



## Testimony

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Housing and Urban Affairs  
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# TERRORISM INSURANCE

## Alternative Programs for Protecting Insurance Consumers

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<b>Abstract</b> The tragic events of September 11, 2001, bring to light numerous areas of concern within the financial services sector, especially as threats of future terrorist attacks continue. One area of concern voiced by various industry groups and the Congress is how the insurance industry should respond to risks posed by potential terrorist attacks and the extent to which the government should play a role alongside the industry to address these risks. We appreciate the opportunity to discuss this issue.		
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# Terrorism Insurance: Alternative Programs for Protecting Insurance Consumers

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Mr. Chairman and Members of the Committee:

The tragic events of September 11, 2001, bring to light numerous areas of concern within the financial services sector, especially as threats of future terrorist attacks continue. One area of concern voiced by various industry groups and the Congress is how the insurance industry should respond to risks posed by potential terrorist attacks and the extent to which the government should play a role alongside the industry to address these risks. We appreciate the opportunity to discuss this issue.

Prior to September 11<sup>th</sup>, insurance coverage for losses from terrorism was included as a normal feature of insurance contracts. According to industry analysts, this was because insurers' experience suggested that domestic exposure to terrorism, both in the number of occurrences and the magnitude of losses, was limited. The September 11<sup>th</sup> attacks have changed insurers' perception of their potential risk exposure. Insurance companies have indicated that they will pay their share of the losses from these tragic events. However, both insurers and the reinsurers who share the industry's risks, have indicated that they don't know how much to charge for this coverage going forward because they cannot predict future losses. As a result, it has been reported that industry leaders may exclude insurance for terrorism from future insurance contracts unless the federal government provides some form of assistance to the industry.

A financially strong insurance industry is essential to the smooth functioning of the economy. Industry officials have indicated that insurance coverage for catastrophic events such as a major terrorist act is necessary for investors and other financial decision-makers to be willing to provide capital to promote continued economic growth and stability. If the federal government chooses to provide financial backing to this industry, the primary driving force should be to safeguard the economy's access to necessary insurance protection. At the same time, care needs to be taken to ensure that the interests of both the federal government and American taxpayers are safeguarded, and that the industry is assuming its fair share of risks.

Any mechanism established by the federal government to support the ability of individuals and businesses to get insurance for terrorist acts should address several significant concerns. Most importantly, the program should not displace the private market. Rather, it should create an environment in which the private market can displace the government program. Second, it should be temporary, at least initially. Finally, any program should be designed to ensure that private market incentives for

prudent and efficient behavior are not replaced by an attitude that says, “Don’t worry about it, the government is paying.”

In the aftermath of the September 11<sup>th</sup> terrorist attacks, the Congress is considering whether and how to provide financial backing to the insurance industry so that insurance is available for losses due to terrorist acts. As requested, we will present (1) features of several existing insurance programs, both domestic and international; (2) alternative mechanisms for funding insured losses; and (3) some broad principles or guidance that the Congress may wish to bear in mind as it considers possible ways to support the insurance industry in case of future catastrophic losses due to terrorist acts. My observations are based on publicly available information on a variety of insurance programs within the United States and other countries and from prior GAO work.

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## Features of Selected Insurance Programs Covering Catastrophic or Terrorist Events

Today, a number of insurance programs exist in the United States and other countries to help ensure that insurance will be available to cover risks that the private sector has been unable or unwilling to cover by itself, including losses from catastrophic events and terrorism. Certain insurance programs are completely controlled and managed by the government, while others have little or no explicit government involvement. Likewise, in many programs the public and private sectors share risks, though in several different ways.

For this testimony, we are highlighting features from selected insurance programs, including some established by the federal government as well as some from other countries, the states, and others. For example, the federal government insures individuals and firms against natural disasters under the flood and crop insurance programs and bank and employer bankruptcies under the deposit and pension insurance programs. Some federal programs cover political risk insurance for overseas investment activities, third-party claims for nuclear accidents, and protection against war-related risks. Other countries and organizations have also developed insurance programs covering catastrophic or terrorist events. These programs can provide useful insights in developing an appropriate insurance mechanism to cover losses from terrorist acts.

For government insurance programs, the question of long-term cost and program funding needs to be addressed before the program is established. Some federal insurance programs have the statutory intent to provide subsidized coverage, while others are intended to be self-funding. As noted in some of GAO’s previous work, whatever merits the federal

government has as an insurer, the same characteristics that inhibit private insurance firms from covering certain events could also make a federally-sponsored insurance program a costly undertaking.<sup>1</sup>

In some cases, the federal government subsidizes insurance programs in order to achieve a public policy objective. For instance, catastrophic coverage under the crop insurance program is subsidized in an attempt to reduce reliance on ad hoc disaster assistance. In other cases, the federal government may set up premium and fee structures intended to cover the full cost of providing insurance. However, regardless of statutory intent, if federal insurance is underpriced relative to its long-run costs and the federal government pays the difference, a government subsidy results. For example, under the Flood Insurance Program, program operating losses have been financed through borrowings from the U.S. Treasury or covered by appropriated funds.

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### Selected Insurance Programs Established by Federal Statute

The federal government's size and sovereign power provide it with the unique ability to offer insurance when the private market is unable or unwilling to do so. Currently, the federal government has a variety of mechanisms, including insurance programs, to cover risks that the private sector has traditionally been unable or unwilling to cover. Appendix I, table 1, highlights key features of several selected programs. We will describe some of them further today.

### Insurance for Catastrophic Nuclear Accidents

*Features:*

- *Mandatory participation*
- *Liability of the private sector is limited*
- *Implicit government backing*

A system that limits liability and provides indemnification for operators of nuclear reactors was established through the passage of the Price-Anderson Act of 1957. Specifically, the act limits the total liability of individual reactor operators for any accident. First, the operators must obtain insurance up to the maximum amount of private insurance available to the operator, which is currently about \$200 million per reactor per accident. In addition, in the event of an accident at any single reactor that results in losses exceeding \$200 million, all operators of the 106 commercial nuclear power reactors in the United States would be required to provide additional protection by paying into a secondary insurance fund. Depending on the amount of the claims, these contributions could be as high as \$88.1 million per reactor per accident. Following an incident, the operators of commercial power reactors would be required to pay as much as \$10 million annually for 9 years to complete the secondary

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<sup>1</sup> Budget Issues: Budgeting for Federal Insurance Programs, (GAO/AIMD-97-16), September 1977.

insurance fund. For the 106 reactors in the United States, the nuclear industry's current exposure to third-party liability claims would be approximately \$9.5 billion before the Congress intervenes.

In the event of an accident that involves damages that exceed the amount in the secondary insurance fund, the government is not explicitly required to fund the balance. Rather, Price-Anderson commits the Congress to investigate the accident and to take whatever action it deems necessary. This action could include, among other things, appropriating funds or requiring the nuclear industry to provide additional funding to satisfy remaining claims. No nuclear accidents have occurred since Price-Anderson was enacted that cost more than was provided by the available private insurance. As a result, the industry has never had to pay into the secondary insurance fund, nor has the Congress been required to take action on excessive losses.

### **Insurance Against Overseas Political Risk**

*Features:*

- *Voluntary participation*
- *Federal government is the insurer and risk bearer*

The Overseas Private Investment Corporation (OPIC), which began operations in 1971, was established to facilitate private investment by U.S. investors in developing countries and countries with emerging markets. OPIC insurance programs reduce the risk to U.S. investors in these countries by offering protection against several political risks. In general, the coverage offered by OPIC is more comprehensive both in scope and duration than the coverage currently available from private sector insurers. OPIC operates as a self-financing government agency. A significant portion of its income is derived from premiums and fees, but the program is also backed by \$100 million in borrowing authority from the U.S. Treasury. Premium rates are based on a standard pricing table for different business sectors, with adjustments for project-specific risks. The risk assessment methods OPIC uses to establish insurance reserves and set premium rates rely heavily on expert judgment and are not highly quantitative. According to OPIC officials, no standard actuarial model exists for quantifying political risks. Over the life of OPIC, the government has made money on the insurance provided.

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## Insurance Against Urban Riots and Civil Disorder

*Features:*

- *Voluntary participation*
- *Encouraged states and the private sector to provide insurance in urban areas*
- *Offered federal reinsurance for insured property in urban areas*

The National Insurance Development Program was established by the Housing and Urban Development Act of 1968 (P.L. 90-448). The program sought to ensure the availability and affordability of fire, crime, and other property insurance to residential and commercial owners located in high-risk urban areas. The act created a Federal Insurance Administrator within the Department of Housing and Urban Development to administer the reinsurance program, but responsibility was later transferred to the Federal Emergency Management Agency. The program was a response to the urban riots and civil disorders of the 1960s, when many of America's cities suffered major property losses.

As a result of these losses, insurers became reluctant to underwrite property insurance in communities considered to be at risk for such events. The program had two purposes. First, the program encouraged state insurance regulators and the industry to develop and carry out programs to make property coverage more readily available. Second, it provided a voluntary federal program of reinsurance for urban property owner relief against abnormally high property insurance rates in private markets. Under this program, federal reinsurance was made available to property insurance companies operating in states that voluntarily adopted Fair Access to Insurance Requirements Plans. Insurers were required to retain a small portion of the liability,<sup>2</sup> which had to be paid first in the event of a claim. Insurers could transfer most of the remaining risk by making a premium payment to the federal government, which then assumed the remaining liability. This liability ranged from 90 to 98 percent of the remaining insured amount, and coverage increased as losses grew. The program was backed by \$250 million in borrowing authority from the U.S. Treasury.

The program also included a requirement that states share in program losses with the federal government.<sup>3</sup> According to a former program official, state sharing of program losses was a feature designed in part to keep states from setting property insurance premiums too low. At the

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<sup>2</sup> A "net retention amount" of not more than 2.5 percent of the premiums paid by owners, calculated on a state-by-state basis, depending on the line of insurance offered. Insurers purchasing reinsurance could also be assessed an amount in the event of losses in excess of all reinsurance premiums paid nationwide.

<sup>3</sup> If federal reinsurance payments exceed premiums from the property-casualty companies in a state, the state must pay an amount up to 5 per cent of the aggregate property insurance premiums earned in that state during the preceding year of those lines of insurance reinsured by the federal government.

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program's inception, federal reinsurance was to last less than 5 years. However, former officials reported that the program made money because claims never reached the anticipated levels and, beginning in the early 1970s, the program premiums were used to subsidize a crime insurance program. Reinsurance was discontinued in 1984 because of the small number of insurers participating.

## Insurance Against Floods

### Features:

- *Voluntary participation*
- *Federal government is the insurer for flood risk*
- *Subsidized rates offered to encourage mitigation*

The National Flood Insurance Program, which was established by the National Flood Insurance Act of 1968, makes federal flood insurance available to property owners living in communities that join the program. Some of the key factors that led to the program's establishment were private insurers' reluctance to sell flood coverage, increasing losses from floods because of floodplain encroachment, and high federal expenditures for relief and flood control. This program, which is financed primarily through premiums, fees, and interest income, aims to reduce federal spending on disaster assistance. By design, this program is not actuarially sound, because it does not collect sufficient income from premiums to build reserves to meet long-term expenditures on flood losses. Though the Federal Insurance Administrator is authorized to subsidize a significant portion of the total policies in force, its annual appropriations do not cover these subsidies. As a result, the Congress has appropriated funds for the program from time to time. In addition, the Federal Insurance Administration has periodically borrowed from the U.S. Treasury to finance operating losses.<sup>4</sup> The program is backed by \$1 billion in borrowing authority from the U.S. Treasury.

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## Selected Insurance Programs of Other Countries

Many other countries have government-sponsored insurance programs that cover catastrophes, terrorist events, or both. Some of these programs are essentially run by the government, while others have little or no government backing. Appendix I, table 2, highlights key features of such programs in Israel, Japan, Switzerland, and the United Kingdom. We will briefly discuss these programs.

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<sup>4</sup>Flood Insurance: Information on Financial Aspects of the National Flood Insurance Program, (GAOT-RCED-00-23), October 27, 1999.

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## Japan's Insurance Against Earthquakes

*Features:*

- *Mandated insurer participation*
- *Private/public risk sharing*
- *Government share increases as losses increase*

Japan's earthquake insurance program, originally conceived in 1966, arose out of a major earthquake in that country in 1964. The insurance is purchased as a supplement to residential fire insurance and covers homes and household goods. Private insurers and the government share in any losses that result from a disaster according to a three-tiered payment system. Under the first tier of coverage, private insurers are responsible for the first \$625 million<sup>5</sup> of damages before government assistance is triggered. This initial amount effectively acts as a deductible. Losses above this amount trigger a second tier of coverage, for damages up to \$6.821 billion. The Japanese government pays 50 percent of the losses in this second tier. The third tier of coverage involves losses of between \$6.821 billion and \$34.166 billion, with the government paying 95 percent of losses exceeding \$6.821 billion. The Japanese government receives reinsurance premiums from primary insurers, but its total liability is not necessarily limited to the total amount of premiums received.

Japan's program has several distinguishing features. First, the private sector is responsible for the initial portion of losses. This feature helps to ensure the development of a private market for earthquake insurance that is unencumbered by a monopoly. Additionally, industry pool arrangements are mandated under the program. The government takes on an increasing share of losses as they rise, up to a maximum cap on the total amount of exposure, but the private sector still bears some cost even at higher levels. This feature helps to ensure that risk of disaster is spread throughout the entire country and economy. Finally, the Japanese program was not established to provide coverage for all potential losses, but rather as a first step toward providing some level of coverage, with the government and private sector working together.

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<sup>5</sup> Dollar figures presented are based on the conversion of yen to dollars from documents on the program provided by Japan's Board of Audit.

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## United Kingdom's Insurance Against Terrorist Events

*Features:*

- *Voluntary participation*
- *Created because of withdrawal of private reinsurance*
- *Insurers pay 110 percent of premium received before government pays*

The United Kingdom's Pool Reinsurance (Pool Re) program was established in 1993 to provide insurance against losses and damages caused by terrorists attacks on industrial, commercial, and residential properties located within the British mainland. There are several distinct layers of coverage. All policyholders who buy basic property coverage from insurers have the option of buying additional coverage from the same insurers to protect against terrorism. Insurers are responsible for the first 100,000 pounds of coverage per coverage type, with no reimbursement from the government. Claims exceeding 100,000 pounds are paid from premiums accumulated within a pool made up of insurance companies and Lloyd's syndicates. (The British government and the insurance trade group established a mutual company from these companies and syndicates to provide terrorism reinsurance.) If the pool of funds is exhausted, all participating insurers face a call of up to 10 percent of the premiums they have collected during the year. Beyond the 10 percent call, the pool investment income is tapped, and the government meets any claims in excess of this. According to United Kingdom officials familiar with the program, the government has not yet had to bail out the pool as the reinsurer of last resort.

## Israel's Insurance Against Terrorist Attacks

*Features:*

- *Mandatory participation*
- *Government bears all risk*
- *Funded by tax revenues*

Israel has two programs for covering losses resulting from a terrorist attack. The first is the Property Tax and Compensation Fund, which covers property and casualty insurance. The second is the Law for the Victims of Enemy Action, which covers life and health insurance. The Israeli government funds and administers both programs. Under the Property Tax and Compensation Fund, the Israeli Income and Property Tax Commission levies a national property tax predominantly on Israeli businesses. The commission pays claims on property damages that are the direct result of a hostile terrorist attack (including losses of business inventory), on the basis of the market value of a property immediately before the attack. All indirect damages, including those for business-interruptions, must be covered through private insurance. Private supplemental coverage or additional state coverage can be purchased to cover the difference between a property's current market value and the cost of rebuilding (known as the replacement value). State coverage is capped by implementing regulations.

The second program, the Law for the Compensation of Victims of Enemy Action, is a state-run program administered by the National Insurance Institute (NII) and is also funded by the government. The NII is similar to the U.S. Social Security Administration. Coverage is provided for medical care, lost wages, extended payments to the families of attack victims, and personal injury. Coverage also extends to visitors and tourists who are in

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Israel. Coverage amounts for this program are again determined by implementing regulations.

**Switzerland's Insurance  
Against Selected  
Catastrophic Events**

*Features:*

- *Mandatory participation*
- *No government risk exposure*

Switzerland's Catastrophe Insurance program was established to insure against natural disasters, including storms, hail, floods, landslides, and avalanches. Earthquakes are not covered under this program. This program does not set up a separate catastrophic insurance fund, but instead obliges insurers to include coverage for specified catastrophes in fire insurance policies for buildings and their contents at a statutorily fixed rate. These compulsory premiums are the sole means of financing the catastrophe insurance program. Although this scheme does not set up a separate catastrophe insurance fund, Swiss insurers have created a reinsurance pool where these additional premiums are deposited. Membership in this pool is optional for insurers, but currently 85 percent of claims are ceded to it. Should claims exceed the funds in the pool, the difference would be payable from the insurers' capital and assets. There is no government involvement or exposure associated with the operation of the program, since the Swiss government does not provide any guarantee. For this reason, the private sector has an incentive to reduce risks. Insurers that participate in the pool are also subject to a cash-call in proportion to their participation in the pool to cover claims that exceed pool capacity.

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**Insurance Programs  
Sponsored by States or  
Other Entities**

Other insurance programs that may provide useful insights in developing insurance coverage for terrorist acts include those established by state governments and private sector entities. Appendix I, table 3, highlights the features of several state and private sector insurance programs, and I will describe these programs here.

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## State Insurance/Guarantees Against Insolvent Insurers

*Features:*

- *Mandatory participation*
- *Funded by post event assessments*
- *Operated by industry*
- *No explicit subsidy*

Every state has guaranty funds to protect policyholders when an insurance company fails. These funds exist for property-casualty as well as life-health insurers. While there are differences between the funds for the two insurance sectors, in general they operate similarly. Insurance guaranty funds are not really funds. In nearly all states, the money used by guaranty funds to pay policyholders of failed insurers is collected through post-failure assessments. After an insurance company is found to be insolvent by a state regulator, the regulator and the guaranty funds in each state where policies were sold determine by how much the failed company's policyholder claims exceed the value of the company's assets. The guaranty funds then provide sufficient funds to ensure that all claims are paid (up to each state's statutory limits). Guaranty funds are not operated by state governments, nor are they funded by public money (i.e., there is no explicit subsidy).

However, the funds were created by statute and operate as part of the insurance regulatory system. Even though no appropriated funds are used to fund the guaranty funds, insurers do not bear the entire cost of guaranty fund assessments. While tax treatment varies among states, many states allow the insurers to offset their premium taxes for assessments paid to guaranty funds. Where this tax credit is permitted, insurers can usually reduce their premium tax bill by 20 percent each year for 5 years. Other states allow insurers to recoup assessments by increasing or adding a surcharge to policyholder premiums.

## California's Insurance Against Earthquakes

*Features:*

- *Participation based on statutory requirements*
- *Funded by assessments on insurance companies*
- *No public funding*

The California Earthquake Authority was established to insure California residents against losses caused by earthquakes. The Earthquake Authority was set up by state statute. The state of California, however, does not contribute any funding to the authority. After the Northridge, CA earthquake in 1994, insurance companies determined that the premiums they had been charging for earthquake coverage were inadequate. Furthermore, the companies did not know how to set an actuarially sound price. Insurance companies attempted to stop selling insurance against earthquake damage, but were opposed by the state. After negotiations, insurers were permitted to exclude earthquake coverage from their property-casualty policies if insurance companies representing at least 70 percent of the market agreed to participate in the Earthquake Authority.

Participation meant agreeing to pay an initial assessment totaling \$717 million plus two additional assessments of \$2.15 billion and \$1.434 billion after certain levels of earthquake-related losses occurred. Thus, potential Earthquake Authority losses are to be funded by a multilayered financing arrangement involving insurer contributions, premiums, conventional

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reinsurance, and pre-established debt financing. In early 2000, these layers totaled about \$7 billion. In the event that all authority funds were expended, claims payments would be prorated. The Earthquake Authority currently provides virtually all of the earthquake insurance available in the state of California.

### Ship Owner Insurance For Ocean Pollution

*Features:*

- *Voluntary participation*
- *Risks are pooled and funded by pre and post assessments*
- *No government involvement*

The International Group of Protection and Indemnity Clubs (Group) includes the 14 protection and indemnity associations or “clubs” that insure about 90 percent of the world’s seagoing tonnage. The individual clubs are nonprofit-making mutual insurance organizations that cover third-party risks of shipowning members. The American Steamship Owners Mutual Protection and Indemnity Association, Inc., known as the American Club, was established in New York State in 1917 and is the only U.S. domiciled member.<sup>6</sup> The American Club has no government subsidy. The Group arranges collective insurance and reinsurance that covers risks such as those arising from oil spills and other polluting substances. The program uses primarily a prefunded approach to pool funds through advance calls of premium. The advance premiums paid by shipowners are 80 percent of estimated claims for the policy year. Premiums are invested by the Group. Should loss experience prove higher than anticipated, the program also encompasses other reinsurance and a post assessment call feature.

The pooling arrangement is a four-layered system. Claims of less than \$5 million are essentially risk of loss retained by the club member shipowners. The program then enables the pooling of claims from \$5 million to \$30 million between clubs based on a formula incorporating tonnage size, premium income, and claims record. The next layer, called “excess of loss reinsurance,” is reinsurance purchased by the Group for third-party claims incurred in a single incident in excess of \$30 million—up to \$1 billion in the case of oil pollution liabilities and up to \$2 billion for all other liabilities. Finally, the program encompasses an “over spill” layer to cover claims in the \$2 billion to \$4 billion range. This layer is funded through a post assessment of club members.

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<sup>6</sup>The American Club became a signatory to the Pooling Agreement in February 1998. Prior to that, the American Club was reinsured with the Group via the London Club. Protection and Indemnity is the traditional name for insurance to cover ship owners and ship chartering firms against their legal liabilities to third parties.

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## Alternative Mechanisms for Funding Insured Losses

In order to pay claims when an insured event occurs, a mechanism must exist to ensure that the funds will be available when they are needed. Currently, there are two possible models for such a mechanism. First, insurers can prefund for expected losses by estimating potential liabilities (establishing a reserve liability) and collecting assets (premiums) to pay claims when an insured event occurs. Alternatively, under certain circumstances, after an insured event when losses are known with certainty, assessments can be levied to provide the necessary funds. Both models, and in many cases a combination of the two, are widely used in the insurance industry.

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## Prefunding Versus Post Assessment

The deposit insurance provided by the Federal Deposit Insurance Corporation (FDIC) is an example of a prefunded system. Banks pay premiums into a fund. When a bank fails, the deposit insurance fund is used to make up the difference between the bank's remaining assets and customer deposits, up to a legal limit. Of course, if the deposit insurance fund falls below a certain level because of large payouts, banks must pay additional amounts into the fund to ensure that sufficient funds are available for future failures. In contrast, most of the state insurance guaranty funds described earlier are examples of post assessment plans. After an insurance insolvency, the remaining insurance companies in each state where the company operated are assessed the difference between the failed insurer's legal obligations to its policyholders and its assets. Some of the programs described earlier in this statement include a combination of both prefunded and post assessment mechanisms, including the British Pool Re and the California Earthquake Authority.

For ordinary, noncatastrophic events, insurance companies set up reserves (liabilities) that measure their expected losses<sup>7</sup> and set aside assets to offset those liabilities. For catastrophic events, when both the timing and magnitude of losses are difficult or impossible to predict, insurance companies generally do not set up reserves.<sup>8</sup> These losses are

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<sup>7</sup> For a reserve to be established by an insurance company, the losses must have already occurred (either reported but unpaid, or incurred but not reported), or be "probable" and "estimable."

<sup>8</sup> Accounting standards and tax law discourage the establishment of "contingency reserves." That is, insurers must usually build such contingency reserves from after-tax income (retained earnings). As a result, it is unusual for insurers to establish contingency reserves for events like hurricanes, since it is impossible to measure either the probability of such occurrences or the expected loss that is likely to occur during the current accounting period, irrespective of the long-term predictability of the event.

generally paid out of the company's ongoing premium stream, the company's capital, or both. If income from premiums is too low or losses are too high, an insurer's capital can be depleted, and the insurer may become insolvent. In the long run, if an insurer does not become insolvent, it can recoup catastrophic losses by adjusting the premium rates charged to policyholders. Thus, even insurance companies postfund some of their insured losses. Both prefunding and post assessment are reasonable ways to fund the exposure to losses from large catastrophic events, including terrorism. Both mechanisms have advantages and disadvantages. Used together, they could provide a multilayer mechanism for funding levels of risk exposure that otherwise could limit the availability of needed insurance.

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### Reinsurance: A Further Means of Protection

Insurance companies that insure catastrophes can also reduce the potential for insolvency by purchasing reinsurance. The insurer remains liable for any claims when they are presented, but is later reimbursed by the reinsurer for the portion of the liability that was reinsured. The problem for the insurer then becomes one of liquidity rather than solvency. Of course, over time both the insurer's and the reinsurer's solvency depend on a reasonable correspondence between premium income (plus investment income) and losses.

Reinsurers remain in business if the direct insurer can charge premiums that provide sufficient income to pay claims and related expenses and to record a profit. If a reinsurer does not believe an insurer is capable setting a price commensurate with the risk, or of generating enough premium income to pay those risks, it will not reinsure that business. According to the insurance industry, it is now facing that situation in the aftermath of the September attacks. One possible solution would be for a group of insurers to establish a pool to take the place of the unwilling reinsurers. In this case, losses from any terrorist event that affect only one or a few members can be spread across the entire pool, reducing the likelihood that individual members will become insolvent. However, while the pool may take the place of the reinsurers, the pool faces the same difficulties in establishing catastrophic (contingency) reserves as the individual insurers. It would also be holding the same risks that the reinsurers were unwilling to accept. Hence, the desire to add the government to the equation.

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### How the Federal Government Can Support Insurers Facing Catastrophic Losses

The federal government could help the insurers in a number of ways. It could allow the pool to build tax-free, multiyear reserves for potential losses that do not have a measurable probability or estimable value. Such a pool arrangement has been used in Britain for the purposes of increasing pool assets for catastrophic losses. This tax-free status would increase the

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pool's ability to pay for future terrorist events. However, if the insured event occurs before the pool builds up substantial reserves, or if the prices insurers are charging for coverage turn out to be too low, the pool's reserves would still be depleted. If so, the member insurers would still risk insolvency, since they would be obligated to pay all legitimate claims whether they could recover the funds from the pool or not. To alleviate this possibility, the government could also stand behind the pool as a risk-bearer. In this case, if the pool's assets were depleted, the government would assume the contingent liability, using its resources to pay additional losses and reducing the risk of insolvency for the insurance companies.

The government could also fund its contingent liability to the pool in a variety of ways. It could charge the pool a premium for the reinsurance-like protection it provides, accumulating a fund it could use to pay for losses. Of course, any premiums charged to the pool would reduce the pool's assets and accelerate both the time when the government would have to begin covering losses and its total exposure. Alternatively, the government could fund its losses out of tax revenues, either with or without repayment requirements.

Given that the problem currently facing the insurance industry is an inability to correctly price the risk of a terrorist act, prefunding may not generate sufficient funds to fully pay potential insured losses from major terrorist events. A postfunding (post assessment) mechanism could be used either to substitute for or to augment a prefunded reserving mechanism. Post event assessments could be a feature of the pool, of the government mechanism, or both. Pool Re, the British plan for public/private sharing of terrorism risk, includes a call on each member-insurer after the private pool is exhausted, in an additional amount equal to 10 percent of the total premium that insurers collected for terrorism coverage. Alternatively, the government could pay that portion of the losses that exceed the pool's resources and then assess the member companies over time in order to recoup part or all of its expenditures. In this variant, the government would be lending the insurance companies part or all of the cash needed to meet liquidity demands resulting from the terrorist event, but not bailing the industry out.

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## Principles to Consider When Providing Financial Assistance

At this point, we would like to discuss some broad principles that we have drawn from lessons learned over several decades of supporting congressional efforts to assist industries and firms in moments of crisis, including the savings and loan industry and, most recently, the aviation industry.<sup>9</sup> These principles may provide guidance as you consider whether the government should take actions to ensure the continued availability of insurance and reinsurance for terrorist-related acts. We believe that the following three principles are key to such efforts:

- Clearly define the problem to be solved.
- Ensure that the program protects the government and taxpayers from excessive and unnecessary losses.
- Avoid a self-perpetuating program, that is, the government's involvement should be temporary.

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## Defining the Problem the Industry Faces

The industry and federal government need to work together to clearly define the specific nature of the problems confronting the industry, separating short-term needs from long-term challenges and wants from genuine needs. It seems clear, given insurers increased recognition of their exposures in the aftermath of the unprecedented events on September 11, 2001, that coverage for terrorist acts is not now amenable to normal insurance underwriting, risk management, and actuarial techniques. As a result, insurers and reinsurers are concerned about their ability to set an appropriate price for insurance coverage for terrorist acts. Given this uncertainty if this kind of insurance were to be offered at all, it is likely that either the prices insurers set would be prohibitively high or so low as to invite insolvency. However, even if we conclude that insurers cannot price and, therefore, cannot sell this kind of insurance, defining the nature of the problem facing both the economy and the insurance industry is a critical first step. Many important questions need to be addressed. Among them are:

- What is the appropriate definition of a terrorist act?
- How would the lack of insurance coverage for terrorist events affect other sectors of the economy?
- What are the public policy objectives to be achieved by an assistance program?

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<sup>9</sup> [Commercial Aviation: A Framework for Considering Federal Financial Assistance \(GAO-01-1163T, Sept. 20, 2001\)](#).

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## Protecting the Government From Excessive Losses

Whatever program or mechanism is put in place, protecting the government—and, therefore, taxpayers—from inefficiency and excessive costs needs to be a primary objective. When the government becomes involved in providing insurance, it is usually because the private insurance market is having difficulty underwriting and pricing certain risks. For instance, some risks are difficult to predict and can be catastrophic in size. Additionally, some risks may not be independent—that is, the losses may strike a large number of insured individuals or entities at the same time. Furthermore, spreading the risk to a large and diverse population may be difficult. This difficulty sometimes results from adverse selection, which occurs when those with the highest probability of loss tend to purchase insurance, while those with the least risk opt out.

While these factors may provide a basis for government intervention in the market, they also complicate efforts to measure the government’s exposure to loss. Nevertheless, the government can take steps to control and limit losses. For example, any program should have keep market incentives where they belong—with private firms. As long as private firms have their own money at risk, the private market is a better choice than the government for handling traditional insurance functions such as setting prices, underwriting policies, and handling and adjusting claims. If the government is bearing all or most of the risk, private firms will not have the same incentives to maximize efficiency.

Thus, any government program must be structured to ensure that private insurers have the same incentives they would have if the government were not involved. For example, firms should have an incentive to set the best prices they can (even in an environment of insufficient information), to require risk mitigation on the part of their customers in exchange for a reduced premium, and to carefully investigate losses to ensure that claims payments are appropriate. Creating a mechanism that places part of each company’s capital at risk—as well as premium income—could serve to maintain the correct incentive structure. If insurance companies believe that their own exposure to losses is insignificant, they are not likely to behave the same way they would if their own money was at stake.

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## Reevaluating Future Government Involvement

Finally, in the current crisis environment any government solution should be temporary and needs to be revisited periodically. Congress may decide that ensuring the continued ability of the insurance industry to serve all its customers is in the national interest. However, given the lack of information about the scope and nature of the long-term problem, it does not seem prudent to establish such assistance in a program that may

become permanent. However, government programs that are not carefully designed tend to become self-perpetuating. We can find examples of such programs in our own government experience and in some of the foreign programs we have described today. Fortunately, several strategies are available to minimize the possibility that a program will perpetuate itself. First, government bureaucracy should be kept to a minimum. An established bureaucracy tends to find reasons for its own continued existence. Second, any program should have an exit strategy from the beginning. An exit plan will provide the insurance industry and program administrators with congressional guidance on how the industry should emerge from the assistance program. Finally, a primary goal of any federal insurance program must be to create an environment in which the private market can and will be reestablished.

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## Conclusions

The government may have an important role to play in helping the insurance industry establish insurance coverage for losses from terrorist acts. GAO believes that should any assistance program be established it would be most successful if based on the principles we have described today. Following these principles will help ensure that assistance addresses market problems, protects taxpayers from excessive and unnecessary losses, and does not displace the private market for providing such insurance coverage.

Mr. Chairman, this concludes my statement. We would be pleased to respond to any questions that you or other members of the Committee may have.

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## Contacts and Acknowledgments

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# Appendix I: Summary of Alternative Programs

**Table 1: Summary of Insurance Programs Sponsored by the Federal Government<sup>1</sup>**

<b>Program</b>	<b>Description</b>	<b>Government subsidy</b>	<b>Sources of financing</b>
Catastrophic Nuclear Accidents	Insures operators of commercial power nuclear reactors from large liability claims from a major nuclear accident regardless of cause such as terrorism, negligence, and natural disasters.	Unclear	Operators of commercial power nuclear reactors obtain maximum amount of private insurance available. After an accident occurs, they pay into a secondary insurance fund.
Overseas Private Investment Corporation (OPIC) Political Risk Insurance	Insures the investments of U.S. companies in developing countries against several political risks, including expropriation, currency inconvertibility, and political violence.	No. Self-financing but guaranteed by the full faith and credit of the U.S. government.	Premiums, insurance claim recoveries, and interest earnings.
National Insurance Development Program (Riot Re)	Insures against property losses due to riot and civil disorder. Provides owners with affordable insurance in high-risk urban areas.	Provided federal reinsurance mechanism. Capped Treasury borrowing authority at \$250 million.	Deposited insurer premiums into a Treasury account. Required states to provide funds for program losses.
National Flood Insurance	Insures buildings and contents against losses due to flooding in communities nationwide that enact and enforce appropriate flood plain management measures.	Yes	Premiums, interest earnings, and appropriated funds.
Bank Insurance Fund	Insures deposits up to a specified amount.	Deposits up to a specified amount, backed by the full faith and credit of the U.S. government.	Premiums, recovery of assets acquired in receivership, deposit assumption transactions, and interest earnings.
Aviation War-Risk Insurance	Insures against losses resulting from war, terrorism, and other hostile acts when commercial insurance is unavailable on reasonable terms and conditions and continued air service is in the interest of U.S. policy.	No. Self-financing from premiums for assumption of anticipated risks.	Premiums, interest earnings, and one-time registration fees for nonpremium insurance.
Federal Crop Insurance	Insures against crop damage from unavoidable risks associated with adverse weather, plant diseases, and insect infestations.	Yes	Premiums and appropriations. <sup>2</sup>

<sup>1</sup> Sources of information for these program summaries included (GAO/AIMD-97-16) and various publicly available documents describing the programs.

**Appendix I: Summary of Alternative Programs**

<b>Program</b>	<b>Description</b>	<b>Government subsidy</b>	<b>Sources of financing</b>
Maritime War-Risk Insurance	Insures losses resulting from war, terrorism, and other hostile acts when commercial insurance is unavailable on reasonable terms and conditions and continued service is in the interest of U.S. policy.	No. Self-financing from premiums for assumption of anticipated risks.	Premiums, interest earnings, binder fees, and claim reimbursements.
National Credit Union Share Insurance	Insures member shares (deposits) up to a specified amount.	Deposits backed by the full faith and credit of the U.S. government up to a specified amount.	Premiums, interest earnings, and 1-percent deposit from insured credit unions.
Pension Benefit Guaranty Corporation Insurance	Insures retirement benefits of workers and beneficiaries covered by private sector-defined benefit pension plans.	No. Self-financing from premiums paid by employers on behalf of their employees.	Premiums, assets from terminated plans, and investment income.
Savings Association Insurance Fund	Insures deposits up to a specified amount.	Deposits backed by the full faith and credit of the U.S. government.	Premiums, recovery of assets acquired in receivership, deposit assumption transactions, and interest earnings.
Service-Disabled Veterans Insurance	Provides life insurance to veterans with service-connected disabilities.	Yes	Premiums, interest on policy loans, policy loan repayments, and appropriations.
National Vaccine Injury Compensation	Provides compensation for vaccine-related injury and death.	No	Excise tax on manufacturers and interest earnings.

<sup>2</sup> The Federal Crop Insurance Corporation is authorized under the Federal Crop Insurance Act, as amended, to use the funds from issuance of capital stock, which provides working capital for the Corporation.

**Table 2: Summary of Insurance Programs Sponsored by Other Countries<sup>3</sup>**

<b>Program</b>	<b>Description</b>	<b>Government subsidy</b>	<b>Sources of financing</b>
Japan's Earthquake Insurance	Provides a public/private, three-tiered payment system for damages resulting from an earthquake.	Not presently known	Participating insurer and reinsurer premiums; some government tax revenue.
United Kingdom's Pool Re	Insures against losses resulting from terrorism.	Self-financing from premiums, pool members, and the government as last source of funds.	Premiums, collections from pool members, investment income, and government contributions.
Israel's Insurance for Victims of Enemy Action	Provides government-funded property/casualty and health/life insurance for victims of a terrorist attack.	Yes	Government property taxation, and premiums for additional state coverage. Although not explicitly stated, general tax revenues stand behind the primary funding sources.
Switzerland's Catastrophic Insurance	Insures against losses from natural disasters (excluding earthquakes).	No. Intent was that it would be self-financing from premiums for assumption of anticipated risks. If claims exceed premium payments, the difference would be payable from the insurer's capital and reserves.	Premiums on buildings and their contents.

<sup>3</sup> Information on these program summaries was collected from a United Nations document and various publicly available sources describing the programs.

**Table 3: Summary of Insurance Programs Sponsored by States or Other Entities<sup>4</sup>**

<b>Program</b>	<b>Description</b>	<b>Government subsidy</b>	<b>Sources of financing</b>
State Insurance Guaranty Funds	Protects policyholders when an insurance company fails.	No. However, in some states companies can deduct assessments from state taxes or recoup by increasing insurance premiums.	In all states but New York, insurers are only assessed after a failure occurs. In New York, insurers pay a premium into a state guaranty fund, similar to the way federal deposit insurance is funded.
California Earthquake Authority	Insures California residents and businesses against losses associated with earthquakes.	No subsidy.	Funding is provided by a multilevel mechanism, including insurance premiums, insurance company assessments, and debt financing.
The International Group of Protection and Indemnity Clubs	Insures shipowners against third-party claims for oil spills and other risks	No subsidy.	Member contributions via pre- and post-funding mechanisms.
Workers Compensation Residual Market Reinsurance Pool	National Council on Compensation Insurance (NCCI) is operating mechanism for paying claims from a pool fund.	No subsidy.	Premiums and additional contributions from member carriers in the state when pool funds cannot pay claims.

<sup>4</sup> Information on these program summaries was collected from various publicly available documents describing the programs.