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FEDERAL DISASTER
INSURANCE

Goals Are Good, But
Insurance Programs Would
Expose The Federal
Government To Large
Potential Losses

Statement for the Record by
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Division



FEDERAL DISASTER INSURANCE:
GOALS ARE GOOD, BUT INSURANCE PROGRAMS
WOULD EXPOSE THE FEDERAL GOVERNMENT
TO LARGE POTENTIAL LOSSES

Summary of Statement by
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While the insurance industry has absorbed losses from recent natural disasters without systemic failure, there is concern about its ability to handle future losses from potentially larger catastrophes. The federal government has absorbed a substantial part of the losses from past disasters and is likely to pay out even larger amounts in the future. Hazard mitigation efforts, such as enforcement of stricter building codes, can reduce the losses from a natural disaster. In addition, amounts paid by private insurers and reinsurers reduce the share of disaster assistance provided by the federal government.

S. 1350 would set up three interrelated programs--a multihazard disaster mitigation program, a primary insurance program for earthquakes and volcanic eruptions, and a reinsurance program to limit insurers' losses when major disasters occur. The mitigation program would be funded through a surcharge on premiums collected from homeowners and insurance companies. The mitigation program would provide communities with resources in exchange for their adopting and enforcing better building codes and emergency plans.

The primary insurance program would be funded by actuarially sound premiums set by the federal government and collected by insurance companies. This insurance would apply to the direct damage caused by earthquakes and volcanoes. However, setting affordable actuarially sound rates may be difficult. Furthermore, to effectively spread risk, such a program requires broad participation. Similar programs for flood and crop insurance have not yet achieved widespread participation even with subsidized premiums. In addition, because insurers will sell the insurance while the government accepts the risks, there are several negative incentives associated with the program. Finally, S. 1350 would permit insurers to select the lowest risks for themselves, leaving the federal government with most of the loss exposure but only a part of the premiums collected.

The reinsurance program would also be funded by premiums, which in this case would be paid by insurance companies. The reinsurance program is designed to protect the insurance industry and individual companies from the financial consequences of large disasters. Under this part of the bill, the government would pay

most of the industry's losses once the losses equal a specified share of the industry's surplus.

GAO has some major concerns about the design and structure of the reinsurance program. While some of these concerns involve technical details in S. 1350 such as the definition of losses, others arise from incentives created by the bill that could lead some insurers to engage in inappropriate business practices. GAO's greatest concern, however, is the way losses are to be shared between the federal reinsurance fund established by the bill and the insurance industry. The basis for determining when the fund becomes liable for payment of disaster losses could be subject to insurer manipulation that could result in substantial increases in the fund's liability.

Even if such manipulation does not occur, the federal reinsurance fund's share of losses could be substantially greater than suggested by proponents of the bill. The Natural Disaster Coalition has said that insurers would absorb an amount equal to 15 percent of industry-wide surplus, currently about \$25 billion, in disaster-related losses before payments from the federal reinsurance fund would be triggered. This is misleading. GAO's simulations of large catastrophic hurricane losses suggest that the bill's reimbursement provisions could cap the actual losses paid by insurers well below \$25 billion, leaving a correspondingly greater liability for the reinsurance fund.

Furthermore, even if a catastrophe does not reach 15 percent of industry-wide surplus, the reinsurance fund could be liable for substantial payments to individual insurance companies. For example, while insured losses resulting from Hurricane Andrew were about \$16.5 billion, if the federal reinsurance program had been in place, the fund would have paid about \$2.2 billion for losses sustained by just three companies. Depending on the size of the reinsurance fund when the hurricane occurred, the federal government could have been liable for part or all of these losses.

Mr. Chairman and Members of the Committee:

This statement provides our comments on Senate bill 1350, which would establish federal natural disaster insurance and reinsurance programs as well as a natural disaster hazard mitigation program. In recent years, we have done considerable work examining the federal programs for flood and crop insurance as well as the regulation and solvency of the private insurance industry. On the basis of our past and ongoing work, we would like to offer our observations that may have implications for the bill under consideration. (See app. I and II for descriptions of the federal flood and crop insurance programs.)

The objectives of S. 1350 are to reduce the loss of life and property, as well as the economic consequences of future natural disasters including reliance on government disaster assistance. To achieve these objectives, the bill proposes three interrelated programs: (1) a federal primary insurance program to protect homeowners against the direct damages resulting from earthquakes, volcanos and tsunamis¹ associated with earthquakes or volcanos; (2) a federal excess reinsurance program to protect insurers from large catastrophic losses arising from earthquakes, volcanoes, hurricanes and tsunamis; and (3) a multihazard mitigation program to encourage communities and property owners to reduce potential damage from natural disasters by building structures designed to withstand natural disasters such as hurricanes and earthquakes.

Our reviews of the flood insurance program have convinced us that hazard mitigation can significantly reduce property losses associated with flooding. Hazard mitigation experts suggest that similar reductions in property losses could result when structures are built to conform with mitigation standards for hurricanes and earthquakes. The federal government has played an important role in providing post-disaster assistance to alleviate the financial consequences for individuals and communities. The costs of this aid to the taxpayer have been large and have been increasing in recent years. For these reasons, we believe that encouraging efforts to mitigate the effects of natural disasters on individuals and property is an appropriate role for the federal government.

In 1980, we reported that insurance, when coupled with hazard mitigation measures, can be a better means of fairly and efficiently providing federal disaster assistance than other forms of federal disaster assistance such as loans and grants.² S. 1350 would combine insurance and hazard mitigation into a

¹As defined in the bill, a tsunami is an ocean wave generated by underwater disturbances in the crust of the Earth, primarily earthquakes and submarine volcanic eruptions.

²Federal Disaster Assistance: What Should The Policy Be?
(GAO/PAD-80-39, June 16, 1980).

unified program. We would like to raise two important questions regarding the proposed program. First, would the insurance mechanisms in this bill fairly and efficiently spread insured disaster risks among insureds, insurance companies, and the federal government?³ Second, would the bill adequately provide for hazard mitigation and include sufficient incentives for communities to adopt and enforce appropriate mitigation standards? As you requested, our statement addresses the first of these questions. However, both are important and, in your deliberations on the bill, we hope that Congress will carefully consider each.

To evaluate the implications of the insurance mechanisms proposed in S. 1350, we interviewed staff of the Federal Emergency Management Agency (FEMA) and the Congressional Budget Office, and discussed the provisions of the bill with representatives from the Natural Disaster Coalition⁴. We also reviewed our past and ongoing work related to insurance regulation and solvency and federal flood and crop insurance programs to compare past findings with provisions in the bill. In addition, we reviewed relevant articles and market analyses in industry trade journals and periodicals, congressional hearing records, and other reports and literature related to insuring against natural disasters.

Should this bill be enacted, tax provisions for casualty losses and tax treatment of the insurance and reinsurance industries would affect the total cost to the government today and in the future. Estimating the tax implications of S. 1350, however, was beyond the scope of the request.

The Executive Director of the Natural Disaster Coalition told us that the Coalition is developing suggested revisions to the bill intended to address concerns of congressional staff, the administration's interagency task force, and various interest groups. However, these changes have not been included in the bill and are not addressed in our statement.

³Some damages resulting from natural disasters are unlikely to be insured. These include damages to roads, schools, and other public buildings, all of which will remain the responsibility of local, state, and federal governments even if this bill were passed.

⁴The Natural Disaster Coalition, a strong proponent of S. 1350, is a task force comprised of representatives of the insurance industry, realtors, lenders, state emergency managers, firefighters and homeowners groups dedicated to reducing property losses and injuries from natural disasters.

BACKGROUND

Natural disasters, like Hurricane Andrew in 1992 and the Northridge Earthquake in January of this year, can cause billions of dollars of damage to homes and commercial buildings. While the private insurance industry has absorbed a share of the resulting losses without any systemic failure, there is concern about the industry's ability to absorb losses from even larger "mega-catastrophes" that may occur in the future. S. 1350 proposes a mechanism for increasing the availability of disaster insurance, encouraging the adoption of hazard mitigation procedures and practices, and possibly reducing the costs of federal post-disaster assistance.

Provisions of S. 1350

First, the bill would require FEMA to develop and carry out a multihazard mitigation program that depends primarily on states' efforts to adopt and enforce mitigation measures designed to reduce property damage in the event of a disaster. To encourage their participation, states would receive money from a disaster mitigation fund to help establish and enforce mitigation activities. Money for the mitigation fund would come from a portion (5 to 10 percent) of premiums collected under the bill's two insurance programs. If after 5 years, a state has not substantially complied with the provisions of the bill and enforced mitigation measures for the disasters to which it is prone, it would no longer receive money from the mitigation fund. At that same time, any local communities that have not complied with their state's mitigation measures would not be eligible to receive public assistance disaster funds after a catastrophe.

Second, the bill would also require FEMA to establish and carry out a federal primary insurance program that would insure homeowners against damage resulting from earthquakes and volcanic eruptions. This insurance would be sold through participating private insurance companies as part of their standard homeowners insurance policy. Homeowners living in all states determined by FEMA to be earthquake or volcano prone would be provided the coverage. The insurance premiums, less insurers' expenses and the portion allocated to the disaster mitigation fund, would be held by the federal government in a primary insurance fund, where they would accumulate with interest until needed. Rates for the coverage would be required to be actuarially sound so that, over time, premiums collected would at least equal the costs of the program and build a reserve.

In the event of an earthquake or volcanic eruption, insurance companies initially would pay the claims and then would be reimbursed fully by the primary insurance fund. The reimbursement would cover all paid losses and expenses incurred while investigating and settling claims. If money in the fund

were not sufficient to pay all insured losses and associated loss adjustment expenses, the fund could borrow from the U.S. Treasury. All borrowed money would be repaid, with interest, from future premium income.

Third, the bill would require FEMA to make available to eligible entities excess reinsurance coverage for any direct or indirect losses not covered by the primary insurance program resulting from a hurricane, earthquake, volcano, or tsunami. Reinsurance is insurance for insurance companies. Reinsurance allows insurers to spread their risks and protect themselves from catastrophic losses. Those eligible to purchase reinsurance coverage would be insurers participating in the federal primary insurance program, private reinsurers selling reinsurance coverage to those participating insurers, state-operated workers' compensation funds and state residual insurance pooling programs.

Reinsurance is currently available for modest levels of catastrophic exposure in private markets, but it is generally not available to cover the extraordinary losses that could occur in a mega-catastrophe. The federal excess reinsurance program would provide coverage to insurers for losses exceeding certain specified levels. In the absence of such a program, catastrophe losses exceeding insurers' loss reserves and private reinsurance coverage could drain their surplus--roughly equivalent to stockholders' equity or net worth. A large natural disaster could result in some insurers becoming insolvent.

Under the excess reinsurance program, the federal government would be required to offer catastrophe reinsurance to all eligible entities and those entities would be required to buy it. The premiums collected would be held in a reinsurance fund, where they would accumulate with interest until needed. Rates charged would be required to be actuarially sound and based on the risk characteristics of the entity buying the coverage. Once certain catastrophic loss triggers were met--either for the industry as a whole, for individual insurers, or for the state insurance programs--the reinsurance fund would be liable for 95 percent of the insurers' disaster losses. If reinsured losses exceed the fund's capacity, the reinsurance fund could borrow from the U.S. Treasury on the same terms as the primary insurance fund.

FEMA's administrative and operating expenses in establishing and carrying out the disaster mitigation and insurance programs would be paid from the primary insurance and the reinsurance funds.

CONCERNS WITH PRIMARY INSURANCE PROGRAM

Under the primary insurance program, the federal government would directly insure homeowners against damage resulting from earthquakes and volcanic eruptions and would provide the coverage

at risk-based rates.⁵ Insurance companies would include the coverage in their standard homeowner's policy, limiting a homeowner's choice to opt out of this coverage. Key purposes of the primary insurance program are to (1) achieve broad coverage of homeowners for these natural disasters and (2) reduce reliance on federal disaster assistance in the wake of a damaging earthquake or volcano.

We have several concerns about the primary insurance program as set out in the bill. First, setting actuarially sound and affordable rates will be difficult. Second, broad homeowner participation is necessary to effectively share risks. Third, government premium subsidies may be necessary to encourage broad participation. Fourth, low-risk homeowners may end up subsidizing high-risk homeowners in areas prone to earthquakes and volcanoes. Fifth, insurers selling federal insurance policies may not have sufficient incentives to underwrite conservatively, minimize administrative expenses, or prudently adjust claims to protect the government from excessive losses. Sixth, insurers will be able to select lower risk policies for themselves (cherry-pick), increasing the loss exposure of the federal government.

Setting Actuarially Sound and Affordable Rates Will Be Difficult

The bill would require the Director of FEMA to establish actuarially sound rates for the coverage sold under the primary insurance program on the basis of the catastrophic risks involved as well as the costs of operating the program. In addition, premiums charged are to include a surcharge of between 5 and 10 percent to be used for mitigation, and an unspecified charge for establishment of a reserve for expected and unforeseen losses. The primary insurance program is to be considered actuarially sound if, over an (undefined) extended period of time, expected expenditures do not exceed expected receipts. The bill contemplates that over time, premiums collected will be sufficient to pay the costs of the primary insurance program and to build a reserve, although not necessarily in any given year.

It is critical that rates be commensurate with risk to discourage individuals from making poor locational decisions. Risk-based insurance premiums can provide information about the inherent risks and potential costs of choosing to live in certain areas. To the extent that individuals consider these costs when making

⁵Earthquake coverage insures against damage caused directly by earthquake shocks. It does not include damage caused by fire or other indirect effects of an earthquake that are presently covered by standard homeowners insurance.

locational decisions, they may be dissuaded from locating in disaster-prone areas.

Setting actuarially sound rates for earthquake and volcano risk, however, would be difficult, in part, because of data and technological limits. Earthquakes are extremely unpredictable not only in regards to when and where they will occur but what the damages will be. The extent of earthquake damage is affected by natural geological factors--such as local soil conditions, the size of the rupture area, and the length of the seismic disturbance. Consequently, given the nature of earthquakes, it is difficult to predict probable losses for a given area of exposure. Rating volcano risk is even more difficult because data for these catastrophes are even more limited than for earthquakes.

Moreover, premium rates that accurately reflect a homeowner's exposure to catastrophic loss may be unaffordable for many people. Some homeowners in catastrophe-prone areas currently are uninsured or underinsured because they cannot afford to purchase adequate private insurance. Even in earthquake-prone areas such as Los Angeles and San Francisco, only one-fourth to one-third of those at risk purchase earthquake coverage. If homeowners could afford coverage or thought the benefits were worth the cost, there would be no need for government involvement. Supporters of the bill say that nationwide risk-sharing will lower the costs of earthquake and volcano coverage for individual homeowners.

Broad Participation Is Critical to Effective Risk-Sharing

Broad participation is critical to effective risk-sharing and accurate loss predictions. Improving the affordability of earthquake and volcano insurance and reducing the need for federal disaster relief depends upon sharing catastrophic risk among a large number of individuals.

The bill attempts to achieve broad-based participation by requiring participating insurers to provide the coverage to all their residential policyholders living in states FEMA designates as earthquake or volcano prone.⁶ Premiums are to be risk-based and the coverage would be included as part of an insurer's standard homeowners policy. However, it is questionable whether simply requiring this coverage to be provided will ensure that homeowners will buy it, because those insurers who choose not to participate in the program would not offer it. Consequently, if

⁶On February 23, 1994, FEMA testified before the Subcommittee on Water Resources and Environment, Committee on Public Works and Transportation, U.S. House of Representatives on H.R. 2873, that the earthquake risk goes far beyond California and includes 39 states.

the coverage is too expensive relative to a homeowner's perceived risk, that homeowner may seek out a nonparticipating insurer. In California, where insurers now are required to offer earthquake insurance, though not as part of the homeowners policy, only 25 percent of homeowners have purchased the coverage. From a slightly different perspective, if people living in earthquake-prone areas forgo coverage now, homeowners living in low-risk areas may not believe they need the coverage, regardless of how low the premiums.

In contrast to the bill's approach, the flood insurance program attempts to achieve broad-based participation through requirements that homeowners in participating communities purchase flood insurance under special circumstances.⁷ However, according to Flood Insurance Administration officials, only about 20 percent of those living in special flood hazard areas nationwide have flood insurance. Those officials estimated that perhaps as few as 10 percent of affected homeowners were covered during the 1993 Midwest flooding. Without broad participation, the considerable risks posed by earthquakes and volcanoes will not be spread adequately so that the cost of this coverage is significantly reduced.

One deterrent to participation is the expected availability of postevent federal disaster relief. For example, in the federal crop insurance program, voluntary participation has averaged about 34 percent over the last 5 years. In 7 of the last 8 years, according to U.S. Department of Agriculture, Congress has adopted ad hoc crop disaster legislation at an average cost of more than \$1 billion per year. We have reported that providing federal disaster grants and low-interest emergency loans discourages farmers from participating in the crop insurance program. As long as people expect federal disaster assistance, they will be reluctant to purchase insurance. And when a disaster occurs, the federal government generally feels compelled to provide assistance to uninsured people who are financially harmed, perpetuating the cycle.

Premium Subsidies may be Necessary to Encourage Broad Participation

The current bill does not provide for consideration of a government subsidy for homeowners' premiums. Government premium subsidies could provide incentives for more homeowners to buy earthquake and volcano insurance, facilitating risk-sharing and reducing costs, particularly the cost of federal disaster relief. Premium subsidies are a feature of both the federal crop and flood insurance programs. While participation in both programs

⁷See appendix 1 for a description of which homeowners are required to purchase flood insurance.

is not high even with the subsidies, it most likely would be even lower without them.

The flood insurance program uses premium subsidies to encourage participation by people living in high-risk areas who otherwise could not afford to pay risk-based premiums. For example, if the subsidy in the flood insurance program were eliminated, insurance premiums on currently subsidized policies, expected to be about \$401 in 1994, would rise to about \$1,100. Such a significant increase would likely cause some property owners to cancel their flood insurance policies. Because subsidized policies cover structures that tend to suffer the greatest flood loss, the federal government would likely face increased disaster relief costs in the form of low-interest loans awarded by the Small Business Administration or grants awarded by FEMA.

We are not recommending that primary insurance premiums be subsidized. However, we believe that government premium subsidies may be necessary to make these premiums affordable. In particular, subsidies may be necessary to encourage participation by owners of houses built before hazard mitigation standards are required. As the benefits of the bill's mitigation program begin to be realized, the experience of the flood insurance program suggests that risk-based premiums may become affordable for homeowners of new or retrofitted homes. While we recognize that premium subsidies could be costly for the federal government, a well-designed subsidy, that is, one which does not affect relative premiums and thereby encourage poor locational decisions, could encourage participation by homeowners who otherwise could not afford the coverage. This would result in those homeowners paying at least a portion of the costs resulting from a natural disaster.

Cross-Subsidization Appears Likely

While direct and explicit subsidies may have a place in a disaster insurance program, cross-subsidization is a concern and should be minimized. Cross-subsidization occurs when one set of policyholders, by paying premiums higher than their risk would indicate, subsidizes the premiums of a riskier group. Minimizing cross-subsidization would help protect homeowners living in low-risk areas from paying premiums too high for the earthquake and volcano risk they face in order to subsidize homeowners living in higher-risk areas who may be paying premiums too low for the risk they face.

The bill requires that, to the extent practicable, rates for the insurance shall result in a minimum of cross-subsidization between policyholders by reasonably reflecting the risk of earthquakes and volcanoes for each subclassification of policyholders. However, the bill further stipulates that premiums collected under the program cannot be used to establish

highly specific rating districts, suggesting instead that the rate classification system be on a state or risk zone level. The intended effect of this limitation is unclear. The limitation would appear to be inconsistent with provisions in the bill aimed at minimizing cross-subsidization and establishing risk-based premiums.⁸

According to FEMA officials, earthquake risks are extremely difficult to predict, and the resulting damages can vary greatly not only among states but also within a state. If a rating district is too large and dissimilar in risk exposure, charging similar rates throughout the district will result in lower-risk homeowners subsidizing the coverage of those with higher risk.

Cross-subsidization would create two problems for a federal insurance program. First, if premiums reflect average losses for a rating area with dissimilar risks, lower-risk homeowners may refuse to purchase insurance at premiums higher than their risk exposure. As the lower-risk homeowners opt out, actuarially sound rates would have to increase to reflect the higher average risk of the remaining pool of homeowners. Consequently, premiums would also increase, and homeowners most likely to purchase the insurance would be those with the higher risk of loss--a clear case of adverse selection.

Second, cross-subsidization could undermine mitigation efforts aimed at minimizing damage from earthquakes and volcanoes. Specifically, the availability of implicitly subsidized federal insurance that reduces cost differentials for high-risk areas may encourage homeowners to locate or build in areas they might have avoided if they had to bear the true cost of their locational decisions.⁹

The experience of the federal crop insurance program demonstrates how cross-subsidization can undermine efforts to set actuarially sound rates and to mitigate against overall risk exposure. The Federal Crop Insurance Program's rate-setting methodology tends to equalize rates across counties and within a state. However,

⁸The limitation could be interpreted restrictively to mean that the Director of FEMA would have authority to use other funds for specific zones and microzonation maps. Such an interpretation, however, could be inconsistent with the provision in proposed subsection 305(c)(3), which requires that amounts in the primary insurance fund, which consist mainly of insurance premiums, shall be available for "any and all administrative and operating expenses" in carrying out the program.

⁹In contrast, an explicit government premium subsidy can be designed so that an individual homeowner's relative level of risk is still reflected in the premium paid.

because crop production risks are not equal throughout a county or state, cross-subsidization between farmers has occurred. Specifically, in our analysis of 1992 crop insurance rates, we found that premiums charged farmers in the worst counties¹⁰ were only 38 percent of the risk-based actuarially sufficient rate while farmers in the best counties¹¹ were charged 330 percent of the rate their risk would require. Because some premiums were set too low for the production risk in particular areas, we criticized the program for encouraging farmers to produce crops in areas where they would not have risked planting without insurance.¹²

Insurers Would Have Little Incentive to Underwrite Conservatively, to Minimize Administrative Expenses, or to Prudently Adjust Claims

Under the bill, the actual premium paid by an individual homeowner for earthquake and volcano insurance is to be based on several risk factors besides location, including the age, type, and value of the particular structure; architectural style; and existing hazard mitigation features. For an insurance company doing business on its own account, it is crucial that the premium charged matches the homeowner's risk. This is called underwriting, and a failure to underwrite carefully could expose the company to losses greater than it has been paid to accept. However, under the bill, the insurer would bear no risk of loss for coverage provided under the federal primary insurance program. Therefore, its incentive to carefully match premium charges to the underlying risk for any particular structure may be weakened, thus exposing the federal government to larger-than-expected losses.

The bill also provides that all administrative and loss adjustment expenses incurred by insurers in carrying out the primary insurance program would be paid by the primary insurance fund. However, the bill does not provide any mechanism to make certain that insurers minimize administrative expenses or prudently adjust claims. For example, the bill would require each insurer to remit the premiums collected less any expenses incurred to collect those premiums. The bill currently does not

¹⁰These were defined as counties with loss ratios of 2.00 and greater. A loss ratio expresses indemnities (claims paid) as a percentage of premiums (including the federal premium subsidy). Thus, a loss ratio of 2.00 means that indemnities (claims paid) were twice as high as premiums received.

¹¹These were defined as counties with loss ratios of 0.00 to 0.49.

¹²Crop Insurance: FCIC's Internal Controls on Safflower Coverage Must Be Improved (GAO/PEMD-91-27, July 15, 1991).

limit the administrative expenses an insurer could recoup through the premiums.

In regards to loss adjustment practices, we are concerned that allowing insurers to adjust claims for losses that they are not responsible for paying may result in overly generous claim settlements and less diligent efforts to detect fraudulent claims. For example, a liberal claims adjustment policy, like a liberal underwriting policy, could attract business to a company and away from competitors with a reputation for stricter procedures. As a result, the more liberal company could generate additional sales and receive increased sales commissions and expense allowances, to be recouped from premiums collected.

Insurers Would Be Able to Cherry-Pick Good Risks,
Increasing the Loss Exposure of the Federal Government

Private insurers participating in the primary insurance program would be required to provide earthquake and volcano coverage to all their residential policyholders at the federally established rates. However, they would have the option of selling either the federally-backed coverage or equivalent coverage on their own behalf.

We are concerned that insurers may cherry-pick the lower risks for themselves and pass the higher risks to the federal government. To the extent that risks are not equal throughout the rating districts established by FEMA, an insurer could subclassify risks within those districts to much more detailed levels. Such subclassification of the risk exposure of residential policyholders would enable an insurer to identify which homeowners are at lower risk of damage due to an earthquake or volcano. The insurer could then offer coverage to those policyholders on its own behalf while selling federal policies to homeowners with risk higher than the insurer wants to accept.

Such opportunities for cherry-picking could expose the federal insurance program to adverse selection. While rates may be actuarially sound for a state or risk zone, the federal government would only receive part of the premiums (from high-risk homeowners) but would pay most of the losses.

REINSURANCE PROGRAM RAISES CONCERNS
ABOUT FEDERAL FINANCIAL EXPOSURE

The bill would require FEMA to provide reinsurance to all insurers participating in the primary insurance program, their private reinsurers, and certain state insurance programs. Each of these eligible entities would pay a premium established by FEMA based on the nature and extent of risk posed by the entity and its particular disaster exposure. The reinsurance would be payable when losses from disasters exceeded trigger levels

specified in the bill. In addition, the reinsurance coverage would apply to both direct and indirect losses resulting from hurricanes, earthquakes, volcanoes, and tsunamis for the 16 property and casualty lines of insurance specified in the bill.¹³ Federal reinsurance would be available not only to U.S. insurers, reinsurers, and state insurance programs, but also to non-U.S. reinsurers who provide coverage to insurers participating in the primary insurance program.

We have identified four basic issues regarding the reinsurance program in the bill and its potential effect on the federal government's exposure to losses. First, the federal reinsurance program is required under the bill to accept a wide array of exposures without any apparent ability to screen the risks that it reinsures. This raises concerns about the size of the federal government's potential obligations. Second, the basis for triggering reinsurance payments to insurers raises several concerns: (1) there is a potential for eligible insurers to manipulate their surplus in order to increase their payments from the reinsurance fund; (2) even if surplus is not manipulated, after a disaster results in losses large enough to trigger the reinsurance fund, the amount of losses actually paid by insurers is likely to be smaller than the trigger amount, obligating the federal fund for remaining losses; and (3) the basis for triggering reinsurance payments raises the question of whether the federal government should be responsible for backing the solvency of the insurance industry and even of individual insurers. Third, we are concerned with some of the implications arising from the bill's definition of which losses qualify for reimbursement from the reinsurance fund. And, fourth, the program obligates the federal government to pay for losses and expenses in an industry over which it has no regulatory control.

The Federal Reinsurance Program Must Accept All Comers

The bill states that "The Director [of FEMA] shall make available to eligible entities excess reinsurance coverage for any direct or indirect losses . . . that arise from a hurricane, earthquake, volcanic eruption, or tsunami." This means that the federal reinsurance program cannot refuse to reinsure an eligible company's risks, regardless of the company's condition, business practices, or any other factor. Consequently, the federal government would be unable to screen risks and thereby protect itself from losses that may be caused by fraud or mismanagement on the part of eligible insurers.

¹³To the extent that some insurers were to sell earthquake coverage on their own behalf, as allowed in the bill, those potential direct losses would also be reinsured with the federal program.

The bill also specifies 16 lines of insurance for which the federal reinsurance program is required to provide coverage as long as the loss is in some way connected to a qualifying natural disaster. It is not clear why these specific lines of insurance are covered. For example, products liability,¹⁴ which is not obviously associated with a natural disaster, is included. At the same time, auto liability and auto physical damage are excluded despite the fact that auto damage represented a substantial portion of the losses resulting from natural disasters such as Hurricane Andrew. It seems that this scope of coverage would expose the reinsurance fund to a wide array of losses and could result in litigation to determine the actual extent of federal liability under the reinsurance agreements.

Payment Triggers Raise Concerns About Federal Exposure to Losses While Protecting the Insurance Industry and Individual Firms

Federal reinsurance payments to individual companies would be triggered under the bill when either of two conditions exists. First, payments would be triggered when it is determined by the Director of FEMA that the property-casualty insurance industry, as a whole, is likely to incur covered gross losses that exceed 15 percent of the industry's consolidated policyholder surplus during any 12-month period.¹⁵ Thereafter, a company affected by covered natural disasters would be indemnified against 95 percent of all qualifying losses in excess of an amount equal to 15 percent of its policyholder surplus. The federal reinsurance fund's potential obligations under this trigger would be limited only by the size of disaster-related losses. Second, even if the industry trigger is not reached, an individual insurer or reinsurer can collect reinsurance payments from the fund if a single covered disaster results in its gross losses exceeding 20 percent of its individual policyholder surplus. The amount of excess reinsurance which a single company could receive under this trigger is capped at 200 percent of the company's policyholder surplus.

Companies Might Increase Their Reinsurance Fund Receipts by Manipulating Their Surplus

The reinsurance triggers in the bill are based on the amount of surplus held by the industry and by individual companies. An insurer's surplus is intended to be a financial cushion to protect policyholders against unpredictable losses. Most of a

¹⁴Products liability insurance protects manufacturers and/or distributors of a product from lawsuits by persons who sustain bodily injury or property damage through use of that product.

¹⁵The bill does not define how this determination would be made.

property-casualty insurer's liabilities are claims loss reserves. Surplus is, essentially, a residual. In addition to contributions from outside sources, surplus is what remains of an insurer's income after profits, expenses, and the establishment of reserves. The determination by an insurance company of its appropriate level of reserves is subjective, based on historical information and actuarial assumptions. In many cases, it is a matter of educated guesswork. As a result, it is possible for a property-casualty insurer to miscalculate its reserves, either accidentally or deliberately.

Under-reserving allows a company to exaggerate its surplus, while over-reserving allows a company to show a smaller surplus. In either case, misstating reserves provides a mechanism for an insurer to manipulate its reported level of surplus. While state insurance departments are charged with the responsibility to make certain that loss reserves are not inadequate, it is difficult for regulators to determine the correct level of reserves for a particular company.¹⁶

The triggers established in this bill do not require and may, in fact, inhibit the establishment and use of an adequate and proper surplus by insurance companies. Under this bill, the timing and ultimately the size of payments by the federal reinsurance fund to an insurer would be inversely related to the size of its surplus. The less surplus held, the sooner the payments start and the larger they will be. A company would have an incentive to reduce surplus and increase reserves and, possibly, dividends in order to maximize its federal reinsurance reimbursements. The reinsurance triggers, as designed, expose the federal reinsurance fund to substantial moral hazard. That is, the insurer can, through its own actions, increase the size of the reinsurance payment it receives from the federal fund without any change in its actual exposure to losses.

Table 1 illustrates the effect of loss reserving levels on reported surplus and, thus, on federal reinsurance payments for two hypothetical insurers. Hypothetical insurers A and B have \$1,000 in insurance business and face identical loss exposure. Insurer A, using overly conservative loss assumptions, sets aside \$900 in claims reserves and reports \$100 in surplus. Insurer B, using average loss assumptions, sets aside \$700 in claims reserves and reports \$300 in surplus. Each company has a combined total of reserves and surplus equaling \$1000. Assume that a catastrophe meeting the industry-wide trigger results in

¹⁶Besides accidental miscalculation of reserves, there are reasons why it might be financially advantageous to a company to either overstate or understate its reserves. However, the market and regulators do provide some constraints on a company's ability to misstate its surplus.

qualifying losses of \$80 for each of the two insurers. As table 1 shows, insurer A, which set aside higher reserves to pay losses, will collect \$28.50 more in federal reinsurance than insurer B.

Table 1: The Effect of Two Hypothetical Insurance Companies Loss Reserve Levels on Reported Surplus and Resulting Payments by the Federal Reinsurance Fund

	Insurance company	
	A	B
1. Total assets	\$1,000.00	\$1,000.00
2. Total reserves	900.00	700.00
3. Surplus	100.00	300.00
4. Catastrophic loss	80.00	80.00
5. 15% of surplus	15.00	45.00
6. Payment by reinsurance fund (95% of the difference between lines 4 and 5)	\$61.75	\$33.25

Note 1: We assume that the industry trigger has been met, making individual companies eligible for reimbursement of 95 percent of losses over 15 percent of surplus.

Note 2: We further assume that companies are identical before the catastrophe, except for allocations between reserves and surplus. They have the same book of business and risk exposure.

Actual Losses Paid By The Insurance Industry
Could Be Considerably Less Than That Needed to
Trigger Reinsurance Payments

According to the Natural Disaster Coalition, the industry trigger point was about \$25 billion as of December 1993 (15 percent of the industry's policyholder surplus of about \$167 billion), and federal reinsurance would only be payable, under the bill, after the first \$25 billion was absorbed by the industry. However, we believe it is misleading to simply subtract the amount of gross losses needed to activate the industry trigger from total losses sustained to determine the potential exposure of the proposed federal reinsurance fund to a catastrophic loss.

The bill provides that once the expected gross loss industry trigger is met, each affected insurer would be reimbursed for 95 percent of qualifying losses exceeding 15 percent of its own

surplus. Because the reinsurance trigger is based on industry-wide surplus, the insurance industry would only pay the full \$25 billion before the reinsurance fund began paying insurers in the unlikely event that every insurer in the industry sold in the disaster area and had losses that at least equalled 15 percent of its surplus.

Table 2 shows the amount and percentages of losses that would be paid by insurers and the federal reinsurance fund in the wake of hurricanes causing insured losses ranging from \$30 billion to \$100 billion.¹⁷ With an industry consolidated surplus of about \$167 billion, losses of these magnitudes would activate the \$25 billion industry-wide reinsurance trigger. Recognizing that not every insurer operates nationwide, we calculated the exposure of the reinsurance fund in the wake of these hypothetical disasters by varying the percent of property-casualty industry consolidated surplus held by insurers affected by the disaster from 40 percent up to 80 percent. The actual percent of industry surplus held by affected insurers, however, depends on the type of disaster and where it occurs. Damages sustained during a natural disaster can be very localized. For example, according to Standard & Poor's, Hurricane Andrew ravaged an area comprising less than 1 percent of the land area in Florida and destroyed only a small part of the value of Florida's insured property.¹⁸

The impact on insurers further depends on their exposure in the disaster area. Depending on where a natural disaster hits and its severity, some insurers could have total losses of less than 15 percent of surplus. To the extent that this occurs, the fund's share of qualifying losses would be higher. However, in the table, we assume that each insurer in the disaster area incurs losses that equal or exceed 15 percent of its own policyholder surplus. As a result, the total losses shown in the table as paid by insurers represents the maximum amount they

¹⁷Robert Sheets, Director, National Hurricane Center, National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, provided written testimony on February 23, 1994, to the Subcommittee on Water Resources and Environment, Committee on Public Works and Transportation, U.S. House of Representatives, in which he reported estimates of probable property damage from hurricanes of \$52 billion (New Orleans), \$80 billion (Galveston-Houston area), and \$104 billion (New England). The Natural Disaster Coalition estimates probable property damages from a hurricane occurring in Honolulu to be \$30 billion and in Hampton, Virginia, about \$34 billion.

¹⁸Standard & Poor's is an organization that rates insurance companies according to their claims-paying ability.

would pay. We further assume that gross losses would be reduced by \$6 billion of private reinsurance recoverables.¹⁹

¹⁹In April 1994, the Insurance Information Institute, an industry supported organization providing facts and analyses on insurance subjects, reported that catastrophic reinsurance capacity ranged from \$5 to \$7 billion for a single event.

Table 2: Amount and Percentage of Insured Losses Paid by Insurers and the Reinsurance Fund for Simulated Hurricane Damages of Various Amounts When Insurers Receiving Reinsurance Payments Hold 40, 60, and 80 Percent of Industry Surplus

(Dollars in billions)

Gross industry loss	\$30	\$50	\$75	\$100
Less: private reinsurance coverage ^a	\$6	\$6	\$6	\$6
Qualifying losses	\$24	\$44	\$69	\$94
40 percent of industry surplus (\$67 billion):				
Total losses insurers paid	\$11	\$12	\$13	\$14
Percent of qualifying losses insurers paid	45%	27%	19%	15%
Total losses fund paid	\$13	\$32	\$56	\$80
Percent of qualifying losses fund paid	55%	73%	81%	85%
60 percent of industry surplus (\$100 billion):				
Total losses insurers paid	\$16	\$17	\$18	\$19
Percent of qualifying losses insurers paid	65%	37%	26%	20%
Total losses fund paid	\$9	\$28	\$51	\$75
Percent of qualifying losses fund paid	35%	63%	74%	80%
80 percent of industry surplus (\$134 billion):				
Total losses insurers paid	\$20	\$21	\$23	\$24
Percent of qualifying losses insurers paid	85%	48%	33%	25%
Total losses fund paid	\$4	\$23	\$46	\$70
Percent of qualifying losses fund paid	15%	52%	67%	75%

Note 1: Total consolidated industry surplus is \$167 billion, the amount estimated by the Natural Disaster Coalition to be held by the industry as of December 1993.

Note 2: Total losses insurers paid equal 15 percent of their surplus plus 5 percent of qualifying losses in excess of 15 percent of their surplus.

Note 3: Some insurers selling insurance in the disaster area could have total losses of less than 15 percent of surplus. To the extent this occurs, the fund's share of the losses would be higher.

^aThis analysis projects losses that could be paid by primary insurers only. Some portion of the assumed \$6 billion in private reinsurance coverage could also become fund obligations. Specifically, any losses reinsurers sustain exceeding 15 percent of their policyholder surplus would also be covered by the reinsurance fund, thus increasing fund obligations.

Table 2 shows that actual losses paid by insurers affected by the disaster are likely to be less than that needed to trigger payments from the reinsurance fund. For example, if only 40 percent of industry surplus is held by affected insurers and losses sustained were \$100 billion, the total amount paid by insurers would only equal about \$14 billion--slightly more than half the nominal amount needed to trigger payments from the reinsurance fund and \$2.5 billion less than the \$16.5 billion insurers reportedly paid in 1992 as a result of Hurricane Andrew. With \$100 billion of losses and 60 percent of the industry surplus held by affected insurers, the industry would still pay \$6 billion less than the nominal amount needed to trigger the fund. Finally, not even if affected insurers held 80 percent of the industry surplus and hurricane damages reached \$100 billion, would total losses actually paid by insurers reach the \$25 billion needed to trigger payments from the reinsurance fund.

Table 2 also shows how the liability of the reinsurance fund increases as the percent of surplus represented by affected insurers decreases. For example, if a hurricane caused \$50 billion of insured property damages and 80 percent of industry surplus were held by affected insurers, the reinsurance fund, either from premium income reserves or borrowing, would be obligated to pay about \$23 billion or 52 percent of qualifying losses. If for the same amount of losses, 60 percent of industry surplus had been held by affected insurers the reinsurance fund would be liable for about \$28 billion or 63 percent of qualifying losses. Finally, with \$50 billion in losses and only 40 percent of industry surplus held by affected insurers, the reinsurance fund would be liable for about \$32 billion or 73 percent of qualifying losses.

The liability of the reinsurance fund also represents a contingent liability of the federal government because if the fund does not have enough money to pay its obligations, the fund would have to borrow from the U.S. Treasury. The balance in the reinsurance fund at any point will depend on the amount of reinsurance premiums collected and interest income accumulated, the length of time the fund has been in existence, and the number and size of past losses paid. If a major catastrophe occurs in the early years of the fund, or if successive catastrophes occur, the fund balance could, at any given time, be very low or even negative.

If losses from disasters such as those simulated in table 2 were to happen when the fund was low, the Treasury would be obligated to lend the fund from \$13 billion up to \$80 billion. The bill requires borrowed money to be repaid, with interest, out of future premiums to be collected. The Natural Disaster Coalition estimates that reinsurance premiums would total about \$1 billion annually. After one catastrophe of a magnitude in the \$100 billion range, it could take over 80 years to repay the Treasury,

assuming no new catastrophes occurred.²⁰ The alternative would be that the debt be forgiven or, in other words, paid by the taxpayers.

The Company Trigger Could Protect Individual Insurers From Insolvency

In addition to the payments that would be made by the reinsurance fund under the industry trigger, the fund could be liable for payments to individual companies in the event of natural disasters that do not activate the industry trigger. An individual company would receive reinsurance payments if a single covered event resulted in gross losses that exceed 20 percent of its policyholders surplus. The reinsurance fund would pay 95 percent of qualifying losses exceeding 20 percent of the company's surplus up to a maximum of 200 percent of the company's surplus.

Hurricane Andrew provides an example of how the individual company trigger could work. With \$16.5 billion in insured losses, the industry trigger would not be met. However, on the basis of data reported by A.M. Best Company about Hurricane Andrew's impact on insurers, if the federal reinsurance program had been in place at the time Hurricane Andrew occurred, at least 11 companies would have qualified for federal excess reinsurance under the individual company trigger.²¹ For example, one insurer, with a surplus of \$74 million, had a loss of \$80 million, or 108 percent of its surplus, after deducting private reinsurance recoveries. Under the provisions of the bill, the insurer would have to pay losses up to 20 percent of its surplus of \$74 million or about \$15 million. In addition, the company would pay 5 percent of the losses that exceed its surplus by 20 percent or about \$3 million. The remaining losses of \$62 million (\$80 million - \$18 million), 78 percent of qualifying losses, would become the obligation of the federal reinsurance fund.

Another company had qualifying losses of \$1.1 billion which were 75 percent of its \$1.5 billion surplus. The company's payments, under the bill, would have been about \$340 million while the reinsurance fund's obligations would have totalled about \$760 million or 69 percent of this company's qualifying losses.

²⁰This ignores both the potential growth of industry reinsurance premiums, as well as the interest on the loan. At 3 percent, any borrowings greater than \$34 billion would result in annual interest payments that exceed estimated premium receipts of the reinsurance fund.

²¹"Hurricane Andrew: A Postmortem," John H. Snyder, Senior Vice President, Property/Casualty Division, A.M. Best Company, Best's Review, January 1993, p.105.

Finally, a much larger company, with surplus of \$5.4 billion, had qualifying losses totaling \$2.5 billion or 46 percent of its surplus. That company's obligations, under the bill, would have totalled about \$1.15 billion and the reinsurance fund would have been liable for about \$1.35 billion or 54 percent of the company's qualifying losses.

The federal reinsurance fund would have paid about \$2.2 billion for losses sustained by these three companies, or more than twice the amount of annual reinsurance premiums the Natural Disaster Coalition has estimated the reinsurance fund would collect. The bill's company trigger means, in effect, that the federal reinsurance program, with the backing of the federal government, would protect the solvency of individual insurance companies from most of the consequences of large natural disasters.

Definition of Qualifying Losses Raises Several Concerns

Once an insurer or reinsurer becomes eligible for federal reinsurance payments, the reinsurance fund would reimburse 95 percent of qualifying losses. There are two types of qualifying losses: (1) net losses (after private reinsurance recoveries) and loss adjustment expenses that arise from qualifying natural disasters and (2) any assessments, surcharges, or other liabilities imposed by certain state insurance programs or guaranty funds that are attributable to the natural disasters.²² Insurers would also be able to obtain reimbursement from the fund for an undefined percentage of private reinsurance recoverables that have not been paid within 12 months of their due date. These provisions raise a number of concerns.

Because the federal reinsurance fund pays 95 percent of all losses and loss adjustment expenses above the trigger, disincentives may be created for participating insurers. Insurers and reinsurers expecting to be reimbursed by the fund for most losses and expenses may be less inclined to investigate losses and minimize claims payments. Moreover, companies may also have less incentive to control loss adjustment expenses, potentially increasing federal reinsurance payments.

The inclusion of assessments by state insurance pools and guaranty funds as qualifying losses is also of potential concern. Paying such charges would, in effect, amount to federal subsidization of these state programs. Also, most states permit insurers to recover their guaranty fund assessments at a later time, either through a rate increase or an offset on premium taxes. To the extent this is available, companies might be able

²²If an insurer is assessed to support a state reinsurance pool or joint underwriting association, the assessment would qualify for reimbursement under the federal reinsurance program.

to recoup these costs twice. Moreover, determining whether the failure of an insurer and the resulting guaranty fund assessments should be attributed primarily to a single disaster, a series of natural disasters, or some altogether unrelated cause will be difficult. For example, the Florida Insurance Department recently completed a preliminary study of insurers placed into liquidation after Hurricane Andrew. A department official told us that although losses from the hurricane pushed the companies over the edge, many were already on the brink of insolvency for a variety of other reasons.

Finally, the bill would allow insurers to obtain reimbursement for some unspecified portion of uncollectible private reinsurance. We believe this provision would diminish the incentives for insurers to diligently assess the quality and collectibility of their private reinsurance arrangements or to actively pursue delinquent reinsurers through legal means. Essentially, it would result in the federal government insulating companies from the effects of bad business decisions.

The Federal Government Would Be Liable for Losses Incurred By an Industry That Is Not Federally Regulated

Because insurance is regulated by the states, the federal government has little control over the activities and behavior of insurance companies. Also, it may be difficult for the federal government to verify information provided by participating insurers. One of the factors that contributed to the savings and loan losses in the 1980s was the division of responsibility for state-chartered thrifts. State regulators were responsible for authorizing the activities in which state-chartered thrifts could engage, while the Federal Savings and Loan Insurance Corporation was responsible for paying depositors when the institution failed. We are not proposing federal regulation of the insurance industry as a prerequisite for the reinsurance program, but the risks inherent in such a dichotomy should be thoroughly explored when considering this bill.

CONCLUSIONS

Either a mega-catastrophe or a series of closely occurring disasters could greatly strain or overwhelm the capacity of the insurance industry and result in large federal payments for disaster relief. The federal government clearly has an interest in reducing both the total amount at risk from a disaster as well as the federal share of that amount. A well-designed mitigation program is a good way to reduce the overall amount at risk from a disaster.

An insurance program, integrated with a mitigation program, could provide needed incentives to individuals and communities to actively pursue mitigation practices. An insurance program could

also provide a prefunding mechanism through which homeowners pay up front for disaster relief. However, successfully achieving these objectives depends on the technical design and implementation of the insurance program. It must achieve widespread participation. It should fairly allocate costs relative to risk among all participants. And it should not be perceived to favor the financial interests of insurers. Our statement has focused primarily on the details of the insurance mechanisms proposed in the bill in order to allow you to judge whether they meet these criteria.

An insurance program with premiums that are risk-based will create incentives for mitigation to the extent that mitigation by individual purchasers would reduce the premiums they must pay. Moreover, the provision of a mitigation fund in the bill, funded by premiums collected through the insurance and reinsurance programs, could also induce communities to actively enforce mitigation standards.

In the event of a natural disaster, payments by private insurers reduce the share of total costs that the government may have to pay. However, to keep the federal share as low as possible, premiums should be commensurate with risk and participation must be broadly based. Thus far, such a result has not been attained in the flood or crop insurance programs, and we are not convinced that the proposed program would be more successful.

We are concerned with elements in both the primary insurance and reinsurance programs as proposed in the bill. For primary insurance, our greatest concerns involve the competing demands for actuarial soundness and affordability as well as the potential for cross-subsidization among policyholders. We are also concerned that the program creates incentives for individual companies that could increase the cost to the federal government.

While many of these same negative incentives would also exist for companies in the reinsurance program, our greatest concern regarding this program is how the basis of the triggers appears to shift the costs associated with natural disasters away from the insurance industry and toward the reinsurance fund and the U.S. Treasury. By limiting the disaster exposure for both the industry as a whole and for individual insurers, the federal government would be insulating them from most of the effects of natural disasters. By so doing, the federal government would, in effect, act as insurer of last resort and take on unlimited liability for disaster losses.

It may be true that without such programs the government would bear much of the financial responsibility for such losses anyway. However, under the bill, the federal government's flexibility in responding to natural disasters would be reduced because insurers would be entitled to receive payments according to the terms of

the reinsurance contract, without further congressional involvement.

The goals of improving hazard mitigation and reducing government financial exposure to natural disasters are laudable. Under this bill, achieving both goals depends largely on the effectiveness of the insurance and reinsurance mechanisms. However, the concerns we have raised cause us to question whether the insurance mechanisms, as currently proposed, will accomplish these goals.

OVERVIEW OF FEDERAL FLOOD INSURANCE

The National Flood Insurance Act of 1968 established the National Flood Insurance Program (NFIP) to identify flood-prone areas, make flood insurance available to property owners, mitigate flood hazards, and reduce total federal expenditures on disaster assistance. Before NFIP, flood insurance was generally not available from private insurers.

NFIP is administered by the Federal Emergency Management Agency's (FEMA) Federal Insurance Administration (FIA). Since the inception of NFIP, FIA has developed flood insurance rate maps for over 20,000 flood-prone communities. These maps define different areas of flood risk present in a community and identify any special flood hazard areas¹. Only property owners of communities that joined NFIP are eligible to purchase flood insurance. About 88 percent of the flood prone communities have joined NFIP.

For a community to join the program, it must enforce certain floodplain management measures. Specifically, communities must ensure that any structure built within a special flood hazard area after a flood insurance rate map was complete is built in accordance with NFIP building standards. These standards are aimed at minimizing flood losses. According to FIA officials, structures built to these standards have saved \$569 million annually in damages not incurred. To encourage communities to join NFIP, thereby promoting floodplain management and widespread purchasing of flood insurance, Congress authorized subsidized rates for structures that do not meet NFIP building standards and were built before a community's flood insurance rate map was prepared. Currently, 41 percent of NFIP policies are subsidized.

The Flood Disaster Protection Act of 1973 mandated the purchase of flood insurance under certain circumstances. Specifically, after March 1, 1974, flood insurance must be purchased to cover structures in special flood hazard areas of participating communities if (1) any federal loans or grants were used to acquire or build the structures or (2) the structures were used to secure loans made by lending institutions regulated by the federal government. Flood insurance is not required for loans made before March 1, 1974, and for homes with either no mortgages or mortgages held by unregulated lenders.

¹Special flood hazard areas are defined as areas subject to a 1 percent or greater chance of experiencing flooding in a given year.

Congress authorized FIA to borrow up to \$1 billion from the U.S. Treasury if necessary to pay claims. Also, from 1968 through fiscal year 1986, Congress appropriated about \$2.1 billion² to NFIP to pay administrative expenses and past loans from the U.S. Treasury. No further appropriations have been made. In December 1993, FIA borrowed \$100 million from the U.S. Treasury; that loan has since been repaid from premiums subsequently collected. As of the end of February 1994, NFIP had a cash balance of \$134 million. However, it had obligations at that time of \$204 million, leaving an unobligated balance of negative \$70 million.³

²This amount represents about \$3.3 billion in constant 1992 dollars.

³Whether FIA will have to borrow additional money depends on (1) the relative timing of payments on its current obligations and expected monthly premium receipts of about \$55 million and (2) future insurance claims.

OVERVIEW OF FEDERAL CROP INSURANCE

Crop insurance enables farmers to transfer the financial risk of loss inherent in producing crops to an insurer.¹ In the early 1900s, commercial insurers offered multiple-peril crop insurance but withdrew coverage due to high losses.² Consequently, in 1938, the federal crop insurance program was created to provide this insurance, and the Federal Crop Insurance Corporation (FCIC), in the U.S. Department of Agriculture (USDA), was established to administer the program.

In 1980, in response to criticism that the existing crop insurance program was too expensive and that the government was assuming too much of the farmers' production risk, Congress redesigned the program to make it the preeminent form of agricultural disaster assistance.³ The Federal Crop Insurance Act of 1980, which provided for a greatly expanded crop insurance program, established goals including (1) eliminate the need for government-funded disaster assistance by increasing program participation and (2) operate the program on an actuarially sound basis so that premiums, which include a government subsidy, are sufficient to cover the cost of indemnities plus establishment of a reserve.

Under the redesigned federal crop insurance program, insured farmers who do not achieve specified production levels because of damages caused by the perils covered are compensated for their financial losses. All farmers are eligible to participate in the program if FCIC offers an insurance program in their county for the crop they are producing. Participating farmers can elect yield guarantee coverage of 50, 65, or 75 percent of their actual production history yield. The federal government pays 30 percent of a farmer's crop insurance premium up to the 65-percent coverage level.

¹Events such as droughts, floods, wind, freezes, frost, hail, insect infestations, and plant diseases are some of the perils that can lead to crop damage or destruction.

²Private insurance companies continued to offer coverage for hail and fire damage, which generally are not prone to widespread catastrophe.

³Other forms of agricultural disaster assistance provided by USDA include direct cash payments and subsidized loans.

Over 90 percent of federal crop insurance policies are sold to farmers through private insurance companies that are reinsured by FCIC at rates and conditions specified by FCIC. The reinsured companies sell and service the policies and adjust the farmers' claims. The remaining crop insurance is sold through sales and service contractors--private companies that sell crop insurance as agents for FCIC. FCIC retains all premiums⁴, pays all indemnities, and adjusts all losses on these policies.

In the 1990 Farm Bill⁵, Congress reemphasized the need for FCIC to achieve actuarial soundness by mandating that FCIC raise rates by up to 20 percent annually, where necessary. However, despite requirements in the 1980 and 1990 laws that the crop insurance program be actuarially sound, it has never achieved this objective. Indemnities have exceeded premiums each year with unplanned underwriting losses for fiscal years 1981 through 1993⁶ totaling \$3.3 billion--about 40 percent of total government crop insurance costs.

Continuing to express concern about ongoing program losses, Congress, in the Omnibus Budget Reconciliation Act of 1993, required FCIC to develop a blueprint outlining the steps it planned to take to improve its actuarial soundness and reach a 1.1 loss ratio⁷ by 1995. This effectively eliminated the previous goal to establish a reserve and to have premiums equal indemnities.

⁴Under agreements negotiated annually, sales and service contractors receive 19 percent of premiums to cover cost of sales and sales administration.

⁵The Food, Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624), November 28, 1990, title XXII.

⁶Indemnities data for 1993 are incomplete.

⁷A loss ratio expresses indemnities as a percentage of premiums (including the federal premium subsidy). For example, a loss ratio of 1.1 means that indemnities (claims paid) exceeded premiums received by 10 percent.

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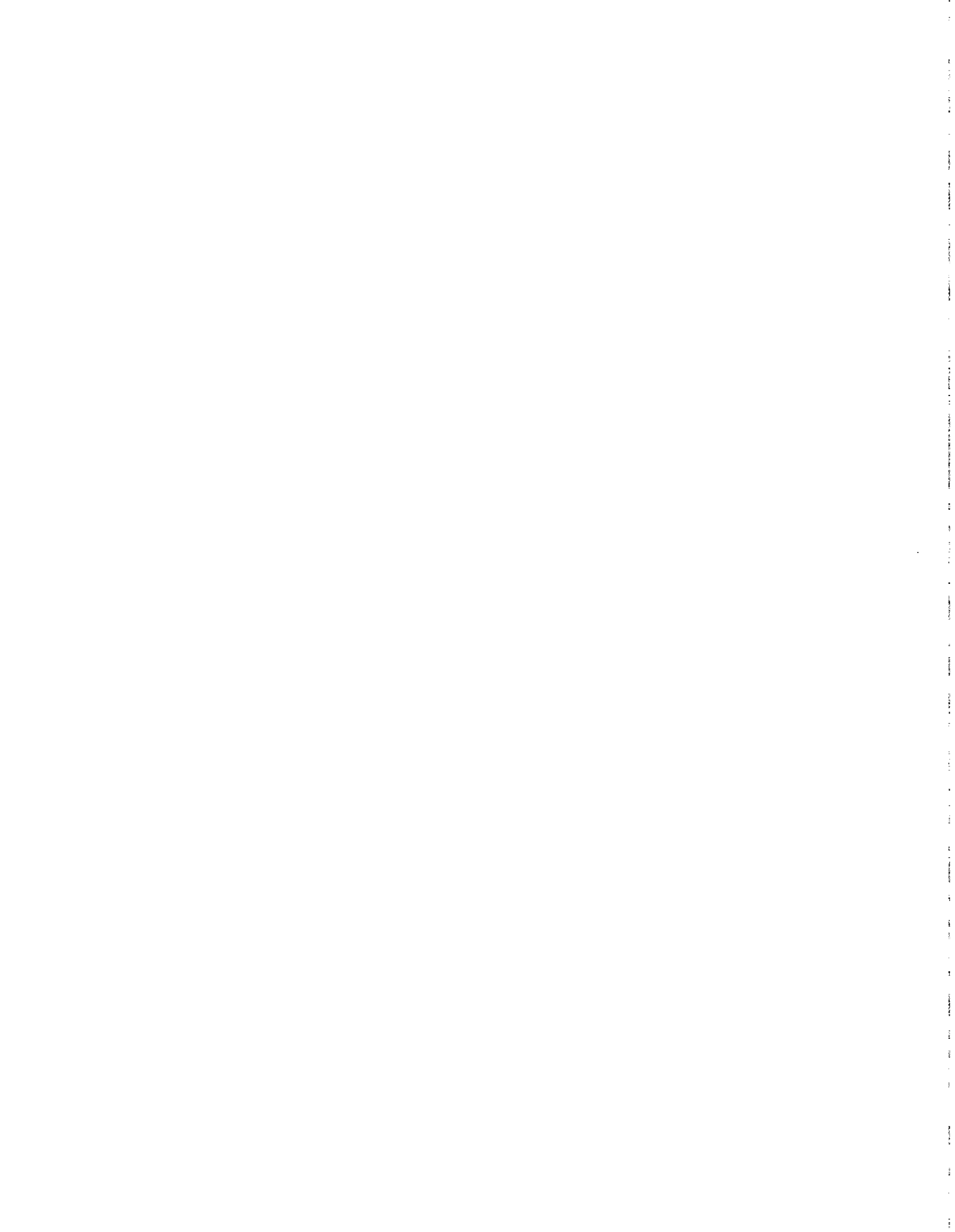
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