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ARTICLE

TOWARD A TAX-BASED EXPLANATION OF THE LIABILITY INSURANCE CRISIS

Kyle D. Logue[*]

INTRODUCTION

THE so-called liability insurance crisis of 1985 and 1986 transformed the way we think about tort law and about liability insurance markets. The crisis phenomena, which first appeared in late 1984 and lasted until mid-1986, consisted of enormous increases in liability insurance premiums and alarming reductions in the availability of certain types of liability coverage.[1] In the two principal liability lines of insurance (Other

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[1] This description of the crisis phenomena is taken from the following sources: Tort Policy Working Group, U.S. Dep't of Justice, Report of Tort Policy Working Group on the Causes, Extent and Policy Implications of the Current Crisis in Insurance Availability and Affordability 1, 6-15 (1986) [hereinafter DOJ Report, Tort Policy]; George L. Priest, The Current Insurance Crisis and Modern Tort Law, 96 Yale L.J. 1521, 1526-27 (1987) [hereinafter Priest, Insurance Crisis]; George L. Priest, Modern

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Liability and Medical Malpractice), premiums increased by hundreds (in some cases thousands) of percentage points in a matter of months.[2] At the same time, the availability of liability insurance contracted sharply. The liability policies that *were* sold during this period contained large deductibles and unusually low policy limits. Moreover, for some specific liability risks—for example, coverage for day care centers—no insurance policies were sold at all; that is, no coverage was offered at a price consumers were willing to pay.[3] In addition, as property-casualty insurers were raising their premiums by unprecedented amounts, the industry in the aggregate was posting its largest underwriting losses ever.[4]

Numerous commentators have sought to explain the crisis phenomena. Indeed, the pursuit of a satisfactory explanation of the crisis dominated products liability and insurance scholarship for several years in the mid- and late 1980s.[5] Three main explanatory theories have been offered by scholars. Perhaps the most influential is the tort-based theory,[6] which alleges that the crisis was the result of the "revolutionary" and socially disastrous expansion in the number of lawsuits and in the size

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Tort Law and Its Reform, 22 Val. U. L. Rev. 1, 2 (1987). For a review of the implications for tort reform and insurance-law reform that scholars have derived from the crisis, see Symposium, Perspectives on the Insurance Crisis, 5 Yale J. on Reg. 367 (1988).

[2] Priest, Insurance Crisis, supra note 1, at 1527.

[3] Id. at 1521. See also George J. Church, Sorry, Your Policy is Canceled, Time, Mar. 24, 1986, at 16, 16-19 (giving anecdotal accounts of premium increases and reduced policy availability).

[4] See infra Chart 2 (showing pattern of underwriting losses). See also DOJ Report, Tort Policy, supra note 1, at 17-18 (citing underwriting losses as part of crisis). An underwriting loss occurs if, in a given reporting year, the insurer's premium revenue is less than its underwriting expenses—the largest of which expenses is the net increase in the insurer's loss reserves during the year. See Sean Mooney & Larry Cohen, Basic Concepts of Accounting & Taxation of Property/Casualty Insurance Companies 11 (1991). Other crisis phenomena included a noticeable shift away from commercial liability insurance and towards self-insurance and an attempt to restructure the commercial liability insurance contract from its traditional occurrence-based form to a claims-made form. See Priest, Insurance Crisis, supra note 1, at 1527.

[5] See, e.g., sources cited supra note 1.

[6] Richard N. Clark, Frederick Warren-Boulton, David D. Smith & Marilyn J. Simon, Sources of the Crisis in Liability Insurance: An Economic Analysis, 5 Yale J. on Reg. 367, 389 (1988) ("Perhaps the most frequently offered explanation for the [insurance crisis of 1985 and 1986] involves the legal system.").

and frequency of jury awards.[7] A competing theory asserts that the crisis was a hoax, and that the increase in premiums and changes in coverage were manifestations of collusive behavior within the insurance industry.[8] A third explanation, which has gained wide acceptance among mainstream economists, is that the crisis represented merely an extreme downturn in the property-casualty cycles, which was brought on by some type of "shock" to the industry's insurance-writing capacity.[9]

As explained below, each of the three dominant theories fails to account for various characteristics of the crisis. Most significantly, they fail to explain adequately the timing of the crisis. This Article asserts that these theories ignore a fourth, and potentially complementary, explanation: the effect of anticipated and actual changes in federal income tax laws.

During a period that almost precisely coincided with the timing of the insurance crisis, the Treasury Department and Congress were publicly considering tax reform proposals that would have dramatically affected the property-casualty insurance industry, proposals that were eventually enacted as part of the Tax Reform Act of 1986 (the "'86 Act").[10] This Article explores the possibility that the link between the tax reform debates leading up to the '86 Act and the crisis was more than pure coincidence. To focus the inquiry (and to make things interesting), I will attempt to defend the following hypotheses:

(1) Anticipating the enactment of the '86 Act, property-casualty insurers increased their *loss reserves*[11] substantially in 1984, 1985, and 1986 so as to increase the size of their deductible underwriting expenses in those years.

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[7] See infra Part I.A.

[8] See infra Part I.B.

[9] See infra Part I.C.

[10] Pub. L. No. 99-514, 100 Stat. 2085 (1986). See infra Part II.C.

[11] A "loss reserve" is a technical insurance-accounting concept. It is a liability on a property-casualty insurer's year-end balance sheet that represents the insurer's discretionary estimate of its future loss-claim payments arising from outstanding policies. The annual increase in loss reserves produces a large deduction for regulatory and federal income tax purposes. For further discussion of loss reserves, see infra Part II.A.

(2) By increasing their loss reserves in 1984-86, insurers were able to (a) shift income from pre-'86 Act years in which the top corporate income tax rate was 46 percent to post-'86 Act years in which the top corporate rate was substantially lower; and (b) take these loss-reserve deductions at their *undiscounted* value—that is, a value that ignores the time value of money.

(3) Finally, this sudden increase in loss reserves either caused or facilitated the crisis phenomena in the liability insurance market in 1985-86.

The Article is organized as follows. Part I briefly summarizes the existing theories of the crisis and highlights their main weaknesses. Part II then explains why, during the period leading up to the enactment of the '86 Act, property-casualty insurers had a temporary tax-based incentive to overstate their reported loss reserves. Part III takes a preliminary look at the insurance industry data that bear on the question whether insurers responded to the incentives created by the enactment of the '86 Act by overstating their loss reserves during this period. Finally, assuming that insurers *were* in fact induced by the '86 Act to change their loss-reserving patterns, Part IV explains how such a change in loss reserves could have contributed to the crisis phenomena.

I. THE COMPETING EXPLANATIONS OF THE CRISIS

A. The Tort-Based Theory

The tort-based theory of the crisis is a central component of the now-conventional argument for tort reform, particularly products liability reform. That argument, in general terms, goes as follows:

(1) The civil liability system in the United States has experienced an extraordinary expansion over the past several decades, an expansion that has included the introduction of strict products liability, the adoption in many states of joint and several liability, and an

astonishing increase in the frequency and size of tort awards for injuries suffered in the context of product and service use.[12]

(2) This expansion in the tort system has been socially harmful and should therefore be halted or reversed.[13]

(3) The liability insurance crisis of 1985-86 is evidence of both the expansion in the tort system and the disastrous effects of that expansion.

A version of this theory was advanced in an influential report, entitled *Report of the Tort Policy Working Group on the Causes, Extent and Policy Implications of the Current Crisis in Insurance Availability and Affordability*.[14] The DOJ Report attributed the

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[12] See, e.g., Tort Policy Working Group, U.S. Dep't of Justice, An Update on the Liability Crisis 54 (1987) ("The recent expansion of tort liability doctrines has been one of the most dramatic and far-reaching developments in modern American law."); Robert L. Rabin, Perspectives on Tort Law 154-55 (Robert L. Rabin ed., 2d ed. 1983) (chapter introduction) ("[C]ourts have effected a veritable revolution in products liability law during the last decade, substituting strict liability in tort for a liability system based on the fault principle."); Priest, Insurance Crisis, supra note 1, at 1534-36; George L. Priest, The Invention of Enterprise Liability: A Critical History of the Intellectual Foundations of Modern Tort Law, 14 J. Legal Stud. 461, 461 (1985) ("Since 1960, our modern civil liability regime has experienced a conceptual revolution that is among the most dramatic ever witnessed in the Anglo-American legal system. Legal rules that had been entrenched for decades . . . were suddenly repudiated and replaced by . . . radically different [rules]."). See generally Richard A. Epstein, Modern Products Liability Law, chs. 2-4 (1980) (giving historical account of development of products liability law); Peter W. Huber, Liability: The Legal Revolution and Its Consequences (1988) (discussing evolution of tort law from its contract law origins).

[13] See, e.g., Richard A. Epstein, The Unintended Revolution in Product Liability Law, 10 Cardozo L. Rev. 2193, 2196 (1989) ("The present rules of product liability law are both inefficient and unwelcome . . . ."); Priest, Insurance Crisis, supra note 1, at 1589 ("[T]he diffuse and indiscriminate expansion of substantive tort liability has led to the unraveling of insurance markets," creating "a tort law insurance regime that disrupts insurance markets and harms the poor."); Priest, Modern Tort Law and Its Reform, supra note 1, at 5 (1987) ("[M]odern tort law as currently defined largely thwarts the accident reduction and compensation objectives."); Michael J. Trebilcock, The Social Insurance-Deterrence Dilemma of Modern North American Tort Law: A Canadian Perspective on the Liability Insurance Crisis, 24 San Diego L. Rev. 929, 929-31 (1987).

[14] DOJ Report, Tort Policy, supra note 1; see also Priest, Insurance Crisis, supra note 1, at 1532-33 (discussing the report).

insurance crisis to (a) an increase in the frequency of tort claims and in the size of tort damage awards that occurred during the years leading up to the crisis; and (b) the increase in legal uncertainty stemming from the expansion in tort doctrines.[15] To support these claims, the report relied primarily on the following statistics:

> The number of products liability cases filed in federal district courts increased 758% from 1974 to 1985.[16]

> The number of medical-malpractice lawsuits per physician "more than doubled" from 1976 to 1981.[17]

> The average annual increase in personal injury awards increased more than 15% each year from 1975 to 1985.[18]

> Between 1975 and 1985, the average medical malpractice jury verdict increased from $220,018 to $1,017,716, and the average products liability verdict increased from $394,580 to $1,850,452.[19]

Largely on the basis of these data, the report concluded that the tort system was in need of drastic reform,[20] a conclusion that found a receptive audience among state lawmakers. By 1987, forty-two state legislatures had passed some type of tort-reform legislation, including the placement of caps on damage awards, the elimination of joint and several liability, and the abrogation of the collateral-source rule.[21]

In spite of the enormous influence of the tort-law explanation of the crisis, a shift in tort law cannot fully explain the crisis. The data upon which the theory is grounded—the decade-long

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[15] DOJ Report, Tort Policy, supra note 1, at 2-3 ("[I]ndications are that developments in tort law are a major cause [of] the sharp premium increases" during the crisis.).

[16] Id. at 2, 45.

[17] See id. at 47.

[18] Id.

[19] Id. at 2-3.

[20] Id. at 3-4.

[21] Priest, Insurance Crisis, supra note 1, at 1587-88.

increase in tort awards—could well explain an upward trend in liability insurance premiums during a similar period. However, those data do not easily account for the sudden events of 1985 and 1986. Other scholars have recognized this discrepancy between the shift in tort law and the crisis phenomena.[22] One of the most influential of these, Professor George L. Priest, has noted the inadequacy of the tort hypothesis as set forth in the Department of Justice report:

> [T]he Justice Department's study falls far short of documenting the source of the [insurance] crisis. The increase in rates of claims and size of damage awards reported by the Justice Department are far smaller than reported increases in insurance premiums. . . . No trial or settlement statistics . . . have shown increases that even remotely correspond to the increases in insurance premiums at multiples of four, five, ten, fifteen, and more over a period of a few months.[23]

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[22] It is possible that the timing of the crisis, including the suddenness of it, is entirely consistent with the tort-based explanation in the following way: Although the data reveal a relatively even (albeit steep) increase in tort claims over time, perhaps the full import of the data did not "sink in" until 1985 and 1986. And perhaps the realization at that time spread so quickly through the industry as to cause the relatively sudden events of 1985 and 1986.

[23] Priest, Insurance Crisis, supra note 1, at 1533-34; see also sources cited infra notes 25 (arguing that collusion among insurers was more likely than the tort crisis) & 43 (describing cycles in property-casualty industry). Note, however, that million dollar jury verdicts in medical malpractice and products liability cases did increase significantly (in percentage terms) in 1983. But there were even greater percentage increases in 1981 for medical malpractice cases and in 1979 for products liability cases, and neither of those years immediately preceded a crisis. DOJ Report, Tort Policy, supra note 1, at 40. Similar observations can be made about trends in the average jury awards for medical malpractice and products liability cases. Id. at 37-38. Moreover, there is at least one study of state court tort awards that found "no evidence to support the existence of a national 'litigation explosion' in state trial courts during the 1981-84 period." National Center for State Courts, A Preliminary Examination of Available Civil and Criminal Trend Data in State Trial Courts for 1978, 1981 and 1984 (1986). These data, of course, may not capture the whole picture. It is conceivable, for example, that the crisis was triggered by a single court decision or jury verdict in 1983, 1984, or 1985 that insurers regarded as signifying a dramatic change in the liability landscape. I am aware of no study that has rigorously attempted to identify such a case or series of cases. Another aspect of the crisis that does not fit well with the tort theory is the extraordinary jump in the property-casualty industry's "loss ratio." This argument is discussed infra Part III.

Thus, the tort-based theory leaves both the magnitude and the timing of the explosion in the cost of liability insurance something of a puzzle.[24]

B. The Collusion Theory

The tort-based theory has had its detractors from the beginning. Most prominent among them are the commentators who attribute the crisis phenomena to collusion among property-casualty insurers.[25] According to the collusion theory, there never was a crisis; rather, the so-called crisis phenomena were merely manifestations of a successful "recartelization" within the property-casualty industry. The proponents of this view further contend that the tort-based explanation of these phenomena was concocted by the insurance industry to persuade legislators of

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[24] In a 1987 article, Professor Priest advanced a tort-based explanation of the crisis that differed from that put forward in the DOJ Report. See Priest, Insurance Crisis, supra note 1. Priest argued that the crisis was the result of adverse selection and risk-pool unraveling in liability insurance markets that were caused by the ill-conceived expansion of products liability law. Id. at 1582-87. Therefore, under Priest's view, the appropriate response to the crisis was to reform products liability law. Id. at 1587-90. In contrast, Professors Steve Croley and Jon Hanson have suggested a very different interpretation of the crisis phenomena. They contend that all of the insurance-market conditions cited by Priest and others as evidence of a crisis in our tort system actually are consistent with the claim that the expansion in products liability law was efficient. Stephen P. Croley & Jon D. Hanson, What Liability Crisis? An Alternative Explanation for Recent Events in Products Liability, 8 Yale J. On Reg. 1 (1991). Neither Priest nor Croley and Hanson, however, attempt to explain the actual timing of the crisis, nor do they mention the possible influence of the federal income tax laws. I should also note that Priest's explanation helps to explain the suddenness of the crisis. That is, once consumer and producer risk pools began to unravel, as Priest argues they did, it might have sped up the process of increasing premiums and reductions in capacity.

[25] E.g., Jay Angoff, Insurance Against Competition: How the McCarran-Ferguson Act Raises Prices and Profits in the Property-Casualty Insurance Industry, 5 Yale J. on Reg. 397, 397-98 (1988) (alleging "industry conduct indicating the existence of collusion, evidence that collusive conduct protected by the McCarran-Ferguson Act caused the insurance crisis of 1985-86, and the supra-competitive profitability of general liability and medical malpractice insurance over the long run" as proof of the collusion theory); Ralph A. Winter, The Liability Crisis and the Dynamics of Competitive Insurance Markets, 5 Yale J. on Reg. 455, 463 (1988) ("[T]he cartel hypothesis says that the industry in 1985 recovered from a seven-year price war successfully re-establishing cartel prices . . . . The cartel or conspiracy hypothesis is consistent with the increase in premiums, the increase in profits, and the suddenness of the premium increase.").

the need for tort "reform."[26] One could also argue, along the
same lines, that the industry decried the tort crisis in an effort
to mask abnormal economic (if not accounting) profits.

Under the most plausible version of the collusion theory,
coordination among property-casualty insurers during the crisis
was facilitated by the Insurance Services Office ("ISO"), the
primary insurance-rating bureau for the property-casualty
industry.[27] Historically, ISO's principal function has been to
assist property-casualty insurers in setting their premiums
accurately, that is, in setting premiums that will allow insurers to
cover all of their underwriting expenses.   It is commonly
believed that accurate pricing of insurance policies requires some
form of centrally coordinated sharing of information among
insurers:

> Cooperation among insurance companies is necessary to achieve
> accurate pricing in the industry—at least for casualty and
> property lines.   Insurance premiums reflect the provider's
> evaluation of the probable costs of paying claims, as well as
> other costs of doing business, and a reasonable provision for
> profit. But in the case of property and casualty lines, the cost
> of claims payable in the future is difficult to assess at the time
> the policy is written, because the probability of an event
> occurring and the severity of the event if it does occur are both
> difficult to calculate.   Proper evaluation of risk requires
> extensive sampling of past occurrences of the events insured

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[26] Angoff, supra note 25, at 412-14. Angoff further suggests that the tort-crisis story
was designed to induce state legislators to pass tort-reform legislation. Id. at 398-99,
399 n.12; see also Winter, supra note 25, at 465 ("[A]re the increases in premiums
justified by the torts crisis, or has the torts crisis been exaggerated by the industry to
rationalize excessive premiums?"); William B. Glaberson & Christopher Farrell, The
Explosion in Liability Lawsuits is Nothing But a Myth, Bus. Wk., Apr. 21, 1986, at 24
("The insurance industry has fostered . . . misperceptions with a phenomenally
successful campaign that blames the 'lawsuit crisis' for shocking premium increases and
a paralyzing insurance shortage."); Bob Hunter, The Insurance Industry Is to Blame,
Wash. Post, Apr. 13, 1986, at C7 (citing statement by the Insurance Information
Institute that insurance providers are trying to "change the widely held perception that
there is an insurance crisis to a perception of a lawsuit crisis"); David Lauter, Report
Says Litigation Explosion Is a 'Myth,' Nat'l L. J., Apr. 28, 1986, at 46 (discussing
evidence that rate of litigation did not increase during the period leading up to the
crisis).

[27] Jonathan R. Macey & Geoffrey P. Miller, Costly Policies: State Regulation and
Antitrust Exemption in Insurance Markets 103-06 (1993).

against, as well as analysis of the historical sample, to predict losses in the future.

This sampling and analysis can be accomplished only by cooperative efforts among insurers.[28]

To this end, ISO has for many years provided insurers with three general types of information: historical loss costs, prospective loss costs, and advisory rates.[29] Historical loss costs are data regarding insurers' loss-claim experience, which ISO collects from insurers throughout the industry. Prospective loss costs, on the other hand, are ISO's estimates of claim payments that insurers can expect to pay out in the future. To derive these prospective estimates, ISO uses various statistical techniques incorporating assumptions about inflation rates and trends in liability judgments and technological innovation to extrapolate estimated future costs from the historical data. Although ISO no longer provides advisory rates, it did so for many years, stopping only in 1989. To generate the advisory rates, ISO would take the projected loss costs and add an amount calculated to cover projected operating expenses and the insurers' profits.[30] These advisory rates, as well as the loss cost data, have long been used by insurers to set premiums. Indeed, in many states insurance regulators have required insurers to use the ISO advisory rates.[31]

Because insurance-rating bureaus such as ISO are believed to serve the valuable social function of increasing accuracy in pricing, they are exempted from the antitrust laws by the McCarran-Ferguson Act.[32] It is also understood, however, that the use of rating bureaus increases the risk of oligopolistic pricing. Rating bureaus certainly have been used in the past by insurers to facilitate and enforce cartel pricing. Indeed, such cartelization has been encouraged—that was the whole point of the antitrust exemption.[33] However, cartel pricing, almost by

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[28] Id. at 47.

[29] Id. at 47-48.

[30] Id. at 50-52.

[31] Id. at 103-04 ("These advisory rates . . . were often used to establish uniform industry rates, either by way of administrative mandate or through the operation of private cartels.").

[32] Id. at 46-52.

[33] Id. at 104 ("It was just such an underwriting association-cartel that precipitated the

definition, gives rise to a risk of anticompetitive pricing, that is, pricing that maximizes industry profits but that does not necessarily maximize social value. This threat of oligopolistic pricing is one of the reasons for state regulation of insurance rate making.

Not surprisingly, some commentators have argued that the centralization of insurance pricing has, in fact, had an anticompetitive effect on the property-casualty industry.[34] They claim that support for the collusion theory can be found in the surprisingly high profits earned by property-casualty insurers during the crisis. As it turns out, the industry's annual rate of return during the crisis, as a percentage of net worth, increased significantly.[35] Perhaps more important, in 1985 the stock market value of the U.S. property-casualty industry increased by 59.4%, whereas the Standard & Poor's 500 index increased by only 26.9%.[36] Although these statistics appear to demonstrate supra-normal profits, the relevance and appropriate interpretation of these and other statistics remain controversial, especially given the use of accounting practices that may obscure real income and surplus over time.[37]

Supreme Court's decision in *United States v. Southeastern Underwriters Association*, which declared that insurance was subject to federal regulation and which in turn spawned the McCarran-Ferguson Act.") (footnotes omitted).

[34] One commentator argues that "[t]he ISO rate is largely responsible for the cyclical nature of the insurance industry, and in particular for periodic insurance crises like the one that occurred in 1985-86." Angoff, supra note 25, at 406 (citation omitted). In 1989 ISO announced that it planned to stop issuing advisory rates and would limit itself to providing historical and prospective-loss-cost data. Macey & Miller, supra note 27, at 105.

[35] Winter, supra note 25, at 461. The property-casualty industry's rate of return grew from 1.8% in 1984 to 3.8% in 1985 to 11.6% in 1986, while the all-industry rate of return declined from 13.5% in 1984 to 11.5% in 1985. Id. It should be noted, however, that the all-industry rate increased to 15.5% in 1986. Who Did Best and Worst Among the 500, Fortune, Apr. 27, 1987, at 384.

[36] Winter, supra note 25, at 466 & n.49; Scott E. Harrington, Prices and Profits in the Liability Insurance Market, *in* Liability: Perspectives and Policy 42, 64-65 (Robert E. Litan & Clifford Winston eds., 1988).

[37] Harrington, supra note 36, at 63. For a discussion of why profitability (or operating results) is a misleading measure of financial performance with respect to insurance companies, see Nelson Lacey, The Competitiveness of the Property-Casualty Insurance Industry: A Look at Market Equity Values and Premium Prices, 5 Yale J. on Reg. 501, 504-05 (1988).

Those who reject the collusion theory argue that, given the structural characteristics of the property-casualty industry, a successful price-fixing arrangement would be virtually impossible.[38] These characteristics include the large number of companies in the industry, the fact that none of those companies has a large share of the market (and thus none is likely to have significant power over price), and the relatively low entry costs facing investors wishing to get into the insurance business.[39] Taken together, it is argued, these factors make successful long-term price-fixing extremely improbable.

Notwithstanding these structural characteristics, it is quite plausible, in my view, that insurance pricing decisions in the property-casualty industry are to some extent influenced by ISO. First of all, ISO does *try* to affect insurers' pricing decisions directly. At least during the crisis, ISO made every effort to persuade property-casualty insurers to raise their premiums. For example:

> In January 1985, . . . ISO President Daniel McNamara called a joint industry conference with the Insurance Information Institute, the industry's public relations arm, where he emphasized that "the need for significant premium increases, especially for commercial lines, is absolute for the next three years." Then, in May 1985, the ISO distributed throughout the

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[38] See, e.g., Winter, supra note 25, at 457, 463-64 & n.37 (Low concentration in the industry "indicate[s] that successful collusion among liability insurers is highly unlikely, even with the partial protection of the McCarran-Ferguson Act against anti-trust laws."); cf. Paul L. Joskow, Cartels, Competition and Regulation in the Property-Liability Insurance Industry, 4 Bell J. of Econ. & Mgmt. Sci. 375, 391, 397-98 (1973) (concluding that "property-liability insurance industry possesses the structural characteristics normally associated with the idealized competitive market," but noting that pricing behavior deviates from competitive model due to state regulation).

[39] Joskow, supra note 38, at 391 ("The property-liability insurance industry possesses the structural characteristics normally associated with the idealized competitive market: a large number of firms, operating in a market with low concentration levels, selling essentially identical products, provided at constant unit costs and with ease of entry of new and potential competitors."); Federal-State Regulation of the Pricing and Marketing of Insurance, 8-9 (Paul W. MacAvoy ed., 1977) (reprinting U.S. Dep't of Justice report on antitrust immunities) [hereinafter DOJ Report, Pricing and Marketing] (giving statistics demonstrating low concentration in the industry and lack of "significant" entry barriers for all insurance providers except "direct writers."). For a general discussion of the economics of cartel pricing and the market conditions conducive to price fixing by cartels, see Herbert Hovenkamp, Federal Antitrust Policy: The Law of Competition and its Practice, 140-51 (1994).

industry a major position paper, entitled *1985: A Critical Year*, which proclaimed that "the brutal price war of the last six years is over," and that "significant premium increases are needed, especially for the current commercial lines products." Suddenly, in the summer of 1985, insurance companies that only a few months earlier had been competing on price and ignoring the ISO "advisory" rate were tripling and quadrupling their premiums, returning to the ISO rate.[40]

In addition, as I will explain in the next Section, property-casualty premiums do in fact exhibit a cyclical pattern, a pattern that one would not expect to see in a competitive market. Moreover, property-casualty insurers *do* seem to make pricing decisions that have a substantial degree of parallelism.[41] Thus it seems plausible that the crisis phenomena could have at least been exacerbated, if not caused, by a form of either implicit or explicit collusion.[42]

C. The Insurance-Cycle Theory

According to the third competing explanation, the insurance-cycle theory, the crisis was a severe manifestation of the *hard* portion of the property-casualty cycle. It is generally understood that the property-liability market is characterized by

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[40] Angoff, supra note 25, at 406-07 (citations omitted).

[41] One explanation for property-casualty insurers' parallel pricing decisions relies on the notion that market share is of critical importance to insurers: "Companies face a tough tradeoff . . . On the one hand, how much underwriting loss can companies stand to maintain their market share at inadequate premiums? On the other hand, how much market share can a company afford to give up, when market share is key to fully participating in the market when premiums turn up?" Alfred G. Haggerty, ISO Issues Warning on Rate War, Nat'l Underwriter: Prop. & Casualty Ins., Oct. 15, 1982, at 34 (quoting James D. Langell, ISO vice president).

[42] The term "collusion," however, may be too strong to describe the behavior that one observes in the property-casualty industry. Perhaps something akin to "price leadership" would be more accurate. See F.M. Scherer, Industrial Market Structure and Economic Performance 176-84 (2d ed. 1980) (discussing evidence of price leadership). With price leadership there typically is a single firm or small number of firms that have a dominant share of the market and whose pricing decisions the rest of the industry follows. In the property-casualty industry there are no such dominant players, but it could be argued that the functions associated with price leadership are performed by ISO and state regulatory agencies, with ISO setting prices and state regulators providing enforcement. In any case, the existence of the cycle may be evidence of a certain amount of "herding" by insurers that suggests coordination in pricing and quantity decisions.

underwriting cycles.[43] During the so-called *soft* periods in the cycles, the supply of insurance is relatively plentiful: Premiums are comparatively low, and it is relatively easy to obtain coverage. During the hard periods, however, the supply of insurance decreases and premiums rise. Likewise, underwriting performance in the industry appears to rise and fall as the cycles shift, with underwriting losses occurring during the soft periods and underwriting gains occurring during the hard periods.[44]

Scholars have offered a number of explanations of the property-casualty cycles, and these explanations have in turn been used to explain the crisis.[45] According to one theory, the

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[43] E.g., Harrington, supra note 36, at 77 ("Most observers believe that the property-liability market is characterized by underwriting cycles: soft markets with readily available coverage at falling prices followed by hard markets with difficulty in obtaining coverage and rapidly rising prices."); Anne Gron & Deborah Lucas, External Financing and Insurance Cycles 1 (NBER working paper 1995) ("The property-casualty insurance industry is characterized by an 'insurance cycle'—periods of high prices and rationing followed by periods of expanding coverage and lower prices."); J. David Cummins, Scott E. Harrington & Robert W. Klein, Cycles and Crises in Property/Casualty Insurance: Causes and Implications for Public Policy 1 (1991) ("The property/casualty insurance industry is notorious for its pattern of rising and falling prices and profits, particularly in long-tail lines.").

[44] Underwriting losses occur when loss-reserve deductions in a given reporting year exceed premiums earned during that year. An underwriting gain occurs when the reverse is true. See infra notes 107-08 and accompanying text.

[45] See, e.g., Cummins, et al., supra note 43, at 1 ("The liability insurance crisis has been seen as a particularly severe manifestation of the more general phenomenon known as the 'underwriting cycle.'"). Professor Priest provides a concise description of the insurance cycle theory:

> Probably the most prominent explanation of the crisis is the insurance cycle theory. According to this theory, insurance premiums were low during the late 1970's and early 1980's because interest rates and investment returns were high. In recent years, as interest rates have fallen with the decline in inflation, insurers have been forced to increase insurance premiums. The crisis, thus, is no more than a predictable response to exogenous financial movements. It follows that, in the future, as interest rates return to higher levels, insurance premiums will decline and the crisis will pass.

Priest, Insurance Crisis, supra note 1, at 1529 (citation omitted). For a thorough historical survey of the insurance-cycle studies, see Cummins, et al., supra note 43, at ch.1. In more recent years, some have argued that the property-casualty cycle has disappeared. Dan Lonkevich, Pricing and Consolidation: Farewell to the P/C Cycle?, Best's Review, Property-Casualty Ins. Ed., Sept. 1995, at 24-31 (attributing end of cycle and prolonged period of soft pricing to competition-enhancing consolidation within the property-casualty insurance market). Of course, whether the recent prolonged period of soft pricing in the property-casualty market reflects an end to the cycle or an increase in the length of the time between turns in the cycle remains to be

cycles are attributable to fluctuations in interest rates and to the inverse relationship between interest-rate movements and insurance-premium movements.[46] Under this theory, the soft market is caused by periods of unusually high interest rates. During such periods, insurers have an incentive to engage in *cash-flow underwriting*, which consists of (a) charging premiums that produce underwriting losses and then (b) relying on investment earnings to make up the shortfall. However, under this theory, when interest rates fall, insurance premiums must rise commensurately. Applying this theory, the premium increases in the mid-1980s seem to be at least partially explained by the fall in interest rates in the early 1980s.[47]

Fluctuations in interest rates alone, however, do not fully explain the crisis. First, the facts simply do not match the theory.[48] Interest rates rose sharply during the late 1970s and peaked in 1981. This was followed in 1982 and again in 1983 by a substantial drop in rates. In 1984, interest rates *increased* modestly and then declined again in 1985 and 1986.[49] If premium movements were inversely related to and primarily determined by interest rate movements, it is difficult to explain why the property-casualty market remained soft (i.e., why premiums remained low) until late 1984 and early 1985.[50] Moreover, there is no interest rate explanation for why

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seen.

[46] See, e.g., DOJ Report, Tort Policy, supra note 1, at 25 ("[T]here is an obvious inverse relationship between premiums and the prevailing interest rate. . . . When interest rates are high, premiums tend to be lower since more of the insurer's income comes from such return on investment; and when interest rates are low, premiums will tend to be higher since the insurer is more dependent on the premium principal to cover the anticipated payout.").

[47] Insurance Information Institute, Crisis and Recovery: A Review of Business Liability Insurance in the 1980s, at 9 n.4 (1992) [hereinafter I.I.I., Crisis and Recovery].

[48] See Winter, supra note 25, at 465 n.45 ("A decline in interest rates will increase the present value of claims and therefore increase competitive premiums. But this effect cannot account for the magnitude or the timing of the premium increase.").

[49] The prime rate displayed the following pattern during this period: 1978 (9.06%), 1979 (12.67%), 1980 (15.27%), 1981 (18.87%), 1982 (14.86%), 1983 (10.79%), 1984 (12.04%), 1985 (9.93%), 1986 (8.33%). Sidney Homer & Richard Sylla, A History of Interest Rates, 392-93 (3d ed. 1991).

[50] See, e.g., I.I.I., Crisis and Recovery, supra note 47, at 8-9 (demonstrating effects of interest rate movements in absence of other factors, and offering price competition as one factor that overcame these effects).

premiums would have exploded upward in those years.[51] In a
1992 study reexamining the causes and effects of the crisis, the
Insurance Information Institute ("the Institute"), the public
relations arm of ISO, attempted to explain the time lag between
the drop in interest rates in the early 1980s and the premium
increases that occurred during the crisis. This study attributed
the lag to "continued price competition rather than cash flow
underwriting."[52] But that explanation does not account for what
happened in 1984. Indeed, even the Institute has admitted that
no current theory of the crisis accounts for its timing: "The exact
timing of the turn in 1984 is more difficult to explain. Why
1984? Why not earlier?"[53]

The most widely accepted explanation of the property-casualty
cycles attributes the soft and hard markets to alternating periods
of excess and limited capacity.[54] Before discussing this explan-
ation, however, I should first explain what is meant by the
concept of *capacity* in this context. The standard measure of
insuring capacity in the property-casualty industry is an insurer's
surplus, which is an accounting term that means the difference
between the insurer's total assets and its total liabilities. Surplus
(sometimes referred to as net worth in other industries) serves

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[51] Kenneth Abraham, Making Sense of the Liability Insurance Crisis, 48 Ohio St. L.
J. 399, 400 (1987) ("[T]he magnitude of [premium increases during the crisis was] far
greater than one would expect if a drop in interest rates alone were responsible.");
Cummins, et al., supra note 43, at 44 ("A significant portion of the changes in
insurance prices and profits observed over the course of an underwriting cycle typically
can be explained by changes in interest rates. However, interest rates do not seem to
be an adequate explanation for all of the cyclical variation in pricing and particularly
for some of the severe shocks in price and availability that have occurred over the past
two decades."); Priest, Insurance Crisis, supra note 1, at 1530 ("[I]t seems unlikely that
recent alterations in insurer investment portfolios provide a full explanation of the
extraordinary premium increases observed during the current crisis.").

[52] I.I.I., Crisis and Recovery, supra note 47, at 9.

[53] Id. at 10. Professor Kenneth Abraham, among others, has raised the same point:
    The cutthroat competition that resulted in 'cash-flow' underwriting early in the
    decade may have delayed the impact of increased tort liability on premiums for
    several years, until the forces of competition for market share finally had to
    yield to more rational pricing. *Nonetheless, the premium increases of 1985 and
    1986 were so dramatic and, in some cases, so enormous, that prudence suggests
    a search for other explanations as well.*
Abraham, supra note 51, at 405. (emphasis added).

[54] See generally Cummins, et al., supra note 43, at 44-46 (summarizing the literature
developing this theory).

as the insurer's buffer against an especially bad year during which the insurer suffers an unusually large operating loss.[55] The optimal level of surplus is determined by a number of factors, one of the most important of which is the variability of the risks that the company insures. The greater the variability in the insurer's portfolio of insured risks, the larger the insurer's surplus must be in order to maintain a given level of financial security. In addition, as the quantity of insurance written in a given year increases, the size of the insurer's surplus must also increase. Inversely, the smaller the insurer's surplus becomes, the smaller will be the quantity of insurance the insurer can write without unduly risking insolvency in a bad year.[56]

This relationship between the size of the insurance industry's surplus and its insuring capacity gives rise to the capacity-constraint explanation of the property-casualty cycles and of the crisis. Under this theory, the industry experiences a reduction in its collective surplus following unexpectedly large underwriting or investment losses. This reduction in surplus creates a temporary period of constrained insuring capacity, during which coverage is relatively scarce and premiums relatively high. This explanation of the property-casualty cycles has been used to explain the liability insurance crisis of 1985-86.[57] The claim is that, at some point before the crisis began, the property-casualty industry experienced a *shock to capacity*, that is, some unanticipated event that reduced the industry's surplus. Some of the potential shocks have already been mentioned—i.e., the unforeseen expansion in the tort system and the unexpected drop in interest rates. Other possible shocks that have been suggested include the unexpected expansion in insurance-

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[55] Surplus is considered "the [financial] security that stands behind every [insurance] policy," providing the necessary cushion to support the shock of major catastrophe, stock market declines and loss reserve inadequacies. Insurance Services Office, Inc., 1985: A Critical Year 16 (1985); see also Winter, supra note 25, at 470-71 ("Because companies do not know exactly what their costs are going to be, they must maintain a buffer of net wealth against adverse outcomes in order to avoid insolvency and in order to make their contractual promises credible) (footnote omitted).

[56] Winter, supra note 25, at 471. Therefore, insurers who write mostly long-tail coverage, which has a greater degree of variability from year to year, must maintain a lower ratio of premiums-written to surplus than insurers who write primarily short-tail coverage.

[57] Harrington, supra note 36, at 77-82; Winter, supra note 25, at 457.

company liability and the contraction in the reinsurance markets, both of which supposedly occurred in the late 1970s and early 1980s.[58] The capacity-constraint theorists argue that one of these shocks, or some combination of them, depleted the industry's surplus and hence the industry's insuring capacity, thus causing the dramatic reductions in availability and the increases in premiums that characterized the crisis.[59]

D. *Unanswered Questions and a New Composite Explanation*

In my view, all of the above-described theories contain elements that help to explain the crisis. For example, the crisis probably would not have occurred had it not been for the expansion of the tort system over the preceding decades and the drop in interest rates of the early 1980s; both of which reduced the insurance industry's capacity. Further, the effects of these capacity constraints were likely magnified because of the way in which the industry tends to act in unison, *as if* controlled by a central pricing agent. Such a composite explanation rings true. However, it leaves inadequately explained one important aspect of the crisis: the timing. Why did the crisis happen *when* it did? Why did it start in late 1984 and early 1985? Neither the tort-theory, nor the collusion theory, nor the capacity-constraint theory addresses this issue directly. As Professor Ralph A. Winter has observed:

> One of the most unusual aspects of the crisis was its cata-strophic timing. The crisis hit the liability insurance market quite suddenly in late 1984 and early 1985 and followed a period of stable premiums. Any of the trends in market conditions to which the crisis is usually attributed—changes in tort law, introduction or revelation of new risks such as environmental risks and incidents of child abuse in day-care centers, or downward movement in interest rates—occurred over a number of years and not with the suddenness with which the crisis appeared. The increase in tort awards does appear to

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[58] Harrington, supra note 36, at 81; Abraham, supra note 51, at 401.

[59] The capacity-constraint explanation (of the cycles generally and of the crisis specifically) relies on the following assumption: Whenever an insurance company's surplus is depleted, the insurer will have a tendency to replenish it through retained earnings rather than through the issuance of new stock. For a defense of this assumption, see Winter, supra note 25, at 471-74.

have accelerated recently, but not enough to account for the suddenness of the jump in premium levels and drop in availability from late 1984 to late 1985, following the period of relatively stable premiums since 1977.[60]

In the remainder of the Article, I will describe the tax-based explanation of the crisis, an explanation that helps to account for the timing and the suddenness of the crisis. First, in Part II, I will explain why, in 1984-86, insurers had a tax-based incentive to increase their loss reserves. Then, in Part III, I will summarize the available data, suggesting that insurers in fact responded to this incentive and finally in Part IV will offer some thoughts as to how this change in loss-reserving behavior could have contributed to the crisis phenomena.

II. THE TAX HYPOTHESIS

A. Property-Casualty Insurance Accounting and the Concept of Loss Reserves[61]

Ever since property-casualty insurance companies have been subject to the federal revenue laws, their tax treatment has been governed by a special set of rules that are collected in Subchapter L of the Internal Revenue Code.[62] Subchapter L has

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[60] Winter, supra note 25, at 461-62 (footnote omitted). Professor Winter goes on to note that "[i]n attributing the crisis to the developments in tort law in recent years, . . . [proponents of tort reform do not] explain why the liability insurance market consequences of the increased instability of the tort system were manifested suddenly in late 1984." Id. at 465. See also Abraham, supra note 51, at 405-09 ("The most plausible explanation for the size and suddenness of the premium increases is a decline in the property/casualty insurance industry's confidence that it could predict the scope of the liabilities it would face under the policies it sold after 1985. . . . *There is little evidence to explain why insurers' confidence dropped so precipitously in 1985.* Surely the severe tightening of the reinsurance market at the end of 1984 is part of the answer, although this only pushes the inquiry a step backward. In any case, there may well have developed a kind of communal mind-set among primary insurers that is not entirely inconsistent with some of the suppositions of the conspiracy theory.") (emphasis added).

[61] My discussion of insurance accounting draws heavily on the following sources: Mooney & Cohen, supra note 4; Terrie E. Troxel & George E. Bouchie, Property-Liability Insurance Accounting and Finance (1990); Clair J. Galloway & Joseph M. Galloway, Handbook of Accounting for Insurance Companies (1986); and Insurance Accounting and Statistical Association, Property-Liability Insurance Accounting (Robert W. Strain ed., 1974) [hereinafter IASA].

[62] For general historical discussions of the federal income tax treatment of the

historically required insurers to calculate their taxable income using statutory accounting, the method of accounting that is required for state regulatory purposes. Under statutory accounting, the largest deduction for any insurer is typically the *loss-reserve deduction*, which derives from the net increase in the insurer's *loss reserve* for the year.[63] A loss reserve is nothing more than an entry on the insurer's balance sheet that represents the insurer's best estimate, as of the end of the reporting year, of the total amount the insurer will have to pay in future loss claims arising out of covered loss events that have occurred as of year's end. Put differently, it is an estimate of the amount necessary to liquidate all of the insurer's outstanding policyholder claims.[64]

The process by which loss reserves are calculated is important to the tax hypothesis and to a full understanding of the crisis.[65] The first step in the process involves collection by the insurer of information about its own loss experience from its claims department. In addition, insurers obtain aggregated industry loss

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property-casualty industry, see Staff of the Joint Comm. on Taxation, Tax Reform Proposals: Taxation of Insurance Products and Companies 29-30 (1985); and General Accounting Office, Congress Should Consider Changing Federal Income Taxation of the Property/Casualty Insurance Industry 9-11 (Joint Comm. Print 1985) [hereinafter GAO Report].

[63] See Troxel & Bouchie, supra note 61, at 84 (1990); Mooney & Cohen, supra note 4, at 27.

[64] Troxel & Bouchie, supra note 61, at 85 ("Loss reserves of an insurer are, in theory, those amounts that would liquidate all unsettled claims against the insurer. These include not only those claims of which the insurer has knowledge, but also unknown claims that have occurred and will be reported later."). Although the term "loss reserve" is commonly used to mean the concept just described, the technically correct name of the liability on the balance sheet is the "unpaid losses" account. See IASA, supra note 61, at 29. In addition to the unpaid losses liability, statutory accounting also requires insurers to record a liability for the anticipated administrative costs associated with settling the claims represented in the unpaid loss account. This liability is known as the "loss adjustment and expense" account, and it too is sometimes referred to as a type of loss reserve—the "LA&E reserve." My discussion of loss reserving and solvency regulation draws primarily from the following sources: Mooney & Cohen, supra note 4, at 26-27, 32-34; Ruth E. Salzmann, Estimated Liabilities for Losses and Loss Adjustment Expenses, in IASA, supra note 61, at 29; Timothy M. Peterson, Loss Reserving: Property/Casualty Insurance (1981); and from conversations with property-casualty actuaries.

[65] For a brief summary of the principal categories of loss-reserving methods, see Mooney & Cohen, supra note 4, at 32-34. For a thorough and detailed treatment of the loss-reserving process, see generally Peterson, supra note 64.

data provided by ISO in the form of historical loss costs and prospective loss costs. After all of these data have been assembled (along with the development and trending factors supplied by ISO), the insurer's actuarial department applies various statistical techniques to produce estimates of the total future loss payments attributable to outstanding insurance policies. Typically, the actuaries will recommend a range of "reasonable" reserves. Then someone in management will choose the final number to be reported on the insurer's annual statement. The important point is this: At every stage of the process, employees of the insurer—claims adjusters, actuaries, and managers—exercise a considerable degree of discretion.[66]

In theory, if loss reserves were determined strictly in accordance with insurance-accounting theory, the reserve would reflect *only* those factors that bear on the size, frequency, and pattern of future claim payments and claim-expense payments.[67] In practice, however, given the amount of discretion inherent in the loss-reserving process and the various reporting functions that the loss reserve performs, one would expect reserves to be influenced by considerations not strictly related to estimated liability. For example, in choosing a loss reserve to report on its annual statement, management is likely to be sensitive to the effect of the report on all of the relevant audiences to whom it is sent, including state insurance regulators, investors, and tax collectors.[68]

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[66] See DOJ Report, Pricing and Marketing, supra note 39, at 50 ("[T]he formulation of rates involves a substantial element of judgment. The bureau rate represents the collective judgment of a large number of competing insurers, aided by a professional staff of actuaries, as to the average future losses and expenses for the industry."). The rate making process and the loss-reserving process are inextricably linked: An insurer must have calculated its loss reserves to be able to calculate its premiums.

[67] Such factors include changes in patterns of actual claim payments, changes in inflation rates, weather patterns, technological developments, and, most significant in the context of liability of insurance, trends in tort doctrine and jury awards that affect the size and frequency of liability judgments.

[68] Troxel & Bouchie, supra note 61, at 2-3 (discussing fact that different audiences for annual statement have different objectives and look for different things in the statement); Lacey, supra note 37, at 504 ("Another example of profitability's ambiguity and manipulability is the way loss reserves are reported. Loss reserves measure the insurer's liability for unpaid claims and are estimated through actuarial methods. Once appropriate levels for loss reserves are reported, however, reserves may be deliberately misstated in either direction. Understating loss reserves overstates

To see why this is so, consider the following simple example. Imagine an insurer that overstates its loss-reserve deduction in Year 1 by $100. This reduces its Year 1 taxable income by $100; and, if we assume a constant tax rate of 46 percent, the overstated deduction saves the insurer $46 in Year 1. Suppose that in Year 5 it becomes clear that the reserve has been overstated. (For example, the actual claim payment is made in Year 5, and it turns out to be $100 less than was originally reserved.) In Year 5, then, the insurer would have to *weaken* (or reduce) its reserve by $100 and therefore would have to include that amount in its Year 5 taxable income. Assuming a tax rate of 46 percent throughout the example, the overstated portion of the loss-reserve deduction would decrease the insurer's tax liability by $46 in Year 1 but would increase the insurer's tax liability by $46 in Year 5, allowing the insurer to postpone paying the $46 tax liability for four years. This allows the insurer to capture the time value of the postponed payment, because the insurer rather than the IRS gets the interest earned on the invested tax savings.[69]

It is worth pausing here to note that an insurer can get the above-described tax-deferral benefit not only by overstating the initial reserve for a given accident year but also by revising upward—that is, by *strengthening*—loss reserves for prior accident years. Thus, if the insurer in our example had also written a policy in Year 0 that was identical to the policy written in Year 1, the insurer in Year 1 could have strengthened its Accident-Year 0 reserve by $100, which would have produced the same $46 in tax savings as overstating the Accident-Year 1 reserve would have.[70] This ability to use reserve strengthenings

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profit and gives the impression that the firm is in better financial condition than it actually is. Thus, insurance firms that are suffering financially have an incentive to understate reserves and conceal the firm's financial distress. Correlatively, overstating reserves understates profit, reduces the insurer's tax liability, and increases the insurer's cash flow.").

[69] This tax benefit would be eliminated, of course, if the insurer were required to pay interest to the IRS on the amount of taxes deferred. But there is no such requirement. Note one implication of this analysis: A reserve that is overstated (or conservatively estimated) when initially reported is more likely to be weakened in subsequent reporting years than is an unbiased reserve.

[70] However, with the reserve strengthening for the Year 0 accident year, the $46 in tax savings would probably come back into income one year earlier than would be the

to reduce taxes will become important in Part III, when we look at the data. It is also important to emphasize that the tax benefit of overstating loss reserves is a function of the insurer's marginal tax rate, the relevant discount rate, and the length of the delay between the initial reserve-deduction and the later reserve-inclusion. The higher the insurer's marginal tax rate, the larger will be the amount of taxes that can be deferred by the deduction. In the example above, if the insurer had been taxed at a rate of 70 percent, the overstated reserve deduction would have deferred $70 rather than $46. Also, the higher the discount rate and the longer the period of deferral, the greater would be the value of deferring $46 in tax liability. One interesting implication of this is that the tax benefit of overstated loss-reserve deductions is greatest for the long-tail lines of coverage—such as Medical Malpractice and Other Liability—since those lines allow for the longest period of deferral.

Because of the tax benefit of conservative loss reserving, there has long been a tax-based incentive for property-casualty insurers to overstate their loss reserves. Should we therefore expect property-casualty insurers always to overstate their loss reserves? The answer is no, and the reason is simple: Reported loss reserves convey information to a number of different audiences. Therefore, a number of nontax factors may bias reported loss reserves downward, offsetting the tax incentive that may bias them upward. For example, in some years insurance-company management may have an overwhelming incentive to *understate* the company's loss reserves (that is, to reserve *optimistically*) so as to boost the company's reported earnings.[71] Management might do this to maximize its compensation (which may be tied to annual profits), to suggest a surge in profitability immediately before going to the capital markets, or to smooth reported earnings over time.

In addition to these external limits, the tax incentive to overstate loss reserves also is limited, albeit only weakly, by the threat of IRS scrutiny. The IRS can disallow a property-casualty insurer's loss-reserve deduction to the extent that it is

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case if the insurer had overstated the Year 1 accident year reserves.

[71] Lacey, supra note 37, at 504.

unreasonable.[72]   At the extreme, the IRS has the authority to impose penalties for grossly overstated loss reserves.   For example, if the Service were to determine that the insurer intentionally overstated its reserves to avoid taxes, it could impose penalties for fraud.   In practice, however, the Service never imposes such fraud penalties on insurers; indeed, the IRS almost   never   disallows   reserve-deductions   as   being unreasonable.[73]

To summarize, there are a number of external factors that can be expected to bias insurance-company loss reserves, including tax, financial, and regulatory incentives. As a result, depending upon the relative strength of each factor, an insurer's reported loss reserve for any given accident year may be overstated or understated or substantially unbiased. Because these incentives are interrelated, if the basis of any one of them were to undergo an unusual change, a shift in the direction of the overall loss-reserving bias would be expected to occur. In Sections B and C, I will describe the transition in the federal income tax laws that occurred in the mid-1980s which dramatically altered the balance of external incentives affecting property-casualty insurers' loss-reserving decisions. First, in Section B, I will explain the pre-'86 Act tax treatment of loss-reserve deductions, which in effect provided a considerable hidden subsidy to the property-casualty industry. Then, in Section C, I will discuss the way in which the proposal to change the tax treatment of property-casualty loss reserves (together with the proposal to lower corporate income tax rates) increased insurers' incentive to overstate (and decreased their incentive to understate) their loss reserves in 1984, 1985, and 1986.

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[72] Treas. Reg. § 1.832-1(b) (1996).

[73] In addition, even if the reserve deduction is challenged as being unreasonably large, the IRS at most will only disallow the unreasonable portion of the deduction. The insurer will be permitted at least to deduct the reasonable portion. Cf. Richard Morais, Discounting the Downtrodden, Forbes, Feb. 25, 1985, at 82-83 ("It is virtually impossible on a case-by-case basis to prove reserve redundancy. . . . I've never met an IRS official who was able to do all the work.") (quoting Larry Coleman, analyst for National Association of Insurance Commissioners).

B. Pre-'86 Act Taxation of Property-Casualty Loss Reserves: A Hidden Subsidy

As mentioned above, Subchapter L of the Internal Revenue Code has historically permitted property-casualty insurers to use the statutory method of accounting for purposes of calculating their federal income tax liability. However, statutory accounting tends to overstate an insurer's liabilities (supposedly in the interest of protecting policyholders); therefore, statutory accounting—compared with traditional tax accounting—tends to understate the insurer's annual income. Because of the differences between statutory accounting and standard tax accounting, the property-casualty industry (until the '86 Act) enjoyed a number of tax-deferral opportunities not available to other taxpayers.[74]

One of the largest of these pre-'86 Act tax preferences was the treatment of loss reserves. Before the '86 Act, Subchapter L permitted property-casualty insurers to use *undiscounted* loss reserves in calculating their federal taxable income. This practice had the potential to produce drastically overstated loss-reserve deductions and understated tax liabilities, *even if insurers were unbiased in their loss-reserving decisions*. Put differently, the use of undiscounted loss reserves permitted property-casualty insurers to report losses for federal income tax purposes on transactions that were profitable if measured in terms of *nominal economic income*.[75] These losses could then be used to shelter the insurers' income from other sources. To illustrate how this tax preference worked, the following example contrasts the pre-'86 Act treatment of loss reserves and the treatment that would exist under a tax on nominal economic income.

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[74] For a discussion of several ways in which pre-'86 Act statutory accounting essentially provided a subsidy to the property-casualty industry, see generally GAO Report, supra note 62, at 11-21 (explaining how the method of calculating loss reserves systematically "understates the periodic determination of income," thereby allowing substantial tax deferral).

[75] Under a tax on nominal economic income, the tax base would include any net increase in a taxpayer's wealth or net worth during a given period of time (typically a year) without controlling for inflation. In contrast, a tax on economic income (sometimes called Haig-Simons income) would control for inflation. This distinction was pointed out to me by David Bradford.

For the purposes of this example, make the following assumptions: A single property-casualty insurance company sells one policy on January 1, Year 1. The policy is issued and the full premium is received on that date. The policy has a term of one year, during which an insured loss-event occurs. According to the unbiased calculations of the insurer's actuaries, this single loss-event will require the insurer to make one claim payment of $1,000 in five years (on December 31, Year 5). The insurance company has no administrative expenses and therefore sets the premium for the policy equal to the discounted value of the single loss payment to be made in five years.[76] The insurer invests the premium at a before-tax rate of ten percent, compounded continuously. All company earnings are retained and reinvested at that rate. Finally, assume that the insurer charges a premium equal to $607.03, which is the amount the insurer would need to receive in Year 1 to be able to generate $1,000 by the end of Year 5 under the assumptions of the example. The applicable federal income tax rate is assumed to be forty-six percent throughout the example.[77]

The question, then, is how much taxable income the transaction produces for the insurer. Note that the insurer

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[76] The assumptions of this example obviously depart substantially from the reality of an actual insurance policy. In the real world there is always some degree of uncertainty or risk either as to the magnitude, probability, frequency, or timing of any potential loss payments. Because the tax-law changes addressed in this article affect only issues of *timing* (and not of risk), the assumptions of certainty and of a single loss payment do not affect the conclusions of the analysis. For a more technical development of this simplified example, see David F. Bradford & Kyle D. Logue, The Effects of Tax-Law Changes on Prices in the Property-Casualty Insurance Industry (NBER Working Paper) (June 1996) (on file with Virginia Law Review Association). That article provides a detailed taxonomy that captures the basic economics of the timing aspect of an insurance contract. We start with the concept of a "single-payment spot policy," which is comparable to the example in the text above: a single loss event that gives rise to a premium being received and fully earned upon issuance of the policy. We then describe a generic "spot policy," which introduces a stream of loss payments over time (again the amount and timing of the payments being certain). Finally we develop the idea of a "standard policy," which comes closest to describing a typical property-casualty insurance policy. A standard policy is a bundle of spot policies or, more precisely, a contract under which the insurer agrees, at the beginning of the policy period, to fund loss events whenever they occur during the policy period by issuing spot policies.

[77] For an explanation of why it is appropriate to calculate the break-even premium using the *before-tax* discount rate, see Bradford & Logue, supra note 76, at App. A.

would earn interest every year on the invested premium (and on the reinvested retained earnings) until the payment was made in Year 5. Observe also that both the premium received in Year 1 and the interest earned on that premium would be offset by the increase in the nominal value of the insurer's liability to make the $1,000 payment to the insured in Year 5. Under plausible assumptions, that liability would have a present value at the beginning of Year 1 of $607.03, precisely offsetting the premium received; and the value of that liability would grow in value each year (in precisely the amount of the before-tax interest earned on the premium) as the time to make the payment grew nearer. Therefore, under an ideal nominal-economic-income tax, this transaction would produce no income or loss for the insurer. This makes sense because, under the assumptions of the example, the insurer broke even on the deal.[78]

One accounting technique that would approximate nominal-economic-income taxation would be to allow insurers to take loss-reserve deductions each year but to require them to discount those deductions to present value. Under this approach, the insurer would include the premium in income when received and earned[79] and would include the interest earnings on the invested premium in the year in which those interest earnings accrued. The insurer, however, would then be permitted each year to deduct only the discounted present value of the net annual increase in its loss reserves. Applying this accounting treatment in our example, the insurer would report no taxable income and no tax loss, which is the appropriate result under the assumptions. The approach is illustrated in Table 1.1. Note that the present value to the insurer of this transaction in Year 1 would be zero. That is what is meant by a break-even transaction.

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[78] The nominal-economic-income approach would not necessarily produce a loss-reserve deduction that would perfectly offset the insurer's interest earnings. In the example, I have assumed that the discount rate used to determine the present value of the loss reserve each year will be the same as the interest rate at which the insurer would invest the collected premium. In fact, those rates could differ significantly. This assumption, however, does not affect my conclusions.

[79] Received premiums are earned pro rata over the course of the policy period. Mooney & Cohen, supra note 4, at 22.

Table 1.1

Nominal-Economic-Income Taxation: Loss-Reserve Deduction Using *Discounted* Reserves

	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
(1) Premiums	$607.03	$0.00	$0.00	$0.00	$0.00
(2) Investment income	$63.74	$70.43	$77.83	$86.00	$95.03
(3) Total income[a]	$670.77	$70.43	$77.83	$86.00	$95.03
Expenses					
(4) End of year reserve	$670.77	$741.20	$819.02	$905.02	$0.00
(5) Increase in reserve	$670.77	$70.43	$77.83	$86.00	($905.02)
(6) Loss payments	$0.00	$0.00	$0.00	$0.00	$1,000.00
(7) Loss reserve deduction[b] (inclusion)	$670.77	$70.43	$77.83	$86.00	$94.98
Net taxable income[c]	$0.00	$0.00	$0.00	$0.00	$0.05[d]
Tax liability[e]	$0.00	$0.00	$0.00	$0.00	$0.00

[a] Row (3) = (1) + (2)

[b] Row (7) = (5) + (6)

[c] [Row (3) - Row (7)]

[d] The net taxable income in Year 5 would actually be zero. The five cent discrepancy in the Table comes from a rounding error.

[e] 46% of net taxable income

A loss-reserve discounting approach that approximates nominal-economic-income taxation was enacted as part of the '86 Act. This approach is discussed below in Section C. Before the '86 Act, however, property-casualty insurers were permitted to use *undiscounted* loss-reserve deductions for federal income tax purposes. The use of undiscounted loss-reserve deductions for federal income tax purposes produced a large tax savings to property-casualty insurers in comparison to the nominal-economic-income approach. Table 1.2 illustrates this effect.

Table 1.2

Pre-'86 Act Taxation: Loss-Reserve Deduction Using *Undiscounted* Reserves

	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
(1) Premiums	$607.03	$0.00	$0.00	$0.00	$0.00
(2) Investment income					
(a) on premium-generated assets	$63.74	$70.43	$77.83	$86.00	$95.03
(b) on net tax-refund assets	$0.00	$9.34	$7.69	$5.73	$3.47
(c) subtotal	$63.74	$79.77	$85.52	$91.73	$98.50
(3) Total income[a]	$670.77	$79.77	$85.52	$91.73	$98.50
Expenses					
(4) End of year reserve	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$0.00
(5) Increase in reserve	$1,000.00	$0.00	$0.00	$0.00	($1,000.00)
(6) Loss payments	$0.00	$0.00	$0.00	$0.00	$1,000.00
(7) Loss reserve deduction[b] (inclusion)	$1,000.00	$0.00	$0.00	$0.00	$0.00
Net taxable income[c]	($329.23)	$79.77	$85.52	$91.73	$98.50
Tax liability[d]	($151.45)	$36.70	$39.34	$42.20	$45.31
Cash flow	$822.21	$43.08	$46.18	$49.53	($946.81)

[a] Row (3) = (1) + (2)
[b] Row (7) = (5) + (6)
[c] [Row (3) - Row (7)]
[d] 46% of net taxable income

According to Table 1.2, and maintaining all the same assumptions as before, the undiscounted loss-reserve deduction in Year 1 would produce a tax loss in that year—$329.23 in the example. That loss in turn would generate a tax refund in Year 1, assuming the insurer has income from other sources that can be sheltered. In the example, the amount of that refund would be $151.45 in Year 1, which is then reinvested by the insurer at 10 percent before taxes, compounded continuously. The earnings on that investment are then taxed at the insurer's marginal rate of 46 percent. At the end of the five-year period, because of the tax savings created in Year 1, the transaction

(which is a break-even—zero profit—deal in nominal economic terms) produces a positive after-tax cash flow to the insurer over the course of 5 years that has a present value (in Year 1) of approximately $184. Because of the nature of discounting, the size of the tax savings would increase as the length of the tail of the insurance increases and as the interest rate increases.[80]

C. Tax Reform: The Loss-Reserve Discounting Requirement and the Reduction in Corporate Rates

In the early 1980s, there was an extreme and widely shared dissatisfaction with the federal income tax laws.[81] Largely in response to these concerns, a movement began during this period (both in Congress and in the Treasury Department) to reform the federal income tax system. By 1984 the leading tax-reform proposals had a common theme: to reduce (or flatten)

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[80] The pre-'86 Act tax treatment of property-casualty loss reserves not only diverged from nominal-economic-income taxation but also diverged from standard tax accounting principles. Under the rules of tax accounting, non-insurance company taxpayers who use the accrual method of accounting are not permitted to establish reserves for future expenses and to deduct those reserves currently—discounted or undiscounted. Rather, those taxpayers are permitted to deduct a liability only when the "all events" test is satisfied—that is, only when (a) all of the events necessary to fix the liability have occurred and (b) the amount of the liability can be determined with reasonable accuracy. Thus, for example, whereas a liability insurer would have been allowed to deduct currently the undiscounted value of a tort claim payment that it expected to have to pay in some future year arising out of policies written in the current year (even if the claim had not yet been reported), a non-insurance company taxpayer would be allowed to deduct that expense only when the all events test was satisfied—which would be several years later, when the tort claim was filed and the jury decision was rendered (or the case settled). See generally Staff of the Joint Committee on Taxation, General Explanation of the Tax Reform Act of 1986, 600-05 (1987) [hereinafter Bluebook 1986] (explaining the different treatment of property-casualty insurers under prior law and outlining the reasons for the 1986 changes).

Moreover, for all liabilities incurred after 1984, no non-insurance company taxpayer may deduct a liability until "economic performance" has occurred with respect to that liability. I.R.C. § 461(h) (enacted as part of The Tax Reform Act of 1984, Pub. L. No. 98-369, 98th Cong., 2d Sess., (1984)). With respect to liabilities arising out of tort, workers' compensation, or contract claims, the economic performance requirement is satisfied only when the taxpayer actually makes payment to the party to whom the liability is owed. I.R.C. § 461(h)(2)(c) (1994) and Treas. Reg. § 1.461-4(g) (1996). In other words, for such liabilities, all non-insurance company taxpayers have, since 1984, been placed on the cash method of accounting.

[81] Michael J. Graetz, Federal Income Taxation: Principles and Policies 27 (2d ed. 1988) ("The federal income tax was increasingly criticized in the 1980's as inequitable, economically inefficient, and unnecessarily complex.").

income tax rates and to broaden the tax base by eliminating the numerous "loopholes" that had previously enabled some taxpayers to reduce their tax liabilities drastically. One of the most prominent of these proposals appeared in November 1984, in a three-volume document issued by the Treasury Department, entitled *Report to the President, Tax Reform for Fairness, Simplicity, and Economic Growth.*[82] This report is sometimes referred to as *Treasury I*. In addition, only a few months later, the Office of the President submitted *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity*, which also contained numerous proposals designed to broaden the tax base and flatten rates. This report is sometimes called *Treasury II*.[83] Finally, when the '86 Act was enacted in October 1986, versions of many of the proposals from *Treasury I* and *Treasury II* became law.

Two particular changes in the '86 Act are central to the tax-based explanation of the insurance crisis: (a) *the introduction of the loss-reserve discounting requirement* and (b) *the reduction in corporate income tax rates.* In the examples that follow, I will explain how these two changes, had they been anticipated by insurers before the enactment of the '86 Act, would have increased the incentive to overstate loss reserves. But first, let me summarize the two relevant changes.

First, there was the loss-reserve discounting requirement. Under the '86 Act, for all tax years after December 31, 1986, loss-reserve deductions and inclusions for property-casualty companies are determined by taking the difference between the discounted value of the insurer's total loss reserves at the end of the preceding year and the discounted value of the reserves at the end of the current year.[84] In addition, a special transition rule—called the *fresh start*—was inserted in the '86 Act. This rule essentially permitted insurers a second deduction (spread out over a number of years) equal to the difference between the discounted value and the undiscounted value of the total year-

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[82] 1 U.S. Dep't of the Treasury, Tax Reform For Fairness, Simplicity, and Economic Growth: The Treasury Department Report to the President, (1984) [hereinafter Treasury I].

[83] Office of the President, The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity (1985) [hereinafter Treasury II].

[84] I.R.C. §§ 832, 846 (1994).

end 1986 loss reserves.[85] Second, the '86 Act reduced the top marginal tax rate for corporations from forty-six percent to thirty-four percent; and the new rate was phased in over two years—forty percent in 1987 and thirty-four percent in 1988 and thereafter.[86]

These changes would have given insurers an incentive to overstate their loss reserves in 1984, 1985, and 1986. This is because under the new discounting rules, overstated loss-reserve deductions in those years would have been taken at their undiscounted value, whereas the subsequent loss-reserve inclusions (if necessary to correct the earlier conservatism) would occur at their discounted value. Moreover, because of the fresh start provision, insurers were permitted to deduct a second time the difference between the undiscounted and the discounted value of their 1986 year-end total loss reserves. And finally, owing to the drop in corporate rates, overstated loss-reserve deductions in 1984-86 would have shifted a substantial amount of underwriting income from tax years in which the top corporate rate was forty-six percent to tax years in which the top corporate rate was thirty-four percent. All of these effects, and the transitional incentive they created, are illustrated in the following example.

Imagine a property-casualty insurance company that writes a single liability policy at the beginning of 1985—the year before the '86 Act was enacted. Next, assume that the insurer determines that this policy will give rise to only one claim and that this claim will be for $1,000, which will have to be paid in

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[85] The fresh-start provision, Pub. L. No. 99-514, tit. X, § 1023(e)(3), 100 Stat. 2404 (1986), was an alternative to I.R.C. § 481's standard treatment of changes in accounting methods. When there is a change in accounting methods that would otherwise permit double-deductions, § 481(a) provides the method by which this transitional effect is reduced or eliminated. Absent the fresh-start rule in the '86 Act, § 481(a) would have required all property-casualty insurers either to include the amount of the 1986 discount (i.e., the total difference between the discounted and the undiscounted value of all reserves outstanding at the end of 1986) into income in the 1986 tax year or at least to include that amount in income over a period of years. The fresh-start rule, however, allowed the so-called double-deduction. To see how this double-deduction works, see infra Table 2.2. This especially generous change-of-accounting rule for property-casualty insurers may have been intended by Congress to serve as a form of transition relief to compensate insurers partially for the otherwise unfavorable (from the industry's perspective) changes contained in the '86 Act.

[86] Pub. L. No. 99-514, tit. X, § 601(b), 100 Stat. 2249 (1986).

five years (on December 31, 1989). As discussed above in connection with Tables 1.1 and 1.2, even without the tax-reform proposals mentioned above, the insurer would have had a tax incentive in 1985 to overstate its 1985-accident-year reserve so as to get the time value of the overstated portion of the deduction. For example, the insurer might have had an incentive to report a $1,100 reserve for the 1985-accident-year rather than an unbiased $1,000 reserve, because doing so would allow the insurer to capture the time value of the extra $100 deduction for five years. However, precisely because of the possibility of the two tax-reform proposals mentioned above (i.e., the discounting requirement and the drop in corporate rates), the incentive to overstate the loss-reserve deduction substantially increased in 1985 because the net present value of overstating the reserve was much greater in that year than in previous years.

To see why this is so, suppose that the insurer was considering reporting a conservative 1985 reserve of $1,100 (which, we are assuming, is $100 greater than the unbiased reserve would have been). The extra $100 loss-reserve deduction—given the possibility of tax reform—would be taken on an undiscounted basis and would have offset income that was taxed at forty-six percent. In addition, when the $100 had to be returned to income in 1989 (when it was learned definitively that the loss payment would be only $1,000 and not $1,100), the $100 loss-reserve inclusion would be taxed at the rates prevailing at the time (thirty-four percent in 1989) and would have been returned to income at the discounted value.

Tables 2.1 and 2.2 illustrate the increased tax-incentive to overstate loss reserves created by the expectation of tax reform. First, Table 2.1 demonstrates the tax-benefit of reporting a $1,100 loss reserve for the 1985 reporting year, *assuming no '86 Act*. Then, Table 2.2 shows the increased tax-benefit of the same loss-reserve deduction, *once the '86 Act is added to the analysis*.

Table 2.1

Pre-'86 Act Taxation (*No Tax Reform*): Overstated Loss-Reserve Deduction

	1985	1986	1987	1988	1989
Income					
(1) Premiums	$607.03	$0.00	$0.00	$0.00	$0.00
(2) Investment income					
(a) on premium- generated assets	$63.74	$70.43	$77.83	$86.00	$95.03
(b) on net tax-refund assets	$0.00	$12.24	$10.64	$8.78	$6.62
(c) subtotal	$63.74	$82.67	$88.47	$94.78	$101.65
(3) Total income[a]	$670.77	$82.67	$88.47	$94.78	$101.65
Expenses					
(4) End of year reserve	$1,100.00	$1,100.00	$1,100.00	$1,100.00	$0.00
(5) Increase in reserve	$1,100.00	$0.00	$0.00	$0.00	($1,100.00)
(6) Loss payments	$0.00	$0.00	$0.00	$0.00	$1,000.00
(7) Loss reserve deduction[b] (inclusion)	$1,100.00	$0.00	$0.00	$0.00	($100.00)
Net taxable income[c]	($429.23)	$82.67	$88.47	$94.78	$201.65
Tax liability[d]	($197.45)	$38.03	$40.70	$43.60	$92.76
Cash flow	$868.21	$44.64	$47.77	$51.18	($991.11)

[a] Row (3) = (1) + (2)
[b] Row (7) = (5) + (6)
[c] [Row (3) - Row (7)]
[d] Row (9) = 46% of net taxable income

Note that the $1,100 reserve-deduction in Year 1 generated a positive cash flow to the insurer, the present value of which in Year 1 was $198. That is roughly $14, in present value terms, more than if the insurer had not overstated the reserve in 1985, assuming no change in the tax rules (and, of course, $198 more than the present value of this transaction under nominal-economic-income taxation). This can be seen by comparing Table 2.1 to Table 1.2, which demonstrates that, under assumptions essentially the same as those applied here, a reserve deduction of $1,000 in 1985 would produce a positive cash flow to the insurer worth $184.

Table 2.2, however, introduces the '86 Act to the analysis. With the enactment of the '86 Act, whereas a reserve deduction taken in 1985 would offset income that would have been taxed at the 46-percent corporate rate, all post-'86 reserve inclusions would be taxed at the lower corporate rates that apply to income earned in those years. Also, because of the fresh-start rule (included in the '86 Act), the insurer gets to deduct (again) the difference between the discounted value of the 1986 year-end reserve and the $1,000 loss payment that is actually made.

Table 2.2

Pre- and Post-'86 Act Taxation (*With Tax Reform*): Overstated Loss Reserve Deduction

	1985	1986	1987	1988	1989
Income					
(1) Premiums	$607.03	$0.00	$0.00	$0.00	$0.00
(2) Investment income					
(a) on premium-generated assets	$63.74	$70.43	$77.83	$86.00	$95.03
(b) on net tax-refund assets	$0.00	$12.24	$10.64	$10.52	$10.41
(c) subtotal	$63.74	$82.67	$88.47	$96.52	$105.44
(3) Total income[a]	$670.77	$82.67	$88.47	$96.52	$105.44
Expenses					
(4) End of year reserve	$1,100.00	$918.96	$975.94	$1,036.45	$0.00
(5) Increase in reserve	$1,100.00	($181.04)	$56.98	$60.51	($1,036.45)
(6) Loss payments	$0.00	$0.00	$0.00	$0.00	$1,000.00
(7) Loss reserve deduction[b] (Inclusion)	$1,100.00	$0.00	$56.98	$60.51	($36.45)
Net taxable income[c]	($429.23)	$82.67	$31.49	$36.01	$141.89
Tax liability[d]	($197.45)	$38.03	$12.60	$12.24	$48.24
Cash flow	$868.21	$44.64	$75.87	$84.28	($942.80)

[a] Row (3) = Rows (1) + (2)
[b] Row (7) = Rows (5) + (6)
[c] [Row (3) - Row (7)]
[d] Row (9) = 46% of net taxable income for 1985-86, 40% for 1987, 34% for 1988-90

As a result of these transitional effects, the insurer who reported an overstated loss reserve of $1,100 in 1985 would have generated a positive after-tax cash flow with a present value of

$284. As it turns out, this amount is $29 more than the present value of the cash flow that would have been generated had the insurer not overstated its 1985 reserve under the assumptions of this example. (That is, had the insurer in Table 2.2 set up an initial 1985 reserve of only $1,000 instead of $1,100, the total cash flow generated by the 1985 reserve deduction would have produced a present value of $255.) Therefore, the introduction of the '86 Act—with its accompanying transitional effects—increased the tax benefit of a $100 reserve overstatement in the 1985 reporting year by $15. That is the difference between $14 (the present value of the overstatement without tax reform) and $29 (the present value of the overstatement with tax reform). That difference amounts to *more than a doubling* of the tax benefit of overstating the reserve in this particular example.

In sum, the tax-law changes proposed for property-casualty loss reserves and for corporate tax rates gave property-casualty insurers an increased incentive to overstate (i.e., to increase the level of conservatism in) their reported loss-reserve deductions. Moreover, it is reasonable to conclude that these tax-based incentives existed in 1984, 1985, and 1986, as the proposals to reduce corporate rates and to require reserve discounting were seriously being considered by Congress throughout this period. This conclusion is reasonable because a substantial reduction in the corporate tax rates was an essential feature in every major tax-reform proposal considered by Congress in the mid-1980s (including, of course, the '86 Act). *Treasury I,* announced in November 1984, contained a proposal to replace the existing corporate rate schedule—which included a top rate of forty-six percent[87]—with a single thirty-three percent rate on corporate

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[87] For taxable years beginning in 1983 (and continuing until the effective date of the '86 Act), the taxable income of corporations was subject to a graduated rate-structure that taxed most corporate income at a marginal rate of 46 percent. The 46 percent rate applied to all corporate taxable income in excess of $100,000. The lower rates applied as follows: 15% on corporate income from 0 to $25,000; 18% from $25,001 to $50,000; 30% from $50,001 to $75,000; and 40% from $75,001 to $100,000. Beginning in 1984, an additional 5% tax was imposed on corporate income between $1,000,000 and $1,405,000, which yielded a maximum additional tax of $20,250 and was designed to phase out the benefit of the graduated rates for corporations. Bluebook 1986, supra note 80, at 271.

income.[88] *Treasury II*, submitted to Congress in May of 1985, proposed replacing the existing corporate rate schedule with a much flatter version, which would also have included a top rate of thirty-three percent.[89] Moreover, the other two major tax-reform bills under consideration at the time—the Bradley-Gephart bill and the Kemp-Kasten bill—would also have reduced corporate rates substantially.[90] In the end, the corporate income tax rate schedule enacted as part of the '86 Act included a top rate (after all "phaseouts" and "bubbles") of thirty-four percent, and this new rate was phased in over two years. Consequently, most corporate taxable income earned in 1984, 1985, and 1986 was taxed at forty-six percent; whereas, most 1987 corporate income was taxed at forty percent; and most 1988 corporate income was taxed at thirty-four percent.[91] Owing to the relative uniformity of the reform proposals, unless property-casualty insurers had their heads in the sand, they could have seen a change in corporate rates coming in 1984, in 1985, and obviously in 1986.

Also in 1984-86, property-casualty insurers could have easily foreseen (and begun to plan for) the new loss-reserve discounting requirement. In a June 1983 hearing before the Senate Finance Committee, it was first suggested—both by a high-ranking official in the Treasury Department and one in the General Accounting Office—that the federal income tax treatment of property-casualty loss reserves should be changed to eliminate the tax-deferral effect caused by the undiscounted loss-reserve deduction. For example, then-Assistant Secretary

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[88] 2 Treasury I, supra note 82, at 129.

[89] The lower rates under Treasury II would have applied as follows: 15% on taxable income up to $25,000; 18% on income between $25,000 and $50,000; and 25% on income between $50,000 and $75,000. The graduated rate was to be phased out, beginning at $140,000, so that all corporations with taxable income of more than $360,000 would, in effect, pay a flat rate of 33%. Treasury II, supra note 83, at 119.

[90] The Bradley-Gephart bill would have replaced the old rate schedule with a flat rate of 30 percent; the Kemp-Kasten bill would have imposed a 35% rate on all corporate taxable income over $100,000 (with 15% and 25% brackets for lower levels of income). Staff of the Joint Comm. on Taxation, Tax Reform Proposals: Corporate Taxation 3 (Joint Comm. Print 1985).

[91] Bluebook 1986, supra note 80, at 272. The corporate rate schedule for the 1987 taxable year was a blend of the 1986 rates and the 1988 rates. For a description of how the blended rates were calculated for each bracket, see id. at 272-73.

of the Treasury for Tax Policy John Chapoton gave the following testimony before the Committee in 1983:

> We believe that the current tax rules which permit insurance companies to deduct the undiscounted estimate of their future claims are seriously flawed. First, allowing deductions based on estimates of future claims encourages taxpayers to adopt procedures for making estimates that tend to overstate the amount of claims which actually will be paid. It is difficult to audit and evaluate the various procedures employed by individual companies. Second, and more significant, these rules effectively permit these taxpayers to deduct currently amounts that are properly allocable to future periods, thereby sheltering other income that otherwise would be taxed currently. This is roughly equivalent to allowing the investment income earned on the portion of the premium amount set aside to pay claims to build up free from tax. This unsound result occurs whenever a taxpayer takes a full deduction for future expenses, whether or not the expense has technically accrued.[92]

Also, in his testimony, Assistant Secretary Chapoton noted two alternative solutions to the loss-reserving problem: (a) requiring loss-reserve deductions and inclusions to be discounted to present value; or (b) delaying the deductions until actual loss-claim payments were made (that is, putting property-casualty insurers on the cash method).[93] In early 1984 the GAO circulated a draft report to members of the property-casualty industry as well as to the Treasury Department that included a loss-reserve discounting proposal. That report was made public in March of 1985.[94] Also in 1984 the Treasury Department

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[92] Taxation of Property Casualty Insurance Companies, Hearing Before the Senate Finance Comm., 98th Cong., 1st Sess. 53 (1983) (Statement of John E. Chapoton, Assistant Secretary for Tax Policy, Department of Treasury) (footnote omitted); see also id. at 68 (Statement of Harry Havens, Assistant Comptroller General for Program Evaluation, GAO) ("[O]n the loss reserve deduction, we share the views of the Treasury that deducting the gross amount on an undiscounted basis is a significant violation of economic income as a basis for taxation.").

[93] Id. at 54 (statement of John E. Chapoton).

[94] GAO Report, supra note 62 (dated Mar. 25, 1985). The recommendations contained in the report were unambiguous. The report twice stated that:

> There is a growing tax deferral resulting from the current mismatching of revenues and expenses of the property and casualty insurance industry. If the Congress wishes to assure that the industry's revenues and expenses be more closely matched for purposes of measuring taxable income, it should consider

issued *Treasury I*, which contained a detailed version of the discounting requirement similar to the one proposed by the GAO.[95] Then *Treasury II* came out, recommending an even less-generous version of the reserve discounting requirement that would have essentially placed all property-casualty insurers on the cash method with respect to their loss reserves.[96] Although the *Treasury I*, *Treasury II*, and GAO proposals differed from each other in several respects, each called for the same basic change with regard to property-casualty loss reserves: Loss-reserve deductions were to be (actually or effectively) discounted to present value for federal income tax purposes.[97] Ultimately, a version of the discounting requirement—most similar to the one proposed by GAO—was enacted as part of the '86 Act.[98]

Given this legislative history, it is extremely likely that in 1984 and 1985 (and certainly in 1986) property-casualty insurers were beginning to see the writing on the wall with respect to the discounting requirement. The loss-reserve reform proposals were no secret to the property-casualty industry. In fact, a number of property-casualty industry representatives offered testimony at the 1983 hearings before the Senate Finance Committee dealing with the tax treatment of property-casualty insurers.[99] In addition, in early 1984 the GAO's discounting proposal was widely circulated for comment to officials in the property-casualty industry.[100] Unsurprisingly, on both occasions the industry representatives vigorously opposed the discounting

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amending the tax code to provide that, in calculating the loss reserve deduction for tax purposes, loss reserves are discounted.
Id. at v, 21.
[95] 1 Treasury I, supra note 82, at 134 (citing "excessive deductions . . . inconsistent with a comprehensive income tax" and recommending changes); and 2 Treasury I, supra note 82, at 273-77.
[96] Treasury II, supra note 83, at 266-73.
[97] For a discussion of the distinctions between the GAO, Treasury I and Treasury II proposals with respect to property-casualty loss reserves, see Staff of the Joint Comm. on Taxation, supra note 62, at 32-40.
[98] See Bluebook 1986, supra note 80, at 601-02.
[99] Feds Examine Insurance Tax Policy, Risk Management, Aug. 1983, at 8. See generally GAO Report, supra note 62, at app. IV (groups who testified included Alliance of American Insurers, National Association of Independent Insurers, and American Insurance Association).
[100] Mary Jane Fisher, P&C Tax Study Questions Loss Reserves, Expenses, Nat'l Underwriter: Prop. & Casualty Ins. Ed., Feb. 3, 1984, at 1, 43.

proposals.[101] Notwithstanding the industry's sustained opposition to the discounting proposals, however, there is evidence that the insurers had already begun to resign themselves to some type of discounting requirement.[102]

It is unclear in which of the relevant years—1984, 1985, or 1986—the incentive to increase loss reserves would have been the greatest. It could be argued that the incentive was strongest in 1986. Only in 1986 did the passage of the '86 Act become a certainty. Thus, to the extent property-casualty insurers were reluctant to alter their loss-reserving based on an anticipated change in the law, the big year of tax-induced overreserving would have been 1986. Also, the existence of the fresh-start transition rule may have enhanced the tax incentive to overstate reserves in 1986. Recall that the fresh-start rule permitted, in effect, a second deduction for the amount of an insurer's aggregate reserve discount for the 1986 reporting year. (See Table 2.2). Thus, in the 1986 reporting year, insurers had an

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[101] See Alliance of American Insurers, National Association of Independent Insurers, National Association of Mutual Insurance Companies, and Reinsurance Association of America, *in* GAO Report, supra note 62, at 78-82 (comments concerning proposed draft of GAO Report); Steven Brostoff, Loss Reserve Treatment Tops List of Industry Tax Plan Complaints, Nat'l Underwriter: Prop. & Casualty Ins. Ed., June 7, 1985, at 1; Mary Jane Fisher, Industry Trade Groups Hit GAO Report on Taxation, Nat'l Underwriter: Prop. & Casualty Ins. Ed., March 2, 1984, at 1.

[102] Lois J. Lyons, Government, Industry Leap into Tax Brouhaha, Nat'l Underwriter: Prop. & Casualty Ins. Ed., June 3, 1983, at 6 ("If Congress wants to impose a greater tax burden on property and casualty insurers it will do so, whatever arguments we advance, without paying all that much attention to the effect that tax code revisions may have on either our business or the public we serve.") (quoting Andrew Maisonpierre, senior vice-president, Alliance of American Insurers); Morais, supra note 73, at 82-83 (noting that "neither GAO nor Treasury is exactly sympathetic" to position of insurance companies and suggesting that adoption of discounting is likely). See also Mary Jane Fisher, P&C Tax Outlook Gloomy with Uncle Sam Taking Bigger Bite, Nat'l Underwriter: Prop. & Casualty Ins. Ed., Dec. 20, 1985, at 1; Mary Jane Fisher, P&C Companies Worried Over New Tax Proposal, Nat'l Underwriter: Prop. & Casualty Ins. Ed., Dec. 7, 1984, at 1 (discussing industry opposition to reform proposals, including reserve discounting requirements proposed by Treasury Department and GAO); Mary Jane Fisher, P/C Tax Reform Looms Next Year, Nat'l Underwriter: Prop. & Casualty Ins. Ed., June 19, 1984, at 1 ("Key members of congressional tax-writing committees have warned property and casualty insurers that although the way they pay corporate taxes was not affected by the 1984 tax reform and deficit reduction legislation, next year will be their turn to undergo scrutiny and possible revision."); Jon Harkavy & Haren R. Kahn, GAO Backs Taxing Loss Reserves, Risk Mgmt., May 1985, at 7 (summarizing GAO report and urging Senate to "consider the issue of premium impact and market capacity").

incentive to increase their loss reserves so as to maximize the size of the fresh-start deduction. Recognizing this possibility, Congress included a provision in the '86 Act prohibiting the application of the fresh-start rule to any *reserve strengthening* that occurred in 1986. Under this exception to the fresh-start rule, any reserve strengthening in the 1986 reporting year would have to be treated as if it had been made in 1987, under the new discounting rules. Thus, although the insurer would be permitted to deduct the undiscounted value of the reserve strengthening in 1986, it would be required to return the amount of the discount into income in 1987.[103]

We might therefore expect to see an especially large increase in the degree of loss-reserve conservatism in the 1986 reporting year. However, because of the anti-strengthening rules, the additional incentive created by the fresh-start rule might be reduced. As the anti-strengthening rules do not apply to the 1986 accident year, we might expect to see insurers report an especially conservative 1986 accident-year reserve in the 1986 reporting year.[104] If, however, insurers had already begun reserving conservatively in 1984 and 1985, then 1986 would not have appeared significantly different from those years and may have even shown a reduction in reserve conservatism. Indeed, *Treasury II* proposed to make the tax-reform legislation

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[103] For a discussion of the mechanics of the fresh-start provision, see Treas. Reg. §1.846-3(e) (1996).

[104] My primary prediction is of increased loss-reserve conservatism in 1984-86, the period between when the discounting requirement and corporate rate reduction were first seriously proposed and, in the case of 1986, when the Act became effective. I would, however, also predict that loss reserves reported after the enactment of the '86 Act would be more conservative than in years prior to 1984, but for somewhat different reasons than discussed above. First, it could have been expected that insurers, following the enactment of '86 Act, would attempt to offset some of their increased tax burden by increasing the degree of conservatism in their reserves. In fact, just such a response was predicted by some insurance-industry officials in their comments on the GAO discounting proposals that were circulated within the industry in 1984. See GAO Report, supra note 62, at 88 (reprinting comments of several insurance groups including Alliance of American Insurers, National Association of Independent Insurers, and Reinsurance Association of America). One critic of the GAO discounting proposal suggested that following the enactment of a discounting requirement, the IRS would interpret any future reserve strengthening as an attempt to offset the tax change. The GAO's response to this concern was simple: "If property-casualty reserves are understated they should be strengthened. If they are strengthened for tax reasons, the IRS should scrutinize them." Id.

regarding the new reserve discounting requirement effective as of January 1, 1986.[105] Therefore, if property-casualty insurers were influenced significantly by *Treasury II*, they would have believed that 1985 may have been their last year to get the tax-arbitrage benefits of conservative reserving.

Note also that, as mentioned above, with all of these predictions one would expect the greatest tax effects to be seen in the long-tail lines of insurance, such as Other Liability and Medical Malpractice. This is because the difference between the undiscounted value of the loss-reserve deduction and the discounted value of the later loss reserve inclusion would be greater the longer the tail of the risk.

III. A FIRST LOOK AT THE DATA [106]

This Part considers some of the available data bearing on whether the '86 Act actually affected property-casualty insurers' loss reserving practices in 1984-86. The source of the data is *Best's Aggregates & Averages: Property-Casualty Edition*,

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[105] Treasury II, supra note 83, at 269. Jan. 1, 1986, was the scheduled effective date listed in Treasury I for the loss reserve discounting. 2 Treasury I, supra note 82, at 275. Under Treasury I, however, the reduction in corporate rates was to be phased in from July 1, 1986 to January 1, 1987. Id. at 129.

[106] In Bradford & Logue, supra note 76, we looked at some of these same data but with a different focus. There we examined the effects of the income tax generally and of the '86 Act's changes specifically on the hypothetical break-even prices of property-casualty insurance policies in the five major lines of insurance. Then we compared those predicted price effects to actual changes in prices based on industry data. In this Article, I assume that reported loss-reserves *may be manipulated*, because of the discretionary element inherent in insurance accounting and because of the various uses (regulatory, tax, financial) to which the reported loss-reserve numbers are put. In addition, this Article attempts to measure the extent to which property-casualty insurers did manipulate their loss reserves to take advantage of the changes in the '86 Act. In Bradford & Logue, however, we developed a model that assumes *no bias* (no manipulation) in loss reserve calculations. Thus we took the reported loss reserves as an unbiased measure of the quantity of insurance sold in a given year; similarly, we used the inverse loss ratio as an unbiased measure of insurance price. Our hypothesis was that for post '86 Act years prices should have increased, because of the introduction of the discounting requirement (among other things) and that the effect should have been most pronounced with respect to the long-tail lines. In future work, Professor Bradford and I plan to develop an approach to estimating the discretionary element in insurance reserving. If successful, that approach would provide a more rigorous means of determining the extent to which property-casualty insurers manipulated their reserves to exploit the transition from the pre-'86 Act to post-'86 Act worlds.

published by A.M. Best Company. Best collects annual statements from insurance companies and from affiliated groups of insurance companies every year and publishes the data in various forms. It also rates individual companies and affiliated groups of companies in an effort to indicate the companies' or groups' bottom-line financial strength. *Aggregates & Averages* contains industry-wide data organized largely in annual-statement form. In this Part, I compare the relevant loss-reserving data in the 1984-86 period—the crisis period—with the data from other periods, looking for patterns that are consistent or inconsistent with the tax hypothesis.

Before discussing the findings, however, I should first mention a few important limitations of the analysis. In this Article, I make no attempt to control systematically for variables other than tax law. I have instead concentrated exclusively on the summary statistics that can be derived from the aggregated annual statement data published in *Aggregates & Averages*. As will be seen below, these data at least provide an interesting point of departure for future research.[107]

On this initial cut at the data, the results are equivocal. Some of the findings are consistent with my theory, and some are not. In any event, none of the findings disproves the theory. And, in my own view, they seem somewhat more consistent with the tax-based theory than with alternative theories, but reasonable people could disagree on this point.

One initial observation is that property-casualty insurers in the aggregate suddenly increased their loss reserves by a larger than usual amount in 1984 and 1985. One measure of the suddenness and the size of this increase is the increase in the loss ratio. The loss ratio is the ratio of the change in the insurer's total loss reserves for a given reporting year to the total premiums earned by the insurer for that year.[108] Thus, if an

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[107] As it turns out, there is no easy way to isolate the effect of the tax variable definitively. One approach would be to compare the loss-reserving behavior of high-income firms with that of low-income firms (or firms in net-operating-loss positions). Such an approach, however, requires detailed firm-specific data. This Article is limited to the analysis of industry-wide aggregate data. Although industry statistics are readily available, the detailed firm-specific data that would be needed for the further comparisons mentioned above are extremely difficult to obtain.

[108] A distinction is often made between the net loss ratio and the pure loss ratio.

insurer were to increase its loss reserves as a percentage of its premiums earned, the insurer's loss ratio would also increase. As illustrated in Chart 1, there was an increase in loss ratios in the 1984 and 1985 reporting years, when compared to the increases in prior reporting years.[109]

Chart 1[110]
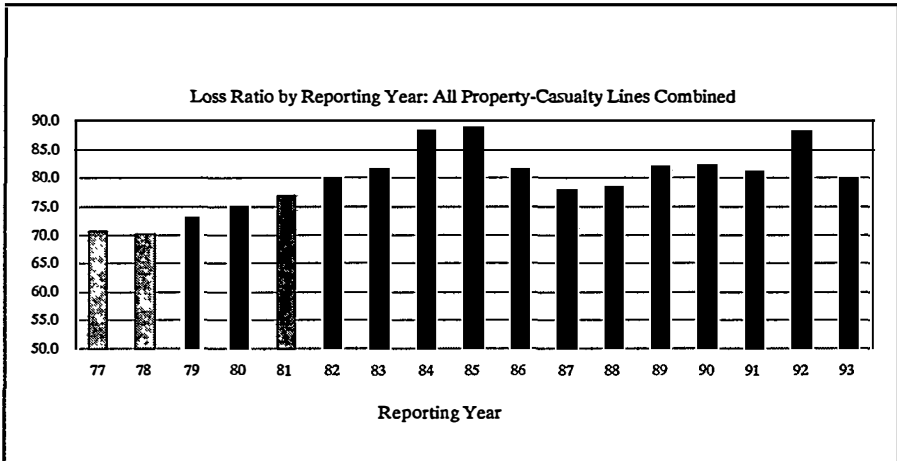
To get a sense of the relative size of the jump in loss ratios in 1984 (which increase was sustained in 1985) compared to the smaller but steady increases in the preceding five years, consider

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The net loss ratio includes changes in the reserve for loss-administration expenses, such as attorneys' fees. The pure loss ratio leaves out such expenses. Troxel & Bouchie, supra note 61, at 185-86. In technical terms, the net loss ratio is calculated as follows: Net Loss Ratio = (Losses Incurred + Loss Expenses Incurred)/Premium Earned. The resulting number typically is then multiplied by 100. The pure loss ratio simply leaves out loss expenses incurred out of the numerator. Id. at 186. For the purpose of this Article, however, I use the net loss ratio exclusively.

[109] The astute reader will notice an even larger jump in the aggregate loss ratio for the 1992 reporting year. That increase, however, seems to have an easy non-tax explanation: 1992 was the worst year in history for insured losses from natural disasters, the largest of which was hurricane Andrew. It was also the year of the riots following the Rodney King verdict. Don Lewis Kirk, Insured CAT Losses Lighter in '95, Bus. Ins., Jan 8, 1996, at 17 (listing 1992 as record year for insured catastrophic losses).

[110] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1987-94).

the changes in percentage terms. The percentage increase in the combined loss ratio over the preceding reporting year were as follows: 1978 (-.08%); 1979 (4.3%); 1980 (2.5%); 1981 (2.5%); 1982 (3.9%); 1983 (2.1%); 1984 (8.2%). Thus, the percentage increase in 1984 was almost double that of any other single-year increase during the preceding five years.

One question this Chart poses for my hypothesis is why 1985 did not have even greater reserve increases than 1984, rather than remaining flat in 1985. After all, if the Tax Reform Act of 1986 was imminent in 1984, it was even more imminent in 1985. There are two responses to this observation. First, from the point of view of the insurers deciding in 1984 and 1985 what reserves to report, it is not clear in which year their perception that the Act would be enacted would be greatest. In fact, the perceived likelihood of enactment probably varied from month to month, from week to week, and even from day to day, depending upon how the various tax reform proposals were playing in Congress or in the press. Second, if the insurers raised reserves in 1984 to take advantage of the impending tax changes, it would limit their ability to overstate reserves even further in the following year. As discussed supra, the presence of state regulations and of financial markets places absolute limits on the degree of discretion that insurers have to overstate reserves.

Consistent with the tax-based explanation of the crisis, the loss-reserve increases in 1984 and 1985 appear to have been more pronounced in the long-tail lines, such as Other Liability and Medical Malpractice, than in the short-tail lines, such as Homeowners Multiple Peril. It should also be noted, however, that the loss ratio increases in percentage terms for Other Liability and Medical Malpractice do not appear to have been as pronounced in 1984 and 1985 as in some earlier years. For example, according to Chart 2, the percentage increases in Medical Malpractice loss ratios in 1980 and in 1982 may have been greater than in 1984 or 1985.
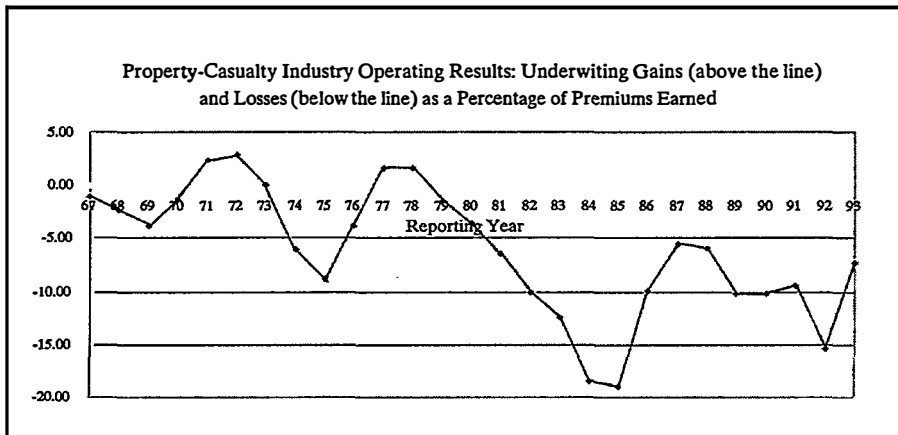
Chart 2[111]

Loss Ratios By Reporting Year
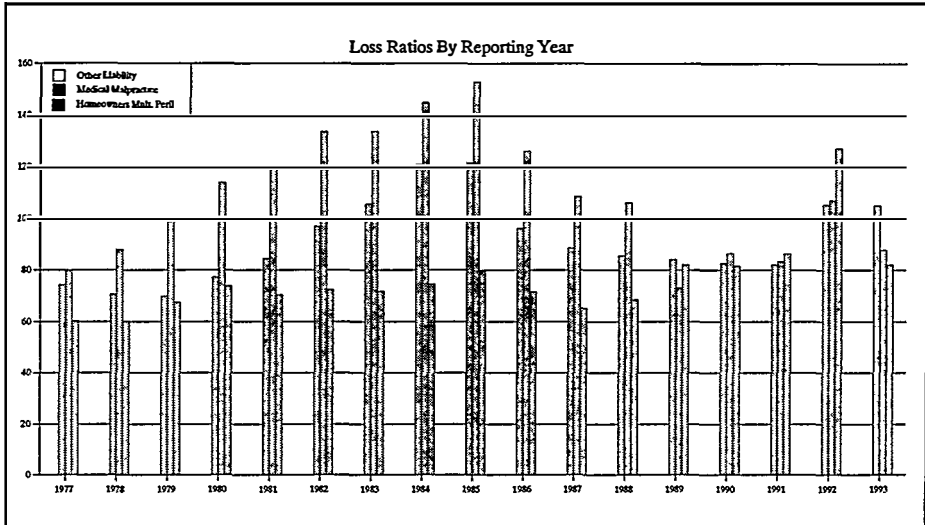
The sudden increase in aggregate loss reserves can also be seen in the large jump in industry-wide underwriting losses in 1984 and 1985. An insurer suffers an underwriting loss when its loss-reserve deduction (and other underwriting expenses) for a given reporting year exceeds the premiums earned during that year. Thus, if the growth in the industry's aggregate loss reserves in a given reporting year exceeds premiums earned by the industry during the same year, the industry will report an underwriting loss. Property-casualty insurers often experience underwriting losses, even in the aggregate across the industry. This phenomenon is largely due to the practice of cash-flow underwriting, discussed above. Thus, whether the industry

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[111] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1987-94). The data in the loss ratio charts come from the "Cumulative by Line Underwriting Experience" tables in *Best's Aggregates and Averages*. Because each volume of *Best's* contains data for only the ten previous years, I used the 1994 volume for reporting years 1984-93. Then I went to the next most recent volume to get each successively earlier reporting year (for example, 1993 for the 1983 year). The danger with this approach is that, when one uses more than one volume of *Best's*, one runs the risk that the data set will have changed somewhat from one year to the next. The amount of change in the data set, however, is typically extremely small, according to property-casualty industry analysts at *Best's*.

shows an overall net profit will depend on both the size of their underwriting losses and the amount of their offsetting investment income.

Although it is common for the property-casualty industry to experience underwriting losses, the increase in the reported underwriting loss in 1984 (which increase was essentially sustained in 1985) was nevertheless remarkable. In absolute terms, the increase in the industry's overall underwriting loss from 1983 to 1984 (a $7.9 billion increase) was almost twice the size of the next largest increase to that point in the industry's history.

Chart 3[112]

Property-Casualty Industry Operating Results: Underwriting Gains (above the line) and Losses (below the line) as a Percentage of Premiums Earned

Again, one plausible explanation for this increase in underwriting losses in 1984 and 1985 was the tax-based incentive to overstate loss reserves during those years. These reserve increases could have been caused (or at least triggered) by the industry's realization that certain tax-reform measures—in particular, the loss-reserve discounting requirement and the reduction in corporate rates—were both almost certain to become law in the near future, presenting a unique opportunity for tax arbitrage through increasing loss reserves.

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[112] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1987-94). This Chart is based on data reported in the "Industry Operating Results" in *Best's* volumes 1987-94.

On the other hand, the data could also be understood to support the tort hypothesis. It could be argued that the property-casualty industry in 1984 and 1985 perceived itself to be entering into a period of rapidly increasing tort judgments. On this view, the sudden increase in reserves would be seen as the appropriate (unbiased) result of change in the industry's perception of the level of liability risk that they were insuring. The tort-based explanation, however, has two problems. First, as discussed above in Part I.A., proponents of the tort theory have offered little evidence of a sudden increase in tort awards or of anything else to which a sudden change in perceptions in 1984 and 1985 could be attributed.[113] Second, the tort hypothesis does not easily explain the increase in the loss ratios in 1984 and 1985. This point is worth emphasizing: If there had been a substantial increase in perceived risks in those years (which is the essential claim of the tort hypothesis), *one would have expected property-casualty premiums to rise at least as rapidly as loss reserves did.* At the very least, the tort hypothesis provides no reason to expect loss-reserve deductions in 1984-85 to have outpaced earned premiums; whereas, that result is entirely consistent with the tax-based explanation.[114]

One other explanation of the underwriting results (and, indeed, of the loss ratio increases discussed supra) is pure random error. That is, in a pure stochastic enterprise such as predicting future insurance claims, one must expect some degree of random error; and it is at least possible that the extraordinarily bad nature of the hard market in the mid-1980s is purely random. Although that possibility cannot be ruled out,
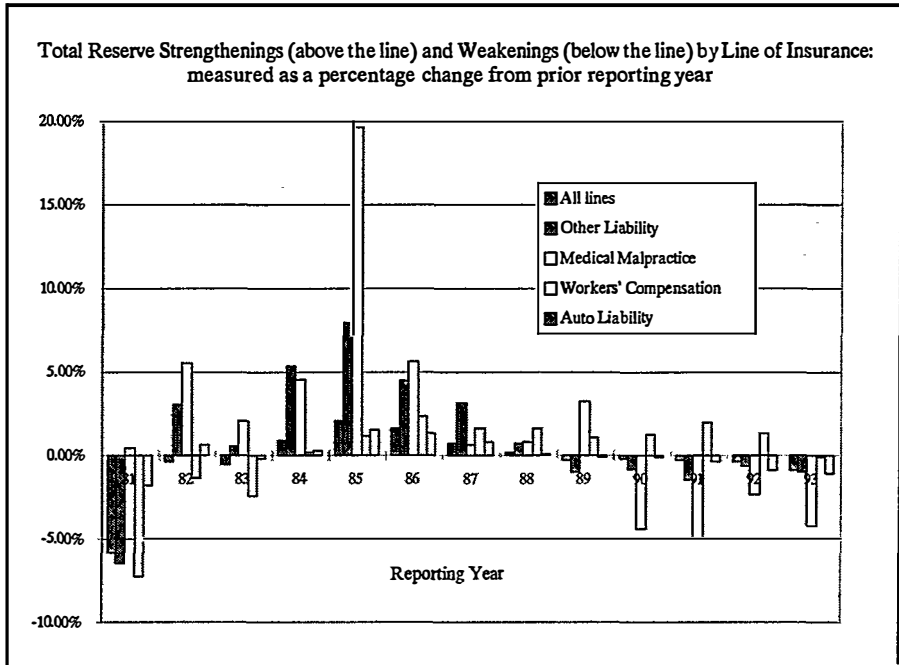
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[113] One might lay some of the blame on the increase in paid claims by insurers in 1984. Whereas the percentage increase in paid claims for Other Liability, for example, had hovered around 18-20% for the preceding four years, there was a 27% increase in 1984, followed by a 24% increase in 1985. I.I.I., Crisis and Recovery, supra note 47, at 15.

[114] One might try to explain the rise in loss ratios as being attributable primarily to reserve strengthenings. If that were true, the plausibility of the tort hypothesis increases. However, in the aggregate, reserve strengthenings account for only a small portion of the overall addition to reserves for any given reporting year. For example, in the 1993 reporting year, the combined property-casualty losses incurred for the 1993 accident year were approximately $174 billion; whereas, for all prior accident years, the 1993 combined reserve adjustment was a $2 billion weakening. Best's Aggregates and Averages, at Sched. P, Pt. 2, Summary (1994).

I shall continue to explore the ways in which the data serve to confirm or disconfirm the tax hypothesis.

Another possible test of the tax-based explanation would be to examine aggregate reserve strengthenings and weakenings for the property-casualty industry. A reserve strengthening occurs when, in a given reporting year, an insurer revises upward the loss reserves for one or more earlier accident years (that is, the reserves for policies written in previous years). Likewise, a reserve weakening (or "release") occurs when, in a given reporting year, the insurer revises downward a loss reserve for an earlier accident year. A net reserve strengthening in a given reporting year increases the insurer's loss-reserve tax deduction. Insurers therefore would have had an incentive to use reserve strengthenings in 1984-86 to exploit the tax-arbitrage opportunity created by the impending tax reform. Thus, if the tax hypothesis is correct, we would expect to see an increase in the size of overall reserve strengthenings (or a decrease in the size of overall reserve weakenings) for the 1984-86 reporting years.

As illustrated in Chart 4 below, a noticeable increase in reserve strengthenings occurred in the 1984, 1985, and 1986 reporting years, with the largest strengthenings in 1985. Moreover, the largest strengthenings appeared in the crisis lines of Medical Malpractice and Other Liability.

Chart 4[115]

Total Reserve Strengthenings (above the line) and Weakenings (below the line) by Line of Insurance: measured as a percentage change from prior reporting year

All of these findings are generally consistent with the predictions of the tax hypothesis. The increase in reserve strengthenings in 1984-86 could be explained as a response to the increased tax benefit that was created by the tax-reform proposals. The reserve strengthenings, however, could also be attributed to a crisis in tort law. To support that theory, however, one would need to argue that sometime in 1984 or 1985 insurers came to the realization that their loss reserves for prior accident years had previously been vastly understated—that they abruptly realized that their initially reported loss reserves for prior accident years had not fully taken into account the revolutionary expansion in tort law.

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[115] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1990-94), and author's calculations. The data in this Chart are taken from Schedule P-Part 2 numbers published in *Aggregates and Averages*. To provide as much data as possible, I combined Part 2 data from several volumes of *Aggregates and Averages*, the most recent being the 1994 volume.

Although it is impossible to disprove this hypothesis, there is little evidence to support it. Thus, under the tort theory, the timing question remains unanswered: Why 1984 and 1985? What event in the civil liability system occurred during those years to induce insurers to institute such massive reserve strengthenings?

Another empirical approach to testing the tax hypothesis is to examine how the loss reserves reported by property-casualty insurers for the 1984, 1985, and 1986 accident years "developed" over time as compared to other accident years. If the 1984-86 accident-year reserves were weakened in later years to an unusual degree, it would suggest that those accident-year reserves had been overstated relative to other accident-years' reserves. Thus, looking at how a given accident-year reserve has developed over time provides a rough measure of the extent to which the initial reserve was biased upward or downward.

Of course, even if insurers were completely unbiased in their loss-reserve calculations, their decisions being completely unaffected by tax, financial, or regulatory concerns, the reported results would nevertheless reflect imperfect information. Thus, the initially reported reserves for a given accident year would inevitably have to be strengthened or weakened to some extent somewhere down the line. That is simply the result of random error. (Not even actuaries can predict the future perfectly.) Therefore, we must be extremely careful about any inferences we draw from the fact that a given accident-year loss reserve (seen in isolation) had to be strengthened or weakened in later reporting years. That caveat does not mean, however, that no inferences can be drawn from changes in broad patterns of loss-reserve development. For example, if the '86 Act did significantly increase the incentive to overstate loss reserves (or decrease the incentive to understate loss reserves), as I have argued it did, we would expect there to be a noticeable change in the pattern of loss-reserving error in the industry-wide data during the transitional period.

At first blush, the loss-development data from *Aggregates & Averages* suggest a dramatic change in loss-reserving practices starting in 1986. What is especially interesting is that the change appears to have been permanent—the loss-development pattern

for all accident years after 1985 is substantially different from the pattern for all pre-1986 accident years. To see this point, first consider Table 3.1, which contains loss-development data for all property-casualty lines combined for accident years 1981-92.

Table 3.1[116]

Total Loss Development by Accident Year (percentage change in reserve compared to originally reported reserve)

All Property-Casualty Lines
Number of years of Loss Development

| Accident Year	1	2	3	4	5	6	7	8	9
1981	-1.07%	-1.49%	-1.27%	-0.27%	0.41%	0.92%	1.21%	1.67%	2.04%
1982	-0.44%	0.61%	2.18%	3.43%	4.40%	4.89%	5.32%	5.68%	5.96%
1983	-1.07%	4.96%	6.62%	8.15%	8.88%	9.45%	9.97%	10.50%	11.20%
1984	3.11%	6.17%	8.52%	9.76%	10.64%	11.19%	11.87%	12.82%	13.11%
1985	1.69%	3.92%	5.23%	6.09%	6.53%	7.07%	7.65%	7.85%	
1986	-1.90%	-1.52%	-2.57%	-3.01%	-3.23%	-3.47%	-3.64%		
1987	-2.09%	-3.19%	-4.27%	-4.89%	-5.29%	-5.68%			
1988	-2.09%	-2.62%	-3.44%	-3.96%	-4.23%				
1989	-0.44%	-0.84%	-1.12%	-1.57%					
1990	-1.29%	-0.58%	-0.62%						
1991	-1.80%	-1.38							
1992	-2.01%								

For purposes of comparison, look at the third year (column 3) of loss development for each accident year 1981-90.[117] According to Table 3.1, as of the third year of loss development, the loss reserves attributable to all property-casualty policies

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[116] Source: A.M. Best, Best's Aggregates and Averages: Property-Casualty (1990-94), and author's calculations. The loss-development numbers are derived from Schedule P-Part 2 numbers published in *Aggregates and Averages*.

[117] Because of the nature of loss-development data, the more recent the accident year, the less data we have. Thus, because the most recent annual statement data contained in the latest issue of *Aggregates & Averages* are for the 1993 accident year, we have only one year of loss-development for the 1992 accident year and none for the 1993 accident year. However, for the 1981 accident year, we have nine years of loss development.

written in the 1981-90 accident years had to be weakened or strengthened by the following percentages respectively (positive percentages represent strengthenings and negative ones represent weakenings): 1981 (-1.27%), 1982 (2.18%), 1983 (6.62%), 1984 (8.52%), 1985 (5.23%), 1986 (-2.57%), 1987 (-4.27%), 1988 (-3.44%), 1989 (-1.12%), 1990 (-0.62%). Before 1986, the loss reserves for every accident year but one turned out to have been understated, requiring reserve strengthenings by the third year. And note that, if we take a peek at the fifth year of loss development (column 5), even the 1981 reserves eventually required strengthening rather than weakening. In contrast, the reserves for the 1986 accident year and for all later accident years for which we have data proved to have been initially overstated—they all required reserve weakenings. This finding holds even if we look at the later years of loss development in Table 3.1. A similar pattern also shows up in every individual line of insurance.

Upon a closer examination of the data, however, the big change in the loss-reserving pattern appears to have occurred not in 1986 but in 1985 or 1984. To see this point, consider Chart 5, which is based upon the loss-development data from column 3 of Table 3.1. This chart reflects the extent to which the loss reserves for the 1981 through 1990 accident years were either understated (i.e., had to be strengthened in later years) or overstated (i.e., had to be weakened in later years), measured as of three years of loss development.

Chart 5[118]
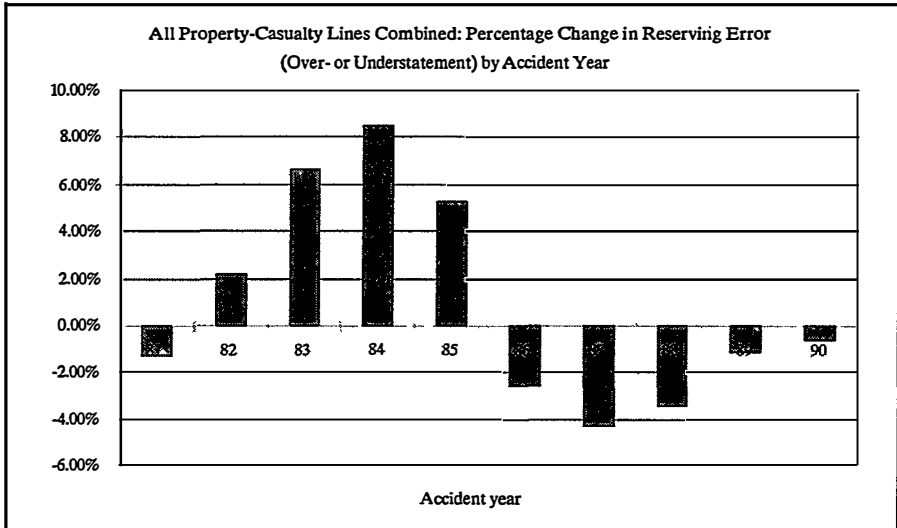
As shown in the Chart, the primary change in the direction of property-casualty insurers' loss-reserving practices occurred in 1985. Until 1985, property-casualty insurers had been understating their loss reserves *by a larger degree every year.* Then in 1985, although the reserve for that accident year also was understated, it was understated by a *much smaller amount than the 1984 accident-year reserve.* And, as already mentioned, the 1986 accident-year reserve was actually overstated, as were all of the following accident years.

A similar story can be told with respect to each individual line of insurance. In the Other Liability line, for example, not only did the pattern change in 1985, but also by far the largest reduction in the degree of understatement (or increase in the degree of overstatement) occurred with respect to the 1985 accident-year reserves.

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118 Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1990-94), and author's calculations.

Chart 6[119]

Other Liability: Percentage Change in Reserving Error (Over- or Understatement) by Accident Year
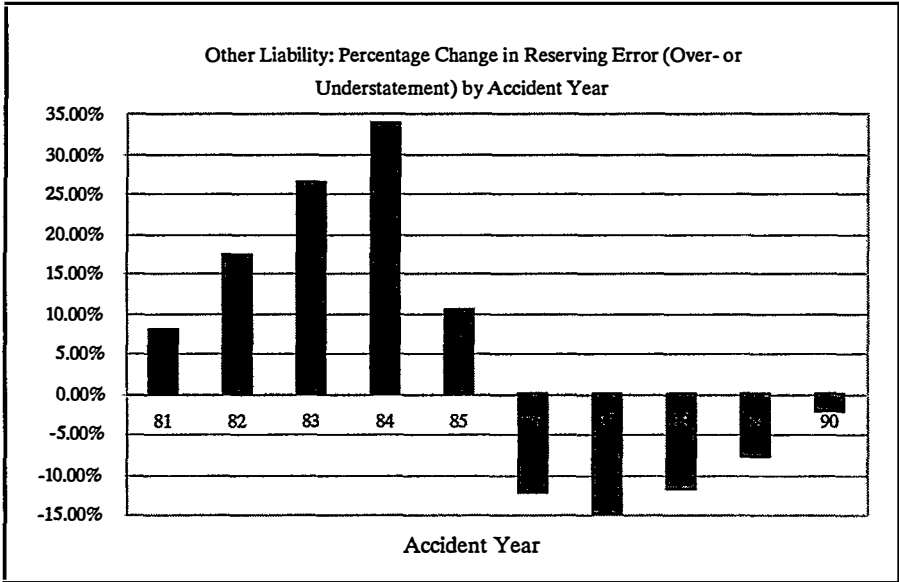
With respect to Medical Malpractice insurance, the change in the pattern occurred in 1984 and was continued in 1985 and 1986.

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[119] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1990-94), and author's calculations.

Chart 7[120]

Medical Malpractice: Percentage Change in Reserving Error (Over- or Understatment) by Accident Year

Accident Years
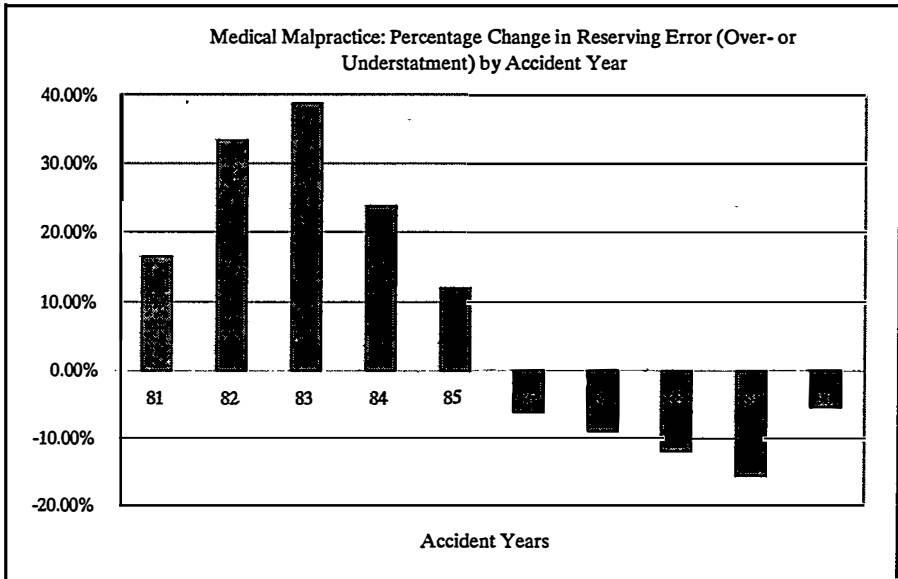
Essentially the same pattern appears in the short-tail lines as well, with even larger changes in loss-reserving patterns in 1984 and 1985 than those seen in the long-tail lines.[121]

So how do we account for these strange loss-development patterns? Here is one story: First, it is clear from the data that property-casualty insurers had actually been *understating* their loss reserves for several years before the enactment of the '86 Act: Every accident-year before 1986 had to be strengthened considerably. Why did the industry underreserve in that way? One would expect to see underreserving in some years, merely because of the random nature of the property-casualty business. But the consistent and prolonged underreserving seen in the pre-'86 accident years is a bit difficult to explain. Perhaps insurers

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[120] Source: A.M. Best Co., Best's Aggregates and Averages: Property-Casualty (1990-94), and author's calculations.

[121] This last finding is not entirely consistent with the tax hypothesis, which would predict that the change in the pattern of loss-reserving error should be more pronounced for the long-tail than for the short-tail lines.

were systematically over-optimistic. That is, perhaps they simply underestimated the size of their liabilities for policies written in 1981-86 and only realized the true size of their obligations in later years. Alternatively, perhaps they were especially influenced by financial or regulatory biases during those years, which gave them incentives to exercise their reserving discretion so as to understate reserves and boost their reported earnings and reported surplus.

The question most relevant to this Article, however, is what happened in 1984, 1985, and 1986 that made insurers change this loss-reserving pattern. Why in 1985 (in 1984 for Other Liability) did the industry in the aggregate dramatically reduce the extent to which it was underreserving and then, in 1986, actually overreserve? The tax hypothesis provides one plausible explanation: Perhaps insurers in 1984 and 1985 began to see the tax benefit of relatively conservative loss reserving, thus beginning the change in the loss-reserving pattern.

Under this theory, though, why would the pattern continue after 1986? Since the tax-arbitrage opportunity described infra Part II was only temporary and should have existed only for 1984-86, why did insurers continue to overstate their reported loss reserves in post-'86 years? The answer is unclear. It is possible that this trend has little to do with income taxes. There is, however, one possible explanation that does involve taxes and, specifically, the effect of the '86 Act. Following the enactment of the '86 Act, it may be that property-casualty insurers decided to continue their relatively new practice of reserving conservatively in an effort to offset the new tax burden imposed by the Act. Indeed, in commenting on the 1984 GAO reserve-discounting proposal, industry officials warned that insurers might respond to the tax-reform proposals this way. These officials argued that, for many years property-casualty insurers had been understating their reserves (for whatever reason) and that the insurers would take this occasion—the enactment of the reserve-discounting requirement and the other changes affecting property-casualty insurers—to correct that practice.[122]

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[122] For example, the following statement was made by the Vice President of Government Public Affairs at Continental Insurance upon hearing of the loss-reserve

An economist might find this story puzzling. Under traditional economic theory, when the '86 Act was enacted, insurers should already have been maximizing (or, more precisely, optimizing) the extent to which they could overstate their loss reserves for tax purposes, given the benefits and costs of doing so. Under that assumption, an insurer would not be able to increase the amount of reserve overstatement in a given year unless there was a change in the benefits or costs of doing so. For example, as discussed infra Part II, during the period between 1984 and 1986, the tax benefit of overstating reserves was substantially (albeit temporarily) increased. For tax years after 1986, however, *that* particular tax-incentive should have disappeared and the amount of overstatement should have returned to some lower equilibrium level. That is, under standard assumptions of competitive markets, the introduction of a higher federal income tax burden for post-'86 tax years (owing to the enactment of the '86 Act) should not have resulted in a continued pattern of reserve overstatement.

For an observer of the property-casualty insurance industry, however, this explanation for the post-'86 reserving pattern is at least plausible. Participants in this industry, in their pricing decisions and their accounting decisions, often do not seem to follow the patterns predicted by traditional economic theory, and certainly not the patterns expected of perfectly competitive markets. The existence of the property-casualty cycles, for example, is itself a puzzle for the economist.[123] Perhaps insurers, prior to 1984, had not seriously considered the tax advantage derived from conservative loss-reserving, and their experience

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discounting proposal: "If the IRS tells us we have to discount, we'll put pressure on our people to do a better job estimating reserves. That means the first year you would see a large increase in reserves coupled with a discount. The IRS would say that it's a blatant and obvious attempt to get around the discount." Morais, supra note 73, at 85 (quoting William Gibson).

[123] In more recent years, some have argued that the property-casualty cycle has disappeared. Dan Lonkevich, Pricing and Consolidation: Farewell to the P/C Cycle?, Best's Review, Property-Casualty Insurance Edition, Sep. 1995, at 24-31 (attributing end of cycle and prolonged period of soft pricing to competition-enhancing consolidation within the property-casualty insurance market). Of course, whether the recent prolonged period of soft pricing in the property-casualty market reflects an end to the cycle or an increase in the length of the time between turns in the cycle remains to be seen.

during that period revealed to them for the first time that the benefits were large and the costs (for example, the amount of IRS scrutiny they should expect) were small.

There is a different version of the tax-based story, however, that is arguably more consistent with the evidence than the one just given. Under this version, property-casualty insurers, before the enactment of the '86 Act, were not especially concerned about their federal tax liability, because they generally did not pay much, if anything, in federal income taxes. According to one report of the General Accounting Office, which was based on data from *Best's*, the combined federal income tax liability of the property-casualty industry for the tax years 1976 through 1985 were as follows (in millions, with negative tax liabilities in parentheses): $148; $1,015; $1,389; $896; $593; $55; ($716); ($1,218); ($1,732); ($2,030).[124] Thus, starting in 1982, although many insurers paid federal income taxes, the industry in the aggregate had a negative tax liability each year; and the total net federal income tax liability for the industry during that whole ten-year period was negative $1.6 billion. Note that negative tax liabilities create carryovers, which can be carried backward or forward to offset tax liabilities in other years. Given these conditions, the property-casualty insurers would still have the same tax incentive to overstate their reserves (that is, to boost their loss carryovers), but less so than if they had been awash in taxable income.

When, however, the '86 Act was passed (with the introduction of the reserve-discounting requirement), property-casualty insurers suddenly had a greater likelihood of having taxable income. Thus, putting to one side the possibility of anticipatory reserve manipulation before the enactment of the '86 Act, the tax incentive favoring loss-reserve conservatism would be substantially greater than for post-'86 Act years than for pre-'86 Act years, simply because of the increase in the trend toward reserve conservatism for the post-'86 Act years and in the persistence of that trend for some years into the future, as seen in Table 3.1 supra. In addition, even under this story, there still would have been a one-time extraordinary effect on reserving incentives

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[124] U.S. General Accounting Office, Report to Congressional Requesters, Profitability of the Medical Malpractice and General Liability Lines, at 20 tbl. II.1 (1987).

prior to the enactment of the '86 Act, if the tax changes were anticipated—just as described in Part II.C. supra. The only difference is the tax year in which the tax benefit would be put to use: Under this version of the tax-based story, most of the tax benefit to insurers of the reserve increases in 1984, 1985, and 1986 would come in the form of loss carryovers, which were then carried forward to offset the increased post-'86 Act taxable income.

IV. THE LINK BETWEEN THE TAX HYPOTHESIS AND THE CRISIS

Now assume that the conclusions of Parts II and III are true. Assume that the property-casualty industry was, in fact, induced by the prospect of tax reform to increase dramatically its loss reserves in 1984-86. So what? What does that finding have to do with the insurance crisis of 1985-86? More specifically, how would tax-induced loss-reserve increases in 1984, 1985, or 1986 cause the sudden reductions in supply and the sudden increases in premiums for the crisis lines of liability insurance? In exploring possible connections between the tax-induced loss-reserve increases and the insurance crisis of 1985-86, I will consider two alternative stories. The first is a version of the capacity-constraint theory described supra Part I.C. The second is a version of the collusion or price-coordination theory described in Part I.B.

Consider first the capacity-constraint theory. When property-casualty insurers boosted their loss reserves in 1984 and 1985 (at least in part to exploit the tax-arbitrage opportunity described above), it produced a reduction in the industry's surplus. That reduction in surplus, in turn, would be expected to have the effect of pushing premiums upward, for the reasons discussed in Part I.C. In sum, insurers would reduce the amount of insurance they write to minimize the risk of insolvency (until their surplus has a chance to build back up) and to minimize the chance of regulatory intervention. This contraction in supply would be expected to cause prices to rise sharply.

This process is magnified by the statutory accounting treatment of unearned premiums and of policy acquisition

expenses.[125] The basic idea is this: When an insurance company writes a policy and receives a premium, for regulatory purposes the company does not include the premium in income until it is "earned," which occurs pro rata during the course of the year. Thus, at the beginning of a one-year policy none of the premium is earned, and by the end of the period all of the premium is earned.[126] However, whereas the premium income is taken into account incrementally over the course of the year, the insurer is required by statutory accounting principles to deduct up front any expense incurred in acquiring—or selling—the policy.[127] As a result of this mismatching of revenue and expenses (the deferred recognition of premium revenue and the accelerated recognition of policy acquisition expenses), whenever an insurance company writes a policy, there is always initially a large *negative* effect on the company's surplus.[128] Since acquisition expenses (including commissions) are tied to premiums, this effect is multiplied when the premiums charged for the new policy are increased over the previous year's policy.

The effect of all these accounting rules is that a large increase in premiums such as that seen in 1985 and 1986,[129] rather than

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[125] See generally Mooney & Cohen, supra note 4, at 22-26.

[126] Id. at 22. Technically, this exclusion is accomplished through the unearned premium reserve. When the insurer writes the policy it includes the premium revenue in its income but then takes a deduction for the annual increase in its unearned premium reserve, the net effect being an exclusion for any premium received that has not been earned during the year. Id.

[127] Generally Accepted Accounting Practices would require a "matching" of revenue and expense. Statutory accounting expressly and intentionally does not, but rather requires an acceleration of expenses and a deferral of income. Id. The justification typically given for this mismatching is the general view of insurance regulators that insurance companies' reported data should be extremely "conservative."

[128] To see precisely how this works, see Mooney & Cohen, supra note 4, at 22-26 (example illustrating effect of writing new policy on surplus). The largest such expense is typically the commission to the agent or broker.

[129] In 1985 and 1986, the property-casualty industry experienced the largest absolute increases in net premiums written in its history—roughly $26 billion and $32 billion, respectively, with the next largest absolute increases having occurred in 1976 and 1977, the previous hard portion of the property-casualty cycle, in the amounts of $11 billion and $12 billion, respectively. A.M. Best Company, Best's Aggregates and Averages: Property-Casualty 148 (1991) (data for all lines combined). Moreover, in percentage terms, 1985 and 1986 showed the largest percentage increases in premiums written in ten years, that is, since the previous hard market. The percentage increases in net premiums written for the ten years leading up to this period were as follows: 1976 (22%); 1977 (13%); 1978 (13%); 1979 (10%); 1980 (6%); 1981 (4%); 1982 (5%); 1983

boosting surplus, actually reduces insurers' surplus in the short run. As time passes, of course, the premium becomes "earned," building surplus back up and ultimately, if all goes well, resulting in a net increase. But for several months, the premium increases cause a decrease in surplus. Therefore, as insurers increased their premiums in 1985 and 1986, the temporary negative effect on surplus would have resulted in further reductions in supply and, in turn, additional increases in premiums, and so on.

This version of the tax explanation is obviously similar to the capacity-constraint explanation. There is one important difference, however: In the standard capacity-constraint explanation, the reduction in surplus is *real*. In the tax-based explanation, it is not. Under the standard capacity-constraint explanation, there is at some point a realization that the insurance industry is underfunded—that the industry's total liabilities are larger (or its assets smaller) than had previously been estimated. Under the tax version of the capacity-constraint explanation, however, the reduction in surplus is artificial, in the sense that it is not an effort to ensure an adequate surplus. Indeed, that is the whole point of the tax theory: Reserves were increased in response to tax-reform proposals rather than in response to new information about future liabilities.

The challenge for tax theory therefore is to explain why a tax-induced increase in reserves and reduction in surplus would have the same effect as would, for example, a sudden realization by insurers that the liability risks faced by the industry were greater than had previously been believed. Put differently, how can a change in an accounting variable that does not reflect a real change in liabilities affect the real economic decisions of insurance companies?

One possible explanation involves the role of state regulators. Even if insurers were aware that their loss-reserve increases during this period were not entirely real (but rather were at least partly tax motivated), state insurance regulators may have had a different interpretation. The regulators may have interpreted the jump in loss reserves in 1984 and 1985 (and the concomitant jump in underwriting losses) just as the insurance industry had

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(5%); 1984 (8%); 1985 (22%); 1986 (22%).

portrayed them at the time—as the result of the revolutionary expansion in tort law. If that were the regulators' interpretation (or even if insurers perceived that to be a possible interpretation that regulators might have), the threat of potential regulatory intervention may have influenced insurers to restrict the supply of insurance they were writing until their reported surplus could be replenished to the regulators' satisfaction. In addition, it is possible that some companies were motivated primarily by the anticipated tax-law changes and others were motivated primarily by concerns about the perceived tort crisis. Or perhaps most insurers were motivated by a combination of both factors. That is, they were convinced that certain types of risks were increasing considerably (recall the data from the DOJ Report) and that, therefore, reserve increases would eventually be needed. In addition, they were convinced that the optimal time to increase reserves was just before the enactment of the impending tax reforms.

In addition to this modified capacity-constraint explanation, there is also a tax-based explanation that is inspired by a version of the collusion theory. Under this explanation, one must first eschew the assumption of a perfectly competitive market for property-casualty insurance, at least in the following sense: Pricing and quantity decisions in the property-casualty industry do in fact exhibit some degree of parallelism and coordination, at least in the short run and especially during periods of transition from hard market to soft and back again. The standard version of the collusion theory goes something like this: Although the property-casualty industry is susceptible to price fixing arrangements (owing to the role of ISO or to the role of insurance regulators), such arrangements periodically break down, resulting in periods of intense price competition. These are the soft periods in the cycle. Then, either because of the effect of prolonged underreserving followed by the threat of regulatory intervention, insurers somehow, at some point, manage to restore discipline to their arrangement and return to cooperative pricing. This lasts for a time, until companies begin to cheat on the deal again by cutting prices, and the cycle begins again.

The tax hypothesis adds the following wrinkle to the story: Assume that the above-described collusion theory is plausible and that the early 1980s was a period in which cartel discipline had broken down and insurers were cutting prices in competition for market share, their hope being that the new market share would prove extremely profitable whenever discipline was restored to the cartel. Given these assumptions, it is quite plausible that the return of cartel pricing—the upturn in the cycle—was hastened and exacerbated by the prospect of tax reform. If the expectation was that the industry was going to recartelize and return to supercompetitive pricing at some point, the ideal time to do so would have been the period between 1984 and 1986, when there was an enormous tax incentive to increase loss reserves. The timing would have been ideal because any suspicious jump in property-casualty premiums would be masked by even larger increases in reported loss reserves. And in fact, during this period of "skyrocketing" premiums, the industry reported the largest underwriting *losses* in its history, owing to the massive reserve increases.[130] Because of the large (tax-induced) reserve increases, it was relatively easy for industry representatives to claim that the reason for the unprecedented premium increases was the "crisis" in the market and to argue that, notwithstanding the premium increases, the industry was in great financial difficulty, thereby avoiding regulatory intervention, curtailing consumer resentment, and forestalling market entry by new competitors.

Whether one adopts the capacity-constraint version of the tax hypothesis or the collusion version or some combination of the two, it should at least be clear that tax-induced loss reserve increases of the sort I argue occurred in 1984-86 could have contributed to the crisis phenomena of 1985 and 1986. Moreover, without the tax-based explanation, it is difficult to explain the timing and the suddenness of the crisis; whereas, with the tax-based explanation, these elements of the crisis begin to make sense.[131]

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[130] See supra Chart 2.

[131] As I have already mentioned, I cannot rule out the possibilty that the precise timing of the crisis was simply fortuitous, the result of the natural lag time between events in the world (such as the increase in tort awards) and the effects on insurance

CONCLUSION

The liability insurance crisis of 1985-86 sparked a period of furious debate over the appropriate function and design of our civil liability system and ultimately led to the enactment of tort-reform legislation in many states. Moreover, the theories developed during that period to explain the crisis and to justify tort reform at the state level will continue to shape current debates over tort reform at both the state and the national levels. It is important, therefore, for policymakers to have a full understanding of the crisis of 1985-86 and for them not to overestimate the causal role of tort law or any other single factor. In this Article, I have introduced a previously unexplored factor that may have contributed to the crisis—namely, changes in the federal income tax laws, changes that may have induced property-casualty insurers to engage in artificial loss-reserve increases, which in turn may have precipitated (or least exacerbated) the massive premium increases and coverage reductions that characterized the crisis. To the extent this new factor has explanatory power, perhaps less weight should be given to the alternative explanations of the crisis, including the tort-based explanation. Thus, the Article sounds a cautionary note for anyone who might be persuaded by arguments for tort reform that are based on a simplistic version of the tort-based explanation of the crisis: Such arguments should be reconsidered in the light of the more complex causal story told in this Article. And even if one is unpersuaded in the link between the '86 Act and the insurance crisis, the Article nevertheless contains a clear warning for would-be tax reformers: When a proposal is made to "reform" the tax treatment of a particular industry, a full understanding of the ultimate efficiency and distributional effects of such a change will require an analysis of the ways in which the members of that industry might be able to adjust their accounting and pricing practices, particularly during the period of transition, to offset the effects of the change—and perhaps even to pass those effects along to their customers in the form of higher prices.

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companies.

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