and where their incentives may be more aligned toward potential future employment in the industries they are supposed to regulate rather than with investors. As to civil litigation, except for the very few

[10] A series of legislative changes and court decisions in the 1990s served to protect auditors from liability. These changes instituted proportional damages reflecting culpability under the Private Securities Litigation Reform Act of 1995 (PSLRA); barred recovery of treble damages from auditors under RICO in securities fraud cases (under the same act); shortened the statute of limitations in federal securities fraud cases (*Lampf, PLeva, Lipkind, Prupis & Petigrow v. Gilberston*, 501 U.S. 350 [1991]); eliminated private lawsuits against auditors for aiding and abetting issuer fraud (*Central Bank of Denver v. First Interstate Bancorp Denver*, 511 U.S. 164 (1994); heightened pleading standards to allege securities fraud (PSLRA § 101); and outlawed state court class actions alleging securities fraud in the Securities Litigation Uniform Standards Act of 1998. Following these changes, the number of lawsuits against auditors fell sharply (Cunningham, 2007; Coffee, 2004; Talley, 2006).

massive cases like Enron and WorldCom, the estimated auditor litigation rate for all public clients is 3 percent, and suits against auditors rarely reach trial (Palmrose, 1997). Moreover, if auditors pass litigation costs on to their clients, their incentives to increase effort would be commensurately lessened.

Moving from Rule-Oriented to Principle-Based Accounting

Many corporate accounting scandals seem to share the property that managers, with the consent of their auditors, structured transactions that complied with "bright line" accounting rules but obfuscated revenues or earnings (Maines, Bartov, Fairfield, Hirst, Iannaconi, Mallett, Schrand, and Vincent, 2003). Thus, a common proposal is that the regulations governing financial reporting might shift from being clear rules, which can be manipulated, to broader statements of principle, which offer more discretion to an enforcement agency like a regulator or a court. For example, after Enron was able to avoid treating certain "special purpose entities" as part of Enron because outside equity holders owned at least 3 percent of those entities, this "bright line" rule was recently changed to the principle that a company that most significantly affects the economic performance of a special purpose entity should treat that entity as part of the firm. Canadian accounting standards are more principle-based than U.S. standards, and Thornton and Webster (2004) find better accrual quality (in the sense of smaller abnormal accruals) in statements of cross-listed Canadian firms reporting under both Canadian and U.S. generally accepted accounting principles.

Indeed, some claim that litigation risk may have induced auditors to lobby for "rule-oriented" rather than "principles-based" accounting and auditing standards, because rules afford better protection against liability—although overly strict adherence to rules emphasizes form rather than substance and can lead to a reduction in transparency (Benston, 2003; Harris, 2005; Coffee, 2003; Sunder, 2003; Wyatt, 2003). Some move toward principle-based regulations may make sense, but it is no panacea. After all, principle-based regulations that do not spell out rules in specific detail can also offer scope for eliding unpleasant truths.

An Alternative Model for Auditing: Financial Statements Insurance

Financial statements insurance is a proposal for a market mechanism that offers significant changes in the structure and incentives of the auditing profession in such a way as to align auditors' and managers' incentives with those of investors. The results should be to ensure better quality audits, better quality financial statements, and fewer omissions and misrepresentations in the financial statements. Moreover, audit firms would compete along the dimension of quality rather than price.

Here's how financial statements insurance would work. Companies that choose to do so would begin by soliciting from insurance carriers offers of insurance coverage for their securities holders against losses caused by omissions and misrepresentations in financial statements that occur during the covered year.[11] The insurance carriers would hire an underwriting reviewer to assess the risk of omissions and misrepresentations by examining a company's internal controls and management incentive structures, its history and competitive environment, and other relevant factors. This underwriting reviewer might be an independent private organization to be created, or an external firm. Based on these reports, insurance carriers would decide whether to offer coverage, and if so, under what conditions—perhaps offering a schedule of possible coverage amounts and premia. Managers of firms would decide whether to purchase such coverage, and if they did, the coverage and premium would be publicized. Companies that opted for zero coverage would revert to the existing auditing regime. Companies would select an external auditor from a list of audit firms approved by their insurance carrier. The auditor would be hired and paid by the insurance carrier, but the audit fees would be reimbursed by the insured and separately publicized. Audit firms would also be rated by an independent organization (likely the same as the independent private organization that conducted the underwriting review) to be financed by fees collected from the audit profession.

The financial statements insurance coverage would become effective only if the auditor issued an unqualified opinion on year t's financial statements sometime in year $t + 1$. If the opinion was not unqualified there would be no coverage, or the policy terms would be renegotiated and the renegotiated terms would be publicized. For companies with effective coverage, investors' claims for recovery for losses caused by omissions and misrepresentations that occurred during the covered year would be settled through an expedited judicial process that could involve either a de novo institution created for this purpose or existing arbitrators agreed upon in advance by both the insured and the insurer.

Cunningham (2004b) describes in detail a model act for financial statements insurance. A financial statements insurance product is yet to be created in the market place; a reluctance on the part of the auditors to be hired by insurers seems the main impediment to the attempt to implement this scheme.

By insuring financial statements instead of auditors, financial statements insurance is based on a specific investigation of the underlying risk of misrepresentation, rather than on pooling and diversification. In this sense, it is akin to title insurance, rather than to liability or casualty insurance (Jerry, 2002). While the existing "directors and officers insurance" product bears certain similarities to the financial statements insurance described here, it is different in substantial aspects: 1) directors and officers insurance insures directors and officers against

[11] Under existing law, shareholders who sell stock at inflated prices resulting from misrepresentations cannot be made to surrender their gains to partially offset losses by shareholder who retained the stock until after a curative disclosure (revealing the truth) has occurred. This asymmetry, which would not be cured in the absence of legislative or regulatory action, creates incentives for short-horizon shareholders to induce (via boards of directors' appropriately designed compensation schemes) manager-initiated omissions or misrepresentations that inflate prices (Ronen and Yaari, 2002). The financial statement insurance mechanism discussed here would dampen the effects of such perverse incentives.

liability for omissions and misrepresentations rather than insuring investors; 2) directors and officers insurance covers only the year in which claims are made and not the year during which misrepresentations were made; 3) the premiums for directors and officers insurance are not based on a thorough underwriting review; and 4) coverage and premiums for directors and officers insurance are not publicized.

The insurance industry will have the capacity to pay claims made under financial statements insurance in part because—unlike property and casualty insurance for example—the decreases in the valuation of companies resulting from omissions and misrepresentations in the financial statements that are insured against can be hedged in the capital markets. Specifically, the insurer can buy a special put option to be created with a duration that corresponds to the period covered under the policy. The put would be exercisable upon a stock price decline of the insured that was determined by the judiciary body discussed above to have resulted from omissions and misrepresentations in the insured's financial statements. Investment funds (including pension funds, mutual funds, and the like) would be willing to sell these puts for less than the price of general puts (which are not conditional on omissions and misrepresentations) and would thus enable the insurer to reinsure any portion of the coverage as desired (Ronen, 2002). Regulators would have to impose limits on the extent of hedging so that the insurers would retain incentives for minimizing investors' losses.[12]

Let's summarize how financial statements insurance affects the incentives of the main parties. Once an insurer has underwritten a financial statement insurance policy, the insurer's objective would be to minimize the cost of claims against the policy—that is, the insurer's incentives would be aligned with those of investors. Towards meeting this objective, the insurer would provide incentives to its hired auditor to exert optimal effort, improving the financial statement's quality in the process. The insurer will charge neither too high a premium (to avoid losing market share) nor too low a premium (to avoid bankruptcy).

Managers of companies with high-quality financial statements will likely wish to buy financial statements insurance and pay small premia relative to other companies to credibly signal their higher quality, which should drive companies to race to a higher quality of financial statements. Auditors, having been hired by the insurers, would want to build reputations for high quality. Their independence, both real and perceived, would be enhanced. Finally, investors and financial markets would benefit from a higher quality of information. Not only will audits be more accurate, but the public information on premiums and coverage for financial statements insurance constitutes a quality or reliability index for investors.

[12] Derivatives such as credit default swaps can be also used to price risk, but that would be a different risk: namely the risk of default. But while default is observable and hence contractible, there exist no satisfactory observable proxies on either audit quality or the probability of omissions and misrepresentations; under the existing institutional arrangements, these constitute private information.

Financial statements insurance may encourage greater competition in audit markets as well. Because financial statements insurance is tailored to specific auditee risk, it should make it easier for smaller firms to enter existing insurance markets. Moreover, insurers, operating in a much more competitive industry than audit firms, could assemble audit teams or establish captive audit firms in direct competition with the existing Big Four auditing firms.

Variations on the basic financial services insurance scheme are also possible. For example, in Ronen and Sagat (2007), my coauthor and I suggest that if auditing firms are reluctant to be hired by insurers, then the auditing firms could take on the insurance function explicitly. An existing audit firm could incorporate itself or, more likely, on a test basis incorporate a financial statements insurance affiliate for the conduct of certain audits; alternatively, an existing insurer or other risk-bearing financial institution could establish an auditing insurer subsidiary. We lay out a number of other issues in detail about this version of the proposal, including how premiums might be set, what events could trigger payment, how liability might be calculated by formula, how liability law would work when losses were insured, a potential role for arbitrators to solve disagreements, and more.

The idea of financial statements insurance was first floated in a short op-ed piece I wrote for a popular audience in the *New York Times* (March 8, 2002). On July 10, 2002, a column by Susan Lee presented the idea in the *Wall Street Journal*. The first detailed treatment of the proposal can be found in Ronen (2002). Scholarly and general interest in financial statements insurance has grown; see, among others, Cunningham (2004a, 2004b), Skeel (2005), Shapiro (2005), Griffith (2006), Jopson (2006), and Moore (2006). Dontoh, Ronen, and Sarath (2008) provide a formal model demonstrating the superiority of financial statements insurance over the present and alternative regimes. Cunningham (2006) compares financial statements insurance to a number of alternatives discussed above and rejects them in favor of financial statements insurance. This literature adds up to a strong case that some form of financial statements insurance should become a mandatory component of U.S. federal securities regulation.

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References

Advisory Committee on the Auditing Profession. 2008. *Advisory Committee on the Auditing Profession Final Report*, October 6. Washington.

Arrunada, Benito. 1997. "Mandatory Rotation of Company Auditors: A Critical Examination." *International Review of Law and Economics*, 17(1): 31–61.

Ashbaugh, Hollis, Ryan LaFond, and Brian W. Mayhew. 2003. "Do Nonaudit Services Compromise Auditor Independence? Further Evidence." *Accounting Review*, 78(3): 611–39.

Associated Press. 2007. "Jury Awards Rise against BDO Seidman." August 15.

Beattie, Vivien A., and Stella Fearnley. 2004. "The Reform of the UK's Auditor Independence Framework after the Enron Collapse: An Example of Evidence-based Policy Making." *International Journal of Auditing*, 8(2): 117–138.

Becker, Connie L., Mark L. DeFond, James J. Jiambalvo, and K. R. Subramanyam. 1998. "The Effect of Audit Quality on Earnings Management." *Contemporary Accounting Research*, 15(1): 1–24.

Benston, George J. 2003. "Accounting Doesn't Need Fixing (Just Reinterpreting)." *Journal of Applied Corporate Finance*, 15(3): 83–96.

Brochet, Francios, Seunghan Nam, and Joshua Ronen. 2008. "The Role of Accruals in Predicting Future Cash Flows and Stock Returns." Working paper.

Canning, Mary, and David Gwilliam. 2003. "The Provision of Non-Audit Services to Audit Clients: Independence and Other Issues." Working Paper prepared for the Review Board of the Accountancy Foundation (United Kingdom), Dublin City University and London School of Economics and Political Science.

Carcello, Joseph V., and Albert L. Nagy. 2004. "Audit Firm Tenure and Fraudulent Financial Reporting." *Auditing: A Journal of Practice and Theory*, 23(2): 55–69.

Carcello, Joseph V., and Zoe-Vonna Palmrose. 1994. "Auditor Litigation and Modified Reporting on Bankrupt Clients." *Journal of Accounting Research*, 32(Supplement): 1–30.

Chen, Kevin C. W., and Bryan K. Church. 1996. "Going Concern Opinions and the Market's Reaction to Bankruptcy Filings." *Accounting Review*, 71(1): 117–28.

Choi, Steven J., and Jill E. Fisch. 2003. "How to Fix Wall Street: A Voucher Financing Proposal for Securities Intermediaries." *Yale Law Journal*, November, vol. 113, pp. 269, 336–38.

Chung, Hyeesoo, and Sanjay Kallapur. 2003. "Client Importance, Nonaudit Services and Abnormal Returns." *Accounting Review*, 78(4): 931–55.

Coffee, John C., Jr. 2003. "What Caused Enron? A Capsule Social and Economic History of the 1990's." Columbia Law and Economics Working Paper 214. Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=373581.

Coffee, John C., Jr. 2004. "Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms." *Boston University Law Review*, April, vol. 84, pp. 301, 306, and 346–64.

Coffee, John C., Jr. 2006. *Gatekeepers: The Professions and Corporate Governance*. Oxford University Press.

Craswell, Allen T., Jere R. Francis, and Stephen L. Taylor. 1995. "Auditor Brand Name Reputations and Industry Specializations." *Journal of Accounting and Economics*, 20(3): 297–322.

Cunningham, Lawrence A. 2004a. "Choosing Gatekeepers: The Financial Statement Insurance Alternative to Auditor Liability." *UCLA Law Review*, 52(2): 413–75.

Cunningham, Lawrence A. 2004b. "A Model Financial Statement Insurance Act." *Connecticut Insurance Law Journal*, 11(1): 1–35.

Cunningham, Lawrence A. 2006. "Too Big to Fail: Moral Hazard in Auditing and the Need to Restructure the Industry Before it Unravels." Boston College Law School Research Paper 108. Available at SSRN: http://ssrn.com/abstract=928482.

Cunningham, Lawrence A. 2007. "Beyond Liability: Rewarding Effective Gatekeepers." *Minnesota Law Review*, 92(2): 323–86.

Davis, Larry R., and Daniel T. Simon. 1992. "The Impact of SEC Disciplinary Actions on Audit Fees." *Auditing: A Journal of Practice and Theory*, 11(1): 58–68.

DeAngelo, Linda E. 1981. "Auditor Size and Audit Quality." *Journal of Accounting and Economics*, 3(3): 183–99.

DeFond Mark, Jere Francis, and T. J. Wong. 2000. "Auditor Industry Specialization and Market Segmentation: Evidence from Hong Kong." *Auditing: A Journal of Practice and Theory*. 19(1): 49–66.

DeFond, Mark, Kannan Raghunandan, and K. R. Subramanyam. 2002. "Do Non–Audit Service Fees Impair Auditor Independence? Evidence from Going Concern Audit Opinions." *Journal of Accounting Research*, 40(4): 1247–74.

Dontoh, Alex, Joshua Ronen, and Bharat Sarath. 2008. "Financial Statement Insurance."

NYU Working Paper 2451/27449.

Ferguson Andrew, Jere R. Francis, and Donald J. Stokes. 2003. "The Effects of Firm-Wide and Office-Level Industry Expertise on Audit Pricing." *The Accounting Review*, 78(2): 429–48.

Francis, Jere R. 2004. "What Do We Know about Audit Quality?" *British Accounting Review*, 36(4): 345–68.

Francis, Jere R., and Jagan Krishnan. 1999. "Accounting Accruals and Auditors Reporting Conservatism." *Contemporary Accounting Research*, 169(1): 35–165.

Francis, Jere R., and Jagan Krishnan. 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): 135–57.

Frankel Richard M., Marilyn F. Johnson, and Karen K. Nelson. 2002. "The Relation between Auditors' Fees for Nonaudit Services and Earnings Quality." *The Accounting Review*, 77 (Supplement): 71–105.

GAO. 2008. *Audits of Public Companies: Continued Concentration in Audit Market for Large Public Companies Does Not Call for Immediate Action: Report to Congressional Addressees.* Washington, DC: GAO.

Goldberg, Victor P. 1988. "Accountable Accountants: Is Third Party Liability Necessary?" *Journal of Legal Studies*, 17(2): 295–312.

Griffith, Sean J. 2006. "Uncovering a Gatekeeper: Why the SEC Should Mandate Disclosure of Details Concerning Directors' and Officers' Liability Insurance Policies." *University of Pennsylvania Law Review*, 154(5): 1147–48.

Harris, Jean E. 2005. "The Discourse of Governmental Accounting and Auditing." *Public Budgeting & Finance*. December, 25(4S): 154–79. Available at SSRN: http://ssrn.com/abstract=857751.

Healy, Paul M., and Krishna G. Palepu. 2003. "How the Quest for Efficiency Corroded the Market." *Harvard Business Review*, July, vol. 81, pp. 76–85.

Hughes, John, Jing Liu, and Jun Liu. 2007. "Information Asymmetry, Diversification, and Cost of Capital." *The Accounting Review*. 82(3): 705–730.

Jerry, Robert H. II. 2002. *Understanding Insurance Law*. 3rd edition.

Jopson, Barney 2006. "An Industry Still Skulking in the Shadow of Enron." *Financial Times*, July 27.

Lambert, Richard, Christian Leuz, and Robert E. Verrecchia. 2007. "Accounting Information, Disclosure, and the Cost of Capital." *Journal of Accounting Research*, 45(2): 385–419.

Larcker, David F., and Scott A. Richardson. 2004. "Fees Paid to Audit Firms, Accrual Choices, and Corporate Governance." *Journal of Accounting Research*, 42(3): 624–57.

Latham, Claire, and Mark Linville. 1998. "A Review of the Literature in Audit Litigation." *Journal of Accounting Literature*, vol. 17, pp. 175–213.

Macey, Jonathan R. 2004. "Efficient Capital Markets, Corporate Disclosure and Enron." *Cornell Law Review*, 89(2): 394–408.

Macey, Jonathan. 2008. "Holding CEOs Accountable." *Wall Street Journal*, December 9. http://online.wsj.com/article/SB122878233346989853.html.

Maines, Laureen A, Eli Bartov, Patricia M. Fairfield, D. Eric Hirst, Teresa E. Iannaconi, Russell Mallett, Catherine M. Schrand, and Linda Vincent. 2003. "Commentary Evaluating Concepts-based vs. Rules-based Approaches to Standard Setting." *Accounting Horizons*, 17(1): 73–89.

Moore, Don A. 2006. "SarbOx Doesn't Go Far Enough." *Business Week*, April 17. http://www.businessweek.com/magazine/content/06_16/b3980122.htm.

O'Reilly, Vincent M., Patrick J. McDonnell, Barry N. Winograd, James S. Gerson, and Henry R. Jaenicke. 1998. *Montgomery's Auditing*, 12th Ed. Wiley.

Painter, Richard W. 2004. "Convergence and Competition in Rules Governing Lawyers and Auditors." *Journal of Corporation Law*, University of Iowa, January, vol. 29, pp. 397–412.

Palmrose, Zoe-Vonna. 1997. "Auditor Litigation Research: Do the Merits Matter? An Assessment and Directions for Future Research." *Journal of Accounting and Public Policy*, 16(4): 355–78.

Partnoy, Frank. 2004. "Strict Liability for Gatekeepers: A Reply to Professor Coffee." *Boston University Law Review*, vol. 84, Part 2, pp. 365–75.

PCOAB. 2007. "Report on the PCAOB's 2004, 2005, and 2006 Inspections of Domestic Triennially Inspected Firms." PCAOB Release No. 2007-010. October 22. Public Company Accounting Oversight Board. http://www.pcaobus.org/Inspections/Other/2007/10-22_4010_Report.pdf.

PCOAB. 2008. "Disciplinary Proceedings" Webpage. Public Company Accounting Oversight Board. http://www.pcaobus.org/Enforcement/Disciplinary_Proceedings/index.aspx.

Reynolds, J. K., Donald Deis, and Jere Francis. 2004. "Professional Service Fees and Auditor Objectivity." *Auditing: A Journal of Practice and Theory*, 23(1): 29–52.

Ribstein, Larry E. 2004. "Limited Liability of Professional Firms after Enron." *Journal of*

Corporation Law, University of Iowa, Winter, vol. 29, pp. 427–47.

Ronen, Joshua. 2002. "Post-Enron Reform: Financial Statement Insurance and GAAP Re-visited." *Stanford Journal of Law, Business & Finance*. 8(1): 1–30.

Ronen, Joshua. 2006. "A Proposed Corporate Governance Reform: Financial Statement Insurance." *Journal of Engineering and Technology Management*, 23(1–2): 130–46.

Ronen, Joshua, and Kenneth A. Sagat. 2007. "The Public Auditor as an Insurer of Client Restatements: A Radical Proposal for Reform." *Journal of Accounting Auditing, and Finance*, 22(3): 511–26.

Ronen, Joshua, and Varda L. Yaari 2002. "Incentives for Voluntary Disclosures." *Journal of Financial Markets*, 5(3): 349–90.

Schwarcz, S. L. 2004. "Rethinking the Disclosure Paradigm in a World of Complexity." *University of Illinois Law Review*, no. 1, pp. 29.

Shapiro, Amy. 2005. "Who Pays the Auditor Calls the Tune: Auditing Regulation and Clients' Incentives." *Seton Hall Law Review*, 35(3): 1029–95.

Skeel, David. 2005. *Icarus in the Boardroom: The Fundamental Flaws in Corporate America and Where They Came From.* New York: Oxford University Press, pp. 212–14, 234.

Sunder, Shyam. 2003. "Rethinking the Structure of Accounting and Auditing." Yale ICF Working Paper No. 03-17. Available at SSRN: http://ssrn.com/abstract=413581.

Talley, Eric. 2006. "Cataclysmic Liability Risk among Big 4 Auditors." *Columbia Law Review*, 106(7): 1641–97.

Thornton, Daniel B., and Erin Webster. 2004. "Earnings Quality under Rules- vs. Principles-Based Accounting Standards: A Test of the Skinner Hypothesis." Available at SSRN: http://ssrn.com/abstract=557983.

Wyatt, Arthur R. 2003. "Accounting Professionalism—They Just Don't Get It!" Remarks delivered at AAA Annual Meeting, Honolulu, Hawaii, August 4, 2003.