

GAO

Report to the Chairman, Subcommittee  
on Commerce, Consumer Protection,  
and Competitiveness, Committee on  
Energy and Commerce, House of  
Representatives

November 1990

# INSURANCE REGULATION

## The Insurance Regulatory Information System Needs Improvement



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United States  
General Accounting Office  
Washington, D.C. 20548

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General Government Division

B-236091

November 21, 1990

The Honorable Doug Walgren  
Chairman, Subcommittee on Commerce,  
Consumer Protection, and Competitiveness  
Committee on Energy and Commerce  
House of Representatives

Dear Mr. Chairman:

This report responds to your Subcommittee's request that we review the effectiveness and reliability of the National Association of Insurance Commissioners' Insurance Regulatory Information System for early detection and warning of financially troubled property/casualty insurers.

We note for your consideration that while we received generally good cooperation from the National Association of Insurance Commissioners, we did not have access authority to some information that we requested during the preparation of this report. The lack of access limited the extent of our analysis. Continued lack of access to all relevant data will adversely affect future work we undertake in this area.

This report supplements our September 1989 report, Insurance Regulation: Problems in the State Monitoring of Property/Casualty Insurer Solvency (GAO/GGD-89-129, Sept. 29, 1989). We are continuing our work in this area by evaluating regulatory actions that state insurance departments take following detection of a problem insurer.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of this letter. At that time, we will send copies to interested parties and make copies available to others upon request.

Major contributors to this report are listed in appendix VI. Please contact me on 275-8678 if you or your staff have any questions concerning this report.

Sincerely yours,

Craig A. Simmons  
Director, Financial Institutions  
and Markets Issues

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# Executive Summary

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## Purpose

From 1983 through 1989, approximately 105 multistate property/casualty insurance companies became insolvent. Losses from the recent failures of two large insurance groups alone may exceed \$5 billion. In addition, from 1983 to 1989, the number of property/casualty insurers designated by the National Association of Insurance Commissioners (NAIC) for closer state regulatory attention increased from 205 to 622. These events have raised concerns about the timeliness, accuracy, and effectiveness of state monitoring of insurance company solvency—and thus about the safety of U.S. property/casualty insurers.

The Subcommittee on Commerce, Consumer Protection, and Competitiveness, House Committee on Energy and Commerce, requested that GAO review the effectiveness and reliability of the property/casualty version of the Insurance Regulatory Information System (IRIS), a system developed by the NAIC to help states detect potentially financially troubled insurers as early as possible.

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## Background

State insurance departments are responsible for regulating and monitoring the financial condition of insurance companies that operate in their states. The head of each state insurance department is a member of the NAIC. NAIC helps states both regulate the insurance industry and identify those insurers that require increased regulatory attention. Early identification of troubled companies is essential to (1) help companies regain their financial strength or minimize the damage resulting from insolvency and (2) help states focus their examination resources on troubled companies and coordinate their activities with other states.

During this review, GAO studied IRIS' purpose and process; determined how state regulators use IRIS results; and obtained NAIC, state regulator, and industry views on IRIS' effectiveness and usefulness. GAO did audit work at seven insurance departments. GAO could not quantitatively evaluate the predictive accuracy of IRIS results because the NAIC considers the data confidential and, therefore, did not provide GAO with the data.

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## Results in Brief

Although IRIS is intended to provide early warning of potentially troubled companies, insurance department regulators said that they generally know about the financial condition of domestic companies (those headquartered in their states) before IRIS results become available. IRIS is used more often to obtain information regarding foreign insurers (those operating but not headquartered in their state).

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State regulators and industry officials said that IRIS has several deficiencies, including a reliance on insurer-prepared financial statement data that are sometimes unverified and untimely. Moreover, the system does not consider other readily available sources of solvency information. GAO believes that these problems, along with other deficiencies, impair IRIS' effectiveness and usefulness as an early warning system.

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## Principal Findings

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### IRIS' Purpose and Process

IRIS is intended to help states identify potentially troubled insurance companies by providing preliminary indicators of an insurer's financial condition. State insurance regulators are still ultimately responsible for determining an insurer's true financial condition.

The IRIS process contains two major evaluation phases and a follow-up component. During the first phase, a set of financial ratios is generated for each insurer from data contained in the insurer's annual statements. The ratios address various aspects of insurer operations such as liquidity, profitability, and reserves. During the second phase, a team of experienced financial examiners analyze selected companies' ratio results and annual statements and select some companies for increased state regulatory attention. The NAIC or its representative follow up to determine if states are taking appropriate actions against those companies that IRIS examiners identified as requiring immediate state regulatory attention. (See pp. 13-19.)

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### States' Use of IRIS Results

GAO found that the seven state insurance departments use IRIS results differently, depending on their opinion of the system, the level of sophistication of their in-house evaluation systems, their resources, and the timing of IRIS results. Regulators at all seven departments said that they are generally aware of the financial condition of domestic companies before IRIS results are available. (See pp. 23-24.)

IRIS examiner reviews of companies' IRIS ratios and annual financial statements for the prior year begin in March, and some reviews are not completed until June. Consequently, identification of potentially troubled insurers may not happen until 15 to 18 months after the problem occurred. (See p. 26.)

Regulators in five insurance departments said they use IRIS as an additional source of information to confirm the status of domestic insurers and to determine if previously unidentified foreign companies may need increased attention. These regulators explained that states generally focus their examination resources on domestic insurers. Regulators in the other two departments said they do not use IRIS at all because other monitoring methods better satisfy their needs. (See p. 24.)

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## Views on IRIS' Effectiveness and Usefulness

State insurance departments generally held different views on IRIS' importance, reliability, adequacy, timeliness, and usefulness in evaluating the financial condition of insurers. NAIC officials, state regulators, and industry officials said that it is difficult for a ratio-based surveillance system like IRIS to accurately measure the solvency of all types of property/casualty insurance companies. According to NAIC, it is important that IRIS be used only as one part of a state's overall solvency regulation. (See pp. 23-33.)

Regulators and industry officials said that IRIS has deficiencies, including the following: (1) it relies on insurer-prepared annual statements, which are sometimes not independently verified and are subject to significant time lags; (2) its financial ratios are of limited scope and may not identify all troubled insurers; (3) it is not equally effective in assessing all types and sizes of insurers; (4) it does not adequately address some important aspects of insurer operations; (5) it does not consider some readily available sources of solvency information; and (6) it is identifying an increasing number of companies, some of which may not warrant immediate regulatory attention. (See pp. 24-32.)

Five state regulators and four industry officials GAO interviewed said that, by itself, IRIS is not effective or has become less effective in separating financially troubled companies from sound ones. Such inaccurate designation can cause state resources to be diluted and decrease the usefulness of IRIS as a mechanism for focusing regulatory attention. (See pp. 32-33.)

GAO believes changes to IRIS could increase its usefulness in detecting troubled companies and targeting regulatory resources. In view of regulator and industry concerns about IRIS effectiveness, GAO believes that it would be worthwhile to test ways to incorporate supplemental sources of information into IRIS. By selectively choosing supplemental information, NAIC should be able to minimize requisite review time and resource requirements.

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In June 1989, NAIC adopted new financial standards recommending that each state require annual independent public accountant audits and actuarial certifications of loss reserves. The concept of independent verification of financial data is commonly accepted as a primary means of ensuring its validity. Because IRIS is totally dependent upon annual financial data, GAO generally supports NAIC's efforts. However, in addressing NAIC's comments on a draft of this report, GAO learned that loss reserve certifications may be done by actuaries or loss reserve specialists employed by the insurance company. Given the importance of sufficient reserves to a property/casualty insurer's financial health, GAO believes that, ideally, loss reserves should be independently verified and certified. (See pp. 33-34.)

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## Recommendations to the NAIC

GAO recommends that NAIC evaluate, on a test basis, the feasibility, effectiveness, and costs of expanding IRIS to incorporate other information on the financial condition, operations, and management of insurance companies with the goal of improving the system's usefulness.

GAO also recommends that NAIC take the lead in working with state regulators, the insurance industry, and professional actuarial organizations to explore options and identify the most appropriate way to obtain annual independent certification of loss reserves. (See pp. 33-34.)

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## NAIC Comments

GAO provided a draft of this report to the NAIC for formal comment. In its response, NAIC acknowledged the need for improved financial analysis and solvency surveillance. To this end, NAIC has formed a working group to develop additional financial analysis techniques and systems. NAIC said this work is intended to both complement and supplement IRIS, which has been and continues to be the cornerstone of NAIC's financial analysis system. GAO addresses these general comments at the end of chapter 3, on pages 33 and 34.

Additionally, NAIC pointed out various statements that they believed were either incorrect or misleading. GAO made changes where appropriate. (NAIC's comments and GAO's responses are contained in app. IV.)

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**Abbreviations**

IRIS	Insurance Regulatory Information System
NAIC	National Association of Insurance Commissioners

# Introduction

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According to the Insurance Information Institute,<sup>1</sup> over 90 percent of U.S. homeowners and automobile owners have property/casualty insurance policies. Since such policies are purchased to protect against future losses, insurers must remain solvent to honor their commitment to their customers to provide continuous service and promptly pay claims.

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## Recent Trends in Property/Casualty Insurer Insolvencies and Liquidations

While the number of companies that operated in more than one state (multistate property/casualty insurers) suffering insolvencies has been relatively small and has remained fairly constant, there has been a significant increase in the size of insurer insolvencies during the 1980s. In addition, there has been a substantial increase in the number of insurers identified by NAIC for increased state regulatory attention.

From 1983 through 1989, approximately 105 multistate property/casualty insurers became insolvent. Although these insolvencies each year represent less than 1 percent of all insurers, the size of the insolvencies has significantly increased. Before 1981, the most that guaranty funds assessed insurers for the liquidation of any single insurer was \$85 million;<sup>2</sup> in fact, only two company liquidations required insurers to be assessed more than \$50 million. Since 1981, four liquidations have each required assessments of over \$100 million. Receivers estimate that the ultimate losses resulting from two recently failed large insurance groups may exceed \$5 billion.

In addition, the number of property/casualty insurers NAIC designated as requiring increased state regulatory attention through its Insurance Regulatory Information System (IRIS) increased from 205 in 1983 to 622 in 1989. This increase in the size of insurer insolvencies, coupled with the increase in the number of insurers identified by NAIC as potentially troubled, has raised concerns about the timeliness, accuracy, and effectiveness of state solvency detection systems. This report focuses on NAIC's IRIS, one of the tools available for states to use to identify potentially troubled insurance companies.

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<sup>1</sup>The Insurance Information Institute provides information to the public concerning the business of property/casualty insurance.

<sup>2</sup>Guaranty funds in each state pay in-state policyholder claims on liquidated insurers by assessing property/casualty insurers doing business in the state. When a licensed insurer is liquidated, each state's fund is responsible for paying claims for policyholders residing in the state. However, some lines of business are excluded.

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## State Insurance Regulation

Property/casualty insurance is a major means by which individuals and corporations protect themselves against the threat of economic loss resulting from damage to property or injuries to other people. In general, state legislatures set the rules under which insurance companies must operate. State insurance departments are responsible for monitoring the financial condition of insurance companies operating in their states and for taking appropriate regulatory actions against troubled companies.<sup>3</sup> These departments license companies to sell insurance in their states, sometimes set the rates insurers can charge, and periodically examine the records of domestic insurers (companies headquartered in their state).

State insurance departments generally use similar methods to assess the financial strength of companies licensed to do business in their states. The states established the National Association of Insurance Commissioners (NAIC) to encourage uniformity and cooperation among the various states and territories as they individually regulate the insurance industry.<sup>4</sup>

As pointed out in our 1989 report on insurance regulation,<sup>5</sup> some states may not be allocating sufficient resources, including qualified examiners, to analyze the financial condition of the numerous companies operating in their states. States generally focus their resources on domestic companies, and often need assistance in monitoring so-called foreign companies—those that operate in their state but are headquartered elsewhere. We concluded in that report that interstate cooperation is an important part of solvency regulation. However, we also pointed out that only a few states fully share information with other states or provide regular updates to other states on financially troubled domestic insurers.

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## Insurance Regulatory Information System

The NAIC's IRIS is a nationwide early warning system that is intended to help states focus their examination resources on potentially troubled insurance companies and provide states with information needed to coordinate their activities with other states. Early identification of

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<sup>3</sup>Congress passed the McCarran-Ferguson Act in 1945, which essentially gives the states primary responsibility for regulating the insurance industry.

<sup>4</sup>NAIC consists of the heads of the insurance departments of the 50 states, the District of Columbia, and 4 U.S. territories.

<sup>5</sup>Insurance Regulation: Problems in the State Monitoring of Property/Casualty Insurer Solvency (GAO/GGD-89-129, Sept. 29, 1989).

troubled companies is essential if the companies are to regain their financial strength or to minimize the damage resulting from insolvency.

IRIS consists of two phases and a follow-up component. During the first phase—the statistical phase—financial ratios are generated for each insurer; these ratios are based on data contained in their annual statements. During the second phase—the analysis phase—a team of experienced financial examiners analyzes selected companies' ratios and annual statements to identify companies that, in their opinion, need increased state regulatory attention. NAIC or its representative follows up on IRIS results to determine if states are taking appropriate actions against companies that IRIS examiners identified as having the greatest potential for financial troubles.

## Objectives, Scope, and Methodology

The Subcommittee on Commerce, Consumer Protection, and Competitiveness, House Committee on Energy and Commerce, requested that we review the effectiveness and reliability of IRIS for early detection and warning of financially troubled property/casualty insurers.<sup>6</sup> To determine the effectiveness and reliability of IRIS, we studied the overall IRIS process; determined how state regulators use IRIS results; and obtained NAIC, regulatory, and industry views on the effectiveness and usefulness of IRIS. However, we could not independently evaluate the predictive accuracy (effectiveness and reliability) of IRIS results because NAIC would not provide us with records of the work of the examiner team or a list of companies that IRIS examiners designated as requiring increased state regulatory attention. According to NAIC, the information on the records and the list is confidential.

During our review, we interviewed NAIC and IRIS officials, state regulators, insurance company executives, and insurance trade association representatives. In addition, we used the responses to our 1988 survey of state insurance commissioners regarding financially troubled property/casualty insurance companies to determine state views on IRIS.<sup>7</sup> The 1988 survey is our most recent evaluation concerning state regulatory views of IRIS.

<sup>6</sup>There is a similar IRIS process for life/health insurance companies, which we did not review for this report.

<sup>7</sup>The survey and summarized state responses are contained in app. I of our report, *Insurance Regulation: Problems in the State Monitoring of Property/Casualty Insurer Solvency* (GAO/GGD-89-129, Sept. 1989). Excerpts from the survey that relate to IRIS are contained in app. II of this report.

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We did on-site audit work at the following insurance departments: Connecticut, Delaware, District of Columbia, Illinois, New Hampshire, New York, and Texas. The departments were selected on the basis of questionnaire results and various criteria including geographic diversity, the number of licensed companies, and the size of the insurance department.

We also did audit work at NAIC headquarters in Kansas City, Missouri, where we obtained NAIC's views of IRIS and interviewed several members of the 1989 IRIS examiner team. We reviewed available literature on IRIS, including articles published in periodicals, state insurance department reports, and previous industry studies on IRIS. We provided copies of a draft of this report to the NAIC for formal comment and review. NAIC's comments on our draft and our response can be found in app. IV. We did our review between January and December 1989, in accordance with generally accepted government auditing standards.

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# The Development and Status of IRIS for Property/Casualty Insurers

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IRIS is intended as a first line of review in the state insurance departments' overall surveillance of insurers. IRIS has evolved into a multi-phased process using financial ratios and evaluations by experienced examiners. NAIC forwards IRIS results to state regulators and, until appropriate actions are taken or planned, monitors the states' actions against insurers that IRIS examiners identified as requiring immediate regulation.

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## The Evolution of IRIS

In 1972, NAIC began calculating financial ratios from insurer-filed annual statements. NAIC developed the ratios to give the states a preliminary indication of each insurer's financial condition. Called the Early Warning System, the ratios were intended to help regulators identify companies that required regulatory attention sooner than would occur in regularly scheduled examinations.

A second phase was added to the process in December of 1977. During this phase, a group of state-employed financial examiners analyzed individual companies' ratios and annual statements for the NAIC. This examiner team identified those insurers that they believed required immediate regulatory attention. The team conducted detailed reviews for all companies that failed four or more ratios, while ratios for all other companies were scanned to note any unusual conditions. Examination results were distributed by the NAIC to the subject companies and to the state insurance departments. In 1979, the system was re-named the Insurance Regulatory Information System.

NAIC designed IRIS to be easy for regulators to understand and use. NAIC believed that a simple system applied uniformly to all companies would be more valuable than a slightly more effective but more complicated system. Drawbacks of this type of universal system are discussed in chapter 3.

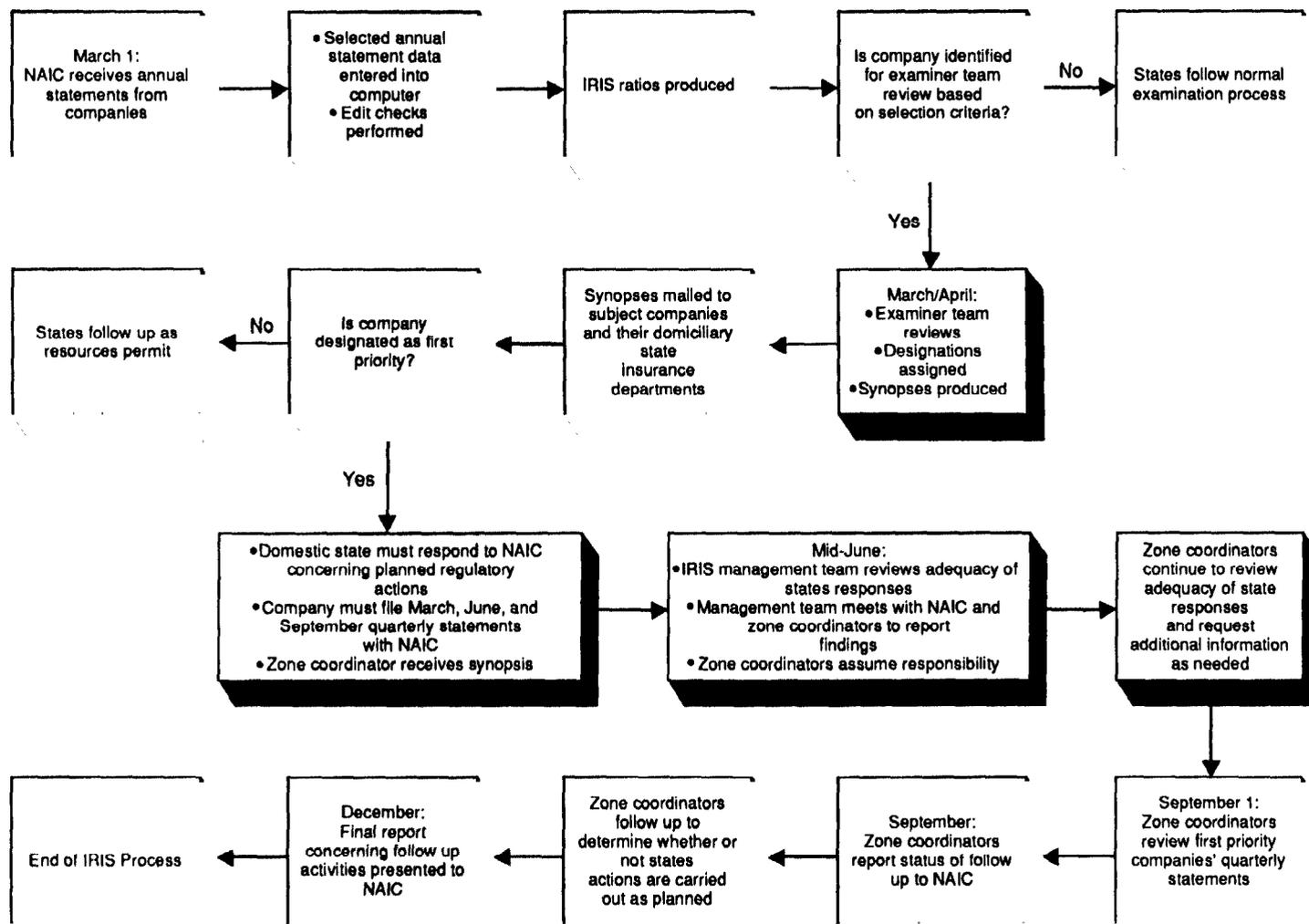
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## IRIS Today

Today's IRIS process goes beyond financial ratios. IRIS is intended to be a multi-phased, year-round solvency surveillance tool. According to NAIC, ongoing surveillance by qualified examiners and follow-up by the the NAIC and state regulators play an invaluable role in solvency regulation.

Figure 2.1 provides an overview of the IRIS process for insurers that receive IRIS examiner reviews during March and April.<sup>1</sup>

Figure 2.1: Overview of the IRIS Process



<sup>1</sup> Insurers that are not reviewed during this period—because of time constraints or because they filed their annual statement late—receive their initial examiner review during June. These insurers are then subject to the normal follow-up process applicable to other companies.

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## **IRIS Evaluation Phases**

NAIC receipt and processing of annual statements is the initial step of the IRIS process. Each March, NAIC receives standardized annual financial statements from most insurers; these statements detail their financial operations over the preceding calendar year.<sup>2</sup> Specified statement data are input and stored in NAIC's computerized data base. This is followed by a detailed two-phase process comprised of a statistical phase and an analytical phase.

According to NAIC, the statistical phase is the backbone of IRIS. During this phase, NAIC's computer, using insurance company-supplied data, calculates 11 financial ratios for each insurer. The ratios address various aspects of each insurer's financial condition and stability. These ratios fall into four major categories: overall, profitability, liquidity, and reserve. Appendix I provides a detailed explanation of each IRIS ratio.

NAIC has established a "usual range" for each ratio as benchmarks for acceptable performance. When a company's ratios fall within this range, they are considered acceptable or normal. However, according to NAIC, falling outside a ratio's usual range is not considered a failing result. The NAIC notes that in some years it may not be uncommon for financially sound companies to have several ratios with results outside the usual range.

According to NAIC, each usual range was developed from (1) studies of ratios for companies that have recently become insolvent or have experienced financial difficulty in recent years and (2) general economic conditions. NAIC said that the components of each ratio and the ratios' usual ranges are reviewed annually and are revised whenever necessary to include the latest insurance industry information.

States have on-line access to each company's annual statement data, which are stored on NAIC's computerized data base. States can access individual company ratios the day after they are generated. NAIC provides state insurance departments with ratio reports that list the IRIS ratios for each company that filed an annual statement with the NAIC. Individual companies also receive a copy of their own ratios. Finally, the general public can obtain individual company ratios and usual ranges.

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<sup>2</sup>IRIS is technically a voluntary system. However, states require that most of their domestic insurers file annual statements with the NAIC.

The analytical phase follows. On the basis of certain characteristics, some of which NAIC considers confidential and would not divulge, companies are selected for analytical review. NAIC uses publicly-known criteria to select companies for review. A company might be selected if one or more of the following factors is present:

- The company has four or more financial ratios outside the usual range.
- During the prior year, IRIS identified the company as requiring increased state regulatory attention.
- NAIC classified the company as qualified IRIS.<sup>3</sup>
- The company's change-in-surplus ratio is outside the usual range.
- All three of the company's reserve ratios fall outside the usual range.

NAIC has published the complete set of mandatory criteria that were used in 1987. In addition to the above characteristics, companies were selected if they

- had impaired capital or negative surplus;
- had any other combination of ratios that appeared unusual;
- were in liquidation, rehabilitation, or conservatorship; or
- reported loss reserves at a discount (reported reserves at a lower amount than the estimated future liability due to the interest factor, or time value of money).

The number of criteria NAIC uses has increased over time. Since 1985, the number of formal selection criteria, both public and confidential, increased from 6 to 13 as NAIC has attempted to strengthen the process. In addition, other criteria are sometimes used informally for a year or two while being considered for addition to the formal list.

Beginning each March, during the analytical phase, a seven-member NAIC examiner team reviews each selected insurer's ratios and annual financial statements. State insurance departments representing all four of NAIC's geographic zones provide financial insurance examiners to make up the property/casualty team.

Individual examiner team members are not permitted to review companies headquartered in their own state or companies that they reviewed during the previous year. Thus, examiners are expected to be objective "cold readers," basing their analysis upon annual statement data only.

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<sup>3</sup>A company is characterized as qualified IRIS if its annual statement will not pass all edit checks in the data processing portion of the IRIS process.

During their analyses of these data, the examiners attempt to determine what caused the ratios to fall outside their usual ranges; they also review other areas of insurer operations. Analysis focuses on sections of a company's current and prior-year annual statements, including premiums written, assets, loss reserves, surplus, and historical trends.

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## **Referral to State Review**

On the basis of examiner reviews starting each March, NAIC categorizes companies into one of three priority levels and refers them to state regulators for regulatory attention. The following describes the three priority categories:

- First priority—indicates that an insurer's problems may be very serious or possibly threaten its short-term continuation.
- Second priority—indicates that all or part of a company's operations appear to have long-term adverse effects on its financial condition.
- Third priority—indicates that a material (or significant) change or item that the regulator should be aware of has been noted but does not indicate an adverse effect on the insurer's financial condition.<sup>4</sup>

An examiner can also conclude that a selected company does not have an adverse financial trend and that no material changes or irregularities exist. If so, the company is designated either "no priority" or "no synopsis required." The reason why a company was originally selected for review dictates which of these two designations is used. A synopsis is required for each company that either had four or more financial ratios outside the usual range, was identified during the prior year as requiring first priority attention, or was classified as qualified IRIS.

After reviewing a company, the examiner prepares a synopsis, if required, that summarizes the evaluation of the insurer's financial condition. According to NAIC, the synopsis text also reflects major statement errors or omissions noted by the examiner team. However, we were unable to verify this since we were not allowed to review these synopses. The synopsis is then reviewed and approved by the IRIS management team.<sup>5</sup> The examiner team synopsis is initially distributed to the home state insurance department, the appropriate zone examination

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<sup>4</sup>IRIS priorities were changed to numerical designations in 1989. The old designations were: immediate attention, targeted attention, and targeted but no "adverse solvency trend."

<sup>5</sup>The property/casualty management team consists of the IRIS director and assistant director and the property/casualty coordinator and assistant coordinator. All of these individuals are state employees on loan to NAIC.

coordinator,<sup>6</sup> and the subject company. A copy is also filed at NAIC. NAIC distributes the synopsis to all other state insurance departments in late May to early June of each year. The synopsis is confidential and is not available to the public.

NAIC requests that regulators determine what regulatory activities have been or will be initiated to address the financial condition of first priority companies in their states and that they respond to NAIC by June of that year.<sup>7</sup> Further, NAIC requests that first priority companies file March, June, and September quarterly statements with NAIC. NAIC does not request state response concerning companies that were designated as second or third priority.

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## Follow-Up Review

The IRIS management team reconvenes in June to review the adequacy of state regulatory responses to first priority designations. The team then meets with an NAIC representative and the zone coordinators to report its findings. At this point, the zone coordinators assume responsibility to follow up with states that do not respond to first priority companies or that respond inadequately. In addition, the zone coordinators meet to review first priority companies' quarterly financial statements as needed. A status report is submitted to NAIC during its national September meeting.

After October 1, zone coordinators follow up with states to determine if regulators carried out the actions indicated in their June response forms. The zone coordinators prepare a report concerning state follow-up activities for NAIC's December meeting.

Figure 2.1 provides an overview of the IRIS process for insurers that receive IRIS examiner reviews during March and April. If a state does not provide an adequate response and take appropriate regulatory actions, a zone examination (where several states participate in and conduct a single comprehensive financial examination) can be implemented for a first priority company. Results of a zone examination are disseminated to all states in which an insurer is licensed or doing business.

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<sup>6</sup>Zone coordinators are responsible for following up with a state if it does not respond to a first priority designation or if the response is inadequate. If responses remain inadequate, the zone coordinators recommend multistate (zone) examinations to be carried out by examiners from the states in which the companies do a large volume of business.

<sup>7</sup>Companies licensed in only one state are excluded from the follow-up requirement, except those that reinsure risks for other insurance companies or that write nonstandard coverage. These two activities can be done across state lines without a separate license for each state.

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## NAIC Guidance for Using IRIS

According to NAIC, while IRIS analyses are valuable in identifying companies likely to experience financial difficulties, the statistics are not in themselves indicative of an adverse financial condition. It further states that not all of the companies IRIS examiners identify for priority attention will necessarily be troubled. IRIS results should only be part of the states' overall solvency surveillance process. NAIC also advises taking the following precautions:

- No state should rely on IRIS as its only form of surveillance.
- Important decisions, such as licensing, should not be based on IRIS without further analysis or examination of the company concerned.
- In interpreting ratios, states should note that ratios outside the established usual ranges are not necessarily failing results. A company's ratios may be outside the usual range because of unusual accounting methods, matters that have been corrected, or other circumstances.
- While the information contained in IRIS reports is compiled in a manner and from sources believed to be reliable, states should be aware that the information's accuracy is not guaranteed.

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## NAIC's Electronic Communication Networks

State insurance departments have on-line access to IRIS results and annual statement information for all companies that file with NAIC. State regulators can electronically access NAIC's IRIS database to obtain company-specific IRIS ratios, designations, and examiner team reports. In addition, by using NAIC's State Data Network, regulators have on-line, interactive access to NAIC's computerized annual statement database. State regulators can access this database to produce standard reports (e.g., direct premiums written and direct losses paid), verify IRIS data, or conduct customized analyses and reports (e.g., additional ratios). Regulators can also copy data from the State Data Network onto their state's computer to perform additional analysis. The most recent 5 years of data are maintained on the annual statement database for direct access by state insurance departments.

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## Recent Developments Concerning IRIS

In 1988, NAIC instituted a quarterly financial ratio testing system to enhance the regulators' early warning of significant changes in the financial position of insurers. Under this system, NAIC enters selected data from insurer quarterly financial statements into one of its databases and generates six basic financial ratios. The ratios measure changes in the volume of business, assets, liabilities, and surplus. Two of the six ratios—change in net premiums written and change in surplus—are essentially the same as ratios calculated in the annual IRIS system.

State insurance departments and zone coordinators have access to the quarterly data collected and to the ratios generated. However, according to NAIC, because quarterly data may not be sufficiently detailed to permit accurate rankings of insurers, companies should be prioritized on the basis of their prior year-end IRIS test results. NAIC believes the usefulness of the quarterly system is uncertain at this time, given the limited experience since its inception. In its comments on a draft of this report, NAIC said it plans to collect more detailed quarterly data in 1991 and establish a triggering mechanism for this data thereafter. This mechanism would be a series of statistical analyses, conceptually similar to IRIS, that would compare company data reported quarterly to some type of standard. Companies with such variations would be marked for further scrutiny.

In a second development, an IRIS Effectiveness Study done by the Illinois Department of Insurance for NAIC recommended that three modifications be made to the 1990 IRIS process concerning the ratios:

- The ratios' usual ranges should be changed for certain IRIS tests in an effort to properly classify additional companies as requiring increased state regulatory attention. The changes are designed to detect financial difficulties in "bigger" companies.
- A degree-of-test-failure methodology should be added to the selection criteria. Using the degree-of-test-failure methodology, a company that fails only one ratio—but by a large degree—may be designated by the examiner team as needing increased state regulatory attention. This would identify potentially troubled companies that would not have been identified previously by IRIS because they had less than four ratios outside the usual range.
- Additional financial ratios should identify potentially troubled companies that might not be identified under the current system.

In its comments on our draft report, NAIC indicated that it plans to test these recommendations during the 1991 IRIS cycle. An official who worked on the study said that if NAIC judges that the recommendations increase IRIS' effectiveness, NAIC will adopt them as a permanent part of the system.

In addition, the NAIC's Solvency Policing Agenda for 1990 includes enhancing NAIC solvency analysis support to states. NAIC's comments expanded on this point by stating that it has developed and is continuing to refine additional computer analysis to enhance solvency surveillance.

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In a third development, NAIC released the IRIS ratios' usual ranges to the general public in early 1990 through the publication of NAIC's Using the NAIC Insurance Regulatory Information System (1989).<sup>8</sup> This will enable the public to determine how many ratios each company had outside the usual ranges. According to an NAIC official, pressure from consumer groups led to this decision. It is too early to tell how the insurance industry will be affected by the quarterly reporting system, ratio modifications, and the release of IRIS results.

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## Summary

IRIS is intended to help states identify potentially troubled insurance companies. IRIS ratios and examiner team designations are preliminary indicators of an insurer's financial condition. The results are not necessarily indicative of an insurer's actual condition. State insurance regulators are ultimately responsible for determining an insurer's true financial condition.

The IRIS process contains two major evaluation phases and a follow-up component. During the statistical phase, 11 IRIS financial ratios based on annual statement data are generated for each insurer. During the analytical phase, a team of financial examiners analyzes selected companies' ratio results and annual statements. Following their reviews, some companies are identified for increased state regulatory attention.

NAIC requests that states assess the financial condition of their domestic insurers that IRIS examiners identified as requiring first priority state regulatory attention. NAIC also requests that states notify NAIC about what regulatory actions, if any, they intend to take against these companies. NAIC and the zone coordinators follow up on the adequacy of the state responses and determine if regulators carried out the actions as indicated on their response form.

Over the years, IRIS has evolved from a set of financial ratios to a multiphased evaluation process. NAIC has continued to refine IRIS and evaluate its effectiveness to determine if additional improvements can be made.

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<sup>8</sup>This publication also discusses the IRIS process, including the statistical and analytical phases. In addition, each ratio is described in detail, and a ratio calculation worksheet is provided.

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# There Are Questions Regarding IRIS' Effectiveness and Usefulness

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NAIC, state regulators, and insurance industry officials have varied opinions on the effectiveness and usefulness of IRIS. According to NAIC, IRIS has been reasonably effective in distinguishing between troubled and sound companies. However, as mentioned in chapter 2, NAIC cautions that IRIS has limitations and should only be used as a part of a state's overall regulatory approach. While state insurance regulators reported that they used IRIS results, the extent depended, among other things, on their opinions of IRIS and on the sophistication of their in-house systems. Regulators and industry officials have numerous concerns about the current and future effectiveness and usefulness of IRIS as a tool for identifying potentially troubled companies and establishing regulatory priorities.

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## States' Opinions of and Uses of IRIS

The opinions of state insurance regulators regarding the effectiveness and usefulness of IRIS varied. Similarly, the regulators used IRIS in different ways. While individual opinions and uses varied, overall they believed that IRIS should and could be improved.

Appendix II contains questions and state responses concerning IRIS taken from our 1988 survey of state insurance commissioners regarding financially troubled property/casualty insurance companies.<sup>1</sup> Questionnaire results indicated that most regulators believed that IRIS ratios and NAIC examiner team reports are at least moderately important and reliable indicators of insurer solvency. Further, regulators believed that the examiner team reports are more important, reliable, and useful than the IRIS ratios. Questionnaire results also indicated that regulators believed that IRIS is more important to the individual states in providing information about foreign companies than domestic companies.

On the basis of our audit work at seven insurance departments, we found that individual states used IRIS results differently, depending on their opinion of the system, the sophistication of their in-house systems, their resources, and the timeliness of IRIS results. Regulators at five of the seven insurance departments used IRIS ratios and examiner team reports as one of their in-house methods to identify potentially troubled companies. No state we visited or contacted used exclusively IRIS to prioritize domestic companies for further review.

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<sup>1</sup>The questionnaire and state responses can be found in our 1989 report, *Insurance Regulation: Problems in the State Monitoring of Property/Casualty Insurer Solvency* (GAO/GGD-89-129, Sept. 29, 1989).

Regulators at all seven of the insurance departments said they generally are aware of their domestic insurers' financial condition, either from in-house reviews or from other external sources, before IRIS results are available. An NAIC official who oversees the IRIS process said that state regulators should generally have more in-depth knowledge of the financial condition of their domestic companies than IRIS provides. The regulators in five of these departments, however, said that they used IRIS as an additional source of information to confirm the status of domestic insurers and to determine if other previously unidentified companies might need increased regulatory attention.

Two regulators we visited said that IRIS is useful in helping to focus state examinations on specific areas of concern. Regulators in another two states said IRIS is useful in helping states' review foreign insurers, both for determining which companies should be licensed to operate in their state and for determining which licensed companies require increased regulatory attention. An NAIC official who oversees the IRIS process said that states with limited resources depend more on IRIS ratios and reports when assessing the financial condition of companies, especially foreign insurers, than do better-equipped states.

Regulators in two of the seven insurance departments we visited said they do not use IRIS at all. They said that in-house solvency monitoring methods, including continuous surveillance, satisfy their needs. One of the two departments also does not receive IRIS results because it cannot legally protect their confidentiality.

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## **Regulator and Industry Concerns With IRIS**

As indicated above, most regulators use IRIS as a part of their overall solvency monitoring effort. However, all of the regulators and industry officials we interviewed said that IRIS could be improved. Some of the deficiencies cited were as follows:

- The IRIS process relies on insurer-prepared annual statements, which are sometimes not independently verified and can be untimely.
- The scope of IRIS' financial ratios may be too limited.
- The system is not equally effective on all types and sizes of insurers.
- IRIS does not directly address some aspects of insurer operations that can contribute to a company's insolvency (e.g., management and pricing). In this regard, IRIS does not consider some readily available sources of solvency information (e.g., prior state regulatory solvency examinations and commercial rating service evaluations).

- The number of companies designated for priority attention has grown rapidly compared to the number of multistate insurer failures. Five state regulators and four industry officials we interviewed said that by itself IRIS is not effective or has become less effective in distinguishing financially troubled from sound companies.

### IRIS Data Are Not Always Independently Verified and Can Be Untimely

Since the IRIS process relies upon the financial information contained in the insurers' annual statements, it is important that this information be accurate. Similarly, it is important that the information be submitted in sufficient time to be analyzed during the examiner team review. NAIC, regulators, and industry officials have expressed concerns over both of these matters.

According to an Ernst and Young report, at the end of 1989, 34 states did not require that property/casualty insurers have financial audits conducted by independent public accountants.<sup>2</sup> In addition, 33 of the 48 departments that responded to the survey published in our September 1988 report said they did not require that the adequacy of insurer reserves (funds set aside by insurers for future claim payments) be certified by actuaries for domestic insurers.

According to NAIC, even though a particular state may not require its domestic companies to be audited, those companies may be required to be audited by another state in which they are licensed. NAIC estimates that, using 1988 annual statement data, property/casualty companies that were subject to independent audit requirements in 1990 accounted for approximately 90 percent of the industry's total premiums. However, the 10 percent written by unaudited companies would amount to approximately \$20 billion of the industry's \$202 billion in premiums in 1988.

In addition, the independent audit requirements do not necessarily apply to the insurer annual statements used during the IRIS process. The audits are performed on an insurer's balance sheet, operations statement, cash flows, and surplus reconciliation. They are not performed on all of the information contained in the lengthy annual statement.<sup>3</sup> Furthermore, according to NAIC's model rule requiring annual audited financial statements, the audit reports are not due until June 30 of each year,

<sup>2</sup>State Audit Rules for Insurance Companies: New Rules for 1989, Ernst and Young, CPA's (February 1990).

<sup>3</sup>The 1990 annual statement was 89 pages.

whereas the annual financial statements used during the IRIS process are due by March 1 of each year.

In June 1989, NAIC adopted new financial regulation standards recommending, among other things, that each state require annual independent public accountant audits and actuarial certifications of loss reserves. Several states have added or are considering adding such requirements. Beginning in 1990, loss reserves on the property/casualty annual statement must be certified by an actuary or qualified loss reserve specialist. Accurate and complete financial data are vital to regulators in performing their oversight responsibilities. Therefore, we endorse NAIC's efforts to improve data reliability as a step in the right direction.

Although NAIC does routine edit checks on each company's annual statement, it uses these statements without verifying their accuracy and does not guarantee the accuracy of the data and IRIS results. We believe the IRIS process very likely would not identify a misstatement of financial condition or a statement not prepared in accordance with statutory requirements, regardless of whether it was due to company oversight or fraudulent activity. Thus, a troubled company might not be identified by the IRIS examiner team for increased state regulatory attention.

NAIC, state regulators, and industry officials have also expressed concerns about the timeliness of IRIS results. As we pointed out in our September 1989 report, insurer-submitted annual financial statements, and consequently IRIS results, are subject to significant time lags. IRIS examiner team synopses are initially distributed to the subject companies' domiciliary state insurance department regulators in March to early May each year. NAIC does not distribute the synopses to other state insurance departments until late May to early June.

In this sequence of events, a company could have a problem for more than a year before a state regulator is aware of it. For example, if a company had developed a problem in January 1990, it would not show up on an annual statement until the end of the year. State regulators would not receive the examiner team results until 15 to 18 months after the problem initially occurred. In addition, some initial examiner team reviews do not occur until June.

According to NAIC, the use of diskette filing has substantially expedited the processing of insurers' annual statements. NAIC estimated that, in 1990, approximately 90 percent of all insurance companies filed their

annual statements with the NAIC on computer readable diskettes. This could increase the number of statements that examiners review during March and April.

In addition, as we pointed out in our September 1989 report, the NAIC president expressed concerns about the timeliness of insurer annual statements, saying that by the time state regulators are notified of a problem, the situation may have become much worse or, conversely, may no longer require state attention. One state regulator and two industry officials we interviewed said that a company's financial condition can change quickly. Thus, some IRIS users believe that serious damage can be done to a company's health before IRIS can detect the problems.

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### **IRIS Ratios Alone Are a Limited Indicator of Solvency Problems**

According to an NAIC official who oversees the IRIS process, IRIS by itself is not an effective regulatory tool. The official told us that, as an insurer solvency monitoring method, the ratios, taken alone, have low reliability because they are only the initial part of IRIS, which is itself only part of the states' overall surveillance process.

State regulators and industry officials said that IRIS ratios are limited because they were designed to be uncomplicated, easy for regulators to understand and use, and applied uniformly to all companies subject to review. According to studies performed for NAIC, the IRIS ratios are not equally accurate for all insurers.

To adequately reflect the current insurance market environment, the ratios should be regularly updated. Four state regulators and five industry officials said that additional and more sophisticated ratios would be needed to adequately address all insurance operations, including insurers' product lines and mix of business. However, one of the officials, who also oversees the IRIS process, added that more ratios would make the process more complex, and the system would then become more difficult to understand.

The official said that while the ratios are limited, the overall IRIS process is "adequate" because it is heavily weighted to identify problems that troubled companies generally experience, including income changes and reserve adequacy. The examiner team analyses of insurers' ratios and annual statements help to verify the accuracy of the IRIS ratios and help to overcome problems associated with using the ratios alone. However, the IRIS ratios are important in determining which companies are

selected for examiner team review. Consequently, the limited ratios could prevent insurers' annual statements from reaching examiner review. This could result in IRIS not identifying troubled companies for increased state regulatory attention.

In addition, 7 of the current 11 IRIS financial ratios rely on the accuracy of the reported surplus. This figure is provided by individual insurance companies and is sometimes not independently verified for accuracy. We believe that lack of independent verification coupled with the difficulties in accurately reporting and verifying assets, reserves, and consequently surplus, would present problems for any ratio-based system. NAIC said that it plans to continue examining the effectiveness of the IRIS ratios. As discussed in chapter 2, NAIC plans to test some modifications to the ratios during the 1991 IRIS cycle.

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### **IRIS Does Not Work Equally Well for All Types and Sizes of Insurers**

State regulators and industry officials we interviewed said that it is difficult for any ratio-based solvency monitoring system to work equally well for all insurance companies. According to one industry representative, it is very difficult, if not impossible, to develop a "one size fits all" approach to measuring the solvency and solidity of all 3,500 property/casualty insurance companies. Companies vary in their mix of business, position in the market, territorial coverage, specialization, marketing strategies, and exposure (risk) to such an extent that no one standard on any key issue—reserve adequacy, cash flow, or reinsurance, for example—could ever be uniformly appropriate.

State regulators and industry officials we interviewed said that the overall IRIS process is not well-suited to assess many different categories of companies, including reinsurers, small or new insurers, and insurers that concentrate in some commercial liability lines (e.g., medical malpractice). When companies engage in these lines of business, their financial ratios differ from those considered "normal" for most other insurance companies. According to a 1989 IRIS effectiveness study, between 1978 and 1988 over one-half of the insurers that went insolvent concentrated in commercial lines of business, and most of the others (categorized as personal lines) participated in commercial lines of business.

An NAIC official who oversees the IRIS process said that some of these concerns have merit. One official who worked on the IRIS effectiveness study said that modifications to the 1990 IRIS ratios should address some

of these concerns and help in evaluating different types of insurers. The effect these changes will have on IRIS is unknown at this time.

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## **IRIS Examiner Team Reviews Are Limited**

IRIS ratios and subsequent examiner team reviews are based solely on a company's current and prior year annual statements. IRIS does not consider examiners' prior knowledge of companies or external, nonfinancial sources of information. Therefore, IRIS cannot fully evaluate some aspects of insurer operations that have contributed to insurer insolvencies but are not evident from annual financial statement data. These areas could include poor management practices, poor underwriting, inadequate pricing, poor claims management, changes in ownership/management, and fraud.

In addition, three state regulators and five industry officials said that IRIS could do more to evaluate other areas that often contribute to insurers' financial troubles, including quality of assets, loss reserves, reinsurance, and parent/affiliate relationships.

To fully evaluate management practices and other areas of insurer operations mentioned above, state regulators generally review other sources of solvency information in addition to annual financial statements. However, these sources of information are not a part of the centralized IRIS process. These sources include prior state regulatory solvency examinations, insurance rating service evaluations (e.g., Best's, Moody's, Standard and Poor's), state regulator market conduct examinations, reinsurance data, changes in ownership/management, interstate communications information, consumer complaints, and "street talk."

An NAIC official said that, because it is NAIC's goal to release IRIS results as early as possible, it is not efficient to include other sources of information that would slow down the evaluation of insurer financial conditions. Another state regulator said that IRIS is not designed to perform complete reviews and cannot evaluate external information at a central site because of time, resource, and access to information constraints.

While we agree that IRIS results need to be timely, we are not convinced that considering other information in addition to the annual financial statements would necessarily prolong IRIS reviews. Although some potentially useful sources, such as consumer complaints maintained by the states, are not readily accessible for the centralized review process, other data sources, such as rating service evaluations, would be relatively easy to obtain and examine. By carefully selecting supplemental

information, NAIC should be able to minimize the requisite review time and resource requirements.

Moreover, nonfinancial information and other data sources could serve to overcome limitations of annual financial statement data. For example, company ratings by Standard and Poor's and A.M. Best include types of information, such as ownership/management practices and changes, that are not available from annual financial data. Also, since insurance rating services periodically update insurer ratings to reflect recent events and economic changes, these ratings may provide a more current indication of an insurer's condition than a year-end financial statement.

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### **IRIS' Usefulness as a Priority-Setting System May Be Decreasing**

IRIS was initially designed to help regulators identify "priority" companies that should be looked at by the states as soon as possible. Over the years, the number of companies identified by NAIC for closer regulatory attention has grown significantly.

As shown in figure 3.1, the number of property/casualty insurers NAIC has designated as requiring increased state regulatory attention increased from 205 in 1983 (9 percent of the companies that filed annual statements) to 622 in 1989 (23 percent of the companies that filed annual statements). Similarly, the number of property/casualty companies designated as first priority increased from 78 in 1983 (3 percent of the 2,345 companies that filed annual statements) to 233 in 1989 (8 percent of the 2,746 companies that filed annual statements). During the same period, the number of multistate insolvencies has remained fairly constant, averaging 16.4 per year, with a range between 4 and 21.

**Chapter 3  
There Are Questions Regarding IRIS'  
Effectiveness and Usefulness**

**Table 3.1: Percentage of Property/  
Casualty Companies Designated by  
NAIC for Increased State Regulatory  
Attention, (1983-1989)**

IRIS year <sup>a</sup>	Total filing	Percent designated <sup>b</sup>	Reviewed by examiners	Designated for increased attention	
				All companies	First priority companies
1983	2,345	9%	240	205	78
1984	2,419	12	307	281	124
1985	2,458	17	469	418	215
1986	2,505	24	830	590	271
1987	2,529	22	950	569	234
1988	2,654	21	<sup>c</sup>	569	221
1989	2,746	23	<sup>c</sup>	622	233

<sup>a</sup>The IRIS year reflects company information from the prior operating year.

<sup>b</sup>Percentages are rounded.

<sup>c</sup>NAIC did not provide us with totals for this category.

We recognize that since IRIS was intended to identify potentially troubled firms so that actions could be focused to prevent their failure, the number of failures that have occurred is not the best index with which to measure the effectiveness of the system. However, we also note the significant growth in the number of companies being identified in the first priority category. Should this number remain high, states will not find IRIS as useful as they might in helping them to focus their limited resources on those companies most needing regulatory attention.

While the increased number of designated companies may include some that did not fail due to early identification and regulatory attention, our discussions with NAIC officials, state regulators, and industry representatives did not indicate that this number is significant. We did not have access to data needed to determine IRIS' effect. On the basis of our field work, though, we believe that the increase in designations occurred in part because of an expansion of the criteria used to determine which insurers are subject to IRIS examiner review and priority attention. Also according to NAIC, more companies are designated because the total number of insurers has increased and because increased resources and improved procedures have allowed the NAIC examiner team to review a greater number of company annual statements that were filed.

We accept NAIC's contention. However, we also note that state insurance regulators must respond to NAIC about each company designated as first priority. To the extent that the number of companies targeted for priority attention increases both numerically and as a proportion of the industry, the usefulness of IRIS as a mechanism for focusing regulatory

attention where it is most needed will be reduced. In discussing this point, five state regulators and four industry officials we interviewed said that by itself, IRIS is not effective, or has become less effective in separating financially troubled from sound companies.

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## Conclusions

IRIS was originally intended and is still often described as an early warning system for identifying potentially troubled insurance companies. The principal regulator for each company is the insurance department of the state in which the company is domiciled. As discussed earlier in the chapter, these departments said they usually know about their domestic companies' financial condition before IRIS results become available. Thus, IRIS does not usually provide early warning or first notice of potential problems to the primary regulator. Regulators, however, said they use IRIS for providing information about foreign companies operating in their state. These states can follow up on IRIS results by seeking additional information from an identified company's domiciliary state insurance department or by initiating an investigation on their own.

While no ratio-based early warning system such as IRIS can expect 100 percent predictive accuracy, an effective system could help states focus their examination resources. Effective early identification of troubled insurers can also serve as an impetus for, or an alternative to, other forms of interstate coordination. This may be particularly important as our earlier report showed that not all states have been equally forthcoming with other states' regulators about potential problems with their domestic companies.

However, industry and regulatory officials have pointed out certain weaknesses in IRIS that raise serious concerns about its effectiveness and usefulness as a regulatory tool. These include the following:

- IRIS relies on insurer-prepared annual statements, which are sometimes not independently verified and are subject to significant time lags.
- IRIS financial ratios, which are the backbone of the system, may be limited in scope and may not identify all financially troubled companies.
- IRIS is not equally effective for all types and sizes of insurers.
- IRIS does not adequately address some aspects of insurer operations that can contribute to company insolvencies.
- IRIS examiners restrict their analyses to annual statement data and do not consider other potentially useful, readily available sources of solvency information.

- IRIS is identifying an increasing number of companies, some of which may not warrant immediate regulatory attention.

We believe that changes to IRIS could increase its effectiveness and usefulness as a regulatory tool. We believe it would be worthwhile for NAIC to test ways to incorporate other sources of information, such as state examination reports and rating service evaluations, into IRIS. While NAIC has concerns about the time and resources needed to access other data, we are not convinced that these constraints preclude exploring the use of other data types and sources, given industry and regulator concerns about the increasing number of insurers identified by IRIS. By selectively choosing supplemental information, NAIC should be able to minimize the requisite review time and resource requirements.

Since IRIS is totally dependent upon insurer-prepared annual financial statements, we support NAIC's efforts to ensure the validity of the data, including requirements for actuarial verification and independent audit of statement data. However, in addressing NAIC's comments on our draft report, we learned that NAIC's required actuarial certification of reserves against current and future claims may be done by actuaries or loss reserve specialists employed by the insurance company. We commend NAIC's action to increase the reliability of loss reserve estimates, but given the importance of sufficient reserves to a property/casualty insurer's financial health, we believe that, ideally, this loss reserve certification should be independently verified and certified. (See p. 54.)

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## **Recommendations to NAIC**

We recommend that NAIC evaluate, on a test basis, the feasibility, effectiveness, and costs of expanding IRIS to incorporate other information on the condition, operations, and management of insurance companies, with the goal of improving the system's usefulness.

We also recommend that NAIC take the lead in working with state regulators, the insurance industry, and professional actuarial organizations to explore options and identify the most appropriate way to obtain annual independent certification of loss reserves.

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## **NAIC Comments and Our Evaluation**

In its response to our draft report (app. IV), NAIC acknowledged the need for improved financial analysis and solvency surveillance. NAIC added that it has formed a working group to develop additional financial analysis techniques and systems. It further stated that the group has developed an orderly approach for the analysis of insurance companies. This

approach is currently undergoing intense scrutiny to determine its effectiveness. NAIC said that it hopes to develop this system to both complement and supplement IRIS, which has been and continues to be the cornerstone of its financial analysis system.

We agree that IRIS has been a valuable tool in the monitoring and oversight of insurance companies. As we state in this report, it now provides a means of interstate coordination. However, as currently structured, it is limited and needs to be improved.

Our analyses of other types of financial institutions and their regulation, specifically banks and thrifts, have shown the significance of poor management as a major factor contributing to insolvency. This factor is explicitly measured in the bank regulators' system for identifying problem banks. We believe that including explicit measures of managerial behavior would increase the effectiveness of IRIS. Because our review of the IRIS system did not cover the states' examination processes, we do not know the extent to which information about managerial behavior is now collected by the states.

We view NAIC's establishment of a working group to develop additional financial analysis techniques and systems as a positive step. This group should consider pertinent data from many sources, including regulators' examination and market conduct reports and rating agencies' evaluations, so that the IRIS examiner teams can bring wider bases of knowledge than they currently have available to them.



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# Description of IRIS Ratios

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At the backbone of IRIS are 11 financial ratios that address various aspects of each insurer's financial condition and stability. The ratios fall into four major categories: overall, profitability, liquidity, and reserve. NAIC has established a "usual range" for each ratio as benchmarks for acceptable performance. A description of the IRIS ratios follows.<sup>1</sup>

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## Ratio 1: Premium to Surplus (Overall Ratio)

A company's surplus provides a cushion for absorbing above-average losses. The premium to surplus ratio measures the adequacy of this cushion. The higher the ratio, the more risk the company bears in relation to the surplus available to absorb loss variations. The premium to surplus ratio is net premiums written as a percentage of stated surplus. The usual range for the premium to surplus ratio is up to 300 percent.

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## Ratio 2: Change in Writings (Overall Ratio)

Major increases or decreases in net premiums written indicate a lack of stability in the company's operations. A major increase in premiums may signal abrupt entry into new lines of business or sales territories. In addition, such an increase in writings may be a sign that the company is increasing cash inflow in order to meet loss payments. The change in writings ratio is the increase or decrease in net premiums written taken as a percentage of net premiums written in the prior year.

If the net premiums written is zero or negative in both the current and prior year, the change in writings ratio is given as zero. If the net premiums written is positive in the current year but zero or negative in the prior year, the change in writings ratio is given as 999 percent. The usual range for the change in writings ratio is from greater than -33 percent to less than 33 percent.

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## Ratio 3: Surplus Aid to Surplus (Overall Ratio)

The use of surplus aid reinsurance treaties may be taken as an indication that company management believes surplus to be inadequate. In addition, the continued solvency of companies with a large portion of surplus deriving from surplus aid may depend upon the continuing cooperation of the reinsurer. The surplus aid consists of commissions on ceded reinsurance unearned premium.

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<sup>1</sup>The descriptive information was taken from NAIC's publication *Using the NAIC Insurance Regulatory Information System, Property and Liability Edition, 1988*. The usual ranges cited refer to the 1988 version of the IRIS system.

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Since this amount cannot be determined exactly from the annual statement, it must be estimated. This estimate is made by multiplying the ratio between ceding commissions and ceded premium for all reinsurance ceded by the amount of unearned premium on reinsurance ceded to nonaffiliated companies. This estimated surplus aid is taken as a percentage of stated surplus to obtain the ratio result. Unearned premium on reinsurance ceded to affiliated companies is excluded from the calculation to avoid prejudicing the ratio against members of groups or fleets with pooling agreements. The usual range for the ratio of surplus aid to surplus is less than 25 percent.

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**Ratio 4: 2-Year Overall Operating Ratio (Profitability Ratio)**

The overall operating ratio is a measure of the profitability of an insurance company. Over the long run, the profitability of the business is a principal determinant of the company's financial solidity and solvency. The overall operating ratio is a combination of three ratios: the loss ratio plus the expense ratio minus the investment income ratio.

The loss ratio is the total of losses, loss adjustment expenses, and policyholder dividends taken as a percentage of net premiums earned. The expense ratio is equal to underwriting expenses (net of other income) divided by net written premiums. The investment income ratio is equal to the net investment income divided by net premium earned. The combination of these three ratios indicates the profitability of a company's operation, with a ratio result below 100 percent signifying a profit and a ratio result above 100 percent indicating a loss. The usual range for the 2-year overall operating ratio is less than 100 percent.

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**Ratio 5: Investment Yield (Profitability Ratio)**

In addition to measuring one important element in profitability, the investment yield also provides an indication of the general quality of the company's investment portfolio. Investment yield is net investment income as a percentage of the average invested assets during the year. Invested assets is the amount of cash and invested assets plus accrued investment income minus borrowed money. The average invested assets during the year is determined by taking half of the following sum: invested assets at the end of the prior year plus invested assets at the end of the current year minus net investment income during the current year. The usual range for investment yield is greater than 5 percent.

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**Ratio 6: Change in Surplus  
(Profitability Ratio)**

The change in surplus is, in a sense, the ultimate measure of the improvement or deterioration in the company's financial condition during the year. The change in surplus is the difference between surplus at the end of the current year and surplus at the end of the prior year, taken as a percentage of surplus at the end of the prior year. For this ratio, stated surplus for each year is adjusted for deferred acquisition expenses. This amount is calculated by multiplying the unearned premium reserve by the ratio of acquisition expenses to net premiums written. Acquisition expenses include commissions, taxes, licenses and fees, and half of all other underwriting expenses. The adjustment for deferred acquisition expenses makes the change in surplus ratio somewhat more complex. However, it significantly improves the effectiveness of the ratio for distinguishing troubled from sound companies.

If the current year adjusted surplus is zero or negative, the ratio result is given as -999 percent. If the current year adjusted surplus is positive, but the prior year adjusted surplus is negative, the ratio result is given as 99 percent. The usual range for the change in surplus ratio is from less than 50 percent to greater than -10 percent.

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**Ratio 7: Liabilities to  
Liquid Assets (Liquidity  
Ratio)**

The ratio of liabilities to liquid assets is a measure of the company's ability to meet the financial demands that may be placed upon it. It also provides a rough indication of the possible implications for policyholders if liquidation becomes necessary. The liabilities to liquid assets ratio represents liabilities taken as a percentage of liquid assets. Liquid assets are calculated as total cash, invested assets plus accrued investment income, and installment premiums booked but deferred and not yet due minus any investments in affiliated companies and minus any excess of investments in real estate over 5 percent of liabilities. Bonds are included in this ratio at their annual statement value, which is not necessarily equal to their "liquidation" or market value. The usual range for the liabilities to liquid assets ratio is below 105 percent.

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**Ratio 8: Agents' Balances  
to Surplus (Liquidity  
Ratio)**

The ratio of agents' balances to surplus measures the degree to which solvency depends upon an asset that frequently cannot be realized in the event of liquidation. In addition, the ratio is reasonably effective in distinguishing troubled from sound companies. The ratio represents the amount of agents' balances in the course of collection taken as a percentage of stated surplus. The usual range for the agents' balances-to-surplus ratio is less than 40 percent.

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**Ratio 9: 1-Year Reserve Development to Surplus (Reserve Ratio)**

In addition to measuring the accuracy with which reserves were established 1 year ago, the ratio of 1-year reserve development to surplus provides an indirect indication of management's opinion of the adequacy of surplus. The most up-to-date estimate of the losses that were outstanding a year ago is the sum of the current reserves for those losses still outstanding plus the payments on those losses made during the past year. The difference between this current estimate and the reserves that were established at the end of the prior year is the 1-year reserve development. If the current estimate is greater, the prior year's reserves were deficient, as judged by 1 year's hindsight.

If the current estimate is less, the reserves were redundant. The ratio of 1-year reserve development to prior year's surplus is this deficiency or redundancy taken as a percentage of last year's surplus. A positive ratio result indicates a deficiency, while a negative ratio result indicates a redundancy. For the property lines of business, the amount of salvage and subrogation applicable to prior years' losses received during the current year is subtracted from the change in losses for prior years. For liability lines, salvage and subrogation have already been netted out in the annual statement. Loss adjustment expenses are included in a manner similar to the treatment of losses. The ratio does not take into account voluntary reserves or the excess of statutory over case basis reserves. The usual range for the ratio of 1-year reserve development to surplus is less than 25 percent.

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**Ratio 10: 2-Year Reserve Development to Surplus (Reserve Ratio)**

The 2-year reserve development to surplus ratio is calculated in a manner similar to the calculation of the 1-year reserve development ratio. The 2-year reserve development is the sum of the current reserve for losses incurred more than 2 years prior plus payments on those losses during the past 2 years minus the reserves that had been established for those losses 2 years earlier. The usual range for the 2-year ratio is also less than 25 percent.

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**Ratio 11: Estimated Current Reserve Deficiency to Surplus (Reserve Ratio)**

This ratio provides an estimate of the adequacy of current reserves. In this ratio, the estimated current reserve deficiency or redundancy is taken as a percentage of surplus. This estimated deficiency is the difference between the estimated reserves required by the company and the actual reserves maintained. The estimated reserves required is the current net premiums earned multiplied by the average ratio between developed reserves and earned premiums for the last 2 years. For each of these years, the reserves as stated in that year are adjusted by the

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1-year or 2-year reserve development as calculated in Ratios 9 and 10. This total is then divided by the net premiums earned in the appropriate year to obtain the developed reserve to premium ratio. The usual range for the ratio of estimated current reserve deficiency to surplus is less than 25 percent.

# Questionnaire Results Concerning States' Views on IRIS

I. Importance of IRIS ratios in alerting states to financial problems that may result in an insolvency of a domestic or foreign property/casualty insurer.

	Domestic insurer	Foreign insurer
Very great importance	10	11
Great importance	17	22
Moderate importance	15	9
Of some importance	6	4
Little or no importance	0	1 (1NA)

II. Importance of IRIS ratios and examiner team reports in helping states make a definitive judgment as to whether financially troubled property/casualty insurers need to be placed in conservation, rehabilitation, or liquidation.

IRIS ratios	Domestic insurer	Foreign insurer
Very great importance	4	5
Great importance	9	12
Moderate importance	21	17
Of some importance	5	8
Little or no importance	9	4 (2NA)

Examiner team reports	Domestic insurer	Foreign insurer
Very great importance	9	10
Great importance	15	18
Moderate importance	14	12
Of some importance	4	4
Little or no importance	6	2 (2NA)

These responses are from a 1988 GAO survey contained in our report, *Insurance Regulation: Problems in the State Monitoring of Property/Casualty Insurer Solvency* (GAO/GGD-89-129, Sept. 29, 1989). Forty-eight states responded to the questionnaire.

**III. Reliability of IRIS ratios and examiner team reports as indicators of property/casualty insurer solvency.**

	<b>IRIS ratios</b>	<b>Examiner team reports</b>
Very greatly reliable	6	12
Greatly reliable	16	17
Moderately reliable	17	16
Somewhat reliable	8	3
Little or no reliability	1	0

**IV. Adequacy, timeliness, and usefulness of IRIS ratios and examiner team reports.**

	<b>IRIS ratios</b>		
	<b>Adequacy</b>	<b>Timeliness</b>	<b>Usefulness</b>
Very satisfied	6	7	7
Generally satisfied	34	33	33
Neither satisfied nor dissatisfied	5	4	6
Generally dissatisfied	2	3	1
Very dissatisfied	0	0	0
No basis to judge	1	1	1

	<b>Examiner team reports</b>		
	<b>Adequacy</b>	<b>Timeliness</b>	<b>Usefulness</b>
Very satisfied	10	8	11
Generally satisfied	33	35	34
Neither satisfied nor dissatisfied	5	4	2
Generally dissatisfied	0	1	1
Very dissatisfied	0	0	0

# Regulatory and Industry Spokespersons Interviewed

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## Associations

### **American Insurance Association**

Phillip Schwartz

### **National Association of Independent Insurers**

Terrie E. Troxel

### **National Association of Insurance Commissioners**

Jim Bugenhagen  
Glenda Channel  
Robert Klein  
Denise Matthews  
David Simmons  
Jim Rose  
Jean Olson

### **Reinsurance Association of America**

Sandra L. La Fevre  
James M. Shamberger

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## Insurance Companies

### **American Re-Insurance Company**

James Anastasio

### **Crum & Forster Corporation**

Leslie Cheek

### **E.W. Blanch Co.**

Robert A. Bailey

### **State Farm Mutual Automobile Insurance Company**

Jean C. Hiestand (Retired)  
Mike Olson

---

**Insurance  
Departments**

**District of Columbia Insurance Department**

Margurite Stokes

**Illinois Department of Insurance**

James Schacht  
Kenneth E. Mrozek

**New Hampshire Insurance Department**

Robert Solitro

**New York State Insurance Department**

Vincent Laurenzano  
Bernie Ganley

**Pennsylvania Insurance Department**

Del Oldham

**State of Connecticut Insurance Department**

Antone M. Cosme  
Peter F. Kelly

**State of Delaware Insurance Department**

John T. Tinsley III

**Texas State Board of Insurance**

Etti Baranoff  
Robert F. Crawford

---

**Rating Services**

**Moody's Investors Service**

Marvin L. Shulman

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# Comments From the National Association of Insurance Commissioners

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

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816-471-7004 Main Fax  
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*National  
Association  
of Insurance  
Commissioners*

September 26, 1990

Mr. Richard L. Fogel  
Assistant Comptroller General  
U.S. General Accounting Office  
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for the opportunity to review and comment on your draft report Insurance Regulation: The Insurance Regulatory Information System Needs Improvement. The NAIC is well aware of the need for improved financial analysis and solvency surveillance.

The cornerstone of financial analysis at the NAIC has long been the Insurance Regulatory Information System (IRIS). This system, instituted years ago, continues to serve as a useful tool to regulators, the insurance industry, the public, and the NAIC. Although the IRIS system will continue to be a primary analytical tool utilized by the NAIC and regulators, it should not be counted on as the only analytical tool of financial analysis for the NAIC and regulators. The system has undergone considerable evaluation over the last several years and even closer scrutiny in the last few years. However, after all the scrutiny, the IRIS system continues to be an effective tool in identifying needed regulatory attention.

The NAIC Examination Oversight (EX4) Task Force has formed a working group specifically to develop additional financial analysis techniques and systems. Currently the working group, with the assistance of NAIC staff, has developed an orderly approach for the analysis of insurance companies. The system is currently undergoing intense scrutiny by the insurance regulators and NAIC staff to determine its effectiveness. In time we hope to develop this system to both complement and supplement the IRIS system.

The draft report contains several valid observations. However, the report also makes numerous statements which are either incorrect or misleading. Our specific comments, which include substantive remarks as well as technical corrections, follow.

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Comments From the National Association of  
Insurance Commissioners

Letter to Richard L. Fogel  
September 26, 1990  
Page Two

Now on p. 9.  
See comment 1.

Now on pp. 11, 20-21, and  
25-27  
See comment 2.

Now on p. 13  
See comment 3.

Now on p. 15.  
See comment 4.

Now on pp. 15 and 21.  
See comment 5.

1. Page 12: While the number of companies designated as requiring increased state regulatory attention through IRIS has increased from 205 in 1983 to 622 in 1989 as stated in the report, the number has been more static over the past five years. In addition, the number of companies designated as first priority was 215 in 1985 and 233 in 1989. This actually represents a decrease as a percentage of companies filing from nine percent in 1985 to eight percent in 1989.
2. Pages 12, 28-30, and 37-39: The report implies a lack of timeliness in providing data to the state departments either by not providing meaningful interim data or through delay in providing IRIS data. The report does indicate that diskette filing has speeded up IRIS processing. It should be noted that IRIS ratios had been calculated by April 15, 1990 on companies representing over 90 percent of the industry based on premium volume. These ratio results are available to the states immediately through the State Data Network. Please also note the following comments:
  - a. More detailed quarterly data will be collected by the NAIC in 1991. It is anticipated that some type of triggering mechanism for this quarterly data will be in place shortly thereafter.
  - b. In discussing the Examiner Team project, the report noted that some reviews are not completed until June. In 1990, the Examiner Team completed its review of 88% of the total companies it reviewed during the project by May 4, 1990. In addition, as the report notes, the Examiner Team designation is available to the states immediately through the State Data Network.
3. Page 17: The report indicated that insurers that are not reviewed during March and April, because of time constraints or because they filed their annual statement late, receive their initial examiner review during June. This is true, however, it should be noted that all statements, other than late filers, selected for review based on non-discretionary criteria are reviewed during March and April. There may be years when time constraints result in certain discretionary reviews being performed in June.
4. Page 18: The report indicates that the insurers detail their financial operations on standardized annual financial statements covering the preceding year which is generally a calendar year. All insurers file on a calendar year basis.
5. Pages 19 and 30: The report states that the usual ranges for the IRIS ratios will be available following the 1990 IRIS process. The usual ranges for the IRIS ratios were made available early in 1990 through the publication of Using the NAIC Insurance Regulatory Information System, 1989. This publication also discusses the IRIS process including the statistical and analytical phases. In addition, each ratio is described in detail and a ratio calculation worksheet is provided.

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Now on p. 18.  
See comment 6.

Now on pp. 20, 27, and 28.  
See comment 7.

Now on p. 21.  
See comment 8.

Now on p. 21.  
See comment 9.

Now on pp. 24, 30 and 31.

See comment 10.

See comment 11.

See comment 12.

See comment 13.

6. Page 23: The report notes that the zone coordinators plan multi-state examinations. The zone coordinators actually recommend such examinations.
7. Page 29, 40 and 42: The report discusses recommendations made by the Illinois Department as a result of an IRIS Effectiveness Study and notes that the NAIC plans to test these recommendations during the 1990 IRIS cycle. Because of additional work on the study, the recommendations will be tested during 1991.
8. Page 30: The report indicates that the NAIC will evaluate the effectiveness of additional computer analysis to enhance solvency surveillance. The NAIC has developed and is continuing to refine additional computer analysis.
9. Page 30: The report refers to the NAIC's Solvency Policy Agenda for 1990. The reference should be to the NAIC's Solvency Policing Agenda for 1990.
10. Pages 35 and 45-46: The report comments that the financial ratios are limited in scope and may not identify all troubled insurers and that IRIS is identifying an increasing number of companies, some of which may not warrant immediate regulatory attention. We would like to make the following comments in response:
  - a. The failure of an insurance company is not always directly related to items that can be discovered by analysis or examination. For example, it is inherently difficult to discover fraud or misrepresentation through analysis or examination. In addition, regulators, as well as CPAs, do not have as their primary purpose during an audit, the detection of fraud. Rather, they seek to verify that controls are in place to prevent fraudulent activity.
  - b. Because of the selection criteria used by the Examiner Team, many insurers' statements are reviewed which are not chosen because of the number of exceptional values. Some of these criteria have been quite predictive and have resulted in a significant number of companies which have been deemed to need some degree of priority attention.
  - c. Basing its figures on the project years 1983 through 1989, the report has stated that the number of companies needing immediate regulatory attention (first priority) has been increasing. In reality the number of first priority companies has decreased from 271 in 1986 to 201 in 1990.
  - d. Internal, informal NAIC studies have indicated that IRIS has identified most insurers which have become insolvent as having problems. In these cases both exceptional ratios and Examiner Team recognition have been present.

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Now on pp. 24, 30, and 31.  
See comment 14.

e. The selection criteria utilized by the Examiner Team brings most troubled insurers into the Examiner Team review process. Team members are able to assess all types and sizes of insurers.

Now on pp. 25 and 26.

11. Pages 36 and 37: The report includes references to the credibility of data, lack of independent verification of data, and use of data without verifying accuracy. The following points should be noted with regard to these comments:

See comment 15.

a. As noted in the report a number of states do currently require audits by certified public accountants. Because most of these states require reports from foreign as well as domestic insurers, the property and casualty companies with independent audit requirements account for more than 90 percent of total industry premiums.

See comment 15.

b. It would be difficult and expensive for all insurers to have statutory audits prior to the annual statement filing date, March 1, of each year. In addition, the audits relate to the balance sheet, operations statement, cash flows, and surplus reconciliation and not to all of the information contained in the 89 page annual statement.

See comment 16.

c. All property and liability insurers, subject to certain possible exemptions, will be required to include a loss reserve certification, completed by an actuary or qualified loss reserve specialist, with their 1990 annual statements. Presently a number of states require such filing for both domestic and foreign insurers.

See comment 17.

d. While the NAIC makes no representations or warranties with regard to the accuracy of the IRIS ratio results, insurers' annual statements are processed through an extensive series of computer crosschecks designed to identify inconsistencies in the data submitted. Errors noted as a result of this crosscheck process are corrected on the data base. In addition, major statement errors or omissions noted by the Examiner Team in its review process are noted in a company's synopsis of review.

Now on p. 27.  
See comment 18

12. Page 40: The report, in addressing the limited IRIS ratios, states that the ratios are important in identifying companies selected for examiner team review and that the limited ratios could prevent potentially troubled insurers' annual statements from reaching examiner review. It should again be noted that the IRIS ratios are only one of thirteen criteria for selecting companies for examiner team review.

Now on pp. 29, 30, and 33.

13. Pages 42-43 and 49: The report recommends the evaluation of the feasibility and effectiveness of including other supplementary information in the IRIS process. While the NAIC welcomes any suggestions for improving

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the effectiveness of the process, the following comments appear to be appropriate:

a. Other readily available solvency sources may be less timely than IRIS. All ratings services are dependent upon the same sources of financial data as the NAIC. At least one of these services currently obtains its data from the NAIC. Best's Insurance Reports are not available until Autumn and Best's ratings are not completed until late summer. It should also be noted that these rating services do not cover all companies.

b. The NAIC annual statement blank contains much information on the operations of an insurer which is not limited solely to financial data. The first page of the statement contains information on officers and directors. Interrogatories and schedules, as well as the notes to the financial statements, provide additional operations information. Some areas of operations, such as poor management practices, poor underwriting and inadequate pricing, may be discerned from an insurer's annual statement by skillful analysis and may often be noted in the Examiner Team phase of IRIS.

c. While the Examiner Team may be able to add some additional areas to its review process, such as reviewing examination reports and market conduct reports, it would appear that reviewing reinsurance contracts during the Examiner Team project would be entirely too time consuming. It generally requires a specialist to review these contracts and requires a significant amount of time for each contract. The Examiner Team does review the reinsurance schedule in the annual statement and includes any problems noted in its synopsis. The review of such contracts is a necessary part of each state's surveillance procedure and is a part of the NAIC's support to the states but would be most difficult to accomplish within the IRIS process.

14. Pages 64 and 66: In the definitions of "casualty insurance" and "property insurance", plate glass, burglary, and robbery should be included as property lines.

15. Pages 64: A more appropriate definition of "foreign insurer" is "any insurer incorporated or organized in a different state".

16. Pages 65: The definition of "liquidation" may be appropriate in the context of this report; however, liquidation may be voluntary and not court ordered.

17. Page 65: Direct written premiums are the amounts actually paid by the policyholders or recorded as paid. The definition on this page does not take into consideration that written premiums are not necessarily collected premiums.

See comment 19.

See comment 20.

See comment 21.

Now on pp. 57 and 59. See comment 22.

Now on p. 57. See comment 22.

Now on p. 58. See comment 22.

Now on p. 58. See comment 22.

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Now on p. 59.  
See comment 22.

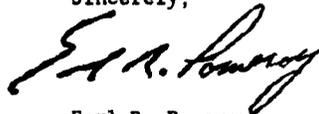
Now on p. 59.  
See comment 22.

18. Page 66: The definition of "reserves" as reported on this page should be amended to read "funds set aside by insurers for future loss and loss adjustment expense payments".

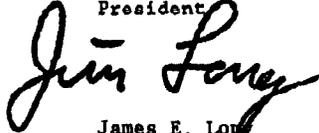
19. Page 66: The definition of "surplus" should probably read "the difference between assets and liabilities in a property and casualty insurer and is often called 'surplus as regards policyholders'. Surplus as regards policyholders includes capital in the case of a stock insurer".

We hope that these comments are helpful to you in finalizing the report. Please let us know if we can be of any further assistance to you.

Sincerely,



Earl R. Pomeroy  
President



James E. Long  
Vice President

The following are GAO's comments on the National Association of Insurance Commissioners' letter dated September 26, 1990.

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## GAO Comments

1. We agree with NAIC that the number of insurers identified as requiring increased state regulatory attention between 1986 and 1989 has remained relatively stable. (See fig. 3.1, p. 31.) However, our concern is that the total number of insurers identified, as well as the number designated first priority, is high when compared to the number of multistate insolvencies during the same period. In addition, NAIC has noted in the past that the number of companies designated for regulatory attention has not been a good indicator of the number of potential insolvencies because only a small proportion of designated companies are either insolvent or in imminent danger of insolvency.

2. We did not intend to imply a lack of timeliness in providing IRIS results to the state insurance departments. We commend NAIC for their efforts in speeding up the IRIS process through diskette filing and for making IRIS ratios and examiner team designations immediately available to the states through the State Data Network. However, as we have previously reported, annual financial statement reporting—the basis for IRIS—is subject to significant time lags. Insolvencies may develop over a long period of time; however, some insolvencies can develop in a matter of months. As stated on page 27, complete IRIS results are not available until 15 to 18 months after the beginning of the reporting year. We expanded the text to reflect NAIC's plans to expand the quarterly data collection and analysis. (See p. 20.) Furthermore, in its comments NAIC pointed to statistics related to the 1990 examiner team process. Since our field work was completed prior to the 1990 IRIS process we had not included these 1990 statistics or information in our draft report.

3. NAIC's statements confirm the process described in the report. (See p. 13.)

4. We changed the text to reflect that all insurers file on a calendar year basis. (See p. 15.)

5. We changed the text to reflect that the usual ranges for the IRIS ratios were made available early in 1990 through the publication of Using the NAIC Insurance Regulatory Information System (1989). We expanded the text to describe other information contained in NAIC's IRIS publication. (See p. 21.)

6. We changed the text to reflect that the zone coordinators recommend multistate examinations. (See p. 18.)

7. We changed the text to reflect that the recommendations made by the Illinois Department as a result of an IRIS Effectiveness Study will be tested during the 1991 IRIS cycle and not during the 1990 cycle as previously planned. (See p. 21.)

8. We changed the text to reflect that NAIC has developed and is continuing to refine additional computer analysis to enhance solvency surveillance. (See p. 21.)

9. We made the suggested change. (See p. 21.)

10. We agree with NAIC's comment that the cause of insurance company failures can be hard to identify, especially fraud and misrepresentation. It is precisely because of this difficulty that we believe NAIC should expand the information base on which it relies for IRIS. For example, state regulator examination results and market conduct reports could provide much useful information that may not be present in the financial statement.

11. We indicate in the report that insurers' statements are selected for examiner team review on the basis of criteria other than just exceptional ratio values. (See p. 16.) However, as elaborated on in our comment 20, the financial ratios are the backbone of IRIS.

12. As the report shows, the number of companies NAIC has designated as requiring immediate state regulatory attention (first priority) increased between 1983 and 1989, both in absolute terms and as a percentage of the number of companies filing. We also note that the relatively small reduction in the number of first priority designations that has occurred since the depths of the industry's insurance cycle in 1986 (271 to 234 in 1989 and 201 in 1990) may mean that the industry could enter the next downturn in relatively poor condition.

13. Although we requested information and studies concerning IRIS's effectiveness, with the exception of the Illinois Insurance Department study mentioned in 7 above, NAIC did not provide the internal, informal studies mentioned in its comment, nor were we informed of their existence. Therefore, we cannot substantiate NAIC's claim that IRIS has identified most insurers that have become insolvent as having problems. (See pp. 30-31).

14. As discussed in the report, the IRIS ratios do not work equally well for all types and sizes of insurers. We recognize that to the extent that the examiner team is able to assess all types and sizes of insurers, the review phase may be able to compensate for the limited ratios. Still, the IRIS process overall does not work equally well for all types and sizes of insurers. (See pp. 28-29.) Because NAIC denied us access to the names of companies identified for priority attention, we can not substantiate NAIC's claim that the existing selection criteria brings most troubled insurers into the examiner team review process.

15. We expanded our report to indicate that while 90 percent of total industry premiums are written by insurers subject to independent audit requirements, the 10 percent written by unaudited companies would amount to approximately \$20 billion of the industry's \$202 billion in premiums in 1988. (See p. 25.)

We also modified our report to clarify that the independent audit requirements do not necessarily apply to the insurer annual statements used during the IRIS process. In addition, we expanded the text to indicate that according to NAIC's model rule requiring annual audited financial statements, the audit reports are not due until June 30 of each year, whereas the annual financial statements used during the IRIS process are due by March 1 of each year. (See pp. 26-27.)

As we stated in testimony on April 19, 1989, before the Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, we believe that NAIC and state regulators can not afford not to require audits.<sup>1</sup> We recognize that requiring all insurers to have independent audits of their annual financial statements completed by March 1 of each year may be burdensome. However, because IRIS is totally dependent on the data contained in these statements, accurate and complete financial information is vital to regulators in performing their oversight responsibilities. Furthermore, it is important that the data contained in the annual statements be reconciled to those financial statements reviewed by independent auditors. Reconciliation is particularly important when one considers that the accounting procedures allowed by the states vary, with some companies using Generally Accepted Accounting Principles and others using some variation of Statutory Accounting Practices.

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<sup>1</sup>Insurance Failures: Property/Casualty Insurer Insolvencies and State Guaranty Funds (GAO/T-AFMD-89-7).

16. We expanded the text to clarify that this certification must be completed by an actuary or qualified loss reserve specialist. However, in exploring this issue further, we noted that NAIC will not require that those certifying the reserves be independent of the companies and that the states will have the option of accepting the certifications made by company employees. We are concerned with the latitude that NAIC is providing to the states in this matter and the relationship between the actuary or qualified loss reserve specialists and the insurance companies. Maintaining sufficient reserves to meet all future claims is the single most important element ensuring the financial health of property/casualty insurers. We believe that the commonly accepted concept of independent verification of financial data is a primary means of ensuring its validity, and this independence will be threatened if the states and the companies are provided too much latitude in obtaining actuarial certifications. (See p. 26.)

17. We expanded the text to indicate that major statement errors or omissions noted by the examiner team in its review process are to be noted in a company's synopsis of review. We were unable to verify this since we were not allowed to review any synopses. (See p. 18.)

18. According to NAIC's IRIS handbook and reflected in our report, "The financial ratios are the backbone of IRIS." We believe NAIC's assertion that IRIS ratios are only one of the 13 criteria is inaccurate. As can be seen on page 16, three of the five selection criteria NAIC permitted us to release directly involve one or more of the 11 IRIS ratios. While we know that other selection criteria are also based on IRIS ratios, we are unable to be specific since we were not informed of all the criteria used.

19. NAIC is correct that rating services, to the extent that they use the same annual financial statement data as IRIS, are subject to the same reporting time lags. (See our response 2.) NAIC also is correct that the rating services do not cover all companies. However, insurers evaluated by rating services tend to be large companies and key market players whose failures would likely have significant impact upon policyholders, the guaranty funds, and the insurance industry.

Since rating services do different types of analysis of an insurer's annual financial statement, we believe that these sources could provide a broader perspective for the examiner team review. Moreover, while the IRIS ratios and examiner team review are based solely on year-end financial statements, rating services sometimes update company ratings to reflect deterioration in operating results, ownership or management

changes, and the impact of changing economic conditions occurring after year end. The important point, however, is not whether IRIS should use rating service data, but rather that all sources of information—of which rating services may be one—that give a more complete picture of an insurer’s condition should be evaluated for inclusion in the process.

20. We agree with NAIC that the annual statement blank contains some information on the operations of an insurer which is not limited solely to financial data, such as information of officers and directors, interrogatories and schedules, and notes to the financial statements. However, based on interviews with examiner team officials and documentation on the IRIS process, we do not believe that the examiner team process is required to review these areas.

Further, we are not convinced that poor management practices, poor underwriting, and inadequate pricing can be discerned from an insurer’s annual statement. Because insurers prepare and file their own annual statements, it is highly unlikely that indicators of poor management would be disclosed. In addition, the relationship between an insurer’s products, underwriting, pricing, and profits is generally very complex. The aggregate nature of information contained on an annual statement does not generally provide details that are necessary for an examiner to assess the adequacy of underwriting and pricing. We are unable to specifically comment on the frequency or effectiveness of examiner team efforts to note these areas of operations because NAIC did not give us access to examiner team synopses or working papers.

Our analyses of other financial institutions, specifically banks and thrifts and their regulators, have shown the importance of poor management as a major factor contributing to insolvency. This factor is explicitly measured in the bank regulators’ system for identifying problem banks, known as the CAMEL rating system. The letters refer to capital, asset quality, management, earnings, and liquidity. We feel that including explicit measures of managerial performance would increase the effectiveness of IRIS.

21. We are encouraged that the examiner team may be able to add examination reports and market conduct reports to its review process. We agree that reviewing actual reinsurance contracts would be too time-consuming and difficult. We changed the text to clarify that analyses of reinsurance data reported in the annual statement is another type of information that could be added to the IRIS process. (See p. 29.)

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As we reported in May 1990, NAIC has required increased disclosure of reinsurance activity.<sup>2</sup> For example, as of 1989, an insurer must disclose the age of amounts recoverable from its reinsurers. This information will provide regulators with insight on potential problems with uncollectible reinsurance. NAIC pointed out that the reinsurance schedule in the annual statement is to be reviewed by the examiner team—the second phase of the IRIS process. However, computer-generated analyses of reinsurance data, such as the ratio of overdue reinsurance to surplus, could readily be incorporated into the first IRIS phase.

Also, NAIC is developing an Alien Reporting Information System (ARIS) to determine how much business U.S. insurers are ceding to foreign reinsurers. NAIC will be able to calculate the amount of reinsurance ceded by country. IRIS analyses of an insurer's dependence on reinsurers based in countries with lax regulation could be incorporated into the IRIS process.

22. We made the suggested descriptive changes. (See pp. 57-59.)

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<sup>2</sup>Insurance Regulation: State Reinsurance Oversight Increased, but Problems Remain (GAO/ GGD-90-113, May 4, 1990).

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# Major Contributors to This Report

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Markets Issues  
MaryLynn Sergent, Evaluator

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**Boston Regional Office**

Alfred R. Vieira, Regional Manager Representative  
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Robert E. Erdman, Evaluator  
Kelly Cecil, Evaluator

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# Glossary

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<b>Actuary</b>	One whose business or profession is to calculate insurance reserves and premiums.
<b>Annual Statement</b>	A statement of the year-end financial condition submitted in the following year by an insurer to the insurance regulator in each state in which the insurer is licensed.
<b>Casualty Insurance</b>	Insurance concerned primarily with the insured's legal liability for injuries to others or for damage to other people's property; casualty insurance also encompasses such forms of insurance as plate glass, burglary, robbery, and workers' compensation.
<b>Claim</b>	A request to recover under an insurance policy for a loss covered by that policy.
<b>Conservation and Rehabilitation</b>	Proceedings in which an insurer experiencing financial or other problems is placed under court-ordered regulatory control. Generally, the purpose of conservation is to conserve company assets and maintain the status quo pending a final determination of the company's status. In the rehabilitation process, steps are taken to resolve the cause and condition underlying the company's problems so that it can be returned to normal operations.
<b>Domestic Insurer</b>	An insurance company incorporated under the laws of the state in which it is doing business.
<b>Field Examination</b>	An on-site examination of an insurance company conducted by one or more state regulators.
<b>Foreign Insurer</b>	An insurance company incorporated or organized in a state other than one in which it is doing business.
<b>Guaranty Fund</b>	An association established by state law to pay certain claims made against an insolvent insurance company.

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<b>Insolvency</b>	A state or financial condition in which a company is unable to pay obligations as they fall due in the usual course of business.
<b>Insurance</b>	A system under which individuals, businesses, and other organizations or entities are guaranteed compensation for losses resulting from certain perils under specified conditions in exchange for payment of a sum of money (a premium).
<b>Insurance Company</b>	An organization chartered to operate as an insurer.
<b>Insured</b>	A person or an organization covered by an insurance policy, including the "named insured" and any other parties for whom protection is provided under the policy terms.
<b>Liquidation</b>	A formal, court-ordered or voluntary process in which an insolvent company's assets are converted to cash and applied towards its outstanding indebtedness.
<b>Policy</b>	A contract of insurance.
<b>Policyholder</b>	A person who or organization that pays a premium to an insurance company in exchange for protection provided by an insurance policy.
<b>Premium</b>	The sum paid for an insurance policy. Net premiums written represent premium income retained by insurance companies, directly or through reinsurance, minus payments made for business reinsured. Direct written premiums are the amounts actually paid by the policyholders or recorded as paid.
<b>Property Insurance</b>	Insurance providing financial protection against loss of, or damage to, real and personal property caused by such perils as fire, theft, wind-storm, hail, explosion, aircraft, motor vehicles, vandalism, malicious mischief, riot, civil commotion, smoke, burglary, and robbery.

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<b>Receiver</b>	An appointee of a court to collect rents and manage and protect the interests of the lender or creditors during foreclosure or other litigation.
<b>Reinsurance</b>	Assumption by one insurance company of all or part of a risk undertaken by another insurance company.
<b>Reserves</b>	Funds set aside by insurers for future loss and loss adjustment expense payments.
<b>Surplus</b>	The difference between a property/casualty insurer's assets and liabilities is often called surplus as regards to policyholders. Surplus as regards to policyholders includes capital in the case of a stock insurer.
<b>Surplus Lines</b>	Insurance of a risk for which there is no normal insurance market available and is therefore provided by unlicensed insurers.

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