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**FLOOD INSURANCE**

**Information on Financial  
Aspects of the National  
Flood Insurance Program**

Statement of Robert S. Procaccini, Assistant Director,  
Housing and Community Development Issues,  
Resources, Community, and Economic  
Development Division



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Mr. Chairman and Members of the Committee:

We are here today to discuss the financial condition of the National Flood Insurance Program administered by the Federal Emergency Management Agency's (FEMA) Federal Insurance Administration. The program, along with low-interest loans provided by the Small Business Administration and individual and family grants provided by FEMA, is a major component of the federal government's efforts to provide flood-related disaster assistance. Floods have been, and continue to be, the most destructive natural hazard in terms of economic loss to the nation, according to FEMA. From fiscal years 1986 through 1998 the program paid about \$7 billion in insurance claims primarily from premiums collected from program policyholders. In recent years, claims paid by the program have increased as a result of a series of storms, creating a greater drain on the cash reserves of the program. These storms included the 1997 floods in the Red River Valley that flowed through Minnesota and North and South Dakota.

Prior to the flood insurance program's inception in 1968, flood insurance was generally not available from private insurance companies. The National Flood Insurance Act of 1968 (P.L. 90-448) established the program to identify flood-prone areas, make flood insurance available to property owners living in communities that joined the program, encourage floodplain management efforts to mitigate flood hazards, and reduce federal expenditures on disaster assistance.

Our statement today will provide information on the (1) financial results of the program's operations since fiscal year 1993, (2) major factors contributing to the financial difficulties faced by the program, and (3) actions taken by and plans of the Federal Insurance Administration that may affect the program's financial health.

The following summarizes our work:

- In March 1994, we reported that while sufficient to cover flood losses experienced at that time, overall income from the program's premiums was not sufficient to build reserves to meet future expected flood losses.<sup>1</sup> Therefore, we concluded that it was inevitable that losses from claims and the program's expenses would exceed the funds available to the program in some years. In this regard, during the 6-year period from fiscal years 1993 through 1998, the program experienced losses from floods that were

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<sup>1</sup>Flood Insurance: Financial Resources May Not Be Sufficient to Meet Future Expected Losses (GAO/RCED-94-80, Mar. 21, 1994).

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greater than the premiums collected from policyholders. Cumulative operating losses to the program (program income less program costs) totaled about \$1.6 billion during the 6-year period. To finance these losses, the Federal Insurance Administration has periodically borrowed from the U.S. Treasury. About \$738 million was owed by the program to the U.S. Treasury as of May 31, 1999.

- Two major factors contribute to the financial difficulties faced by the program. First, the program is not actuarially sound because it does not collect sufficient premium income to build reserves to meet the long-term future expected flood losses.<sup>2</sup> Second, the cost of multiple-loss properties (two or more losses greater than \$1,000 each within a 10-year period) to the program is large—about 36 percent of all claims paid historically, currently about \$200 million annually. The program, by design, is not actuarially sound because the Congress authorized subsidized insurance rates to be made available for policies covering certain structures to encourage communities to join the program. Because about 30 percent of the policies were subsidized as of 1998, overall premium income is not sufficient to build reserves to meet future expected flood losses. The Federal Insurance Administration's annual target for the program's overall premium income is at least the amount of loss and expenses in an average historical loss year, which approximates the average annual loss experienced under the program since 1978. Since no catastrophic loss years<sup>3</sup> have occurred since 1978, collecting premiums that are based on an average historical loss year does not enable the program to build sufficient reserves to cover a possible catastrophic loss year in the future. Because the program does not collect sufficient premium income to build reserves to meet the long-term future expected flood losses, including catastrophic losses, it is inevitable that losses from claims and the program's expenses will exceed the funds available to the program in some years.
- The Federal Insurance Administration has studies under way and has taken other actions recently that may affect the program's financial health. Among other things, it has studies under way assessing the (1) economic effects of eliminating subsidized flood insurance rates for policies covering certain structures and (2) program's underwriting and claims processes and controls. The Federal Insurance Administration has also developed a strategy to mitigate flood losses (to prevent future losses or reduce the losses that might otherwise occur from floods) for currently insured multiple-loss properties posing the greatest risk of loss.

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<sup>2</sup>For the program to be actuarially sound, overall revenues from insurance premiums would need to be sufficient to cover expected losses from claims and the program's expenses.

<sup>3</sup>Federal Administration officials told us that a catastrophic year is defined as a year resulting in \$5.5 billion to \$6 billion in claims losses has a 1 in 1,000 chance of occurring.

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Before I discuss these issues in greater detail, let me briefly explain the National Flood Insurance Program and other federal disaster assistance related to this program.

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## The National Flood Insurance Program and Other Flood-Related Assistance

About 19,000 communities have joined the flood insurance program. Under the program, flood insurance rate maps (FIRM) were prepared to identify special flood hazard areas. In order for a community to join the program, any structures built within a special flood hazard area after the FIRM was completed were required to be built to the program's building standards that are aimed at minimizing flood losses. Special flood hazard areas, also known as the 100-year floodplains, are areas subject to a 1-percent or greater chance of experiencing flooding in a given year. A key component of the program's building standards, that must be followed by communities participating in the program, is a requirement that the lowest floor of the structure be elevated to or above the base flood level—the elevation at which there is a 1-percent chance of flooding in a given year.

To encourage communities to join the program, thereby promoting floodplain management and the widespread purchasing of flood insurance, the Congress authorized the Federal Insurance Administration to make subsidized flood insurance rates available to owners of structures built before a community's FIRM was prepared. These pre-FIRM structures are generally more flood-prone than later-built structures because they were not built according to the program's building standards. Owners of post-FIRM structures pay actuarial rates for national flood insurance. Despite subsidized premiums, the average annual premium for a subsidized policy is currently \$580 and the average annual premium for an actuarial policy is currently \$290. The higher average premium for a subsidized policy reflects the significantly greater riskiness of flood-prone pre-FIRM properties. The \$580 average annual premium for a subsidized policy also represents about 38 percent of the true risk premium for these properties.

From 1968 until the adoption of the Flood Disaster Protection Act of 1973, the purchase of flood insurance was voluntary. The 1973 act required the mandatory purchase of flood insurance to cover structures in special flood hazard areas of communities participating in the program if (1) any federal loans or grants were used to acquire or build the structures and (2) the loans were secured by improved properties and were made by lending institutions regulated by the federal government. The owners of properties

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with no mortgages or properties with mortgages held by unregulated lenders are not required to buy flood insurance, even if the properties are in special flood hazard areas.

The National Flood Insurance Reform Act of 1994 reinforced the objective of using insurance as the preferred mechanism for disaster assistance by (1) expanding mandatory flood insurance purchase requirements and (2) effecting a prohibition on further flood disaster assistance for any property where flood insurance is not maintained, after having been mandated as a condition for receiving disaster assistance. The act requires federal agency lenders and regulators to develop regulations to direct their federally regulated lenders not to make, increase, extend, or renew any loan on applicable property unless flood insurance is purchased. The act also requires borrowers who have received certain disaster assistance and then failed to obtain flood coverage to be barred from receiving future disaster aid.

Other forms of flood disaster assistance include Small Business Administration low-interest loans to flood victims who are creditworthy. In addition, a flood victim who cannot obtain a Small Business Administration loan may apply for an individual and family FEMA grant of up to \$13,600 or the amount of the loss, whichever is less.

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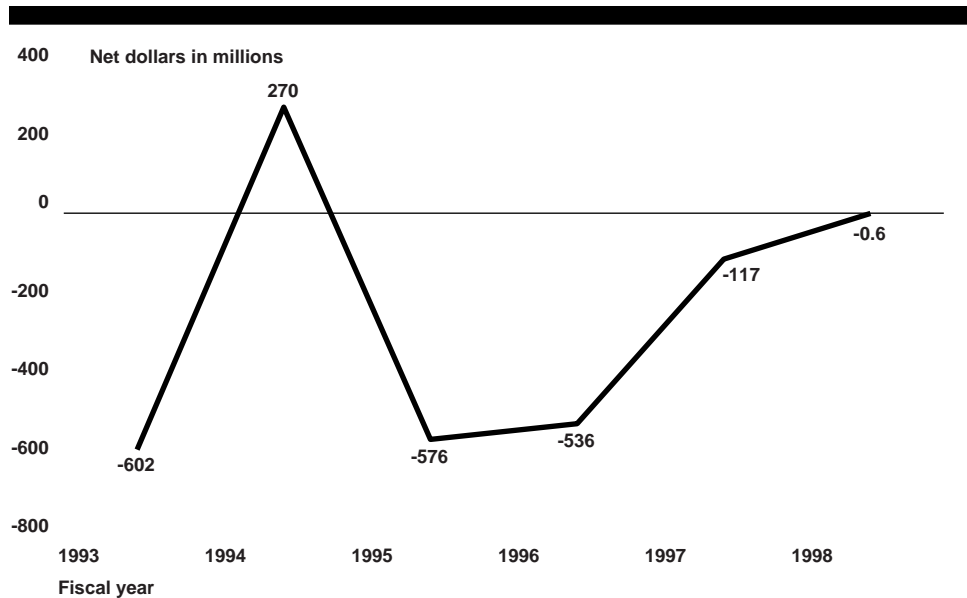
## Sustained Losses to the Program From Severe Flooding

While the National Flood Insurance Program's costs exceeded program revenues in some years, cumulative program income exceeded program costs by about \$90 million during the period October 1, 1968, through September 30, 1992. However, since fiscal year 1993, the flood insurance program has generally experienced operating losses because program costs were greater than program income.<sup>4</sup> This occurred because losses from flood claims were greater than what could be paid by premium income collected from the program's policyholders. As seen in Figure 1, during the 6-year period from fiscal years 1993 through 1998, the program incurred operating losses in 5 of these years—the exception was fiscal year 1994, when net income was about \$270 million. The program's annual losses during this period ranged from about \$600,000 in fiscal year 1998 to \$602 million in fiscal year 1993. Cumulative operating losses experienced by the program totaled about \$1.6 billion during the 6-year period, of which about \$1.5 billion was outstanding as of September 30, 1998 (the \$1.6 billion loss less the \$90 million in revenues as of September 30, 1992).

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<sup>4</sup>Program income primarily consists of premium revenues paid by policyholders, but also includes investment, fees, and other revenues. Program costs primarily consist of claims and related expenses, but also include, among other things, operating and interest costs.

**Figure 1: Net Financial Status of the National Flood Insurance Program**  
(Income Minus Costs)



Source: [National Flood Insurance Program Flood Insurance Rate Review](#)

To finance these losses, the Federal Insurance Administration borrowed from the U.S. Treasury during the 6-year period.<sup>5</sup> As of May 31, 1999, the debt owed by the program to the U.S. Treasury totaled \$738 million.<sup>6</sup> Interest expense incurred by the Federal Insurance Administration on the program's borrowings totaled about \$115 million during the 3 fiscal years 1996 through 1998.<sup>7</sup>

<sup>5</sup>The Congress authorized the Federal Insurance Administration to borrow up to \$1 billion from the U.S. Treasury if necessary to pay claims losses. Legislation enacted in 1996 provided a 1-year increase in borrowing authority to \$1.5 billion later extended through 1999. However, no appropriations have been made to the program since fiscal year 1986.

<sup>6</sup>According to a Federal Insurance Administration official, debt owed by the Insurance Administration to the U.S. Treasury is not equivalent to the program's cumulative losses because the amount of borrowing needed depends on (1) the relative timing of payments on the program's current obligations and expected monthly premium receipts and (2) future insurance claims.

<sup>7</sup>Federal Insurance Administration officials noted that beginning in fiscal year 1986, the Congress required all program and administrative costs to be paid for by the program without a commensurate rate increase. In 1991, the Congress authorized the Federal Insurance Administration to charge policyholders a federal policy fee to pay for these costs. Federal Insurance Administration officials estimate the current value of the resulting loss of funds and investment income to be about \$436 million, making the program more vulnerable to the need for exercising its borrowing authority.

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While the program has incurred substantial operating losses in recent years, it should be recognized that the value of the program in reducing federal expenditures on disaster assistance is not limited to its financial status. The Federal Insurance Administration estimated that the program's standards for new construction are now saving about \$800 million annually in flood damage avoided. Also, during the 13-year period from October 1, 1985, through September 30, 1998, the program paid about \$7 billion in insurance claims primarily from policyholder premiums that otherwise would, to some extent, have increased taxpayer-funded disaster relief.

It should also be recognized that losses experienced by the program annually have gradually declined since fiscal year 1995. Losses declined from \$576 million in fiscal year 1995 to \$600,000 in fiscal 1998. This decline was primarily due to three reasons. First, claims and related expenses declined from \$1.1 billion in fiscal year 1995 to \$719 million in fiscal year 1998.<sup>8</sup> Second, the number of policyholders covered by the program increased about 24 percent from 3.3 million policies in force in fiscal year 1995 to 4.1 million policies in force by fiscal 1998. Accordingly, earned premium revenue on these policies increased from \$814 million to \$1.2 billion during the period. Third, according to Federal Insurance Administration officials, the proportion of generally more flood-prone pre-FIRM subsidized policies insured by the program has declined, resulting in a less risky portfolio of policies in force. The percentage of program policies that are subsidized declines over time as newer properties join the program and are charged actuarial rates. While 41 percent of the 2.7 million policies in force in fiscal year 1993 were subsidized, 30 percent of the 4.1 million policies in force in fiscal year 1998 were subsidized, according to a Federal Insurance Administration official.

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## Major Factors Contributing to the Financial Difficulties Faced by the Program

Two major factors contribute to the financial difficulties faced by the program. First, the program is not actuarially sound because, by design, it does not collect sufficient premium income to build reserves to meet future expected flood losses. Second, the cost to the program of multiple-loss properties is large—about \$200 million annually.

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## The Program Is Not, by Design, Actuarially Sound

The program is not actuarially sound because about 30 percent of the 4.1 million policies in force are subsidized, according to a Federal Insurance Administration official. For a single-family pre-FIRM property,

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<sup>8</sup>The magnitude of flood damage can vary considerably from year to year.



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subsidized rates are available for the first \$35,000 of coverage, although any insurance coverage above that amount must be purchased at actuarial rates. Federal Insurance Administration officials estimated that total premium income from subsidized policyholders are currently about \$500 million less than they would be if these rates had been actuarially based and participation had remained the same.

Pre-FIRM structures that are within an identified 100-year floodplain and are covered by subsidized policies are, on average, not as elevated as the post-FIRM structures in comparison with the base flood level. Federal Insurance Administration officials told us that, on average, pre-FIRM structures not built to the program's standards are three and a half to four times more likely to suffer a flood loss. When these structures suffer a loss, the damage sustained is, on average, about 40 percent greater than the damage to flooded post-FIRM structures. According to the Federal Insurance Administration, when these two factors are combined, pre-FIRM structures suffer, on average, about five times more damage than post-FIRM structures.

### Premium Income Not Sufficient to Build Reserves for Potential Catastrophic Losses

As an alternative to actuarial soundness, the Federal Insurance Administration developed a financial goal for the program to collect sufficient revenues to at least meet the expected losses and expenses of the average historical loss year, as well as to cover all non-loss-related program expenses, such as the program's administration. However, the average historical loss year is based only on the experience under the program since 1978. Since that time, no catastrophic year (\$5.5 billion to \$6 billion in claims losses) has occurred, and many years in the 1980s were characterized by fairly low loss levels as compared to the average historical losses experienced in other years. Therefore, the average historical loss year involves less losses from claims than the expected annual claims losses in future years. As a result, collecting premiums to meet the average historical loss year does not reflect the collections necessary to build reserves for potential catastrophic years in the future.

For the program to be actuarially sound, its rate-setting process would have to consider the monetary risk exposure of the program or the dollar value of expected flood losses over the long run. Since the magnitude of flood damage varies considerably from year to year, income from premiums in many years would exceed actual losses. This circumstance would enable the program to build reserves toward a possible catastrophic year in the future.

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## Increasing Premiums for Subsidized Policies or Expanding Participation in the Program May Have Adverse Financial Impacts

As we reported in March 1994, increasing the premiums charged to subsidized policyholders (thereby decreasing the subsidy) to improve the program's financial health could have an adverse impact on other federal disaster-related relief costs. Increasing subsidized rates would likely cause some policyholders to cancel their flood insurance, and if flooded in the future, these people might apply for Small Business Administration loans or FEMA disaster assistance grants.

Because they were built before the program's building standards became applicable, pre-FIRM structures are generally not as elevated as post-FIRM structures, and if their owners were to be charged true actuarial rates, these rates would be much higher than current subsidized rates.<sup>9</sup> For example, if the subsidy on pre-FIRM structures were eliminated, insurance rates on currently subsidized policies would need to rise, on average, approximately a little more than twofold, according to a Federal Insurance Administration official. This increase would result in an annual average premium of about \$1,300 for these pre-FIRM structures. Significant rate increases for subsidized policies, including charging actuarial rates, would likely cause some pre-FIRM property owners to cancel their flood insurance.<sup>10</sup>

If owners of pre-FIRM structures, which suffer the greatest flood loss, canceled their insurance policies, the federal government would likely face increased costs, as the result of future floods, in the form of low-interest loans from the Small Business Administration or grants from FEMA. The effect on total federal disaster assistance costs of phasing out subsidized rates would depend on the number of the program's current policyholders who would cancel their policies. Thus, it is difficult to estimate if the increased costs of other federal disaster relief programs would be less than, or more than, the cost of the program's current subsidy.

On the other hand, expanding participation in the program by increasing the rate of compliance with the mandatory purchase requirement, or by extending the mandatory purchase requirement to property owners not

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<sup>9</sup>Also, Insurance Administration officials told us that making all rates actuarially based would not make the program actuarially sound. They noted that an initial capitalization would be necessary to establish some reserves in the event that a catastrophic year were to occur before sufficient reserves were accumulated from income from premiums.

<sup>10</sup>The National Flood Insurance Reform Act of 1994 expanded the mandatory flood insurance purchase requirement on properties financed with any federal loan or grant or loans made by lending institutions regulated by the federal government that are located in special flood hazard areas. However, lenders have not always imposed this requirement.

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now covered, will likely increase the number of both subsidized and unsubsidized policies. Although greater participation in the program is likely to reduce the cost of FEMA grants and Small Business Administration loans, the resulting increase in subsidized policyholders will put greater financial stress on the flood insurance program, because the premiums received from subsidized policyholders are not sufficient to meet the future estimated losses on these policies.

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## Repetitive Flood Losses

Another major factor contributing to the financial difficulties facing the National Flood Insurance Program is repetitive flood losses.<sup>11</sup> About 36 percent of all program claims historically (currently about \$200 million annually) represent repetitive losses even though repetitive-loss structures make up a small percentage of all program policies. About 40,000 buildings currently insured under the program have been flooded on more than one occasion and have received flood insurance claims payments of \$1,000 or more for each loss. The cost of these multiple-loss properties over the years to the program has been \$2 billion.

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## Actions Under Way to Address the Program's Financial Problems

The Federal Insurance Administration has studies under way and has taken other actions recently that may have an affect on the financial health of the program. The Federal Insurance Administration has studies under way assessing the economic effects of eliminating subsidized flood insurance rates for pre-FIRM construction and the program's underwriting and claims processes and controls. It has also developed a repetitive loss strategy that would target, for mitigation assistance, currently insured multiple-loss properties posing the greatest risk of loss. The Federal Insurance Administration also initiated a "Call for Issues" inviting program stakeholders and the public to make recommendations about ways to make the program more effective.

In line with requirements of the National Flood Insurance Reform Act of 1994, FEMA awarded a contract to study the economic effects of eliminating subsidized flood insurance rates for pre-FIRM construction. The study is aimed at determining, among other things, the (1) number and types of properties that would be affected by an increase in premium rates, (2) number of policyholders who would likely cancel their flood insurance policies if premium rates were increased, and (3) effects of increased premiums on land values and property taxes. The results of this study had

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<sup>11</sup>A repetitive-loss property is one that has two or more losses greater than \$1,000 each within any 10-year period.

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not been released when we were preparing our testimony statement, but the Federal Insurance Administration expects to issue the results shortly.

The improper underwriting of flood insurance policies and adjustments of flood insurance losses have an adverse effect on the financial health of the program. In light of the growth in the number of policyholders and losses experienced by the program, the Federal Insurance Administration initiated an evaluation of its underwriting and claims processes and controls. This study will focus on, among other things, how well the program's underwriting and claims requirements are being met and the nature and adequacy of program controls over these processes. The results of the study are expected this summer.

Under its repetitive-loss strategy, the Federal Insurance Administration intends to target for mitigation the most flood-prone repetitive-loss properties, such as those that are currently insured and have had four or more losses. The Federal Insurance Administration is considering a regulatory change proposing that if a target property is offered mitigation assistance and the offer is declined, flood insurance for the property will only be renewed or rewritten at a full-risk premium. Currently, about \$20 million has been authorized to address repetitive losses, and the Federal Insurance Administration intends to explore other funding.

Lastly, the Federal Insurance Administration is currently categorizing 600 issues suggested by lenders, bankers, individuals, and other stakeholders in response to its "Call for Issues" to make the program more effective. It expects to respond to these suggestions in the fall of 1999.

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In closing Mr. Chairman, the Federal Insurance Administration is helping the nation avoid the costs of flood damage through the premiums it collects from, and the claim payments it makes to, program policyholders as well as the building standards it has promoted for new construction that minimize flood damage. However, in recent years, heavy flooding has produced flood insurance losses that exceeded the premiums collected from policyholders. As a result, the program has had to borrow funds from the U.S. Treasury to cover its operating losses. Two major factors underlie these financial difficulties—the program, by design, is not actuarially sound and it experiences repetitive losses. These factors are not easy to overcome because they have been an integral part of the program since its inception, and they are related to the promotion of floodplain management and widespread purchasing of flood insurance. The Federal Insurance

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Administration has studies under way and has taken other actions that may enhance the financial soundness of the program.

Mr. Chairman, this completes our prepared statement. We would be happy to respond to any questions that you or Members of the Committee may have.

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## Contact and Acknowledgment

For future contacts regarding this testimony, please contact Mr. Robert S. Procaccini at (202) 512-6776. Mr. R. Tim Baden made key contributions to this testimony.

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