



2007

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Recommended Citation

Lawrence A. Cunningham, *Securitizing Audit Failure Risk: An Alternative to Caps on Damages*, 49 *Wm. & Mary L. Rev.* 711 (2007).

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SECURITIZING AUDIT FAILURE RISK: AN ALTERNATIVE TO CAPS ON DAMAGES

Lawrence A. Cunningham*

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* Professor of Law, George Washington University. Thanks to Michael Abramowicz, Tom Baker, John Coffee, James Cox, Tamar Frankel, Joshua Ronen, Kenneth Saget, Lynn Turner, Arnold Wright, and participants in conferences at the University of Connecticut School of Law and New York Law School, where I presented earlier versions of this Article.

INTRODUCTION

This Article contributes a new transactional alternative to address risks of catastrophic audit failure: having auditing firms issue bonds to capital markets (called catastrophe bond securitizations) to provide coverage for these risks. This innovation follows from the Article's analysis of longstanding debates about the relative merits of establishing caps on damages for auditing firms in securities liability cases. In those debates, a common argument favoring caps is the absence or limited availability of insurance to address the liability. This forces auditors to resort to self-insurance programs that they operate through captive affiliates. This Article's transactional proposal responds to this insurance-based argument.

On the evidence available, self-insurance appears to be better than external insurance so that the insurance-based argument does not necessarily support damages caps. The former bundles risk monitoring and distribution within audit firms whereas the latter separates the two functions. Even if the argument were valid, moreover, the inquiry reveals superior alternatives that can be designed to address losses arising from audit failure. These are (1) financial statement insurance—which has been discussed in the literature and tailors coverage to risks of ordinary audit failure and (2) catastrophe bond securitization—which has not been mentioned in the literature and is introduced here as a way to pool and distribute risks of catastrophic audit failure through capital markets. The former bundles risk monitoring and distribution within insurers while the latter re-bundles them outward to capital markets.

The Article thus tentatively concludes that the insurance-based argument favoring damages caps warrants analytical skepticism. Analytical skepticism is the most the conclusion can reach, however, because the evidence available for a definitive determination is limited. Auditing firms, which are privately owned, provide virtually no public information necessary to evaluate these issues. Auditing firms do not publicly disclose any meaningful information about their financial condition or results, disclosing instead summary data on assets and total worldwide revenues broken down by geographic region and business line. They provide no disclosure concerning internal or external insurance models or capacity and only cursory information about internal organizational structures, controls or governance. In the course of some of the following analysis, therefore, an inferential picture of practices is developed.

Subject to those limits, after reviewing the terms of debate and introducing basic principles concerning the role of insurance in public policy governing auditing, the Article explores two alternative models that exist and two that could be created to address auditor liability for audit failure. The first of the two existing models is, of course, traditional professional liability insurance, still commonly obtained by smaller and medium-sized auditing firms and once commonly used by the four large auditing firms but now only to a modest, specialized extent. Remarkable about this form of insurance is how it separates the monitoring by auditors from distribution of the risk of audit failure. This separation or unbundling of risk monitoring and risk distribution can contribute comparative disadvantages to the audit function.

In comparison, the second of the two existing models are more recently-evolved self-insurance programs. Beginning sometime in the late 1970s and early 1980s, the large auditing firms all developed highly-sophisticated internal structures using captive insurance affiliates to manage and fund exposure to legal liability for audit failure. While some participants in the debate view this as evidence of the firms' dire straits, analysis supports the view that the decision to self-insure is both rational for the firms and relatively appealing systemically. Most notably, compared to the unbundling and separation of functions that external insurance presents, self-insurance programs bundle the monitoring and risk-distribution functions together within audit firms.

As for two new possible alternatives to address audit failure, the first of these is financial statement insurance, which has been discussed somewhat in the literature, and is summarized briefly here. Rather than auditors using professional liability insurance or self-insuring against the risk of liability from audit failure, this insurance covers particular financial statements. Issuers buy coverage from external insurers which, in turn, engage auditors to conduct financial statement audits with the resulting insurance covering those statements. Like self-insurance, this device bundles monitoring and risk distribution, although it bundles them into insurers rather than into audit firms. Even so, in a regime of financial statement insurance, existing commercial insurers as well as existing audit firm captives could compete to underwrite coverage.

The second novel alternative is insurance-based securitization, which has not been mentioned in the literature, and is introduced here. Since 1995, financial innovators have packaged insurance-like products into securities using special purpose entities that pool and distribute risks through capital markets. Insurance securitizations have concentrated on risks of catastrophic loss arising from such phenomena as hurricanes and floods. But, to date, they have not included professional liability insurance of the kind auditors have obtained externally or developed internally. While this market remains young and thin, as it matures and deepens, it could be an attractive vehicle to contribute resolution to the longstanding debate over damages caps for auditors by establishing a vehicle to cover catastrophic losses.

Intriguing about insurance-based securitization of risks of audit failure is how this could partially re-bundle the risk-monitoring and risk-distribution functions outward to capital markets. Investors can essentially invest in functional insurance policies covering the risk of audit failure. So using capital markets can reduce insurance market volatility that appears to be at the heart of insurance-based arguments favoring damages caps. It could add pressure on auditors to promote audit effectiveness and possibly reduce the incentives that plaintiffs' lawyers have to pursue excessive damages claims against auditors of public companies, an important adjunct of such insurance-based arguments. Best of all, it can precisely address catastrophic audit failure risk which, most seem agreed, is the most important context in which damages caps warrant serious policy consideration.

Part I summarizes the audit function and debates over damages caps. The latter are often supported by lamenting a lack of insurance, absence of insurability or, sometimes, an “insurance crisis.” Part II considers existing insurance for audit failure. It evaluates how audit failure risk may be better addressed by self-insurance than by traditional liability insurance because of closer bundling of risk monitoring with risk distribution. Part III explores potential insurance for audit failure. It reviews previous proposals for financial statement insurance to address ordinary risks of audit failure and then introduces the novel idea of insurance-based securitization to address catastrophic risks of audit failure.

I. AUDIT FAILURE: RISK AND CONTROL

The following discussion introduces the parameters and stakes of the audit function, considers public policy matters implicated and addresses the role of insurance in policy design. The stakes of audit failure are potentially staggering when only four large firms are competent to audit the vast majority of public enterprises. This has revived debates dating back several decades about whether law should set limits on damages auditors face for audit failure, in which proponents often cite the relative absence or expense of related insurance.

A. *Audit Constituents and Stakes*

The audit function addresses multiple constituent classes and, within each class, many variations of type. The primary constituent is investors (who range from sophisticated institutions to retail clients investing personal funds). The secondary class is issuers (which can be of any form, including non-profits and for-profits, private enterprises or public). Tertiary constituents include other participants in financial reporting, chiefly an issuer’s officers and directors (especially its audit committee) and professional advisors (mainly lawyers and underwriters). The latter group also includes insurers (of issuers, directors and officers and professional service firms, including auditors) along with regulators (mainly the SEC, but including state and securities and insurance regulators) and courts (federal and state).

As a group, auditors exhibit some variation in kind. They may usefully be grouped in three tiers measured by size (either by total revenues or total employees or professionals, which tend to be commensurate measures). The largest firms generate annual global revenues approaching \$20 billion apiece, employ more than 100,000 people each (a large portion of whom are accounting professionals) and operate in nearly every country in the world. There are presently four firms in this league (and there have never been more than eight in recent decades) and they increasingly bear a fairly homogenous character. A mezzanine tier of medium-sized firms generate a fraction of those revenues with a fractional employee base (revenues are closer to \$1 billion at the high end of the scale). Thousands of yet smaller firms populate the third tier in the accounting profession. The four largest firms audit the vast majority of public enterprises in the world, although mezzanine tier firms audit a meaningful share.

At stake in any audit for a given issuer is the production of relevant and reliable financial statements that enable investors to make efficient capital allocation decisions. At stake for the audit function as a system is social welfare, which is a product of the relative efficiency of overall capital allocation. Investors buy securities from issuers in part on the strength of reported accounting. The reports are prepared by management and attested to by an auditor, under the supervision of an audit committee.

Audit failure means that an auditor issued an opinion that financial statements fairly present an issuer's financial condition and results in conformity with generally accepted accounting principles (GAAP) when, it turns out, the opinion was incorrect. Under federal law, a limited risk of auditor liability for negligence exists in connection with initial securities offerings, although most federal law actions involve secondary market trading and require a showing of scienter for private actions.¹ On the other hand, under many state laws, negligence liability risk is considerable when relaxed privity standards apply instead of the more rigorous traditional privity requirement established in Judge Cardozo's classic opinion *Ultramares Corp. v. Touche*.² Federal law imposes further jurisdictional limitations on what kinds of securities-related claims may be brought in state compared to federal court.³

The magnitude of legal liability that auditors face for audit failure ranges from routine claims not posing systemic calamity (in the range of \$10,000 to \$250,000 whose significance for individual firms varies with firm size) to episodic claims involving hundreds of millions of dollars that could be systemically catastrophic. The frequency of

¹ Principal federal laws are Section 11 under the Securities Act of 1933, 15 U.S.C. § 77k, and Section 10(b) under the Securities Exchange Act of 1934, 15 U.S.C. § 78j. The latter applies to secondary trading in securities and exposes auditors to liability under fraud theories (scienter); the former applies to registered public offerings of securities and exposes auditors to nominally strict liability, which becomes essentially a negligence standard because auditors defeat liability by showing reasonable investigation and belief and also depends on the investor's ability to prove tracing. Other federal laws include Section 17(a) of the Securities Act of 1933, which imposes on auditors the duties of inquiry and disclosure, 15 U.S.C. § 77(q)(a), and Section 18(a) of the Securities Exchange Act, which creates private rights of action against persons, including accountants, who "make or cause to be made" materially misleading statements in reports or other documents filed with the SEC, 15 U.S.C. § 78r.

² 255 N.Y. 170 (1931). The privity rule essentially forecloses public shareholder claims against auditors. Beginning in the 1980s, several state law cases overturned that principle, including *Rosenblum v. Adler*, 461 A.2d 138 (1983), although a few courts clung to a watered-down version of the privity rule based on a foreseen plaintiff principle as articulated in the Restatement (Third) of Torts. See *Bily v. Arthur Young & Co.*, 834 P.2d 745 (Cal. 1992). Auditors also face a remote chance of criminal liability for audit failure that, if occurring, can have high-magnitude effects. See Kathleen F. Brickey, *Andersen's Fall from Grace*, 81 WASH. U. L. Q. 917 (2003); *United States v. Arthur Andersen*, 374 F.3d 281, 289-91 (5th Cir. 2004), *rev'd on other grounds*, 544 U.S. 1042 (2005). But criminal liability cannot be effectively addressed using either insurance or caps on damages.

³ See Securities Litigation Uniform Standards Act of 1998 (SLUSA), Pub. Law No. 105-353, 112 Stat. 3227 (codified in scattered sections of 15 U.S.C.) (restricting securities fraud class actions to federal court, although not covering individual actions or derivative litigation in state court); see Richard W. Painter, *Responding to a False Alarm: Federal Preemption of State Securities Fraud Causes of Action*, 84 CORNELL L. REV. 1 (1998).

relatively routine exposures is meaningful but not catastrophic: for smaller firms, perhaps once per year and, for larger firms, perhaps a dozen per year.

For larger cases, debate exists concerning their relative probability, which some confidently believe is high while others are less certain.⁴ Federal securities fraud class actions against auditors are few, but the size of resulting damages or settlements can be staggering, with four recent settlements reaching into the \$200 and \$300 million range and two others also exceeding \$100 million.⁵ At much higher levels, it could be impossible for an auditing firm to continue in the face of such a payout. Whichever view in the debate on probability is correct, the magnitude of loss is overwhelming—it could spell the demise of one of the four large auditing firms which, in turn, could threaten the industry’s viability.⁶

B. *Public Policy*

Policy discussions, which date back decades, consider mechanisms to improve the audit function and manage systemic effects of audit failure. Analysis considers promoting year-to-year audit effectiveness, striking the optimal level of deterrence based on liability standards and, particularly in recent years, preventing cataclysmic audit failure.

Two kinds of tools can be used to promote the effectiveness of the audit function. The first concerns structural arrangements designed to induce professional skepticism and objectivity among auditors. The second concerns liability devices designed to deter auditors—and their clients—from temptations to mis-report. The liability system is also designed, in part, to provide compensation to investors who suffer damages from audit failure caused by violations of law.

⁴ Two models suggest high probability of medium-term, litigation-induced exit of a one of the four large auditing firms. See Eric H. Talley, *Cataclysmic Liability Risk among Big-Four Auditors: An Empirical Analysis*, 106 COLUM. L. REV. 1641 (2006); LONDON ECONOMICS & RALF EWERT, STUDY ON THE ECONOMIC IMPACT OF AUDITORS’ LIABILITY REGIMES (Sept. 2006) (study examining existing and possible caps on auditor damages in Europe) [hereinafter, EWERT, EU STUDY].

⁵ See John C. Coffee, Jr., *Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms*, 84 B.U. L. REV. 301, 342 (2004) (detailing five settlements through 2004 exceeding \$100 million: settlements of \$110 million, \$125 million, \$217 million, \$250 million and \$335 million); Talley, *supra* note ____, at 1670 (noting Fortress Re settlement in 2005 of \$250 million). Despite these figures, it is not uncommon for commentators, or judges, to speak of the potential of “billion dollar judgments” against auditors. E.g., John Cummings, *Top of Mind: Do Accountants Need Liability Protection?*, BUSINESSFINANCEMAG.COM (April 7, 2007) (quoting Deloitte CEO Robert Kueppers as concerned about “the multibillion-dollar claim” and mentioning figures of \$3 billion, \$5 billion or \$10 billion); *Bily v. Arthur Young & Co.*, 834 P.2d 745 (Cal. 1992) (expressing concern about the “specter of multi-billion dollar judgments” against auditors).

⁶ Lawrence A. Cunningham, *Too Big to Fail: Moral Hazard in Auditing and the Need to Restructure the Industry before it Unravels*, 106 COLUM. L. REV. 1698 (2006) [hereinafter, Cunningham, *Too Big to Fail*].

Policymakers and scholars endlessly work to refine these tools in light of dynamically changing circumstances to achieve the optimal system. Throughout related debates, arguments for limitations on auditing firm liability tend to change over time as markets, reforms and laws evolve, but they invariably and steadily appeal to absence or expense of insurance.

1. Audit Effectiveness — Considerable changes have been made in the past five years in an effort to promote more effective audits. A leading example is the creation of the Public Company Accounting Oversight Board (PCAOB) as an oversight body to supervise and regulate the public company auditing industry.⁷ Specific reforms designed to improve audit effectiveness include: (1) requiring audit committee supervision of the audit function; (2) tightening limits on an auditor's right to provide non-audit services to audit clients; and (3) providing for audits of internal control over financial reporting.⁸ Some proponents of capping auditor damages cite these changes to support the prescription.⁹

While such reforms likely improve the audit function and reduce risk of audit failure, their probable success is qualified. Before considering qualifications as to each of the foregoing reforms, a continuing structural feature constraining audit effectiveness must be emphasized: issuers still pay their auditors. This creates an inherent conflict of interest that can impair auditor objectivity and thus reduce audit effectiveness. While many proposals have been made to eliminate this conflict, none has been adopted in the United States.¹⁰

⁷ Committee on Capital Markets Regulation (Nov. 2006) [hereinafter, Paulson Committee Report].

⁸ This is a partial list of reforms mandated in the Sarbanes-Oxley Act but these are the main reforms. More modest reforms include federal law mandating audit partner rotation on given engagements every five years, modest because this was previously an auditing requirement set at seven years. Bolder reform would require audit firm rotation, but this poses difficult questions that are hotly debated, including as to whether the familiarity that arises from repeat audits is a benefit that outweighs any gains (such as from independence, objectivity or competition) from mandatory firm rotation. See U.S. Government Accounting Office, *Public Accounting Firms: Required Study on the Potential Effects of Mandatory Audit Firm Rotation* (Nov. 2003).

⁹ E.g., Paulson Committee Report, *supra* note ____, at ____.

¹⁰ Alternatives have been proposed to address the payment conflict for auditors as well as for other intermediaries, including financial statement insurance, public funding, funding through stock exchanges or voucher financing programs. See, respectively, Lawrence A. Cunningham, *Choosing Gatekeepers: The Financial Statement Insurance Alternative to Auditor Liability*, 52 UCLA L. REV. 413 (2004) (as discussed further in Part III, instead of having companies pay auditors, authorizing them to buy insurance and having insurers hire and pay auditors); Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1, 29, n. 180 (suggesting but discounting possibility of having gatekeepers such as auditors paid through public funding); Larry E. Ribstein, *SarbOx: The Road to Nirvana*, 2004 MICH. ST. L. REV. 279, 289 (citing Paul M. Healy & Krishna G. Palepu, *How the Quest for Efficiency Corroded the Market*, HARV. BUS. REV., July 2003, at 76 (having the stock exchanges coordinate and compensate auditors)); Stephen J. Choi & Jill E. Fisch, *How to Fix Wall Street: A Voucher Financing Proposal for Securities Intermediaries*, 113 YALE L.J. 269 (2003).

As for reforms that have been made, PCAOB faces inherent limitations as a matter of institutional capability to promote effective auditing. True, PCAOB appears to be a more pro-active overseer than its predecessors, but that conscientiousness has created credible political objections to its performance. These objections have led political leaders and regulatory officials to reconsider many of its efforts.

The striking example concerns PCAOB's standards governing audits of internal control over financial reporting. While such audits can increase financial statement reliability, this is the leading context in which participants have alleged that PCAOB over-reached.¹¹ Accordingly, not only is PCAOB's existence a non-compelling argument for establishing caps, criticism of its handling of internal control audits also neutralizes the argument favoring caps based on the existence of those audits.

As to audit committee supervision, this may be one of the most important of the recent reforms.¹² For many enterprises, this reform can strongly promote audit effectiveness. Marking an important shift, recent reforms require that members of audit committees possess some expertise in financial accounting.¹³ This is a striking change in corporate governance discussions, which for several generations have emphasized the quality of independence rather than expertise.¹⁴ There is emerging evidence that having expertise on the audit committee increases the quality of financial reporting.¹⁵ That said, reliance on this important innovation may be premature.¹⁶

¹¹ See SEC Press Release, SEC Commissioners Endorse Improved Sarbanes-Oxley Implementation To Ease Smaller Company Burdens, Focusing Effort On "What Truly Matters," (April 4, 2007), <http://www.sec.gov/news/press/2007/2007-62.htm>. At its open public meeting on July 25, 2007, the SEC approved a replacement standard governing audits of internal controls over financial reporting in lieu of the one that the PCAOB initially adopted.

¹² See William W. Bratton, *Enron, Sarbanes-Oxley and Accounting: Rules versus Principles versus Rents*, 48 VILL. L. REV. 1023, 1034-36 (2003) (noting importance of empowering audit committees to supervise auditors, discuss auditor-management disagreements, and retain own professional adviros).

¹³ See Standards Relating to Listed Company Audit Committees, Securities Act Release No. 8220, Exchange Act Release No. 47,654, Investment Company Act Release No. 26,001, 79 SEC Docket 2876 (Apr. 9, 2003); 17 C.F.R. §240.10A-3(b) (2007) (codifying Exchange Act Rule 10A-3(b)).

¹⁴ The trait of director independence emerged as an important value in corporate governance when the monitoring board replaced the advisory board during the 1970s. See Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950-2005: Of Shareholder Value and Stock Market Prices*, 59 STAN. L. REV. 1465 (2007). Ever since, independence rather than expertise has been the clarion attribute of "good corporate governance." See Donald C. Langevoort, *The Social Construction of Sarbanes-Oxley*, 105 MICH. L. REV. 1817 (2007).

¹⁵ Jean Bedard *et al.*, *The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management*, 23 AUDITING: J. PRAC. & THEORY 13 (2004); Gopal V. Krishnan & Gnanakumar Visvanathan, *Does the Sox Definition of an Accounting Expert Matter? The Association Between Audit Committee Director's Expertise and Conservatism*, <http://www.ssrn.com/abstract=866884>.

¹⁶ For example, an emerging debate concerns whether audit committee experts, and others engaged in the financial reporting process, should promote a financial statement orientation towards equity investors or debt investors. At stake is the degree to which historical cost or fair value accounting should be preferred.

Limiting non-audit services may promote audit effectiveness, although evidence is mixed,¹⁷ and in any event creates other concerns. At present, some issuers of public securities face limited or no choice of auditors and, if only three large audit firms were to exist, many would have no choice. This restricted choice, which exists in part because of the small number of capable firms, is amplified by both legal limits on non-audit services firms can supply to clients and the auditing industry's practice of firm specialization in certain industries. To the extent that only such a small coterie of firms are capable of auditing the vast majority of public enterprises, a risk arises that firm partners and employees may consider their firms "too big to fail," which could impair rather than promote effective auditing.¹⁸ Damages caps could have a similar unintended side-effect.

2. Deterrence — The second category of tools available to promote effective auditing concentrate on deterrence, both as to auditors and their clients. Deterrence strategies pursue designing the optimal type and scope of legal duties and liabilities that auditors and others have. As with structural tools, policymakers and scholars regularly reevaluate system design and law periodically changes in response to debates. Issues include the standard of liability (from negligence to scienter),¹⁹ the scope of exposure (from primary to aiding-and-abetting),²⁰ and adjective devices (such as statutes of limitation,²¹ pleading standards²² or jurisdictional limitations²³).

This hinges, in turn, on issues such as whether value relevance (usefulness) or efficient debt contracting are important components of the demand for accounting reports. *See, e.g.,* Ray Ball, Ashok Robin & Gil Sadka, *Is Accounting Conservatism Due to Debt or Share Markets? A Test of "Contracting" Versus "Value Relevance" Theories of Accounting* (Feb. 27, 2005); *see also* Lawrence A. Cunningham, *Independence, Expertise and Accounting* (draft manuscript August 2007).

¹⁷ *E.g.,* William R. Kinney, Jr., Zoe-Vonna Palmrose & Susan Scholz, *Auditor Independence, Non-Audit Services and Restatements: Was the US Government Right?*, 42 J. ACCT. RES. 561 (2004); *see also* Jayanthi Krishnan, Heibatollah Sami & Yinqi Zhang, *Does the Provision of Nonaudit Services Affect Investor Perceptions of Auditor Independence?*, 24 AUDITING: J. PRAC. & THEORY 111 (2005) (noting mixed results of empirical research on the effect of non-auditing services on auditor independence and investigating whether investors perceive such an effect—and interpreting the results affirmatively).

¹⁸ *See* Cunningham, *Too Big to Fail*, *supra* note ____.

¹⁹ *Compare* *Ultramares*; *supra* note ____; with *Ernst & Ernst v. Hochfelder*, 425 U.S. 185 (1976) (restricting Section 10b actions to scienter, not negligence).

²⁰ *See* *Central Bank of Denver v. First Interstate Bank of Denver*, 511 U.S. 164 (1994) (Section 10b does not expose auditors (or other professionals) in private litigation to liability for adding and abetting securities fraud); Robert A. Prentice, *Locating That "Indistinct" and "Virtually Nonexistent" Line Between Primary and Secondary Liability Under Section 10(b)*, 75 N.C. L. REV. 691 (1997); Donald C. Langevoort, *Words on High About Rule 10b-5: Chiarella's History, Central Bank's Future*, 20 DEL. J. CORP. L. 865 (1995).

²¹ For Section 10(b) actions, the current statute of limitations period is two-years-from-constructive knowledge, subject to a maximum five-year period of repose. 15 U.S.C. § 1658(b) (negating *Lampf, Pleva, Lipkind & Petigrow v. Gilbertson*, 501 U.S. 350 (1991), which provided a one-year-from-constructive-knowledge limitations period, subject to a three-year period of repose, in turn altering the traditional judicial approach of borrowing relevant limitations period from analogous common law fraud context).

Detailed exploration of this terrain is unnecessary to conduct this Article's principal inquiry, except to note that optimality means sufficient deterrence at reasonable cost. Sub-optimality can arise from a liability regime in which potential damages are so high that they induce over-auditing or so high that imposing them on a firm could lead to its dissolution and the auditing industry to unravel. It is possible to address these problems by creating limitations on damages. Various types of limitations are possible, including safe harbors, proportionate liability and stated damages caps (which, in turn, can assume many forms).²⁴

As to safe harbors, they can fairly and usefully be justified for certain auditing practices. An example concerns audits of internal control over financial reporting to the extent that auditors make forward-looking statements in their related reports on the relative effectiveness of those controls.²⁵ These have not been adopted and this Article does not address them directly. It does contribute insights, however, concerning any arguments supporting safe harbors that are based on the absence or limited availability of external insurance.

As to proportionate liability, in 1995, the Private Securities Litigation Reform Act (PSLRA) eliminated joint-and-several liability for negligence, replacing it with liability in proportion to fault.²⁶ This is, in substance and effect, a functional damages cap.²⁷ Proportionate liability caps auditor liability at the level of culpability so that auditors are not exposed to all losses from financial calamity arising after an audit failure occurs. A theoretical defense of this limitation was made in 1984 by Professor Ebke.²⁸

²² See [*Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, ___ U.S. ___ (2007)]; *Novak v. Kasaks*, 216 F.3d 300 (2d Cir. 2000) (interpreting pleading standards that Congress enacted in 1995 to endorse pre-existing Second Circuit approach requiring that pleadings demonstrate "strong inference" of scienter); see also *In re Advanta Corp. Sec. Litig.*, 180 F.3d 525 (3d Cir. 1999).

²³ See SLUSA, *supra* note ____.

²⁴ An additional functional cap arises when firms opt to use the limited liability partnership form of business organization, which all four large auditing firms have adopted since this became possible in the early 1990s. See Larry E. Ribstein, *Limited Liability of Professional Firms After Enron*, 29 IOWA J. CORP. L. 427, 447 (2004).

²⁵ Lawrence A. Cunningham, *Facilitating Auditing's New Early Warning System: Control Disclosure, Auditor Liability and Safe Harbors*, 55 HASTINGS L.J. 1451 (2004).

²⁶ Private Securities Litigation Reform Act of 1995 (PSLRA), Pub. L. No. 104-67, 109 Stat. 737, 758 codified as amended at 15 U.S.C. § 78u-4.

²⁷ See EWERT, EU STUDY, *supra* note ____, at ____.

²⁸ Werner F. Ebke, *In Search of Alternatives: Comparative Reflections on Corporate Governance and the Independent Auditors' Responsibilities*, 79 NW. L. REV. 663 (1984) (inspired by and studying negligent accountant cases altering *Ultramares*, preceding *Bily*). Professor Ebke also mentioned, in passing, another option for risk distribution by creating a federal insurance fund akin to FDIC.

The analysis emphasizes the need for a link between the extent of auditors' fault and resulting liability.²⁹

As to stated damages caps, these have been debated since at least the 1970s.³⁰ Three varieties can be identified: fixed dollar, variable dollar and fixed percentage. They can be implemented by legislation, regulation or contract. A primary criticism of any variety of caps, of course, is that they reduce the deterrent effect of the liability threat. But that criticism misses the point, which is to design the system to achieve optimal deterrence, not maximal deterrence.³¹ A cap could contribute to the optimum.³²

Professor Ebke also evaluated fixed dollar caps in 1984. He noted that the main benefit to fixed caps is to improve risk analysis, by either the auditing firms or their insurers. Optimal design would assure that auditor exposure is not out of proportion to auditor gain. Yet to be effective for risk analysis, the amounts would have to be relatively low. But this means, in turn, that fixed caps per case would be both unfair and

²⁹ Professor Ebke also recommended that state courts adapt federal law's scienter standard into analysis of non-privity cases. Ebke, *In Search of Alternatives*, *supra* note ___, at 695. He suggested that if scienter can be shown then liability could expand to parties not in privity with the auditor but to require privity in all other cases (including negligence cases). Doing so is appealing because the scienter standard keeps auditor liability within reasonable bounds while extending it to all foreseeable third parties; since insurance generally excludes coverage for scienter, liability's deterrent effect remains.

³⁰ See, e.g., Ted J. Fiftis, *Current Problems of Accountants' Responsibilities to Third Parties*, 28 VAND. L. REV. 31 (1975) (proposing damages caps measured in terms of revenue for given client or total revenue). For a sampling of the literature across the decades, see Constantine N. Katsoris, *Accountants' Third Party Liability: How Far Do We Go?*, 36 FORDHAM L. REV. 191 (1968); Michael A. Mess, *Accountants and The Common Law: Liability to Third Parties*, 52 N.D. L. REV. 838 (1977); David L. Menzel, *The Defense of Contributory Negligence in Accountant's Malpractice Actions*, 13 SETON HALL L. REV. 292 (1983); Howard B. Wiener, *Common Law Liability of the Certified Public Accountant for Negligent Misrepresentation*, 20 SAN DIEGO L. REV. 233 (1983).

³¹ Damages caps are not an uncommon component of a liability system's design. Early examples appeared in maritime law. See Limitation of Liability Act of 1851, 46 U.S.C. § 181 (maritime law designed to encourage investment in ship-building by capping owners' liability at vessel's net value). Other examples appear in the ALI's Federal Securities Code, insider trading class actions, some state corporate laws, as well as those sought by auditors for decades. See, e.g., The Commission on Auditors' Responsibilities: Report, Conclusions, and Recommendations 154 (1978) (commission established by the American Institute of Certified Public Accountants known as the Cohen Commission); R. JAMES GORMLEY, *THE LAW OF ACCOUNTANTS AND AUDITORS: RIGHTS, DUTIES AND LIABILITIES* 17-11 (1981).

³² An additional challenge is federalism within the US and global coordination worldwide. Within the US, any effective cap would require federal legislation that preempts contrary state laws. Furthermore, given that the four large firms are global in scale, an additional challenge is assuring worldwide adoption of caps. This exercise is ongoing. For example, both the UK Parliament and the European Union (EU) are flirting with the notion. Notably, however, when first proposed, the Statute for European Companies and the Fifth Company Law Directive of the European Community did not provide statutory limitations on auditor damages. See Ebke, *In Search of Alternatives*, *supra* note ___, at 696 n. 172. The EU's pending project on the Eighth Company Law Directive has commissioned a study of the subject. See EWERT, *EU STUDY*, *supra* note ___, at ___.

ineffective. When the limit is too low, they would lead to nominal recoveries, but even low limits that provided fair recoveries could still pose a catastrophic risk for auditors.

If the main concern is the catastrophic case, then the cap would be some fairly large number today, in the range of \$450 million to \$2 billion (for smaller firms, perhaps \$30 to \$100 million).³³ That could help with cutting out the mega-claim, but does not meet Professor Ebke's objection about being sufficiently low to enable superior risk analysis. Risks below that level are just as analytically tractable or intractable as without any cap.

Professor Fiflis's 1975 proposal offered a variable dollar cap proposal. It would cap damages either (a) for a given client's audit, at a multiple of fees received from that client during a stated period or (b) for all clients, at a multiple of revenues from all clients for a period. Criticism of Professor Fiflis's proposal observed how investors in companies audited by smaller auditors stand to recover less than investors in companies audited by larger ones. That would increase audit industry concentration as enterprises would tend to appoint larger firms. That hurts smaller firms, increases prices, could reduce audit quality, and, if demand is relatively inelastic, hurts investors. This critique is particularly apt today, when encouraging additional rivals to the dominant four firms is, for many, an important policy objective.³⁴

The debate continues today. Professor Partnoy offers a fixed percentage approach to establishing caps on auditor liability for audit failure.³⁵ He envisions statutory authorization to permit auditors and their clients to contract for allocation of damages from audit failure according to a stated split. A question about the fixed percentage approach is whether it nevertheless could bankrupt an auditor. Even a small percentage of a large judgment could produce auditor insolvency. As a result, Professor Coffee prefers the approach offered earlier by Professor Fiflis.³⁶ Another concern of the fixed-percentage approach is how publicity of such arrangements could also hurt smaller firms, which are less able to commit to high allocations, and thus poses the same adverse effects as multiples-based caps.

Related pending debates consider the extent to which auditors and clients should be permitted, in engagement letters, to control liability contractually. Examples apart from the fixed-percentage proposal are contracts that require alternative dispute

³³ See Talley, *supra* note ___, at 1679 (estimating viability thresholds of large auditing firms in terms of what level of damages they could support before likely electing to dissolve, with estimates from \$454 million to \$2.15 billion).

³⁴ See US GEN. ACCT. OFFICE, PUBLIC ACCOUNTING FIRMS: MANDATED STUDY ON CONSOLIDATION AND COMPETITION, STUDY ON AUDIT INDUSTRY CONSOLIDATION (July 2003).

³⁵ See Frank Partnoy, *Strict Liability for Gatekeepers: A Reply to Professor Coffee*, 84 B.U. L. REV. 365 (2004).

³⁶ See Coffee, *Gatekeeper Failure and Reform*, *supra* note ___.

resolution (rather than jury trials) or expressly exclude punitive damages (although this exclusion already exists under federal securities law and under many state laws).³⁷ Debate also addresses the optimal vehicle to establish any caps. Examples of alternatives means of implementing a cap are by regulatory formula (as in the proposals by Professor Fiftis and Professor Coffee), contractual negotiation (as in Professor Partnoy's proposal) or by insurance-driven measurements (a proposal that Professor Ronen has made that I have endorsed).³⁸

3. The Insurance Argument — All the various proposals mentioned above, the relative merits of which are beyond this Article's focus, share a common argument supporting them in principle: the relative expense or limited availability of insurance.³⁹ While the insurance-based argument is ultimately that simple, based on insurance expense and limits, more complex variations of the argument appear. The first is the more subtle claim that the *cause* of expensive or limited insurance is legal uncertainty and/or unpredictably expanding legal liability. Professor Ebke's 1984 analysis, for example, expressed concern that "increased civil litigation" against auditors increases insurance premiums or restricts its availability "at any price."⁴⁰

The second is the more dramatic claim that rivets concern not on the quotidian case but on the catastrophic case from that unpredictable expansion: staggering liability threatening auditing firm insolvency with systemic ripple-effects that could demolish the entire auditing industry. In the late 2000s, for example proponents of establishing damages caps for auditors arising from audit failure contend that caps below catastrophic levels "would allow insurers to re-enter this market. Insurance would . . . allow audit firms to price risk and create a source of recovery for shareholders."⁴¹

While these more subtle and dramatic claims are worth separate attention, they ultimately do not make much of a difference to the basic argument from relative expense or limited availability of insurance. After all, legal uncertainty is endemic and pervasive so it cannot be eliminated for auditing and is not unique to it. And auditor-friendly

³⁷ See Council of Institutional Investors, Roundtable Discussion on Auditor Agreements: Discussion Summary (Nov 10, 2005), www.cii.org; Interagency Report on Auditor Engagement Letters www.federalreserve.gov/boarddocs/srletters/2006/SR0604a1.pdf (opposing such provisions).

³⁸ See Joshua Ronen, *Post-Enron Reform: Financial Statement Insurance and GAAP Revisited*, 8 STAN. J. L. BUS. 39, 48-60 (2002) (issuers obtain insurance at pre-determined levels to cover their financial statements with benefits that include increased investor monitoring of financial statement reliability); see *infra* text accompanying notes ____-____.

³⁹ While the merits are beyond this Article's scope, worth noting about proposing all auditor liability matters to be established by contract rather than tort law are two important facts: (1) the considerable agency costs embedded in the existing corporate governance structure which limits the probability that managers interact with auditors in favor of investor interests and (2) the oligopoly of the auditing industry that restricts issuer choice and reduces audit firm incentives to compete on service or product variation.

⁴⁰ See Ebke, *supra* note ____, at 690.

⁴¹ Paulson Committee Report, *supra* note ____, at ____

reform efforts are not directed so much to promoting legal certainty but to limiting legal liability. That is the essence of a cap, for instance, which does not so much increase legal certainty as simply put an upper financial limit on legal judgments.

Indeed, legal certainty and predictability could be provided by a law such as always making auditors strictly liable in the amount of \$200 million for every audit failure. Yet despite the certainty and predictability of such a law, insurance could remain expensive and limited. This is due, in part, to how uncertainty is a prerequisite to the effectiveness of insurance—as explained in the next section, events that are certain to occur do not benefit from the risk distribution function that insurance can provide.

True, unpredictability can impair insurance effectiveness and present catastrophic risk that insurance cannot cover. However, analysis and empirical evidence indicates that expensive or limited insurance is not due solely to unpredictably expanding liability and accompanying catastrophic risk but also to traditional insurance limitations arising from moral hazard, adverse selection and the rarity of catastrophic cases.⁴² As explored in Parts II and III of this Article, while these matters pose difficulties for existing and potential insurance to address quotidian and catastrophic risk from audit failure, they also reduce the insurance-based argument to the basic claim of expense or limited availability of insurance rather than implicate the more subtle or dramatic theories about legal uncertainty or unpredictably expanding liability.

However conceived, the insurance-based argument resonates forcibly during periods when insurance markets contract. Insurance markets expand and contract cyclically through periods designated as either “hard” or “soft” markets, in cycles that approximate seven years.⁴³ As a thumb-nail sketch of such cyclicity, the market for professional liability insurance for auditors hardened considerably from the late 1970s through the early and mid-1980s, in partial response to increasing risk of negligence liability for audit failure;⁴⁴ the market then softened in the late 1980s;⁴⁵ it hardened again

⁴² See Peter Moizer & Lisa Hansford-Smith, *UK Auditor Liability: An Insurable Risk?*, 2 INT’L J. AUDITING 197 (1999); see *infra* text accompanying notes ___-___ and ___-___.

⁴³ See FRANK CRYSTAL & CO., INSURANCE MARKET OVERVIEW 5 (Winter/Spring 2006) (“A hard market is one in which insurance rates increase (net written premiums increase substantially) and coverage tends to be relatively restricted. A soft market is one in which rate reductions are common (net written premium increases only nominally) and broad coverage terms are readily available. The cycle from hard market, to soft market and back to hard market occurs regularly at a peak-to-peak or trough-to-trough interval of approximately seven years.”).

⁴⁴ See John Siliciano, *Negligent Accounting and the Limits of Institutional Tort Reform*, 86 MICH. L. REV. 1929, at n. 111 (1988) (evidence from (x) the late 1970s of a “sharp premium rise and exit of some firms from insurance market,” citing H. JAENICKE, *THE EFFECT OF LITIGATION ON INDEPENDENT AUDITORS* 4 (2d ed. 1981); (y) the early 1980s of loss claims that “resulted in insurance becoming unavailable or prohibitively expensive,” citing Collins, *Malpractice Prevention and Risk Management*, J. ACCT. 52 (July 1986); and (z) the mid-1980s that number of E&O insurers to small and mezzanine firms shrunk from 12 to 3).

⁴⁵ See Practising Law Institute (Accountants’ Liability 1989: The Year in Review), *Developments in Liability Insurance*, 653 PLI/CORP. 9 (July 1, 1989) (noting market softening with insurers writing policies

in the early 1990s in response to the dissolution of the firm of Laventhol & Horwath;⁴⁶ the market remained hard for a few years—and this appeared to be global rather than US-specific;⁴⁷ then it softened again in the late 1990s in partial response to the PSLRA and has hardened yet again since the early and mid-2000s amid both accounting scandals and resulting regulatory reform.⁴⁸ The professional liability insurance market for auditors should soften further to the extent that such reforms increase audit effectiveness and reduce liability risk from audit failure. At present, the market remains hard.⁴⁹

This cyclicity—which is explored at more micro levels in the next Part—presents a preliminary implication. Proposals to cap liability that are supported by arguments about a lack of insurance may be unable to respond to the dynamics of those markets. A legal mechanism would have to be in place to suspend and reinstate caps as insurance markets fluctuate. Given competing demands on lawmakers and the difficulty

for small and medium-sized firms with larger limits of liability and inducing the insurer Crum & Forster, under an AICPA sponsored program, to increase limits to \$5 million from \$1 million and entry of Home Insurance Co. and Orion Insurance Co. but still noting difficulty of large firms obtaining high limit coverage and facing large deductibles so that insurance covered only catastrophic loss levels—meaning large firms must “in essence” self-insure smaller claims).

⁴⁶ See Robert A. Prentice, *Can the Contributory Negligence Defense Contribute to a Defusing of the Accountant's Liability Crisis?*, 13 WIS. INT'L L.J. 359, 360-61 (1995) (high level of unresolved claims plus legal costs and demise of Laventhol & Horwath “made it nearly impossible for the [large auditing] firms to find insurance, and has caused approximately forty percent of smaller firms to go without insurance altogether”); *id.* at n. 13 (citing Michael Schachner, *Big Six Losses Don't Add up to Cover Crisis for Small Firms*, BUS. INS., Nov. 22, 1993, at 3 (suggesting that “capacity has all but evaporated for Big Six firms, causing several to entirely self-insure”); *id.* (“Those who do buy insurance are paying much more than previously. Auditors, for example, are paying three times the premium with six times the deductible as compared to 1985. Some firms are paying premiums of \$150,000 per year—more than is paid by most surgeons—for the reduced coverage”)) (citations omitted).

⁴⁷ See Carl Pacini, Mary Jill Martin & Lynda Hamilton, *At the Interface of Law and Accounting: An Examination of a Trend Toward A Reduction in the Scope of Auditor Liability to Third Parties in the Common Law Countries*, 37 AM. BUS. L.J. 171, 220-21 (2000) (“auditors have been unable to spread or socialize risk through the purchase of professional liability insurance. The unavailability of liability insurance may also reduce the quality of corporate financial reporting.”); *id.* at n. 384 (“In the United States, large accounting firms are now able to buy only a portion of the coverage they could buy prior to 1985 and only for much higher premiums. Virtually all mid-size firms tend to be highly underinsured. Liability insurance for small firms is expensive with almost 50% not carrying any insurance at all”); *id.* at n. 384 (“In the United Kingdom, below \$75 million the Big Five retain the risks themselves as self-insurance using their own captive insurance companies. The effective ceiling on coverage is \$340 million” (citing Peter Mozier & Lisa Hansford-Smith, *UK Auditor Liability: An Insurable Risk*, 2 INT'L J. AUDITING 197, 204 (1998)); *id.* (“In Canada and Australia, the scale of the problem is such that auditors are finding it increasingly difficult to obtain insurance and that where it is available it is extremely expensive.”).

⁴⁸ See Dan L. Goldwasser, M. Thomas Arnold & John H. Eickemeyer, *Accountants' Liability*, Ch. 11: *Professional Liability Insurance*, PLI, § 11.2 (Aug. 2006) [hereinafter Goldwasser, Arnold & Eickemeyer, *Accountants' Liability (2006)*] (“Although the market for professional liability insurance softened in the late 1990s, it has become tighter in the wake of the accounting scandals in 2001-2002 and the subsequent regulatory response”).

⁴⁹ See FRANK CRYSTAL & CO., INSURANCE MARKET OVERVIEW, *supra* note ____, at 5.

of fashioning legislation that includes sufficient prospective flexibility, a legislative solution to the challenge is not likely to work. The observation does point in a more promising direction. It could be desirable to develop mechanisms that reduce insurance market volatility, if not strategies that would expand and sustain availability for all time.⁵⁰

The insurance-based argument for caps raises numerous issues, including the following. Are insurers really not willing to provide this insurance? Is there really no or little insurance available? How does the existence of large firm self-insurance programs affect the analysis? Are damages caps really necessary to support the efficacy of the audit function? If rejuvenating insurance is appealing, are there alternatives that would enable doing so? For example, could insurance cover *financial statements* rather than *auditors*? This could contribute a mechanism other than fiat to establish caps, assuming caps were desirable, and thus at least address risks of ordinary audit failure. Finally, could audit failure risk be distributed more widely by securitizing this risk through capital markets? Could insurance-based securitization reduce the volatility of professional liability insurance markets? Could it at least be used to address the specific concerns associated with catastrophic audit failure risk?

C. *The Role of Insurance*

Before pursuing such questions in the next two Parts, some initial perspective on the role of insurance in system design is in order. It may seem backwards to design the parameters of a liability system in relation to the capacity of insurance coverage to meet it. The system should set liability to achieve optimal deterrence (or, perhaps, compensation). But determining such an optimum requires examining all system components, including out-of-pocket costs imposed on targeted actors, the share of losses to be absorbed by insurance (or indemnification or other devices), the consequence of insurance losses as translated into future premiums and so on. In this calculus, it is reasonable to evaluate the role and capacity of insurance in overall system design.

1. Optimality — Allowing that insurance capacity should inform system design does not mean that its availability should be the basis for enlarging liability levels by assuming its continued availability nor should its lack of availability be the basis for the opposite. Insurance and similar resources cannot be assumed to exist or not to exist. Insurance affordable today may not be affordable tomorrow and vice versa.⁵¹ Accordingly, the investigation that follows is not intended to reach conclusions concerning the exact design of the liability system or the precise role insurance

⁵⁰ See *infra* text accompanying notes ____-____.

⁵¹ See, e.g., Siliciano, *Negligent Accounting and the Limits of Institutional Tort Reform*, *supra* note ____, at 1948-49 (criticizing “the standard bromide of modern tort law: the use of insurance to offset tort liability” and then citing and discussing *Rosenblum*, *supra*, which “concluded that because accountants have been able to obtain malpractice insurance against claims made directly by their clients, there was ‘no reason to believe’ they could not similarly insure against third-party claims” and noting how this belief is “dangerously misguided”).

availability or unavailability should play in that design. Rather, it is intended to identify and estimate the scope of available insurance and how to expand its availability so that the maximum level of potential resources can be identified and that knowledge can then be used to inform system design.⁵²

Nor is this to conclude that maximizing the aggregate available insurance is necessarily ideal. Perversely, expanding insurance capacity can actually reduce recoveries available to injured parties and this can frustrate any compensatory objectives that a liability system may be intended to achieve.⁵³ While this peculiarity more nearly raises questions about the function of compensation in the liability system compared to deterrence, the two goals continue to play at least some role in policy design. Still, evaluating claims of lack of insurance and promoting optimal system design (including as to damages caps) can be improved by an appreciation of the range and type of insurance products that can be fashioned to address risks.

2. Statistical Independence — Risks are susceptible to the risk management functions of insurance if they are statistically independent of one another. The risk of audit failure leading to legal liability generally satisfies this condition. It cannot be predicted with certainty and it is not necessarily random. Auditors can make reliable predictions and can even influence outcomes. But fraud can be hidden, illegal acts obscured, measurements imprecise, papers lost and rogue managers evasive. Audit failures occur through ordinary carelessness, actual negligence, gross negligence, and sometimes scintilla. Some audits are failures but are never uncovered as such.⁵⁴

If these matters could be controlled, then prediction would be perfect. At the extreme, if two events both are certain to occur, insuring them does not contribute to risk pooling or distribution; even if two events are not certain to occur but likely to occur in exactly the same circumstances, insurance cannot contribute to risk distribution. But if the risks have probabilities of occurring and those probabilities arise from different circumstances, then insurance is useful to pool and distribute both risks. As there is invariably some non-random chance of audit failure (as there is with death, earthquakes,

⁵² See George L. Priest, *The Antitrust Suits and the Public Understanding of Insurance*, 63 TUL. L. REV. 999 (1989) (“few would dispute that a central ambition of a civilized society is to maximize the availability of insurance against all forms of prospective loss” and “I believe this conclusion is the heart of the most influential philosophical justification for the modern state” (citing JOHN RAWLS, A THEORY OF JUSTICE (1971))).

⁵³ See John C. Coffee, Jr., *Reforming the Securities Class Action: An Essay on Deterrence and its Implementation*, 106 COLUM. L. REV. 1534, 1553 n.74 (2006); compare Roberta Romano, *What Went Wrong with Directors’ and Officers’ Liability Insurance*, 14 DEL. J. CORP. L. 1, 4 (1989) (“The availability of insurance need not lead to an increased level of misconduct: in a competitive insurance market, even if insurers cannot monitor insureds perfectly, they can adjust insurance contract terms and offer partial insurance to mitigate the moral hazard of insurance inducing suboptimal levels of care by insureds” (citing Steven Shavell, *On Liability and Insurance*, 13 BELL J. ECON. 120 (1982))).

⁵⁴ Bishop Berkeley might have asked, as with trees falling in unpopulated forests, whether an uncovered audit failure is really an audit failure.

floods and clouds on title), the condition is generally met: the risk of any given audit failure is statistically independent of the risk of any other and non-correlated.⁵⁵

3. Limiting Probability — Two broad categories of strategies can be deployed to address risk by managing its two components: limiting the probability of occurrence and limiting magnitude if it does occur. As to limiting probability, common examples outside auditing are driving carefully, using fire-resistant materials in buildings, installing safety devices on machines and engineering beach-erosion protection.

For auditing, steps to reduce the probability of legal liability from audit failure include the reforms in the Sarbanes-Oxley Act discussed earlier: installation of PCAOB as an oversight body for the industry; vesting audit committees with direct supervisory power over individual auditors; limiting the scope of non-audit services; and providing testing of and opinions on the effectiveness of internal controls. Additional devices include increased probing, strategic detection tools, investing in training of personnel, and having multiple teams of professionals review the performance of the engagement (as when a firm dispatches an engagement team but provides oversight by the national office).

4. Limiting Magnitude — As to limiting magnitude, steps are addressed to reducing the effects of a loss once it occurs. Non-audit examples are using air bags and seat belts when driving, installing sprinkler systems in buildings and providing first-aid kits on shop floors. For auditing, steps include prompt disclosure of corrections, swift preparation of financial restatements, continuous disclosure and, especially to address collateral effects, delisting of issued securities when they are accompanied by materially misleading financial statements. It also includes developing reserve funds available to meet such losses without disrupting an ongoing enterprise.

Investors may exert themselves to reduce the magnitude of audit failure. A key device available to them is diversification.⁵⁶ Under modern portfolio theory, investors can reduce the risk of a single stock price drop by owning opposite-behaving stocks or a group of differently-behaving stocks. The result is that peculiar risks associated with given securities are reduced (for the price of also reducing the “risk,” or positive chance, of a single stock price surge). This theory is designed to address business volatility rather than effects precipitated by financial misstatements, but the strategy nevertheless can reduce the latter’s effects.

⁵⁵ “Generally” because there is some reason to believe that certain kinds of audit failures—or audit failure risks—congregate in particular industries or proliferate during certain economic environments. See David B. Kahn & Gary S. Lawson, *Who’s the Boss? Controlling Auditor Incentives through Random Selection*, 53 EMORY L. J. 391, 428 (2004).

⁵⁶ In theory, public company shareholders are entitled to vote to ratify the selection of independent auditors but this selection is made by audit committees, rational shareholder apathy limits the exercise, and there is limited choice for most large enterprises.

5. Distributing Residual Risk — Some risk remains even after taking prudent steps to reduce probability and magnitude. The traditional way to distribute residual risk is by transferring it to another party using an insurance contract. Risk-averse persons are willing to pay a relatively small but steady amount to avoid shouldering the risk of a possible one-time but staggering payout. Insurance enables doing so.

At the limit, insureds can completely eliminate their risk for a price (premium): they opt for a certain small loss instead of an uncertain large loss (and if renewed annually, a certain stream of small losses in exchange for eliminating an uncertain large loss). Insurers profit by pooling these individual risk-aversion payments to generate a resource base that exceeds the aggregate amount of probable losses.⁵⁷ This pooling function thus not only transfers risk, it also distributes risk across all insureds in the pool.⁵⁸

While risk-aversion is generally assumed to obtain across a wide range of persons for whom insurance appeals as a risk distribution mechanism, risk aversion can vary with absolute and relative stakes. The standard example of risk aversion illustrates. It imagines a person facing a choice between a certain loss of \$500 and a 50% chance of losing \$1,000 (meaning an expected loss of \$500). People who are risk averse choose the certain loss as they are averse to the risk of doubling it (while risk preferring people take that chance and risk neutral people are indifferent).

To see how risk aversion can vary with absolute stakes, imagine how increasing the stakes affects the distribution of persons who are risk averse (or risk neutral or risk preferring). The population of persons who are risk averse tends to increase as the stakes rise: given a choice between a certain loss of \$1 and a 50% chance of losing \$10,000 (meaning an expected loss of \$5,000), very few offered the choice would roll the dice.

To see how risk aversion can vary with relative stakes, consider how a decision-maker's background position affects choices made in the foregoing examples. Suppose that persons in the first example command, respectively, a net worth of \$1,000 and of \$1 million. In that fact pattern, the former person will be more risk averse to the uncertainty of a \$1,000 loss (for that person, such a loss wipes out net worth) compared to the millionaire (for whom such a loss is a drop in the net worth bucket). A potential insured's relative wealth can thus be an important driver of relative risk aversion.

Even so, the more risk averse one is, the more one is willing to pay to avoid risk. Avoidance strategies include paying a third party insurer to assume risk. To modify the preceding examples, suppose that 100 risk-averse people each face a 1% chance of losing \$1,000 (each faces an expected loss of \$10). But also suppose that they have the choice,

⁵⁷ See Ejan MacKaay, *THE ECONOMICS OF INFORMATION AND LAW* 173-80 (1982); A. Mitchell Polinsky, *AN INTRODUCTION TO LAW AND ECONOMICS* 53-58 (2d ed. 1989).

⁵⁸ See Kenneth S. Abraham, *DISTRIBUTING RISK: INSURANCE, LEGAL THEORY AND PUBLIC POLICY* (1986).

using insurance, to part with a certain \$15 instead of facing that chance. A third party might be willing to accept the \$15 from each of those 100 people, grossing \$1,500, in exchange for accepting the risk of having to pay \$1,000. If so, the result is an insurance market with 100 insureds paying the insurer to take each of their risks.

II. EXISTING INSURANCE FOR AUDIT FAILURE

Auditors (and investors) typically handle risk of legal liability in much the same way that others address kindred risks: monitoring risk to control it (limiting probability and magnitude) and using insurance to distribute the residual. This Part discusses two classes of tactics that auditors long have used to deal with the residual risk by distributing it: third-party insurance and self-insurance. It tentatively concludes that self-insurance is comparatively superior to E&O insurance in promoting audit effectiveness.

A. *Errors and Omissions (E&O) Insurance*

Auditors have long used insurance to transfer and distribute risk of legal liability arising from audit failure. The insurance is variously dubbed professional liability insurance, malpractice insurance or, most broadly, errors & omissions (E&O) insurance. Two general limitations accompany such insurance—moral hazard and adverse selection—plus several limitations that raise issues of peculiar significance to the audit function concerning monitoring.

1. Moral Hazard — As to moral hazard, insureds who completely eliminate their risk for a price have lesser incentive to limit probability or magnitude than those who do not. The result is that insurance can perversely increase both. A theoretically appealing response to this problem is for insurers to monitor insureds and adjust premiums according to steps that each insured takes to minimize probability and magnitude. Ideally, premiums are then matched precisely to risks. Alas, when pooling risks, monitoring each insured is costly and sometimes impossible. A second-best strategy emerges of incomplete risk elimination—that is, having the insured retain some risk. Risk retention devices in insurance include deductibles, coinsurance and self-insured retentions.⁵⁹

To appreciate how retentions function, first note that E&O insurance is written with *limits-of-liability*, meaning an express contractual limitation on the insurer's responsibility to pay under a policy. Traditional policies use a single amount to establish both coverage per claim as well as aggregate limits (that is, the aggregate policy amount is available to cover any one claim). This is satisfactory for most small and medium-sized auditing firms which, on average, face one claim per year for every 100 professionals employed.⁶⁰ Larger firms face more frequent annual claims and related

⁵⁹ Under a deductible, the insured bears any loss up to a stated amount; under co-insurance, the insured bears a stated percentage of any loss regardless of amount.

⁶⁰ Goldwasser, Arnold & Eickemeyer, *Accountants' Liability* (2006), *supra* note ____, at § 11.4

policies accordingly separately state limits per claim on the one hand and aggregate limits on the other.⁶¹

Virtually all E&O policies (with the exception of some for small firms) use deductibles or self-insured retentions. Deductibles require insureds to cover losses up to a stated amount before the insurer is obligated to contribute; self-insured retentions require insureds to cover losses before the insurer is obligated to pay the full amount of the limits-of-liability.⁶² Deductibles, which are less favorable to insureds, are more common in traditional E&O insurance (for smaller firms) while larger firms tend to obtain policies using the more favorable self-insured retention terms.⁶³

In the audit function, moral hazard can cut multiple ways. For example, expansive liability presents moral hazard to shareholders *ex ante*. If shareholders know they will be able to successfully sue an issuer's auditor to recover losses due to audit failure, they enter the picture with fewer incentives to self-protect.⁶⁴ This is a theoretical defense not only of the privity rule for auditor negligence as in *Ultramares*, but also to support a case for limiting liability in others way, either doctrinally (as through tort law's economic loss doctrine) or by fiat using damages caps. With such public policies in place, investors have increased incentives both to monitor issuers (and their auditors) and to effectively self-insure through investment portfolio diversification.

On the other hand, such doctrinal or fiat limitations pose a different problem of moral hazard, increasing moral hazard among auditors on an engagement who are aware that their loss exposure is capped. One issue is whose behavior is more likely to be influenced by such moral hazard. This hinges, in large part, on the strength of other incentives that shareholders face to self-protect on the one hand and auditors have to avoid conduct leading to audit failure on the other. My purpose is not to settle that issue, but to observe how that variable in the audit function contributes a kind of uniqueness compared to other tort liability and insurance contexts.⁶⁵

⁶¹ *Id.*

⁶² To illustrate the difference, consider a policy with an aggregate limits-of-liability of \$2 million applicable to audit failure damages of \$2.5 million. With a deductible of, say \$100,000, the insured must cover the first \$100,000 and the insurer the remaining \$1.9 million of policy coverage (leaving a \$500,000 uninsured shortfall and a total obligation of \$600,000); with a retention of, say also \$100,000, the insured must cover \$100,000 of the total loss, meaning the insurer pays the full \$2 million limits-of-liability and the insured the rest, for a total of \$500,000. *Id.*

⁶³ *Id.*

⁶⁴ See Siliciano, *Negligent Accounting*, *supra* note ____, at 1948.

⁶⁵ The auditing context is not *sui generis*, of course, as tow examples suggest. First, it is possible to conceive of the problem of auditor liability as a problem of legal error risk arising from juries or judges awarding excessive damages. But this problem pervades the US liability system and is certainly not unique to auditing. Absent a comprehensive systemic solution, context-specific solutions should be sought. Second, one might observe that purchasers of securities discount the purchase price to reflect the probability of financial catastrophe from audit failure (among other risks). Yet this does not distinguish the securities investor class from many others, including, for example, owners of properties in areas prone to

An additional complication concerns auditors' capacity to pass insurance-related costs through to clients. Shifting financial risks from auditors to insurers would not diminish deterrence so long as auditors as a group suffered when one auditor failed. But group suffering will not occur if auditors can pass insurance costs on to their clients (and, in turn, the public).⁶⁶ Cost-passing reduces the deterrent effect of imposing the costs on auditors (some deterrence may remain from risk of harm to reputation). Expanding auditor liability would not help much either. Whether auditors can pass costs through is uncertain, although public enterprises don't have any choice but to hire an auditor and choice is limited. On the other hand, insisting that auditors retain some liability risk (through retentions) might incrementally frustrate their cost-passing ability (it may be more convincing to defend high audit fees by citing high insurance premiums than by citing losses incurred on liability claims).

2. Adverse Selection — As to adverse selection, ideally, a premium should equal an insurer's expected loss plus administrative costs and a fair profit.⁶⁷ Yet it is rarely practical to calculate each insured's individual expected loss perfectly. The best that can be done (at reasonable cost) is systematic classification of each insured into groups with similar probabilistic attributes. For example, in automobile insurance, insureds may be classified according to a combination of discrete attributes such as specific accident histories (called "experience rated") and whether the vehicles they drive are equipped with air bags or not (called "feature rated").

Risk classification grouping implies that, within groups, individuals pose different risks while paying the same premium. As a result, more applicants will seek classification in lower-risk/lower-premium groups. Resulting groups will have in them more relatively higher-risk than lower-risk people for that classification. Insurers respond to this adverse selection by estimating its effects using increasingly-refined models that enable adjusting the scope of coverage and premium charged for each risk group classification. These exercises are limited, however, and when the costs of increasing refinement are greater than the benefits, no further refinement is made.

3. Monitoring — The monitoring-related limitations of using E&O insurance to address audit failure risk are serious. First, auditor E&O insurance addresses an audit firm's exposure using general policies for specific time periods. They are not tailored to particular audit engagements or associated risks of audit failure. Such coverage generality may pose perverse incentive effects that prevent calibrating auditing tasks to the risks of audit failure arising from particular engagements.

natural disaster (such as coastal areas), who also discount their purchase price in light of catastrophic risks too.

⁶⁶ See Kent D. Syverud, *On the Demand for Liability Insurance*, 72 TEX. L. REV. 1629, 1644-49 (1994).

⁶⁷ In the market imagined above, *supra* note ____, the insurer's total expected loss is \$1,000 and with 100 people that means \$10 each plus \$5 for costs and profit.

Second, and more importantly, this method separates the risk-monitoring function from the risk-distribution function. That is, auditors are in control of their insured activities with little or no oversight by insurers. Monitoring is a way to control risk but when risk monitoring is separated from risk distribution, moral hazard increases. The theoretical appeal of bundling monitoring and distribution evaporates to a point where even second-best strategies of retentions are impaired.

Put differently, the issue raises a problem of asymmetric information when considering the various constituents in the audit function. Relative access to information is greatest among issuers, then auditors and then the latter's external insurers. Issuers have superior access to the basic financial data and are in the best position to determine its reliability; auditors have superior knowledge in determining their capability of assessing that information and thus estimating the risk of audit failure. Insurers must rely upon abstract models and command data sufficient to validly estimate expected losses from audit failure.

Exposure from audit failure is more difficult for insurers to evaluate, as it involves matters of investor demographics. Estimating the magnitude of audit failure is more uncertain when gauging the scope of claims is difficult (as by the number, identity or type of third party shareholders or other investors who may assert them). Such informational asymmetry can lead insurers to increase premiums or retentions, limit coverage or add exclusions. When asymmetry is acute, premium surges may occur, which increase the adverse selection that leads to lower-risk insureds withdrawing from pools. With only high-risk insureds left, pools unravel, and self-insurance becomes the preferred route for the low-risk and no insurance for the high-risk.

Consider an analogy from directors' and officers' (D&O) insurance. Premiums and coverage may provide clues about liability risk to the extent that they are valid proxies for corporate governance quality.⁶⁸ Yet scholars observe that D&O insurers do not appear to have or act upon any monitoring incentives.⁶⁹ While similar data on E&O insurance does not appear to have been published, it is reasonable to suppose a similar phenomenon in this line.⁷⁰

⁶⁸ See Tom Baker & Sean J. Griffith, *Predicting Corporate Governance Risk: Evidence from the Directors' & Officers' Insurance Market*, 74 U. CHI. L. REV. ____ (2007); compare Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 IOWA J. CORP. L. 1, at n. 337 (2002) (premiums for D&O insurance accurately reflect governance quality (citing, at n. 337, John E. Core, *The Directors' and Officers' Insurance Premium: An Outside Assessment of the Quality of Corporate Governance*, 16 J.L. ECON. & ORG. 449 (2000))).

⁶⁹ See Tom Baker & Sean J. Griffith, *The Missing Gatekeeper: D&O Insurers*, 95 GEO. L. J. ____ (2007); see also Joseph A. Grundfest, *Punctuated Equilibria in the Evolution of United States Securities Regulation*, 8 STAN. J. L. BUS. & FIN. 1, 7 (2002) (invoking this basis to question Professor Ronen's proposal, discussed below in this Article, favoring financial statement insurance).

⁷⁰ A policy parallel appears: commentators who lament unavailability of auditor E&O insurance and/or rising liability risks dramatize their arguments by warning that the combination may drive auditors out of the auditing business with calamitous effects while those lamenting the unavailability of D&O insurance

4. Insurance Levers — As with all insurance products, the market for E&O insurance changes dynamically in response to prevailing macroeconomic and social conditions that have specific effects on insurance underwriting decisions. These factors influence the supply of insurance available and its price (the premium) and are characteristically used to describe aspects of the familiar “cycle explanation” for insurance market dynamics. Thus, the thumb-nail sketch of such cyclicity provided earlier can be explored more fully by considering underlying components of statistical independence, adverse selection, and moral hazard (and the bearing of monitoring capabilities on the latter). In particular, consider a few examples of how retentions can be used to address each of these three components.

First, retentions enable insurers to neutralize correlations among risks that otherwise impair insurance’s efficacy to pool and distribute them (*i.e.*, to address reduced independence of risks). That is, if all pool members are certain to suffer losses of a given amount (say \$100,000 per year), then there is no independence as to that amount. So it is not susceptible to risk-pooling and distribution. Hence, deductibles rise to that level of uniformly certain loss. Likewise, if all pool members are equally highly-likely to suffer losses in a given category (say from secondary debt offerings of highly-leveraged enterprises), then the low independence of that pool would increase the appeal of internal retentions compared to external coverage.

Second, retentions address adverse selection by enabling insurers to distribute total risk more heavily to high-risk than to low-risk insureds. This is because uniformly high retentions for members of a pool have the effect of charging more losses to those pool members that suffer claims more often or in higher amounts than other pool members. High retentions are thus better for low-risk insureds than higher premiums are. Their existence may suggest a strategy for redressing high risk-variability in a pool and an effort, in response to external macro forces, to keep insurance “available.”

Third, retentions, as noted, reduce moral hazard. In part, this arises from how they increase incentives for internal monitoring. Indeed, high retentions may reflect that firms rather than external insurers are better able to monitor (evaluate and control) associated risks. But the second-best strategy of replacing monitoring with retentions becomes even less effective the more unbundled the risk monitoring and risk distribution functions become. This insight contributes a partial explanation for why large auditing firms initiated more ambitious self-insurance programs.

After all, volatility in E&O insurance markets also reflects competitive forces prevalent in most insurance markets, which are financial in character and therefore pose few structural limitations to industry expansion.⁷¹ Insurers face competition not only

amid rising liability risks do so by warning that the result may discourage talented and capable persons of serving on corporate boards of directors.

⁷¹ See Romano, *What Went Wrong*, *supra* note ___ at 18 (noting that capacity constraints or withdraws are puzzles in a competitive insurance market where premiums should adjust to changing conditions but noting how for professional liability insurance “desired terms of coverage—and for some firms any coverage—became unavailable, at apparently any price.”); *see also id.* (noting how the capacity constraint story is hard

from other insurers but from their customers and potential customers. Customers who regularly negotiate with insurers over retentions increasingly appreciate the need to develop formal strategies to manage and fund related risks. Customer responses vary according to different risk classification groups. Among auditing firms, these classifications parallel firm size (as large, mezzanine or smaller). In recent decades, periods labeled “insurance crises” led the large firms to pursue more systematic programs of self-insurance.

B. *Self-Insurance Programs (SIPs)*

Hard insurance markets, and perhaps other factors, lead insureds to strategy options other than transferring risk, often called self-insurance. This is a colloquial term that actually designates a complex variety of tools. In general, however, self-insurance involves setting aside a portion of revenues from activity to meet losses should they occur, a strategy that became increasingly common throughout the US economy in the late 1970s and early 1980s.⁷² Of course, risk-retention devices prevalent in general insurance contracts, such as deductibles and co-insurance, are a partial form of self-insurance. What distinguishes the strategy usually described as self-insurance is a more comprehensive program of reserving funds to pay losses, more fully internalizing those risks.⁷³

1. Large Firm Programs — It is a commonly-stated, although stylized, fact that large audit firms have embarked on comprehensive self-insurance programs (SIPs), using their own separately-organized insurance affiliates.⁷⁴ Note, however, that public details of such programs are scarce, as the audit firms are privately-held and do not produce the kinds of disclosure that public enterprises do. Subject to this opacity, it is possible to assemble a composite sketch of important outlines, including operational and organizational scale, parameters of the programs and the types of reinsurance involved.

As to operational and organizational scale, consider, as a representative firm, Deloitte (formerly called Deloitte Touche Tohmatsu). It is actually a network of some 70

to believe “Given that the input for insurance is wealth and not the physical capital of a factory which could have productive capacity limits”).

⁷² See Priest, *The Antitrust Suits and the Public Understanding of Insurance*, supra note ____, at ____ (documenting that “the extent of corporate self-insurance has increased substantially over time through the creation of firm or industry captive insurance subsidiaries and industry-wide mutuals.”); see also *id.* at ____ (“the corporate purchase of commercial liability insurance has proven something of a puzzle because corporations have many potential methods of diversifying to reduce the effect of potential losses”).

⁷³ More precise vocabulary distinguishes among self-insurance, self-funding (which, in turn, assumes the various forms of retentions such as deductibles and co-insurance) and no insurance.

⁷⁴ See Talley, supra note ____ (noting “the stylized fact that, at least since the savings and loan crises of the late 1980s, auditing firms have been effectively self-insured, often through “captive” (*i.e.*, wholly-owned) insurance companies”); Goldwasser, Arnold & Eickemeyer, *Accountants’ Liability (2006)*, supra note ____, at § 11.2 (“large [auditing] firms since the mid 1980s have been unable to purchase sufficient liability insurance to satisfy their needs.”).

different member firms organized in numerous jurisdictions of the world and operating in 149 different countries. As a whole, Deloitte claimed total worldwide revenues for 2006 of \$20 billion and reported commanding total assets of \$10 billion with total liabilities plus partner capital of \$6.4 billion.⁷⁵ Deloitte's public materials—and its internal training programs—emphasize quality control throughout the organization and place a premium on maintaining uniform standards across those firms, evidently to promote a sense of single-firm identity within the network.⁷⁶

The U.S. member firm of Deloitte is Deloitte USA. It provides services through three main subsidiaries: Deloitte LLP, Deloitte Tax LLP and Deloitte Consulting LLP. These provide audit, tax, consulting and financial advisory services, respectively. Deloitte USA contributed \$9 billion of the Deloitte annual worldwide revenue and employs 37,000 people (of whom 2,600 are partners; 27,000 are professional staff; and 7,500 are administrative staff; a total of about 8,000 CPAs are among the employees). Deloitte USA operates through 98 US offices in 90 cities.

The other three large auditing firms present themselves in roughly similar (and similarly vague) ways.⁷⁷ All are networks comprised of scores of separate member firms, all boast in the range of 100,000 employees, all generate annual revenue approaching \$20 billion, and all derive revenue from three service categories: audit, tax and consulting/advisory. For each firm, about half the total revenues are from audit and assurance and the other half from the other activities. Some variation appears in breakdowns of their respective service lines and by geographic regions of the world as well as by industry specialization. Importantly, all four firms emphasize trans-network quality control and uniformity as part of each firm's investments in both human capital and firm brand identity.

⁷⁵ Deloitte Annual Report for 2006, at 51-52. Note that these publicly-reported figures do not balance and that Deloitte's public reports offer no explanation. Perhaps the \$3.6 billion difference between total assets of \$10 billion and total liabilities plus partner capital of \$6.4 billion produces a functional insurance reserve. Whether formally or even informally so denominated on the firms' private financial statements, some portion of the difference could be available to meet liability arising from audit failure. The full amount, \$3.6 billion, is considerably larger than Professor Talley's "plausible range" of large firm viability thresholds estimated at between \$454 million and \$2.15 billion. See Talley, *supra* note ___, at 1679. Separately, of the reported total assets, accounts receivable appeared to be the largest portion, at \$4.8 billion, with total current assets of \$7.8 billion and total current liabilities of \$3.6 billion (for \$4.2 billion in working capital). Deloitte Annual Report for 2006, at 51-52.

⁷⁶ See, e.g., Deloitte Annual Report for 2006, *passim*.

⁷⁷ As examples, PWC describes itself as comprised of many different firms, some large and some small. It provides audit as well as non-audit and transactional services. PWC's total worldwide revenues for 2006 were \$20 billion. Likewise, KPMG describes itself as a "global network of professional service firms providing audit, tax and advisory services." It has a large number of "member firms" who together employ 113,000 persons worldwide, with 6,800 partners and operations in 148 countries. It has one member firm in China and one member firm in the U.S. Total member revenues for 2006 were \$16.9 billion (and in 2005 \$15.7 billion).

As to the nature of the firms' SIPs, again while the firms provide scant public details concerning them, the various alternative methods of self-insurance are well-recognized. Consider two. In the captive form, an enterprise creates a wholly-owned affiliate (domestic or, more frequently, off-shore) and contributes requisite capital. The enterprise—and its designated component members, such as firms within a network—pay periodic premiums to support network-wide coverage. The captive sometimes is managed using a separate management company rather than the larger enterprise's own staff. While various attributes can be created, in general, the captive thus acts as the enterprise's primary insurer and usually also in turn obtains reinsurance policies to cover portions of its exposure.⁷⁸

In the mutual form—commonly used among industrial enterprises in given industries—members coordinate to form what are commonly called risk-retention pools.⁷⁹ Participants contribute premiums to the mutual and it, in turn, covers member losses on prescribed terms. The program often is designed using retrospectively rated policies, meaning that each member pays premiums initially for agreed coverage, but the premiums are later adjusted based on actual loss experience.⁸⁰ If the member enjoys a favorable loss experience, a portion of its initial premium is rebated, but if it suffers an unfavorable loss experience, it pays an additional premium surcharge.

A SIP's structure may be influenced by tax considerations. To the extent that an enterprise allocates revenues to cover future legal liabilities in ways that impose substantial limitations or restrictions on access to the funds, they are not includible in US taxable income.⁸¹ While the exact requirements of this tax treatment are intricate⁸² and

⁷⁸ A captive insurance affiliate can (a) use reinsurance or not and (b) insure only internal risks or also insure external risks. Those not using reinsurance and covering only internal risks are in the exact position as the simple residual self-insurance created under policies containing retentions—that is, the parent (or network) does not transfer any risk. Those using reinsurance and covering only internal risks do transfer risk (so long as the reinsurance is with reputable, liquid, solvent insurers and the premium is fixed). See David R. Coburn & Stewart J. Kahn, *Accounting and Auditing Aspects of Operating a Captive or Self-Insurance Program*, in PLL, *Techniques of Self-Insurance* 1987 (No. A4-4206).

⁷⁹ Examples of mutuals include Lumberman's Mutual, Millers Mutual and Hardware Mutual.

⁸⁰ According to Professor Priest, "mutuals typically provide for subsequent assessments against firm members based upon the liability experience of the mutual for the year." Priest, *Public Understanding of Insurance*, *supra* note ___, at 1012-13. That is, "mutuals set premiums by making assessments to member firms after, rather than before, the loss experience, thus insuring for variations in loss among the firms, but providing self-insurance for losses common to mutual members." *Id.*

⁸¹ See Dan L. Mendelson & Burton M. Mirsky, *Malpractice Self-Insurance Plan Defers Income*, 76 J. TAX'N 16 (Jan. 1992) (reporting on IRS Letter Ruling 9136005 that fees deferred under medical malpractice self-insurance arrangement are excludable from gross income until paid or made available because they are subject to substantial limitations or restrictions, including that the firm only received them to pay claims, on dissolution, or at a fixed date ten years later; also noting that the ruling likewise applies to other professionals, including accountants).

⁸² See IRS Letter Ruling 9136005 (1991) (interpreting Reg. 1.451-2).

controversial as a policy matter,⁸³ when properly designed, the benefits of self-insurance can make it at least as appealing as paying regular premiums to an external insurer, certainly at the level of periodic costs. Using separately-organized network affiliates, whether captives or mutuals, can be a good way to establish the requisite restrictions on use of funds.

As to the terms of reinsurance that the four large auditing firms' SIP affiliates obtain, once again, the firms provide little disclosure concerning these matters. But it appears that these affiliates all obtain reinsurance for portions of network-wide exposure. These reinsurance programs probably vary slightly across the four firms, especially as to amounts, but again a fairly standardized picture emerges. In general, the reinsurance policies resemble E&O policies in form, but appear to be more intricate, in the following main ways.

First, the policies contain high retentions. The levels fluctuate over time, usually in tandem with insurance pricing. For example, retentions ran to \$25 million in the early 1990s and then grew to \$45 million in the mid-1990s; they dropped to \$20 million by the end of that decade, before rising again in the 2000s.⁸⁴ At present, retentions appear to approximate \$50 million.

Second, the policies are obtained from multiple insurers covering portions of different layers of exposure and use high limits-of liability coverage. As an example, a firm's SIP reinsurance may provide "coverage for 85% of the layer covering \$10 million in excess of \$50 million, 90% of a layer covering \$20 million in excess of \$60 million, and 80% of the layer covering \$20 million in excess of \$75 million."⁸⁵

Third, while most insurance policies, including E&O insurance, are written using standard forms with extensive boilerplate and minimal negotiation or tailoring, policies for the four large auditing firms' SIP affiliates are negotiated and tailored—usually issued in typewritten form, containing non-standard terms and commonly described as "manuscript policies."⁸⁶

Finally, a related alternative is to use insurers not as a means to pool and distribute risk as traditional insurance does but as a funding source to meet losses. Audit

⁸³ See, e.g., Karen Grant, *Federal Tax Treatment of Medical Malpractice Insurance Alternatives for Nonprofits*, 52 DRAKE L. REV. 495 (2004).

⁸⁴ *Id.* Goldwasser, Arnold & Eickemeyer, *Accountants' Liability* (2006), *supra* note ____, at § 11.2.

⁸⁵ *Id.* For example, assuming a \$100 million covered loss, the firm pays a total of \$57.5 million and insurers pay \$42.5 million: $[\.85 (60 - 50)] + [\cdot 90 (80 - 60)] + [\cdot 80 (95 - 75)] = 8.5 + 18 + 16 = \42.5 . Assuming no other external coverage, for settlements greater than that, the firm pays 100% of the excess.

⁸⁶ *Id.* Manuscript policies are not common in primary insurance underwriting but are more the norm in reinsurance underwriting, where the term "facultative" is also used (referring to the reinsurer's "faculty" to accept or deny risks) and in the programs that reinsurers use to reinsure their exposure, where the term necessary is also used.

firm SIP affiliates appear to execute financing agreements with their reinsurers. These provide that the latter will fund losses on designated terms but require the firm to repay those funds in full.⁸⁷

2. Decisions to Self-Insure — A decision to self-insure or use external insurance (with some self-funding) can be influenced by many factors, but ultimately must be based on a comparative cost-benefit analysis. The threshold element in the decision is whether the risk is calculable. An important requirement is that an enterprise operates using a sufficient population of “homogenous exposure units . . . to allow an actuarially sound calculation of risk.”⁸⁸ For auditing firms, such units could include, for example, total personnel, total professional personnel or total audit engagements.

So armed, the comparative set of costs are principally (a) the costs of obtaining insurance, chiefly premiums (which, in turn, are comprised of insurer costs, surpluses and profits) plus brokers’ or agents’ commissions versus (b) administrative costs of a program (operations and maintenance, claims handling, and litigation). Quantifying the comparison in abstract terms is impossible because too many variables are involved. Indeed, comparative benefits are difficult even to state, as they range from internal loss control capability and claims administration efficiency to external dynamics of litigation and the power to manage it.

Nevertheless, simply viewing the question from a comparative cost-benefit perspective suggests that characterizations such as whether a risk is “insurable” or “uninsurable” can be imprecise. For example, it may be superficial to say that self-insurance arose among the four large auditing firms because insurers regard the risk as “too high” or “too unpredictable.” It can likewise appear facile to opine that such conclusions are due to expansion of legal liability that auditors face. Indeed, that claim is somewhat counterfactual in the current period, given how the PSLRA, SLUSA and *Central Bank* all reduced such exposure and how empirical data show a decline in the frequency of suits against auditors.⁸⁹

True, as noted, factors that affect the comparative cost-benefit analysis vary with the circumstances creating hard external insurance markets, which can include both legal uncertainty and legal liability risks. Yet, those circumstances of the macro-environment are influenced, more fundamentally, by micro factors, and these provide a more concrete analytical basis for exploring the comparative calculus than conclusions about whether risks are insurable or not.

⁸⁷ *Id.*

⁸⁸ Ken Brownlee, *Defending the ‘Self-Insured’ or ‘Self-Funded’ Entity*, 22 No. 15 INS. LITIG. REP. 465 (Sept. 1, 2000).

⁸⁹ See *supra* text accompanying notes ____-____.

The question is whether it is more efficient (or cost-effective) for a party to obtain external insurance or create self-insurance.⁹⁰ The answer depends on whether the party or an external insurer is better positioned to monitor and distribute (pool) the risk. Since firms and insurers have some capacity to diversify risks, the issue is ultimately which has the superior ability to do so. That hinges, in turn and in general, on risk independence, adverse selection, moral hazard and monitoring capability. Consider each point.

As to risk independence, for insurance to be appealingly-priced, risks that insureds within a pool face cannot be too highly correlated. There must be sufficient statistical independence for an insurer to make valid predictions that the aggregate premium and investment income from the pool will be sufficient to fund reserves to meet loss payouts, including covering administrative costs and providing a profit. If requisite insurer reserves equal or exceed those that a self-insuring firm would require, it is more effective for a firm to self-insure.

If the four large auditing firms operate SIPs akin to the mutual form used by industrial enterprises, this could reflect decreased risk independence over time (which may be due to many factors, including legal liability or to increasing uniformity in audit quality achieved by increasing homogeneity among the large firms). Mutuals may be better than external insurers at furnishing coverage for any loss category in which there is substantial correlation among members. The external insurer's solution to the challenge would be to offer coverage for some group losses but with exclusions for the highly-correlated type. Yet defining the highly-correlated type contractually can be difficult and the difficulty may make external insurers a less effective discriminator compared to how the mutual approach can enable members to pool individual member risks (of all sorts) while also covering all group losses.

As to adverse selection, it can be exacerbated when there is an acutely wide disparity of risk profiles in a single insurance pool. At an extreme, no insurer can sustain such pools and too few low-risk insureds will remain in them so that the pool can unravel and the market for that insurance disappear. To say that the risk is "uninsurable," however, remains imprecise. It means that insureds who are otherwise candidates for that pool will not participate in it because they are better off meeting the risk by other means. Of course, the word "uninsurable" may be apt to the extent that the absence of low-risk insureds means that insurers will not make the insurance available to high-risk insureds.

Acute adverse selection arising from highly-disparate risks means that there is so much variation among pool members or candidates that insurers cannot effectively segregate low-risk from high-risk members and thus offer equivalent insurance terms (as to premiums, retentions and exclusions/coverage (limits-of-liability)). When that occurs, lower-risk members will not participate because what they pay and receive is worth less than the risk that they would contribute to the pool. At the extreme, that could mean that

⁹⁰ See Priest, *The Public Understanding of Insurance*, *supra* note ____, at ____ (making this point and furnishing the analytical architecture upon which the following evaluations are based).

the particular insurance product is unavailable to anyone and to that extent the related risks may be described as “uninsurable.”

As to moral hazard and monitoring, self-insurance bundles risk-monitoring and risk-distribution functions, as noted. Whereas E&O insurance separates risk-monitoring from risk-distribution, self-insurance combines the two. Risk-monitoring is performed by the same enterprise that distributes the risk. Within the networks that constitute each of the four large auditing firms, members may eliminate the costs of moral hazard (and adverse selection). At minimum, the network character of the firms enables internal monitoring in ways that external insurers cannot replicate. This appears particularly likely given how each of the four large firms devotes considerable resources to promoting uniform internal quality-control programs.

All or some combination of the foregoing factors likely have played some role in the decisions that the four large auditing firms have made to engage in substantial self-insurance programs.⁹¹ No firm would have opted for a self-insurance program unless it had determined that the costs of supporting it are less than premiums (and commissions) required to buy equivalent external insurance. This determination is based on either knowledge or belief that the risk it would otherwise contribute to an external insurance pool (for a given price) is less than the risk it actually brings to that pool (the price should be lower). The self-insuring firm determines, in other words, that it can bear the risk more cost-effectively than paying the price an external insurer charges to pool that risk for it.

Two additional factors may help to explain the rise and persistence of SIPs among the four large auditing firms, as well as why the medium and smaller firms have not tended to opt for such ambitious programs. The first is a path dependence story. Once induced to adopt SIPs due to macro-events plus the scale that makes them possible, with a formal program established, it may be more cost-effective to sustain it permanently than allow it to fluctuate according to the relative supply and pricing of E&O insurance.

The second is a wealth story. Risk aversion can vary with the net worth of a decision-maker, with those having fewer resources being more risk averse and those commanding considerable resources being less risk averse.⁹² It is possible that smaller public accounting firms are more risk averse than the four large firms. If so, this also

⁹¹ See Romano, *What Went Wrong*, *supra* note ____ at 27:

[discussing directors’ and officers’ insurance and noting that issuers are] often better informed about [novel litigation] risks and some of these risks are within the insured’s control. This situation may be one of the reasons for the rise in policyholder-formed insurers: the adverse selection and moral hazard problems created by the information asymmetry between insured and insurer will obviously be remedied if the insured becomes the insurer. It is plausible, in this context, to anticipate that policyholder-formed insurance groups could screen members more effectively than commercial insurers.

⁹² See *supra* text accompanying notes ____-____.

would explain why they show a stronger appetite for self-insurance compared to smaller firms. Put differently, the larger firms may be more willing to take chances than smaller ones.⁹³

This analysis does not negate the possibility that expanded legal liability may explain the rise of SIPs among the four large auditing firms—or that legal uncertainty and associated catastrophic risk may continue to play a role in their continued use.⁹⁴ Indeed, this is a common theory of the rise of self-insurance programs throughout the US economy in recent decades.⁹⁵ For example, for corporations generally, expanded tort liability increases risk variability by shifting the burden of losses from first to third parties (from violators to insurers), thus encouraging adverse selection (meaning high-risk insureds seek out pools containing low-risk insureds). It also reduces risk independence because tort-expanding laws are or can be systemic rather than discrete, putting all pool members or candidates at increasingly uniform levels of risk.⁹⁶

This account appears to be plausible both for many industries generally and possibly for auditing in particular. Consider, for example, the empirical frequency and magnitude of securities fraud class action claims against auditing firms. Their statistical distribution exhibits greater density in the right tail than under a normal distribution, meaning there are a larger number of larger risks.⁹⁷ Such fat-tail distributions present an exception to basic principles of risk distribution through diversification that support establishing insurance pools. While basic theory prescribes diversifying risk away by adding to a portfolio, for fat-tail distributions the opposite obtains (not to diversify) as each additional investment increases risk. If this occurs in the large audit firm insurance market, it could explain insurer reluctance to provide E&O insurance and the rise of SIPs among large auditing firms.

Yet this general critique as applied to auditing may insufficiently account for matters of adverse selection, moral hazard and monitoring in the audit function.⁹⁸

⁹³ Yet another possibility is firms' relative ability to pass through insurance-related costs to clients, but it is difficult to see how the costs of external versus internal insurance would be easier or harder to transfer that way.

⁹⁴ See *supra* text accompanying notes ___-___.

⁹⁵ See Priest, *The Public Understanding of Insurance*, *supra* note ___, text a n. 39 (attributing variability increase and independence decrease to the "obvious explanation" that "In the mid-1960s, courts began to expand tort liability for corporate activities, both by extending affirmative duties and restricting available defenses.").

⁹⁶ See also Romano, *What Went Wrong*, *supra* note ___ at 15 (if all insureds are equally affected by new developments, including uncertainties arising from legal change, "the increased liability risks will not be independent. A dependency in insureds' losses disrupts insurance markets because the law of large numbers will no longer apply for pricing risks, so that premiums will be greater than expected losses.").

⁹⁷ See Talley, *Cataclysmic Liability Risk*, *supra* note ___, at 1645-46.

⁹⁸ It also may discount the significance of investment diversification that investors can pursue. See Romano, *What Went Wrong*, *supra* note ___ at 15 (citing Ralph K. Winter, "Crises" in *Competitive*

Consider alternative interpretations of the data that do so. Moral hazard and adverse selection can lead to premiums greater than insureds are willing to pay. That is, an insurer may determine, under adverse selection, that policies would underwrite industry “lemons.” That could lead them to price policies so high that the non-lemon insureds opt out of the pool. The non-lemons are those insureds capable and willing to engage in sufficient risk monitoring on their own to reduce the probability of loss and its magnitude should it occur.

Among the large auditing firms, this would mean that they have simply become the lower cost avoider compared to external insurers.⁹⁹ Accordingly, while liability and catastrophic risk may partially explain the rise of SIPs and decline of attractively priced E&O insurance, these basic components of insurance analysis—and the effects of scale that the SIP affiliates command—contribute at least equally important explanations.¹⁰⁰

This tentative conclusion is reinforced by an analytical view of the strategies available to insurers seeking to provide insurance at prices that customers find appealing. In theory, the pool premium on every insurance pool should be measured according to the pool’s average risk.¹⁰¹ If so, the pool premium exceeds the risk that low-risk members contribute. When risk variability increases, that gap increases (low-risk insureds pay even more than the risk they contribute). Low-risk insureds are thus the marginal buyers and insurers compete to obtain their business. Competition may include refining pool categories and putting channeling customers into lower-risk pools with lower premiums or better terms, which insurers attempt to do by more accurate risk-segregation and discrimination methods.

To work, the strategy requires insurer ability to conduct sufficient monitoring of their customers. For that to be cost effective, in turn, the cost of refining the classifications must be less than the gains from attracting targeted business. But high risk-variability pools limit an insurer’s ability to compete effectively in this way and discourage low-risk customers from buying offered policies. Monitoring is central to this exercise and this supports the view that the capacity of SIPs to combine risk monitoring with risk distribution renders them a potentially superior model of insuring audit failure

Insurance Markets, Hoover Inst. of Stan. U. Working Papers in Econ., No. E-86-74, at 4 (Dec. 1986) as “arguing dependent risks, that is, nondiversifiability in the insurance market, should not matter in a stock market economy because insurers could diversify those risks in the capital market”).

⁹⁹ See Talley, *Cataclysmic Liability Risk*, *supra* note ___, at 1646. In this view, auditors can “more efficiently internalize agency costs [*i.e.*, of both adverse selection and moral hazard] by self-insuring.” *Id.* They also can address their overall risk profile because they have “the ability to raise fees in the face of litigation risk [and this] permits auditing firms to engage in a form of effective self-insurance, extracting actuarial payments that reflect downstream liability risk.” *Id.*

¹⁰⁰ See Talley, *Cataclysmic Liability Risk*, *supra* note ___, at 1646 (“While [catastrophic] risk exposure may well be playing a partial role, it is plausible that scale economies and agency costs also help explain the absence of an insurance market for dominant auditing firms.”).

¹⁰¹ Priest, *The Public Understanding of Insurance*, *supra* note ___.

than E&O insurance. While still not conclusive, it casts analytical doubt upon the persuasiveness of insurance-based arguments favoring damages caps on auditor liability. Even if incorrect, it seems premature to accept the argument without considering potential models of insuring audit failure yet untried.

III. POTENTIAL INSURANCE FOR AUDIT FAILURE

While E&O insurance and self-insurance programs are the extant models to address liability for audit failure, two alternatives deserve further exploration as a matter of public policy: financial statement insurance and insurance-based securitization. Previous proposals concerning financial statement insurance are summarized briefly before presenting the novel alternative of adapting insurance-based securitization to address catastrophic audit failure risk.

A. *Financial Statement Insurance (FSI)*

Financial statement insurance (FSI), was introduced by New York University Accounting Professor Joshua Ronen¹⁰² and I have elaborated upon it in a series of articles.¹⁰³ While not yet in place on a large scale for public companies, embryonic versions of FSI are used in private market merger and acquisition (M&A) transactions and analogues are in use in other contexts. This vehicle offers numerous attractions, including not only a way to establish functional caps on auditor liability and address relatively ordinary risks of audit failure, but several other benefits of transparency and monitoring compared to existing practice.

1. Structure — FSI's basic idea is simple. In M&A transactions, a seller represents that its financial statements fairly present financial condition and results in conformity with GAAP; an insurer engages an auditor to review the statements and backs the representation with insurance.¹⁰⁴ Should the seller breach that representation—equivalent to audit failure—the insured pays losses up to the contractually agreed upon amount.¹⁰⁵

¹⁰² Ronen, *Post-Enron Reform: Financial Statement Insurance and GAAP Revisited*, *supra* note ____, at 48-60.

¹⁰³ Cunningham, *Too Big to Fail*, *supra* note ____,; Cunningham, *Choosing Gatekeepers*, *supra* note ____,; Lawrence A. Cunningham, *A Model Financial Statement Insurance Act*, 11 CONN. INS. L. J. 69 (2004).

¹⁰⁴ See Darian M. Ibrahim, *The Unique Benefits of Treating Personal Goodwill as Property in Corporate Acquisitions*, 30 DEL. J. CORP. L. 1, 41-42 (2005); DALE A. OESTERLE, *THE LAW OF MERGERS AND ACQUISITIONS* 289 (2nd ed. 2002).

¹⁰⁵ Analogous insurance products are used to cover both tax opinions and ERISA compliance, in each case involving a lawyer or other expert investigating and providing formal opinions that are then backed by insurance. See Kenneth A. Gary, *New Opportunity for Tax Lawyers: Insuring Tax Transactions*, 104 TAX NOTES 26 (2004) (proliferation of tax insurance); Kyle D. Logue, *Tax Law Uncertainty and the Role of Tax Insurance*, 25 VA. TAX L. REV. 339 (2005) (tax insurance in context of characteristics of tax code); Jeffrey D. Mamorsky & Terry L. Moore, *Greenberg Traurig LLP, Fiduciary Audit Insurance: Risk Management for Post-Enron ERISA Compliance*, GT Alert, June 2002, at 4, available at

To put FSI to work on the broad scale necessary for public companies and their auditors, several somewhat radical structural changes would occur. Rather than an issuer engaging an auditor whose liability risks are backed by E&O insurance or self-insurance, issuers buy insurance directly from an insurer. The insurance policy covers a given set of financial statements in exchange for a premium, which the insurer sets, in part, based on a preliminary audit of the issuer using an auditor that the insurer hires. A final audit is performed before the policy is issued and coverage is established for those financial statements. If losses occur, the insurer pays covered losses, in accordance with the policy's limits of liability. Benefits of this structure include removing the inherent conflict of interest that arises when issuers hire and pay auditors to give opinions on their financial statements.

In addition to these changes to structural features, the proposed FSI regime calls for issuers to disclose publicly the premium they are charged and the amount of related coverage they obtain (including any details as to deductibles, exclusions and so on). This disclosure is designed to provide public information concerning financial statement reliability. Investors and analysts would be able to calculate statistically-valid comparisons of relative financial statement integrity among issuers. Thus in addition to eliminating conflict-of-interest embedded in the traditional audit function, new transparency arises that is lacking in the current regime in which auditors issue the identical three-paragraph opinion for the financial statements of enterprises having vastly different (and individually unique) accounting circumstances.

2. Advantages — Beyond these attractions of FSI compared to traditional practice, FSI has implications for insurance analysis that reveal additional advantages. As to moral hazard, FSI can potentially eliminate it. FSI moves auditors into the liability background. Auditors become insurer employees, and subject to supervision, compensation and termination by them. Thus auditors no longer face any insurance-based decisions that are prone to creating moral hazard. FSI also essentially eliminates the traditional concerns of adverse selection. It does so because it is an entirely different product compared to traditional categories of insurance such as professional liability insurance (or casualty or property insurance). Rather, among insurance products, FSI is akin to title insurance, an otherwise *sui generis* insurance line.

Title insurance is coverage concerning risks of defects in legal title to real property. Home sellers represent ownership of title to buyers and, when transferring their interest, provide buyers title insurance policies supporting the representation. If the seller breaches the representation, the insurer defends the buyer's claim of title against third parties and pays the buyer's damages arising from the third party's successful assertion against the buyer's title. Title insurance is retroactive in character in the sense that it covers matters arising before the policy issuance date.

http://www.gtlaw.com/pub/alerts/2002/mamorskyj_06a.asp (terms of audit as condition to insurance eligibility).

Analogously, FSI insures a particular year's financial statements, with coverage extending to discoveries made in future periods. FSI covers accounting irregularities reflected in financial statements of a prior period. FSI and title insurance both solve a problem of incomplete information: with title insurance, the quality of a seller's title, and with FSI, the quality of a company's financial statements. In contrast, E&O insurance is less about incomplete information than about behavioral and performance risks. While the costs of adverse selection can be considerable in underwriting E&O insurance, the cost essentially disappears under FSI.

As to monitoring, FSI contributes superior results compared to E&O insurance—and a different form of monitoring compared to SIPs. Unlike most insurance lines, including E&O insurance, a substantial portion of premiums received on title insurance policies are used to fund investigation rather than payouts, administrative costs and profits.¹⁰⁶ Title insurers engage (and FSI insurers would engage) risk-assessment using particularized investigations concerning the specific attributes of an insured matter (property and zoning records for title insurance and specific financial statements for FSI).¹⁰⁷

As a result, FSI amounts to a bundling of the monitoring and risk distribution functions into the insurers. Of course, SIPs likewise bundle the two, although they bundle them inward within the audit firm or network instead of outward to the insurer. In contrast, as noted, E&O insurance separates the two functions. Consequently, E&O insurance may not produce optimal insurer investigation.

FSI provides monitoring incentives on insurers that differ from those insurers face when underwriting E&O insurance. E&O policies provide general coverage for a broad range of activities, including all audit engagements plus tax and other consulting services. The same is essentially true for the SIPs that the large auditing firms use. In contrast, each FSI is tailored to a particular audit engagement with associated risk, premium, and coverage. Audit effectiveness and auditor performance bear directly on financial statement and reporting quality. Under FSI, auditor review and opinions are *imminent* monitoring functions—they are the essence of the concept.

As noted, SIPs and FSI thus both bundle monitoring and risk distribution, but into different locations. With SIPs, the monitoring and risk functions are bundled within the audit firm (bundled-in) whereas with FSI the functions are bundled out to the insurer (bundled-out). Which is better is a function of which bundling more nearly optimizes between being least costly and most effective. This is an empirical question for which no data exist, of course. An analytical case could be to favor one or the other but such an assessment is likely to produce a draw. That is, for the audit function, the idea of

¹⁰⁶ See JAMES L. GOSDIN, TITLE INSURANCE: A COMPREHENSIVE OVERVIEW 2 (2d ed. 2000) (“a substantial part of title insurance cost generally [is] allocated to search, evaluation/examination, or clearing underwriting objections”); *id.* at 4 (for title insurance, losses and legal costs range as low as 3% to 7% of total operating income).

¹⁰⁷ *Id.*, at 1.

bundling may likely be superior to separation, but there is no *a priori* reason to conclude that the two are better bundled-in or bundled-out.

Assuming a draw on the relative merits of bundling-in or bundling-out, the case still may be made to favor one or the other for separate reasons. Appealing about SIPs is conservatism—it is the status quo and requires no changes, political or otherwise. Appealing about FSI are (1) severing the longstanding conflict-of-interest that bedevils the audit function when issuers pay those who opine on their financial statements and (2) the unprecedented production of a financial statement reliability index.

FSI could produce another advantage by using option markets as functional reinsurance. Investors would write and sell put options to FSI insurers respecting stock of covered companies.¹⁰⁸ Puts would give insurers the right to sell covered stock to investors during a stated period upon the occurrence of stated events at a stated exercise price. Duration and triggering events would be co-extensive with the FSI policy period and triggering events (essentially, audit failure). Investors would sell the puts for a price less than the price of general options on the same stock (*i.e.*, those whose exercise is not conditional on audit failure) and that price would essentially represent a reinsurance premium from the insurer's viewpoint. Upon a triggering event, stock price likely would fall below the exercise price, enticing the insurer to exercise the option and establishing functional re-insurance. Investors writing numerous puts on a large number of stocks enable designing a diversified portfolio of FSI puts.

Also appealing is how the installation of the insurance industry into the forefront of the financial reporting system increases significantly the number of competitors to this marketplace. With SIPs, there are only four firms capable of auditing the vast majority of public enterprises. This poses considerable systemic risk should any audit failure threaten the viability of any one of them (and this, in turn, creates significant moral hazard among auditors who may behave as if their firms are too big to fail). FSI has comparative appeal because dozens of insurers are capable of underwriting it.

This conclusion need not rule out the possibility of sustaining SIPs, however. FSI and SIPs both can be used—they are not mutually exclusive. Audit firms can continue operating SIPs but also embark on an FSI regime by holding out their SIPs among those FSI insurers competing for issuer audit insurance work. So, for example, Procter & Gamble could hire Chubb to write FSI for it and Chubb can in turn hire Deloitte's auditing arm to provide the investigation. Alternatively, Procter & Gamble could hire Deloitte's SIP affiliate to write FSI and have it, in turn, engage Deloitte's auditing arm to provide the assurance.¹⁰⁹

¹⁰⁸ See Ronen, *supra* note ____, at 16-17.

¹⁰⁹ Inviting auditing firms to use their SIP affiliates to underwrite FSI raises a question concerning whether this would mean that the firms thus engage in “the business of insurance.” If so, state insurance regulations could apply to limit the efficacy of this alternative. On the other hand, a similar question could be raised concerning the firms' existing SIP programs and, in both SIPs and FSI, good arguments suggest that the auditing firms' role should not be considered to be the business of insurance within the meaning of those regulations.

Financial statement insurance can provide a mechanism to establish the functional equivalent of a damages cap for audit failure. The cap does not directly apply to auditors, of course, for they face no liability to investors (they may face contractual and other liability for transgressions to their insurer employers). The cap is established through the policy terms reached between issuers and insurers which, in turn, would be disclosed to public capital markets ex ante and enable investors to make capital allocation decisions accordingly (based on measurable resources available in the event of audit failure and the transparent financial statement reliability index). To this extent, FSI furnishes support for quotidian cases of audit failure well but perhaps not catastrophic cases. Insurance-based securitization can address the latter.

B. Insurance-Based Securitization (IBS)

Insurance-based securitization is a novel innovation that would distribute risk of audit failure through capital markets and specifically addresses concerns about catastrophic risks. Securitization refers to the practice of packaging into securities some underlying set of economic attributes, usually cash flows and related risks. It is a decades-old practice that began when mortgage lenders pooled loans that they had written into grantor trusts which then issued securities to the public backed by cash flows on those loans and subject to borrower default risk.

A proliferation of pooled assets ensued, encompassing automobile and boat loans, credit card receivables, and projected cash flows from computer leases and popular musical recording contracts. In credit card deals, for example, a bank generates credit card receivables and faces related consumer default risk while tying up its cash. In a securitization, it transfers the latter burdens by selling the receivables to a grantor trust (or other special purpose entity or SPE) for cash supplied by investors. Investors, in turn, enjoy a return on investment in accordance with that default risk—which, for portions of the capital markets, increases financial diversification. By isolating the assets in the SPE, moreover, investors look solely to the credit risk of the pool, not to that of the originating bank.

The basic insight underlying asset-backed securities motivates insurance-based securitization (IBS), although they involve different sides of the balance sheet. Whereas asset-backed securitization involves the transfer of assets to an SPE, insurance-based securitization involves essentially the transfer of liabilities to an SPE. That is, the SPE attracts investors who are willing to take a risk that designated insured risks will materialize, which reduces or eliminates the principal they are owed, in exchange for a relatively high interest rate to compensate for that risk (along with the possibility that the full principal will be repaid).

Since the mid-1990s, insurance based-securitization has become increasingly used by insurers—and several non-insurance businesses—to protect against exposure to catastrophic risks for which traditional insurance (or reinsurance) is either unavailable or

comparatively expensive. Following this innovation, auditing firms concerned about the catastrophic risk that a massive audit failure could wreak—the dissolution of one of the four remaining firms—should find insurance-based securitization attractive.

1. The Market — In the mid-1990s, following the natural catastrophes of Hurricane Andrew and the Northridge, California earthquake, insurance capacity to cover catastrophic risks contracted significantly.¹¹⁰ This led innovators to adapt securitization to fill the gap.¹¹¹ Resulting products are sometimes collectively called “risk-linked securities.” The most common of these are called catastrophe bonds (nicknamed *cat bonds*),¹¹² because the risks they address have historically been called catastrophe risks (some are called super catastrophic risks). These are low-probability, high-magnitude events, commonly illustrated by natural disasters like hurricanes, earthquakes and tornados, but including man-made events such as terrorist attacks and financial calamities.¹¹³

In a basic “cat-bond” deal structure, an investment bank or insurance company creates a special purpose entity (SPE). The SPE is usually located offshore, mainly to avoid adverse US income tax consequences. The SPE issues bonds in a private placement to qualified institutional investors. The bonds usually carry a floating interest rate with a significant spread above LIBOR (the London Interbank Offered Rate, the rate that large international banks charge each other for sizable loans).

Cash flows into the SPE from three sources: insurance premiums from the insurer (or reinsurer), the principal investment of investors and investment income on its funds

¹¹⁰ In August 1992, Hurricane Andrew struck south of Miami, Florida, resulting in property damage of some \$30 billion, of which half was insured. Insurers were riveted, with 11 firms bankrupted. In January 1994, an earthquake rocked northwest of Los Angeles in the Northridge area of the San Fernando Valley, also producing about \$30 billion in damages of which nearly half was insured. Earthquake insurance availability declined dramatically as a result. US GEN. ACCT. OFFICE, CATASTROPHE INSURANCE RISKS: THE ROLE OF RISK-LINKED SECURITIES AND FACTORS AFFECTING THEIR USE 11 (Sept. 2002) (citing report by Swiss Reinsurance Company for 2000) [hereinafter, GAO, CATASTROPHE INSURANCE RISKS].

¹¹¹ Innovators include insurers as well as non-insurance businesses. Nothing about IBS limits its creation to insurers or reinsurers. See GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 18 (“A noninsurance business that has catastrophe exposure can also sponsor catastrophe bonds through a similar entity, a special purpose vehicle.”). Indeed, as noted below, at least two IBS transactions have been closed by non-insurance enterprises.

¹¹² The Chicago Board of Trade (CBOT) experimented with catastrophe options in the late 1990s, the first systematic effort to market risk-linked securities. Introduced in 1995, contracts covered insurer’s risk exposure based on various regional indexes. CBOT ceased offering catastrophe options in 1999 due to weak demand for the products. See GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 18.

¹¹³ Just as E&O and other insurance markets are cyclical, *supra* text accompanying notes ___-___, catastrophe reinsurance markets are cyclical too. See GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 14. In addition, occurrences in one catastrophic context (such as hurricanes) can lead to contractions in other (non-hurricane) catastrophe markets. See Kenneth A. Froot & Paul G. J. O’Connell, *The Pricing of U.S. Catastrophe Reinsurance*, in KENNETH A. FROOT, ED., THE FINANCING OF CATASTROPHE RISK (1999).

(these are usually fixed rate returns which are then swapped with a creditworthy counterparty who pays LIBOR-based floating rates for on-payment to investors). Cash flows out of the SPE in the form of periodic interest to investors along with a return of principal at the end of its term.

During the term, the SPE holds funds in trust and invests them in designated classes of securities (usually US government bonds or other high-grade securities). If the catastrophe does not occur, the SPE returns principal to the investors and terminates its existence; but if the catastrophe occurs, principal that otherwise would be paid to investors is instead paid to the sponsor. It is conceptually—if not mechanically or technically—akin to the risk of corporate insolvency that investors in traditional corporate bonds face.

The IBS market is young and thin, but has steadily expanded. The first IBS transaction closed in 1995 and involved \$84 million of coverage; in 1998, 18 deals were closed involving a total of \$2.5 billion;¹¹⁴ from 1999 through 2004, some 50 additional transactions were closed, most by insurers, and averaging about \$100 million each.¹¹⁵ In 1999, Oriental Land Company became the first non-insurer to issue a catastrophe bond¹¹⁶ and, in 2002, the Hollywood-based movie company, Vivendi International, closed an IBS transaction with coverage of up to \$175 million for losses arising from earthquakes in Southern California.¹¹⁷ While most estimates indicate that the IBS market is not inconsiderable,¹¹⁸ it remains a small share of the overall reinsurance market—less than half of a percent according to one estimate.¹¹⁹

¹¹⁴ See Tamar Frankel & Joseph W. LaPlume, *Securitizing Insurance Risks*, 19 ANN. REV. BANKING L. 203, 225 (2000) (citing Alex Maurice, *NAIC Poised to Adopt Securitization Models*, NAT'L UNDERWRITER, PROP. & CASUALTY RISK & BENEFITS MGMT. ED., July 12, 1999, at § 28)); see also ROBERT JERRY, UNDERSTANDING INSURANCE LAW 1062 (3d ed. 2002) (noting that, through 2000, some \$4 billion of insurance-based securities were issued); *Investors Guar. Fund, Ltd. v. Morgan Stanley & Co.*, 50 U.S.P.Q.2d (BNA) 1523 (S.D.N.Y. Dec. 23, 1998) (discussing early history of IBS market).

¹¹⁵ See MMC SECURITIES, *THE GROWING APPETITE FOR CATASTROPHIC RISK: THE CATASTROPHIC BOND MARKET AT YEAR END 2004* 32-35 (2005).

¹¹⁶ See Frankel & LaPlume, *supra* note ___, at 225 (citing J. David Cummins, *The Insurance Link To Securities*, RISK MGMT., Aug. 1, 1999, at 17).

¹¹⁷ See MMC SECURITIES, *THE GROWING APPETITE FOR CATASTROPHIC RISK*, *supra* note ___, at 32-35.

¹¹⁸ For an estimate that seems very high compared to others, see Martha G. Bannerman, *Avoiding and Resolving Reinsurance Coverage Disputes: A Proactive Approach*, PLI REINSURANCE VOLUME 173, 203-04 (PLI 1998) (putting the IBS market in 1998 at \$200 billion).

¹¹⁹ See GAO, *CATASTROPHE INSURANCE RISKS*, *supra* note ___, at 17 (according to estimates provided by Swiss Re and Goldman Sachs, some \$12 billion of IBS were issued from 1996 to 2002 through about 70 transactions). For perspective, the size of the US capital markets in 2002 approximated \$31 trillion. *Id.* For further perspective, at that time, approximately \$2 trillion in asset-backed securities were outstanding. *Id.* at 19.

2. Structuring Challenges — Despite steady growth in the IBS market, several complexities associated with many of the transactions—especially those initiated by insurers—help to explain why it will take time for the market to blossom fully. While all these complexities have been overcome for insurers wishing to sponsor deals, if slowly, they are essentially either non-existent for auditing firms and their SIP affiliates or have been sufficiently plowed in previous transactions so that the road is substantially paved for auditing firms to close IBS transactions. This is especially likely that Oriental Land Company and Vivendi International, both non-insurers, successfully did so. Consider each of the hurdles, how the industry has met them so far, and how much easier it would be for auditing firms to follow suit.

First, as a preliminary matter, transaction costs can be high. These include the costs of securities underwriting, legal advice, accounting support, risk evaluation, rating agency assessments and communicating information to investors. These costs accompany any securities offering, of course, but can be higher for IBS transactions than traditional corporate bond or equity offerings and even higher compared to conventional asset-backed securitizations. For auditing firms, however, the real question is comparing the costs of IBS to the costs associated with retaining the catastrophic risk through self-insurance programs or laying-off portions through reinsurance arrangements. To the extent that the claimed inability or expense of doing either is exorbitant, the costs of arranging an IBS deal should make it cost-effective.¹²⁰

Second, taxation matters. To be cost-effective, the SPE must enjoy “pass-through” tax treatment.¹²¹ That is, if the SPE were taxed on its income (from premiums received and from investments) and investors were likewise taxed on their investment income, the double tax would render many SPE transactions non-cost-effective. At present, transactions using SPEs based in the US result in such double-taxation. True, the bonds could be offered only to tax-exempt investors but that is only a partial solution. Better is to locate the SPE outside the US—and have no other connections with the US—to avoid US entity-level income taxes.¹²² Many jurisdictions offer such pass-through treatment, including Bermuda and Cayman Islands, and most IBS SPEs are located in those places.¹²³ This should present no problem to the auditing firms—they can simply locate an SPE in the same off-shore jurisdiction that their SIP affiliates are located.

¹²⁰ *Id.* at 4. Obviously, the comparison is between transaction costs like these plus interest costs compared to reinsurance and self-insurance costs, as noted *infra* text accompanying notes ___-___.

¹²¹ *Id.*, at 12.

¹²² The National Association of Insurance Commissioners (NAIC) has lobbied to pass legislation that would offer tax approaches to IBS akin to that enacted for Real Estate Mortgage Investment Conduits (REMICs) and Financial Asset Securitization Investment Trusts (FASITs). GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at ___.

¹²³ GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 26.

Third, US GAAP imposes special accounting rules for SPEs. The principal ones are the independent capital investment requirements. These require an SPE's outside investor to control a majority of the equity and own at least 3% of the total capital, in order to permit the assets and liabilities of sponsored SPEs to be removed from the sponsor's balance sheet. These requirements can easily be met and probably do not matter to auditing firms in any event—they do not publish public financial statements and any internal financial statements (or those supplied to third parties) can provide relevant disclosure to explain the arrangement.

Fourth, insurers are subject to specialized accounting and capital rules that regulate the circumstances under which obtaining reinsurance generates credits for their own risk profile.¹²⁴ If they cannot be sure that transferring risk to an SPE will entitle them to such credits, the transactions are less appealing. This concern will not apply to auditors or their SIP affiliates because they are not subject to such regulation. It nevertheless is worth describing, as it is implicated and addressed in existing IBS transactions by the approach to determining whether a catastrophe occurs, which can vary. This variability can make audit firm IBS transactions more attractive.

Determining whether a catastrophe occurs for an IBS transaction essentially entails two specifications: what triggers a principal loss and by what formula the amount is determined. For this purpose, it is common and useful to contrast indemnity from non-indemnity coverage. Under indemnity coverage, an insurer or reinsurer pays claims based on those actually incurred (say, actual earthquake-caused damages) whereas under non-indemnity coverage, the insurer or reinsurer pays claims based on the occurrence or non-occurrence of a particular event that is not necessarily related to actual incurred claims (say, an earthquake registering more than 7 on the Richter scale). Cat bond deals can be designed either way.

In reinsurance practice, *insurers* generally prefer indemnity policies as they precisely cover losses actually incurred. But *re-insurers* prefer non-indemnity policies to the extent that they face risks of poor underwriting decisions or claims management by insurers—forms of moral hazard.¹²⁵ Non-indemnity approaches can neutralize moral

¹²⁴ The GAO explains:

In receiving “credit” for reinsurance, an insurance company may count the payments owed it from the reinsurance company on claims it has paid as an asset or as a deduction from liability. In doing so, a company can increase earnings reported on its financial statement and lower the amount of capital it needs to meet risk-based capital requirements established by regulators. The ability to record an asset or to take a deduction from gross liability for reinsurance is consequent upon the transfer of risk and can strongly affect an insurance company's financial condition.

GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 22-23.

¹²⁵ For catastrophe-bond investors, oversight capability may also be limited, leading them to favor non-indemnity models too. GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 18 (noting that cat bonds have generally been non-indemnity based to limit moral hazard). This implication is discussed further below.

hazard. They tie principal repayment not to actual claims, which may be infected by poor underwriting or by poor claims settlement procedures, but to objective external indicia of loss, such as a 7+Richter earthquake.¹²⁶ The accounting treatment for the two approaches differs under specialized accounting regulations applicable to insurance companies. The indemnity-based approach enables achieving so-called “underwriting accounting treatment,” meaning the insurer has ceded its exposure and gets credit as reinsurance—another reason that insurers generally prefer it.¹²⁷

That accounting treatment is more difficult to achieve using non-indemnity based approaches. Under them, the ceding insurer is exposed to basis risk—the risk of a difference between payments received from the reinsurance coverage and actual losses (this can go either way, with more or less principal received compared to losses actually incurred). To achieve underwriting accounting treatment for non-indemnity transfers, the insurer must design the model or method used to determine the trigger and amount so that the result bears a sufficiently close nexus to its associated actual claims to justify treating it as ceded (low basis risk).

While these problems have required cat bond market participants to struggle, they are essentially non-existent for auditing firms. Their SIP affiliates are not subject to the same regulations or accounting rules as insurers and reinsurers. From an accounting viewpoint, they need not worry about whether indemnity or non-indemnity methods are superior. They and investors may have preferences as between the alternative models, of course, but that should make the vehicle more appealing rather than less. In particular, experimentation and variation using the indemnity or non-indemnity approaches can be pursued to address various forms of moral hazard.¹²⁸

Fifth, investor appetites are obviously crucial to creating any IBS transaction or market, including those for auditing firms.¹²⁹ Investor appetites for IBS remain emergent rather than strong, for several reasons. As noted, information costs can be high due to lack of familiarity. True, the potential loss of principal in an IBS transaction can be conceptually analogized to the risk of loss on corporate bonds arising from corporate

¹²⁶ Any of various objective tools can be invoked, including “industry loss indexes, parametric measures, and models of claims payments.” GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 19.

¹²⁷ *Id.*, at 23.

¹²⁸ One might wonder whether applicable insurance accounting could be improved to better capture the risk-transfer functions that securitization provides. To the extent that non-indemnity approaches achieve risk reduction, accounting should reflect it, even if the ability to measure or model basis risk is limited.

¹²⁹ Nothing in law prevents investors, including mutual funds or other fiduciaries, from investing in cat bonds for their own account or the account of beneficiaries. *See* GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 29 (“[GAO] explored the potential for individual investors to purchase shares in mutual funds that purchase catastrophe bonds for inclusion . . . in a mixed asset fund. We . . . confirmed with the SEC that [applicable] rules and regulations do not preclude mutual funds from purchasing catastrophe bonds.”).

insolvency. But investors have well-developed analytical tools for assessing that risk based on capital structure, leverage, cash flow coverage ratios and other traditional tools. It is more difficult for even the seasoned sophisticated investor to assess the probability and magnitude of catastrophic risks, whether of hurricanes or mega-audit failures.

For IBS to appeal to investors, they must be capable of evaluating such risk (in probability and magnitude), establishing the necessary return and assessing how that risk-return relationship can contribute to investment portfolio diversification. While some investors obviously have developed this capability and invested in IBS, additional resources are needed. At present, two highly specialized professional groups are available to contribute expert assessments and translate related knowledge.

The first are risk-modeling firms, which ISB sponsors invariably retain to provide specialized risk evaluation appraisals. Three major catastrophe-modeling firms have long served traditional reinsurers in assessing catastrophic risk.¹³⁰ They have helped to develop the IBS market by contributing analysis for individual catastrophe bond offerings. These firms command considerable expertise, computing capability and statistical modeling tools. Staffed with impressively educated professionals (many of whom hold Ph.D.s in relevant fields), they use massive databases on past catastrophes and related variables (such as population densities or construction techniques) to provide state-of-the-art risk assessments.

The second knowledge source is from rating agencies, which invariably are retained to rate catastrophe bonds. Three major rating agencies have long served the bond markets in assessing investment risk (Fitch, Moody's, and Standard & Poor's). For IBS, they incorporate the analyses provided by the risk modelers and then extend or refine it and express the results in terms of investment risk. Rating agency analyses vary, but generally assess probability of loss and magnitude.¹³¹ Catastrophe bonds have mostly been rated non-investment grade, although some have been rated investment grade and some have been structured using multiple tranches, with the senior tranche rated investment grade and the junior tranches below that.

Catastrophe bonds have been offered exclusively as private placements rather than public offerings. Investors have been a relatively small group of sophisticated institutions. Some of these include mutual funds, however, so individual investors have enjoyed an opportunity to participate indirectly in these vehicles.¹³² Mutual fund managers, in particular, have expressed appreciation for the diversification contribution that catastrophe bonds can make to a portfolio.¹³³

¹³⁰ These are: Applied Insurance Research Worldwide, Risk Management Solutions and EQECAT.

¹³¹ Formulas may examine expected loss or frequency of loss. GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 21 & n. 31.

¹³² GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 18.

¹³³ *Id.*

3. Design Requirements — Apart from the foregoing challenges to developing the market and IBS structure, two additional design features are critical to making an IBS transaction work (and also require promoting investor understanding). First, the SPE must be bankruptcy-remote, meaning it would not be consolidated with the sponsor's estate in the event of the latter's bankruptcy.¹³⁴ Investors would remain entitled to the contractual cash flows independent of the sponsor's financial position (subject only to the designated catastrophic risks).

In asset-backed securitizations, such consolidation risk is addressed mainly by assuring that the initial transfer of assets is a "true sale" rather than a secured lending. That way, the sponsor's creditors cannot claim any right to the transferred assets. In a dispute, the investors would fight with the sponsor's creditors over claims to those assets. IBS deals are easier because the sponsor transfers no assets at the outset. Rather, an IBS sponsor's creditors could at most claim some right to contractual payment obligations that the sponsor has to the SPE (essentially, premiums). This risk is addressed by contractual provisions stating that, if the sponsor fails to pay premiums, then the coverage terminates and all principal is retained by the SPE for investors.

Premiums could cease in two different scenarios. First, they could cease because of sponsor insolvency after a covered loss occurs. In that case, the coverage is triggered and the funds are released pursuant to the contract. No fight with sponsor creditors occurs. Or premiums could cease because of insolvency arising for other reasons. In that case, the coverage is not triggered and the SPE would seek to retain the funds for payment to investors. This scenario can create competition with the sponsor's other creditors. Accordingly, ex ante assurance of bankruptcy remoteness remains important in IBS transactions.¹³⁵

This point leads to a second requisite design feature for effective IBS deals and related investor understanding. In asset-backed securitizations, investor principal upon closing is transferred to the sponsor in exchange for assets. In IBS, reflecting the characteristic of an insurance arrangement, investor principal upon closing is held in the SPE and invested. So in the former, the SPE is essentially passive (holding the assets and servicing them, with the servicing usually outsourced by contract back to the sponsor). For IBS, the SPE is more active: it holds assets, invests them, manages receipt of

¹³⁴ Protected Cell Acts, adopted in 1999 by Illinois and Rhode Island and endorsed by NAIC, provide guidance that allow insurers to create "Protected Cells" within existing organizational structures to achieve bankruptcy-remoteness.

¹³⁵ For asset-backed securitizations sponsored by banks and other commercial enterprises, the usual bankruptcy law is the US Bankruptcy Code but, for IBS sponsors and perhaps their SPEs, state bankruptcy law governs in accordance with state insurance regulations. See 11 U.S.C. § 109(b)(2) ("domestic insurance company" not eligible to be a debtor under the US Bankruptcy Code, although not defining "domestic insurance company"); see *In re Estate of Medicare HMO*, 998 F.2d 436, 440-42 (7th Cir. 1993) ("The essential attribute of an insurance company under Illinois law, and the attribute prompting deference to state regulation, is the assumption [by the company in question] of a third party's risk for a premium.").

premiums and evaluates and settles claims arising under the coverage. This requires attention to the SPE's identity and management.

In particular, the SPE must be managed by experts possessing appropriate investment and management skill. Those managers must follow management and investment principles that assure the SPE's safety and soundness. As examples, they must assure that bond proceeds are invested prudently, assure that premiums are paid from the sponsor when due and that swap payments of the swap counterparty are paid when due.¹³⁶ Assuring these traits and performance of these duties is principally a market problem—investors must scrutinize the manager and the management contract and avoid investing absent sufficient assurance of safety and soundness.¹³⁷

4. Illustration and Assessment — Consider for illustration a simple example of an IBS auditing transaction sponsored by one of the four large auditing firms (say Deloitte). Deloitte's SIP affiliate creates a bankruptcy-remote SPE based in Bermuda. The deal provides insurance to the Deloitte affiliate for the ensuing 12 months covering specified auditing-related events occurring during that period. Investors contribute \$250 million of principal amount in exchange for a floating interest rate of LIBOR +7%.

Investor risk of loss is either indemnity-based or non-indemnity based. If indemnity-based, it could provide that investors lose principal dollar-for-dollar if, during those 12 months, Deloitte settles or is adjudged liable in a single lawsuit alleging audit failure in which settlement or damages exceed \$500 million. If non-indemnity based, principal reductions could be determined by reference to any of various objective indicators outside the firm's direct control. An example would be if total settlements by or judgments against public auditing firms in the United States exceed \$2 billion during that 12-month period, then investors release dollar-for-dollar in excess of that up to the total \$250 million principal invested.¹³⁸ In either case, an independent agent must be appointed to verify that a triggering event has occurred, akin to the provision in standard

¹³⁶ Frankel & LaPlume, *supra* note ____, at 204.

¹³⁷ SPE management also can be a regulatory problem to the extent that state insurance regulation may apply to the SPE. This probably is not a problem in general, Frankel & LaPlume, *supra* note ____, at 209-210, but is not free from doubt. For insurers at least, a Model Act drafted by the National Association of Insurance Commissioners (NAIC) ordains the Special Purpose Reinsurance Vehicle (SPRV). The Model Act expressly provides that associated bonds are not insurance contracts while allowing that sponsoring insurers can create the SPRVs using corporate subsidiaries that are engaged in the "business of insurance." Additional issues in structuring securitization transactions (whether asset-backed or insurance-based) include avoiding triggering the Investment Company Act and complying with other federal securities and commodities laws. These are discussed in Frankel & LaPlume, *supra* note ____.

¹³⁸ As the example suggests, the indemnity approach reposes some discretion in the auditing firm and can create skewed incentives in settlement negotiations or litigation strategies that the non-indemnity method more readily can avoid. As the example also suggests, these and many other contractual terms require specification on a scale akin to terms contained in manuscript and reinsurance policies. The details are omitted here in the interest of introducing the IBS concept for catastrophic audit failure risk, not fully delineating it.

insurance agreements providing that an insured cannot agree to settle a claim without the insurer's assent.

Proceeds from the securities issuance are deposited into a collateral trust account and invested in US-government guaranteed securities or highly-rated commercial paper (and the SPE enters into a suitable interest-rate swap with a credit-worthy counterparty). The securities are offered only to qualified institutional buyers as defined in SEC Rule 144A. The bonds are rated based, in part, on a risk analysis of a catastrophe-modeling firm and in part on rating agencies' own investment risk assessment models.¹³⁹

Catastrophic risks are peculiar in that their frequency is low but their magnitude is huge. The consequence of this peculiarity for insurers is that the cost of re-insurance can be significantly higher than for other pools. For some coverage, this can mean that reinsurers simply lack sufficient capital to meet aggregate risks. An example concerns the risk of floods in certain coastal environments, and explains why the US government developed government-backed flood insurance programs. For such contexts, insurance securitization can be particularly appealing. It vastly expands the private capital available to meet aggregate risks beyond the limits of re-insurers into the vastly greater limits of the capital markets themselves.

For auditing, to the extent that it is true that audit firms, their SIP affiliates or reinsurers lack sufficient capital resources to meet catastrophic risks, then it is appealing to consider devices to transfer and distribute that risk to the broader base of the capital markets. It adds an additional layer of insurance on top of primary insurance, self-insurance and reinsurance and taps not just insurance markets but capital markets too. This expands pooling and distribution of risk and increases diversification compared to traditional insurance.¹⁴⁰ Adding IBS to address catastrophic risks of audit failure also should reduce the volatility in insurance markets that auditors have faced for decades and that is an important basis for the insurance-based arguments in favor of establishing ex ante damages caps on auditor liability for audit failure.

Risks of adverse selection essentially disappear because any given auditing cat bond issue is based on the risks facing a single auditing firm (although comprised of

¹³⁹ Compare this illustration with the actual transaction in Redwood Capital I, Ltd. sponsored by Lehman Re, a reinsurance company. GAO, CATASTROPHE INSURANCE RISKS, *supra* note ___, at 21-22. It provided insurance for 12 months covering specified earthquake losses to property in California. Investors were exposed to potential loss of principal of \$160 million. The bonds bore a floating interest rate of LIBOR+5.5% and LIBOR+7%. Investor risk of loss was non-indemnity based. Any principal reductions were to be determined by reference to the Property Claim Services (PCS) index, a recognized industry indicator of insured property for catastrophic losses. The SPE provided reinsurance coverage for California earthquake risk for triggering events causing industry losses ranging from \$22.5 billion to \$31.5 billion as PCS reports estimated for the period. Moody's rated the bond Ba2 (non-investment-grade).

¹⁴⁰ ISB expands capacity beyond that available using E&O or SIPs, although not necessarily compared to using FSI. As noted earlier, the risks that FSI insures can be hedged using option markets. *See supra* note ___; Ronen, *supra* note ___, at 15-16.

many members in the network). Risks of moral hazard are addressed in several ways. First, the IBS layer is designed for the catastrophic event not the quotidian case. External insurance and SIPs cover the main risks. As in the preceding illustration, IBS for auditing transactions set the effective coverage as a designated dollar amount (say \$250 million) in excess of an underlying amount covered by other insurance (including self-insurance), such as \$500 million. Second, the indemnity or non-indemnity features relating to the payout trigger and amounts can be tailored accordingly. Finally, there should remain sufficient risk independence and risk-variability to enable the product to function effectively as insurance.¹⁴¹ Of course, some moral hazard will remain even after taking account of these tools.¹⁴²

For insurers or auditors, funding IBS bond interest and distributing loss risk to investors is functionally equivalent to the cost they would incur if they chose to distribute the risk using traditional reinsurance policies. If IBS can attract investors at interest rates in the range of, say, LIBOR+7% (as they have in the general catastrophe bond market), then this will be attractive so long as actual or functional reinsurance costs are greater than that.

The interest rate demanded on auditing cat bonds of the various firms reflects the relative degree of risk each firm faces. This introduces the numerous advantages of capital market discipline. First, since audit failure losses are paid, in part, by capital market investors, capital market monitoring of auditing firm performance appears. This amounts to a sort of re-bundling of the risk-monitoring and risk-distribution functions. The capital markets as a whole effectively self-insure.

Second, investors will require auditing firms to furnish more information than they presently do concerning loss exposure. Note, however, that the required information is not the auditors' assets or net worth or other information provided in financial statements but rather the firms' historical loss risk experience (such as lawsuits filed and settled or regulatory investigations conducted and resolved). Auditors may be willing to share some such information, despite their traditional unwillingness to disclose publicly complete financial information. After all, these transactions would be private placements, thus limiting *public* disclosure, and the required disclosure would relate to risks of catastrophic loss without requiring complete financial statements that firms consider to be proprietary.

¹⁴¹ Catastrophe bonds covering natural catastrophic events such as earthquakes and floods very likely tend to satisfy the condition of statistical independence. Frankel & LaPlume, *supra* note ___, at 205. Auditing bonds relating to insurance covering audit failure should satisfy the condition as well. So long as there is no correlation (or correlation is not strong) between substantive business and economic risks and the risk of audit failure, then securitized bonds should offer investment diversification.

¹⁴² As noted, FSI reduces moral hazard near to the vanishing point when accompanied by the hedging strategy that uses options that apply to the stock of a specific audit client and can be priced accordingly. See *supra* notes ___ & ___; Ronen, *supra* note ___, at 15-16. In contrast, an IBS transaction is a strategy applicable to all an issuing audit firm's clients and would be priced on the basis of that entire book of business.

Third, this would redefine the relationship between auditing firms and capital market investors. At present, capital market investors may too often treat auditing firms as insurers of financial reporting, despite limited auditor ability to perform that function and limited resources to support it. When investors buy auditing firm cat bonds, they have an additional direct interest in reducing the frequency and magnitude of audit failure. In addition to increased monitoring of audit firm performance, this could induce monitoring and control over plaintiffs' lawyers to deter pursuing excessive damages claims against auditors, which is an important adjunct of the insurance-based arguments favoring damages caps for auditors.

Securitizing audit failure risk could also contribute to curbing the problem of pocket shifting prevalent in securities fraud class actions today. This occurs when an issuer suffering market price drops due to financial misstatement pays one class of shareholders at the expense of another class, depending on fortuities of the timing of stock trades.¹⁴³ With IBS for auditing, at least for federal securities class actions against auditors for audit failure, the pocket shifting may persist but an additional cash flow stream enters. In this cash flow-stream, funds flow out of one pocket and back into that same pocket.¹⁴⁴ True, significant transaction and agency costs remain, especially in lawyers' fees. But the current critique of pocket shifting worries about how the shift is from one pocket of shareholders to a different pocket of shareholders. With IBS for auditing, the pocket, through self-insurance, stays in substantially the same position (net of transaction and agency costs).

Finally, an IBS transaction is relatively simple for an auditing firm to complete compared to the political and structural challenges necessary either to establish caps on damages or implement novel reforms such as adopting a regime of financial statement insurance. True, some political resistance may appear, but it likely can be overcome. For example, the Reinsurance Association of America views IBS as a direct competitor and so has emphasized in lobbying efforts that the reinsurance industry has abundant capacity and that IBS should be seen, at most, as a supplement not an alternative to reinsurance.¹⁴⁵ On the other side, the Bond Market Association (BMA) is enthusiastic about IBS and discounts concerns about why investors may not find them attractive and urges increasing their appeal through more favorable US federal income tax treatment.¹⁴⁶ Auditing firms

¹⁴³ See Coffee, *supra* note ____.

¹⁴⁴ Suppose that Fund (a mutual fund) buys common stock of Issuer (a large industrial corporation) which is, in turn, audited by Firm (a large auditing firm). Suppose Fund also buys one-year Firm IBS. If no audit failure occurs by Firm at Issuer during that year, Fund enjoys its return on Issuer's stock (uninfected by audit failure) plus a high-bond interest return and return of principal on the Firm IBS. But if an audit failure does occur during that year, Fund suffers a reduced return on its Issuer stock and principal on the bonds—but if and only if that same amount is used to fund reimbursement to it of its losses on Issuer stock. It is far from a perfect hedge, but it reduces the naked risk of owning Issuer stock without any other financial instrument related to the quality of its audits.

¹⁴⁵ GAO, CATASTROPHE INSURANCE RISKS, *supra* note ____, at 28 & 30.

¹⁴⁶ *Id.* at 31.

who find IBS enticing will enjoy a similar reception: the MBA will welcome them but the RAA (and the reinsurers of the firms' SIP affiliates) may demur.¹⁴⁷

CONCLUSION

Policy debate over capping auditor damages in securities litigation, dating to the 1970s, implicates the perennial issue concerning the relative expense or limited availability to auditors of external insurance. As evidence, proponents cite the contraction of E&O markets for auditing insurance and the rise of auditing firm self-insurance programs. Analysis of this insurance-based argument suggests that it is overstated in that self-insurance is better at promoting audit effectiveness—and financial statement insurance would be better yet. The legitimate target in the debate is the threat of catastrophic risks, the mega case that would destroy a firm and jeopardize the auditing industry. That concern might be addressed by caps, but this has been a political and policy thicket for nearly 40 years.

The concern and analysis entice asking: what else besides caps might be used? After all, the problem is not *sui generis* and caps are not the only solution. Catastrophic risks with limited or expensive insurance or reinsurance arise from natural phenomena like hurricanes, earthquakes, floods and tornados. Some such events—like Hurricane Andrew and the Northridge Earthquake—rivet insurers and yield very hard insurance markets. In response to those two events, in particular, insurers and other businesses turned to the capital markets and invented insurance-based securitization as an alternative or supplement to reinsurance. This innovation can be adapted easily to the auditing context. Firms likely would be better off—and their contributions to financial reporting more effective—by pursuing catastrophe bond securitizations rather than continuing the campaign to secure caps on damages that they face for audit failure.

¹⁴⁷ Purely as a matter of speculation, this could help to explain why, to the extent that the concept is appealing in principle, it has not been adopted in practice.