

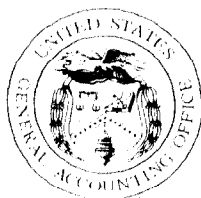
GAO

Report to the Honorable  
Frank Horton, House of  
Representatives

September 1991

# PRODUCT LIABILITY

## Insurance Rate Levels and Claim Payments During the 1970s and 1980s



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Human Resources Division

B-244325

September 16, 1991

The Honorable Frank Horton  
House of Representatives

Dear Mr. Horton:

On February 20, 1990, you asked that we review the possible effects of product liability costs and policies on the competitiveness of U.S. businesses. You were concerned that risks and costs associated with product liability may place affected U.S. businesses at a competitive disadvantage both here and abroad. On March 22, 1991, we briefed your office on the results of our review: (1) We could find no acceptable methodology for relating product liability costs to competitiveness, and (2) businesses consider the data needed for such an analysis to be proprietary.

In subsequent discussions, we agreed to analyze and report on available data with respect to (1) shifts in product liability insurance rates during the 1970s and 1980s,<sup>1</sup> (2) payments made on claims against product liability insurance policies written in the 1970s and 1980s, and (3) the extent to which securities analysts consider product liability in evaluating various publicly traded firms' investment potential (see p. 6).

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## Background

Product liability insurance protects businesses against the cost of consumer accidents or other undesirable consequences resulting from the use of a business's products or services. Insurance prices are based on the insurer's assessment of the prospective risk associated with a business's products or services.

Advisory organizations, such as the Insurance Services Office (ISO),<sup>2</sup> develop actuarially based rates for their participating insurers by analyzing the aggregate claims experience of large numbers of insurers and projecting future claims frequency and cost. While insurers consider these advisory rates in setting prices, other considerations include (1) the insurer's operating costs, profit goals, and competition and (2) the insured's quality control procedures or unusual loss experience.

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<sup>1</sup>Insurance rates are the pricing benchmarks insurers use in setting premiums for businesses they insure. Insurers group businesses with similar loss experiences into risk classes. Each risk class has a rate base (such as 84 cents per \$1,000 of gross sales) for certain coverage limits (such as \$25,000 per occurrence and \$50,000 for all occurrences).

<sup>2</sup>ISO is the largest property/casualty advisory organization in the United States, with about 1,500 participating insurers.

Potential return on product liability insurers' investments can influence their insurance prices.<sup>3</sup> When investment returns are high, product liability insurers may intentionally charge less than the advisory rate to encourage sales.

While product liability policies typically expire after 1 year, claims against them continue to be received. Accordingly, the time lag between when premiums are received and when claims are filed and paid can be several years.<sup>4</sup> If insurers' investment returns drop or claim losses are greater than expected, insurers may attempt to compensate by increasing their prices.

## Scope and Methodology

We used data on changes in advisory product liability rates, developed by ISO since 1974, as the most available indicator of price changes during the 1970s and 1980s. Ideally, actual insurance prices would best reflect product liability insurance costs for U.S. firms in domestic markets. But such data are not readily available, and businesses are reluctant to provide them. Data on total payments made on claims against product liability policies issued in the 1970s and 1980s also were not available, although ISO's participating insurers have been reporting payments against certain policies issued since 1972. ISO's data do not include (1) claim payments made more than 16 years after participating insurers issued them and (2) all product liability claim payments made during the period. Nonetheless, we used ISO's data because they were the best available. (See app. I for more details on our scope and methodology.)

## Results in Brief

ISO's advisory product liability rates increased significantly during the 1970s and 1980s. The rates increased by about 195 percent from 1974 through 1976, were relatively stable from 1976 through 1983, and increased by about 105 percent from 1983 through 1988. From 1988 to 1990, the advisory rate receded by 27 percent. Although corroborating data are limited, it appears the advisory rate shifts were due, in part, to the preceding and somewhat parallel increases in the frequency of claim losses reported by ISO's insurers.

<sup>3</sup>Liability Insurance: Effects of Recent "Crisis" on Businesses and Other Organizations (GAO/HRD-88-64, July 29, 1988).

<sup>4</sup>See Liability Insurance: Changes in Policies Set Limits on Risks to Insurers (GAO/HRD-87-18BR, Nov. 21, 1986) for additional information on types of product liability insurance policies.

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Between 1974 and 1990, ISO's participating insurers reported over \$632 million in claim payments against manufacturers' product liability policies issued from 1972 to 1988. In 1990, those insurers were still reporting payments against policies that had expired at least 16 years ago.

In evaluating the investment prospects of publicly traded businesses, product liability becomes a major factor in only a relatively few cases, securities analysts said. In those cases, analysts have limited information to use in their analyses, which makes it difficult for them to project the magnitude of final liability claims and their impact on businesses.

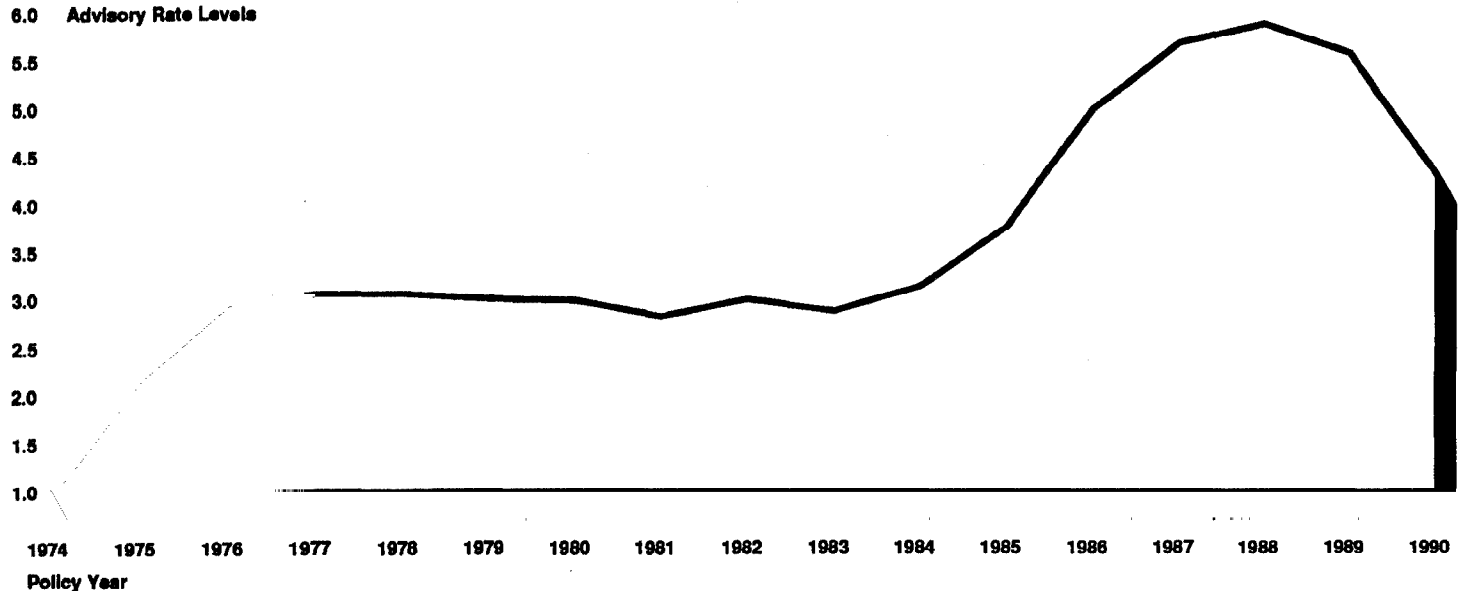
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## Shifts in Product Liability Insurance Rates

ISO's advisory rates increased sharply from 1974 to 1976, were relatively stable from 1976 to 1983, increased sharply again from 1983 to 1988, and then decreased from 1988 to 1990 (see fig. 1). While many factors can influence the advisory rate, the most influential factors, ISO officials said, are changes in the frequency and average cost of claims reported by its participating insurers.<sup>5</sup> Because changes in the pattern of insurers' payments can take several years to influence the advisory rate, the sharp increases that occurred from 1974 to 1976 and 1983 to 1988 may have resulted from earlier increases in the frequency and cost of claims reported by ISO's insurers.

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<sup>5</sup>Claim costs include paid losses and reserves established by insurers in anticipation of payment. These costs also include loss adjustment expenses, which are primarily legal costs incurred by insurers when negotiating claim settlements.

**Figure 1: Advisory Product Liability Insurance Rate Levels (1974-90)**

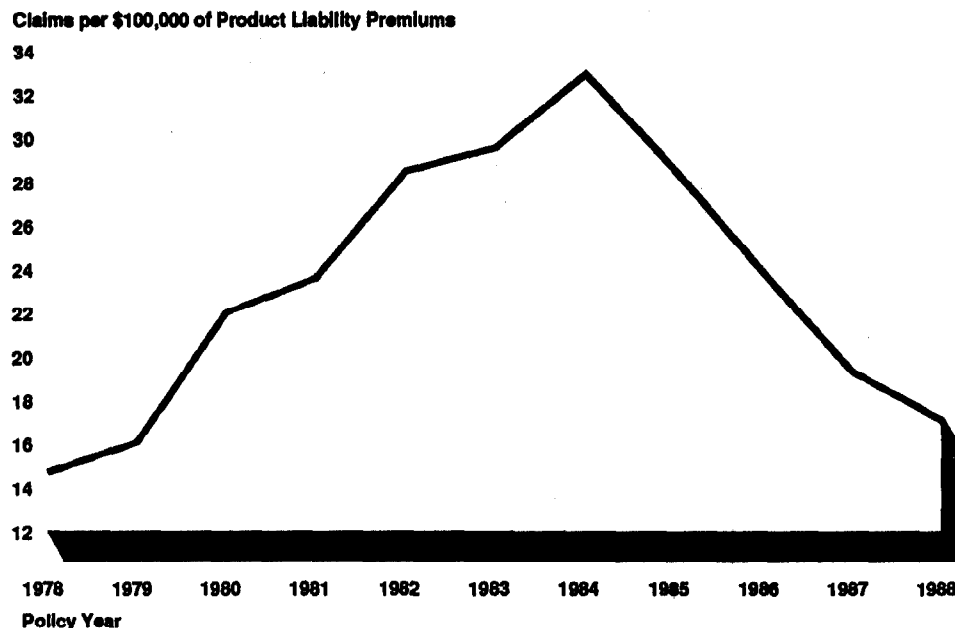
Note: Rate level is adjusted to policy year 1974 (that is, 1974 = 1.00).

Source: Advisory rate level changes were provided by the Insurance Services Office.

ISO's available claim frequency data only covered the period since 1978 and cost data only since 1979. The claim frequency data showed shifts that preceded and somewhat paralleled the increases in ISO's advisory rate from 1983 to 1988 and the subsequent decreases from 1988 to 1990. The cost data did not show similar shifts.

From 1978 to 1984, ISO's participating insurers reported claims rose from 14.7 to 32.9 claims per \$100,000 of lost payments, a 124 percent increase (see fig. 2), but the advisory rate did not begin to increase until 1983. Likewise, after 1984, reported claims dropped from 32.9 to 17.1 in 1988, a 48 percent decrease, although the advisory rates did not begin to drop until 1988. Participating insurers' average claim costs, which were not adjusted for inflation, rose 91 percent, from \$7,658 in 1979 to \$14,621 in 1988.

**Figure 2: Product Liability Insurance  
Claim Frequencies (1978-88)**



Note: Property damage and bodily injury claim frequencies are combined.

Source: Claim frequencies were provided by the Insurance Services Office.

Shifts in actual product liability insurance prices during the 1970s and 1980s may have differed somewhat from the advisory rate patterns because prices are also influenced by other factors. As we previously reported, property/casualty insurance prices have long tended to follow cycles.<sup>6</sup> Prices rise as insurers move into less competitive and profitable periods; prices fall as profits and competition increase. In 1978, for example, product liability insurance prices were relatively low because investment income and competition were high. By 1984, the cycle reversed sharply as claims increased and insurers' investment returns dropped.

## Claims Continue to Accrue Against Expired Policies

Between 1974 and 1990, ISO's participating insurers reported over \$632 million in claim payments for product liability policies, issued from 1972 to 1988, against businesses engaged in manufacturing. In 1990, those insurers were still reporting payments against policies that had expired at least 16 years ago.

<sup>6</sup>Tax Policy: Financial Cycles in the Property/Casualty Industry (GAO/GGD-86-56FS, Apr. 9, 1986) and Liability Insurance: Effects of Recent "Crisis" on Businesses and Other Organizations (GAO/HRD-88-64, July 29, 1988).

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The time lag between when product liability insurance policies are written and when claims are filed and paid is longer than for other types of insurance. ISO's payment data, which track payments for only 16 years, show that participating insurers paid claims, totalling \$6.5 million, in the 16th year that had been filed against policies issued from 1972 to 1974. Ten years after issuing those policies, insurers had paid only 52 percent of the total payments made by the 16th year.

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### **Securities Analysts Find Product Liability of Concern in Few Cases**

The 17 securities analysts we interviewed used no standard approach for assessing how product liability problems might affect the investment risk of a company's stocks or bonds. Product liability becomes a major factor only for a relatively few of the products and companies analysts assessed, but in those few cases, it is a key concern. Industries in which product liability weighed heavily in analysts' assessment include pharmaceuticals, automobiles and parts, general aviation, asbestos, waste management, nuclear utilities, medical supplies, tobacco, and chemicals.

Assessing the financial impact of product liability risk was difficult, analysts said, in part, because businesses are reluctant to reveal information about liability suits pending against them; projecting final settlements is difficult since claims are under continual negotiation.

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Our work was completed between October 1990 and April 1991, in accordance with generally accepted government auditing standards, except that we did not assess the reliability of data provided by ISO.



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Because the results of our review do not pertain to a specific federal agency, we sought no agency comments. If you have any questions, please call me at (202) 275-6193. Other major contributors are listed in appendix II. Other recent GAO reports on liability insurance issues are listed on page 12.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Gregory J. McDonald". The signature is fluid and cursive, with the first name "Gregory" being more prominent.

Gregory J. McDonald  
Associate Director,  
Income Security Issues

# Scope and Methodology

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To report on changes in product liability insurance rates during the 1970s and 1980s, we analyzed annual changes in an advisory product liability rate computed by the Insurance Services Office (ISO), an advisory organization for property/casualty insurers. We considered this rate the best available indicator of changes in actual product liability insurance prices. Even if available, the inconsistency of prices would make them difficult to analyze. Prices vary between businesses, even those within the same industry, because the prices are affected by differences in coverage and deductible levels.

Between 1974 and 1990, ISO developed an average annual rate adjustment that included the experience of many different risk classes. We used this average rate adjustment as the best available indicator of product liability price changes during the 1970s and 1980s. ISO groups businesses into distinct classes when developing base rates, each representing a different level of risk.

Because most state insurance departments regulate product liability rates charged by insurers that operate there, we used a modification of ISO's annual rate adjustment that reflects differences between what ISO recommended and what state insurance departments actually approved. Until 1990, ISO, on behalf of its insurers, developed and filed advisory rates with most state insurance departments. ISO now provides only prospective claim cost data. Insurers use these data to develop and file their own rates.

While ISO believes its annual adjustment reflects the overall trend for product liability insurance prices, this adjustment may not accurately reflect the experience of certain businesses or industries. ISO only develops advisory rates for businesses that are relatively homogeneous and have sufficient experience for estimating future losses. For many businesses, their claim experience is too volatile or insufficient to establish a credible rate. In addition, insurers may modify ISO's advisory rate to reflect (1) competition from prices charged by other insurers and (2) changing investment income or operating expenses. Finally, ISO's advisory rates do not reflect the product liability experience of businesses that self-insure.

ISO also provided data on the frequency of claims reported by its participating insurers from 1978 to 1988 and average claim costs from 1979 to 1988. Similar claim data for earlier years were not available. To adjust for annual variations in the number of insurers reporting data and the number of product liability policies written by its members, ISO tracks

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the frequency of claims per \$100,000 of claim losses rather than the total number of claims reported by its insurers.

To determine payments made against product liability insurance policies written during the 1970s and 1980s, ISO gave us limited data, showing payments reported by its participating insurers against policies issued from 1972 through 1988 to businesses engaged in manufacturing. ISO could not provide claim payment histories for specific industries because it groups businesses by risk class, not by industry. ISO's payment histories are incomplete because its data collection system tracked only 16 years of claim payments against policies issued before 1980. Accordingly, ISO has no data on recent payments against policies issued before 1974 because the 16-year period has expired. ISO has since modified its data system and now collects 20 years of payment data on policies issued since 1980.

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# Major Contributors to This Report

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# Related GAO Products

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Product Liability: Verdicts in Massachusetts for 1983-85 (GAO/HRD-91-8, Oct. 26, 1991).

Product Liability: Verdicts in Arizona for 1983-85 (GAO/HRD-91-7, Oct. 25, 1991).

Product Liability: Verdicts and Case Resolution in Five States (GAO/HRD-89-99, Sept. 29, 1989).

Liability Insurance: Effects of Recent "Crisis" on Businesses and Other Organizations (GAO/HRD-88-64, July 29, 1988).

Product Liability: Extent of "Litigation Explosion" in Federal Courts Questioned (GAO/HRD-88-36BR, Jan. 28, 1988).

Liability Insurance: Changes in Policies Set Limits on Risks to Insurers (GAO/HRD-87-18BR, Nov. 21, 1986).

Tax Policy: Financial Cycles in the Property/Casualty Industry (GAO/GGD-86-56FS, Apr. 9, 1986).

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