



January 2014

FLOOD INSURANCE

Strategies for Increasing Private Sector Involvement

GAO Highlights

Highlights of [GAO-14-127](#), a report to congressional committees

Why GAO Did This Study

NFIP has accrued \$24 billion in debt, highlighting structural weaknesses in the program and increasing concerns about its burden on taxpayers. As a result, some have suggested shifting exposure to the private sector and eliminating subsidized premium rates, so individual property owners—not taxpayers—would pay for their risk of flood loss. NFIP was created, in part, because private insurers were unwilling to insure against flood damage, but new technologies and a better understanding of flood risks may have increased their willingness to offer flood coverage.

The Biggert-Waters Flood Insurance Reform Act of 2012 moves NFIP toward charging more full-risk rates. It also mandates that GAO conduct a study on increasing private sector involvement in flood insurance. This report addresses (1) the conditions needed for private sector involvement in flood insurance and (2) strategies for increasing private sector involvement. To do this work, GAO reviewed available documentation and hosted a roundtable in August 2013 that included stakeholders from FEMA, the insurance and reinsurance industries, and state insurance regulators, among others. GAO also interviewed other similar stakeholders.

What GAO Recommends

While GAO makes no new recommendations in this report, GAO reiterates its previous suggestion from a June 2011 report ([GAO-11-297](#)) that Congress consider eliminating subsidized rates, charge full-risk rates to all policyholders, and appropriate funds for premium assistance to eligible policyholders to address affordability issues.

View [GAO-14-127](#). For more information, contact Alicia Puente Cackley at (202) 512-8678 or cackleya@gao.gov.

January 2014

FLOOD INSURANCE

Strategies for Increasing Private Sector Involvement

What GAO Found

According to stakeholders with whom GAO spoke, several conditions must be present to increase private sector involvement in the sale of flood insurance. First, insurers need to be able to accurately assess risk to determine premium rates. For example, stakeholders told GAO that access to National Flood Insurance Program (NFIP) policy and claims data and upcoming improvements in private sector computer modeling could enable them to better assess risk. Second, insurers need to be able to charge premium rates that reflect the full estimated risk of potential flood losses while still allowing the companies to make a profit, as well as be able to decide which applicants they will insure. However, stakeholders said that such rates might seem unaffordable to many homeowners. Third, insurers need sufficient consumer participation to properly manage and diversify their risk, but stakeholders said that many property owners do not buy flood insurance because they may have an inaccurate perception of their risk of flooding.

Stakeholders identified several strategies that could help create conditions that would promote the sale of flood insurance by the private sector. For example,

- *NFIP charging full-risk rates.* Congress could eliminate subsidized rates, charge all policyholders full-risk rates, and appropriate funding for a direct means-based subsidy to some policyholders. Stakeholders said full-risk NFIP rates would encourage private sector participation because they would be much closer to the rates private insurers would need to charge. The explicit subsidy would address affordability concerns, increase transparency, and reduce taxpayer costs depending on the extent and amount of the subsidy. The Biggert-Waters Act eliminates some subsidized rates, but some have proposed delaying these rate increases. Doing so could address affordability concerns, but would also delay addressing NFIP's burden on taxpayers.
- *NFIP providing residual insurance.* The federal government could also encourage private sector involvement by providing coverage for the highest-risk properties that the private sector is unwilling to insure. Providing residual coverage could increase the program's exposure relative to the number of properties it insured, but NFIP would be insuring fewer properties, and charging adequate rates could reduce taxpayer costs.
- *NFIP as reinsurer.* Alternatively, the federal government could serve as a reinsurer, charging a premium for assuming the risk of catastrophic losses. However, the cost of reinsurance premiums would likely be passed on to consumers, with higher rates potentially decreasing consumer participation.

Stakeholders identified other strategies including mandatory coverage requirements to ensure broad participation, NFIP purchasing reinsurance from the private sector rather than borrowing from the U.S. Treasury, and NFIP issuing catastrophe bonds to transfer risk to private investors. As the private sector increases its role in providing flood coverage, the federal government could collaborate with state and local governments to focus on other important roles, including promoting risk awareness among consumers, encouraging mitigation, enforcing building codes, overseeing land use agreements, and streamlining insurance regulations.

Contents

| | | |
|-------------|---|----|
| Letter | | 1 |
| | Background | 3 |
| | Stakeholders Identified Several Conditions That Must Exist to Encourage Private Sector Involvement in Flood Insurance | 10 |
| | Several Strategies Could Encourage Private Sector Involvement, but a Governmental Role Would Likely Be Required | 17 |
| | Concluding Observations | 25 |
| | Agency Comments | 25 |
| Appendix I | Objectives, Scope, and Methodology | 27 |
| Appendix II | GAO Contact and Staff Acknowledgments | 29 |

Abbreviations

| | |
|--------------------|---|
| Biggert-Waters Act | Biggert-Waters Flood Insurance Reform Act of 2012 |
| FEMA | Federal Emergency Management Agency |
| FIRM | Flood Insurance Rate Map |
| HUD | U.S. Department of Housing and Urban Development |
| NFIP | National Flood Insurance Program |
| SFHA | Special Flood Hazard Area |
| Treasury | U.S. Department of the Treasury |

This is a work of the U.S. government and is not subject to copyright protection in the United States. The published product may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



January 22, 2014

The Honorable Tim Johnson
Chairman
The Honorable Mike Crapo
Ranking Member
Committee on Banking, Housing and Urban Affairs
United States Senate

The Honorable Jeb Hensarling
Chairman
The Honorable Maxine Waters
Ranking Member
Committee on Financial Services
House of Representatives

The National Flood Insurance Program (NFIP) is the key component of the federal government's efforts to minimize the damage floods cause and the resulting financial impact and is the only source of insurance against flood damage for most residents of flood-prone areas. Since 2000, NFIP has experienced several years with catastrophic losses, primarily from Hurricane Katrina and the other 2005 storms and Superstorm Sandy in 2012. Since then, the Federal Emergency Management Agency (FEMA), which administers NFIP, has needed to borrow money from the U.S. Department of the Treasury (Treasury) to cover claims in some years. As of September 2013, FEMA owed Treasury \$24 billion—up from \$17.8 billion prior to Superstorm Sandy—and had not repaid any principal on its loans since 2010.¹ NFIP is unlikely to be able to repay this debt in the near future, if ever.² Because of its

¹FEMA has authority to borrow money from Treasury to pay losses that exceed premium revenue and any accumulated surplus. Treasury charges FEMA interest on the outstanding debt. Before Superstorm Sandy, this borrowing authority stood at \$20.725 billion. In January 2013, Congress passed and the President signed into law a \$9.7 billion increase in this authority to pay flood claims related to Superstorm Sandy, raising FEMA's borrowing authority to a total of \$30.425 billion. Pub. L. No. 113-1, § 1(a), 127 Stat. 3, 3 (2013).

²The Biggert-Waters Flood Insurance Reform Act of 2012 mandates that FEMA develop a plan for repaying its debt to Treasury. Pub. L. No. 112-141, Div. F, Tit. II, Subtit. A, § 100213(a), 126 Stat. 405, 923 (codified at 42 U.S.C. § 4016(c)).

recurring financial and management challenges, NFIP has been on our high-risk list since March 2006.³

NFIP's growing debt has highlighted structural weaknesses in the program and increased concerns about its burden on taxpayers. As a result, Congress has shown increased interest in reducing the federal government's role in flood insurance by transferring its exposure to the private sector. Flood insurance reform involves the question of who should be responsible for paying to insure against the flood risk that arises from living in a particular location—the individual property owners themselves, taxpayers, or some combination of the two. Unlike private insurance, which makes individuals responsible for their own risk through premiums that reflect that risk, NFIP relies in part on taxpayer money. Historically, NFIP was not designed to be actuarially sound, so premiums do not cover the program's costs. The National Flood Insurance Act of 1968 authorized subsidized rates to encourage participation in NFIP, especially for properties in high-risk locations that were built before Flood Insurance Rate Maps (FIRM) became available and the level of risk was clearly understood.⁴ Without the subsidies, these properties would have been charged significantly higher premiums. FEMA estimates that about 1.1 million of 5.5 million NFIP policies—about 20 percent—have subsidized rates. The discounted premiums encourage property owners to join the program but do not provide enough revenue to cover potential losses, and many subsidized policies have had high losses.⁵

The Biggert-Waters Flood Insurance Reform Act of 2012 (Biggert-Waters Act) reauthorized NFIP through 2017 and made some significant changes, such as eliminating the subsidies for certain properties, creating a reserve fund, and eliminating the grandfathering of properties at old

³See GAO, *High-Risk Program*, [GAO-06-497T](#) (Washington, D.C.: Mar. 15, 2006); and *High-Risk Series: An Update*, [GAO-13-359T](#) (Washington, D.C.: Feb. 13, 2013).

⁴Pub. L. No. 90-448, Tit. XIII, 82 Stat. 476, 572 (1968).

⁵These properties generally have higher loss rates than unsubsidized properties. In 2008, we reported that subsidized properties accounted for the majority of repetitive loss properties—properties that have experienced multiple flood losses—and made up around 1 percent of the total policies but 30 percent of the claims dollars paid. See GAO, *Flood Insurance: Options for Addressing the Financial Impact of Subsidized Premium Rates on the National Flood Insurance Program*, [GAO-09-20](#) (Washington, D.C.: Nov. 14, 2008).

rates after remapping.⁶ These changes are important steps in putting NFIP on the path toward financial solvency, but a number of policies will continue to receive subsidized rates. This report addresses one of several GAO mandates in the Biggert-Waters Act: to assess a broad range of options, methods, and strategies for privatizing NFIP.⁷ The report discusses (1) conditions needed for private sector involvement in flood insurance and (2) strategies for increasing such involvement.

To address these objectives, we reviewed NFIP laws, regulations, and history, FEMA reports, academic studies, our prior work on NFIP, and other documentation and reports. We also interviewed a variety of stakeholders and held a roundtable in August 2013 to obtain views on increasing private sector involvement in flood insurance. Stakeholders participating in interviews and the roundtable included representatives from FEMA, the Federal Insurance Office, private insurers, reinsurers, state residual insurance programs, state insurance regulators, actuaries, insurance adjusters, insurance agents, a catastrophe modeling firm, consumer advocates, floodplain managers, mortgage bankers, realtors, an academic, and other experts.

We conducted this performance audit from March 2013 to January 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Floods are the most common and destructive natural disaster in the United States. However, flooding is generally excluded from homeowners insurance policies, which typically cover damages from other losses, such as wind, fire, and theft. Because of the catastrophic nature of flooding, the difficulty of adequately predicting flood risks, and uncertainty surrounding

⁶Pub. L. No. 112-141, Div. F, Tit. II, Subtit. A, 126 Stat. 405, 916 (2012). Prior to the Biggert-Waters Act, FEMA could “grandfather” properties that were already in the program when new flood maps placed them in higher-risk zones, allowing some property owners to pay premium rates that applied to the previous lower-risk zone.

⁷Pub. L. No. 112-141, § 100232(a).

the possibility of charging actuarially sound premium rates, private insurance companies have historically been largely unwilling to underwrite flood insurance. NFIP, which makes federally backed flood insurance available to residential property owners and businesses, was intended to reduce the federal government's escalating costs for repairing flood damage after disasters. Under NFIP, the federal government currently assumes the liability for the insurance coverage and sets rates and coverage limitations, among other responsibilities, while private insurers sell the policies and administer the claims for a fee determined by FEMA. NFIP is managed by FEMA's Federal Insurance and Mitigation Administration, which is responsible for administering programs that provide assistance for mitigating future damages from natural hazards. Some private insurers provide coverage for flood insurance above the limit of NFIP coverage, generally referred to as excess flood insurance.⁸ Further, NFIP policies do not provide coverage for business interruption or additional living expenses, which currently are available through some private insurers.

Community participation in NFIP is voluntary, but communities must join NFIP and adopt and enforce FEMA-approved building standards and floodplain management strategies in order for their residents to purchase flood insurance through the program. Additionally, communities in Special Flood Hazard Areas (SFHA)—areas subject to a 1 percent or greater chance of flooding in any given year—must participate in NFIP for property owners to be eligible for any aid in connection with a flood, including disaster assistance loans and grants for acquisition or construction purposes. Participating communities agree to enforce regulations for land use and new construction in high-risk flood zones and to adopt and enforce state and community floodplain management regulations to reduce future flood damage. Participating communities can receive discounts on flood insurance if they establish floodplain management programs that go beyond NFIP's minimum requirements.⁹

⁸See GAO, *Flood Insurance: Implications of Changing Coverage Limits and Expanding Coverage*, [GAO-13-568](#) (Washington, D.C.: July 3, 2013).

⁹To be eligible for these discounts, communities must participate in the Community Rating System, a voluntary program established in 1990 to encourage community floodplain management activities that exceed the minimum NFIP standards. Under the Community Rating System, flood insurance premium rates are discounted to reward community actions that meet three goals: (1) reduce flood damage to insurable property, (2) strengthen and support the insurance aspects of NFIP, and (3) encourage a comprehensive approach to floodplain management.

FEMA can suspend communities that do not comply with the program, and communities can withdraw from it by submitting a copy of a legislative action stating its desire to withdraw from NFIP. As of May 2013, about 22,000 communities voluntarily participated in NFIP.¹⁰

NFIP has mapped flood risks across the country, assigning flood zone designations based on risk levels, and these designations are a factor in determining premium rates. To help reduce or eliminate the long-term risk of flood damage to buildings and other structures insured by NFIP, FEMA has used a variety of mitigation efforts, such as elevation, relocation, and demolition. Despite these efforts, the number of repetitive loss properties—generally, those that have had two or more flood insurance claims payments of \$1,000 or more over 10 years—has continued to grow.¹¹

Subsidized Premium Rates

NFIP policies have what FEMA describes as either subsidized or full-risk premiums. The type of policy and the subsequent rate a policyholder pays depend on several property characteristics—for example, whether the structure was built before or after a community’s FIRM was issued and the location of the structure in the floodplain. Structures built after a community’s FIRM was published must meet FEMA building standards, and the property owner must pay full-risk rates, which reflect FEMA’s estimates of the actual risk of flooding. Post-FIRM structures are generally less flood prone than pre-FIRM properties because they have been built to flood-resistant building codes or mitigation steps have been taken to reduce flood risks.

Subsidized rates do not reflect the estimated total flood risk and instead are highly discounted. Even with highly discounted rates, subsidized premiums are, on average, higher than full-risk premiums because subsidized pre-FIRM structures generally are more prone to flooding (that is, riskier) than other structures. In general, pre-FIRM properties were not

¹⁰Not all participating NFIP communities have residents or businesses with policies.

¹¹The Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 amended the existing definition of the term “repetitive loss structure” to the current one—a structure covered by a contract for flood insurance that (a) has incurred flood-related damage on two occasions resulting in repair costs that, on average, equaled or exceeded 25 percent of the structure’s value, and (b) at the time of the second incidence, the contract for flood insurance must contain increased cost of compliance coverage. 42 U.S.C. § 4121(a)(7).

constructed according to the program's building standards or were built without regard to base flood elevation—the level relative to mean sea level at which there is an estimated 1 percent or greater chance of flooding in a given year. For example, the average annual subsidized premium with October 2011 rates for pre-FIRM subsidized properties was about \$1,224, while the average annual premium for post-FIRM properties paying full-risk rates was about \$492.

Program History

Flooding disasters of the 1920s and 1930s led to federal involvement in protecting life and property from flooding, with the passage of the Flood Control Act of 1936.¹² Generally, the only available financial recourse to assist flood victims was postdisaster assistance. When flood insurance was first proposed in the 1950s, it became clear that private insurance companies could not profitably provide flood coverage at a price that consumers could afford, primarily because of the catastrophic nature of flooding and the difficulty of determining accurate rates.¹³

In 1965 Congress passed the Southeast Hurricane Disaster Relief Act that provided financial relief for victims of flooding.¹⁴ In addition, the act mandated a feasibility study of a national flood insurance program, which helped provide the basis for the National Flood Insurance Act of 1968 that created NFIP.¹⁵ From 1969 through 1977, the Department of Housing and Urban Development (HUD), which administered NFIP at the time, had an agreement with a consortium of private insurers known as the National Flood Insurers Association. Under this agreement, HUD reimbursed the association of insurers for operating costs and provided an annual operating allowance equal to 5 percent of policyholders' premiums. HUD ended the partnership in 1978 and converted NFIP to a government-operated program because it could not come to an agreement with the private insurers on issues such as HUD's right to approve their operating budgets and its authority over policy decisions and regulations. HUD also

¹²49 Stat. 1570 (1936).

¹³Federal Emergency Management Agency, *National Flood Insurance Program: Program Description* (Washington, D.C.: Aug. 1, 2002).

¹⁴Pub. L. No. 89-339, 79 Stat. 1301 (1965).

¹⁵Pub. L. No. 89-339, § 5 (mandating feasibility study); National Flood Insurance Act of 1968, Pub. L. No. 90-448, Title XIII, 82 Stat. 476, 572.

estimated \$15 million in cost savings by ending the partnership. The insurers wanted to continue the partnership, but the HUD Secretary decided to use her statutory authority to convert NFIP to a government program. In 1978, we determined that the partnership had not reached a last resort status and that the potential for a new agreement existed.¹⁶

The Flood Disaster Protection Act of 1973 made the purchase of flood insurance mandatory for owners of properties in special flood hazard areas that are secured by mortgages from federally regulated lenders and provided additional incentives for communities to join the program.¹⁷ The National Flood Insurance Reform Act of 1994—which amended the 1968 act and the 1973 act—strengthened the mandatory purchase requirements for owners of properties located in SFHAs with mortgages from federally regulated lenders.¹⁸ The Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 authorized a pilot program to encourage owners of properties that suffer from repeated flood losses to take steps to reduce the risk of damage, known as mitigation.¹⁹ Owners of these “severe repetitive loss” properties who refuse an offer to mitigate the risks face higher premiums.

Finally, in 2012 the Biggert-Waters Act reauthorized the program through 2017 and removed subsidized rates for a number of insured properties, such as residential properties that are not an individual’s primary residence, severe repetitive loss properties, business properties, and properties that had received payments for flood-related damage that

¹⁶GAO, *Economic Development: HUD’s Determination to Convert from Industry to Government Operation of the National Flood Insurance Program*, [CED-78-122](#) (Washington, D.C.: May 31, 1978).

¹⁷Pub. L. No. 93-234, 87 Stat. 975 (1973).

¹⁸Pub. L. No. 103-325, Tit. V, 108 Stat. 2160, 2255 (1994).

¹⁹Pub. L. No. 108-264, Tit. I, § 102, 118 Stat. 712, 714 (2004). According to FEMA, the key mitigation steps for residential properties are elevating a building to or above the area’s base flood elevation, relocating the building to an area with lower flood risk, or demolishing the building and turning the property into green space. A community can also take steps to reduce flood risk to an area by diverting the flow of water through well-designed channels and retaining walls or by containing the water through ponds and green space.

cumulatively equaled or exceeded the property's fair market value.²⁰ The Biggert-Waters Act also included several other provisions, such as the following.

- Rates that fully reflect flood risk for specified properties are to be phased in over several years—with increases of 25 percent each year—until the average risk premium rate for these properties equals the average of the full-risk premium rates for all properties in that risk classification.²¹
- Properties will no longer qualify for subsidies if the policyholder has deliberately chosen to let the policy lapse and if a prospective insured refuses to accept any offer of mitigation assistance (including relocation) following a major disaster.²²
- Properties that did not have NFIP insurance when the act was enacted and properties purchased after that date will not receive subsidies. Subsidized properties that are sold will lose their subsidies.²³
- FEMA must adjust rates to accurately reflect the current risk of flooding to properties when an area's flood map is changed.²⁴ FEMA is determining how this provision will affect properties that were grandfathered into lower rates.

In addition, the act allows average premium increases of 20 percent annually by risk class (the previous cap was 10 percent), establishes minimum deductibles, requires FEMA to establish a reserve fund, and requires FEMA to include losses from catastrophic years in determining premiums that are based on the “average historical loss year,” among other things. The potential adverse effects on certain property owners of the premium rate increases arising out of the Biggert-Waters Act and the

²⁰Pub. L. No. 112-141, §§ 100203, 100205. For single-family properties, severe repetitive loss properties are those that have incurred at least four NFIP claims payments exceeding \$5,000 each, with the cumulative amount of such claims payments exceeding \$20,000; or at least two separate claims payments with a cumulative total that exceeds the property's value. For multifamily properties, FEMA will define the term by regulation.

²¹Pub. L. No. 112-141, § 100205(c)(3) (codified at 42 U.S.C. § 4015(e)(2)).

²²Pub. L. No. 112-141, § 100205(a)(1)(B) (codified at 42 U.S.C. § 4014(g)(3)-(4)).

²³Pub. L. No. 112-141, § 100205(a)(1)(B) (codified at 42 U.S.C. § 4014(g)(1)-(2)).

²⁴Subject to any other statutory provision in 42 U.S.C. ch. 50. Pub. L. No. 112-141, § 100207 (codified at 42 U.S.C. § 4015(h)).

possibility of delaying some rate increases have been the subject of congressional hearings and recent legislative proposals.²⁵

Policy Goals Framework

We previously identified goals for federal involvement in natural catastrophe insurance programs.²⁶ These goals can be adapted to help evaluate strategies for increasing private sector involvement in flood insurance. The goals include:

- charging premium rates that fully reflect estimated risks,
- encouraging private markets to provide flood insurance,
- encouraging property owners to buy flood insurance, and
- limiting costs to taxpayers before and after a flood.

The four-goal framework captures the public policy goals for providing insurance against natural catastrophes such as flooding. Stakeholders with whom we spoke generally agreed that these goals were appropriate.²⁷

²⁵See, e.g., Homeowner Flood Insurance Affordability Act of 2013, S. 1610, 113th Cong. (2013); Homeowner Flood Insurance Affordability Act of 2013, H.R. 3370, 113th Cong. (2013); a bill to improve the National Flood Insurance Program, and for other purposes, S. 996, 113th Cong. (2013); Flood Insurance Premium Relief Act of 2013, H.R. 1267, 113th Cong. (2013); and Flood Victim Premium Relief Act of 2013, H.R. 960, 113th Cong. (2013).

²⁶See GAO, *Natural Disasters: Public Policy Options for Changing the Federal Role in Natural Catastrophe Insurance*, [GAO-08-7](#) (Washington, D.C.: Nov. 26, 2007).

²⁷We obtained views from stakeholders through a roundtable discussion as well as individual interviews. References to stakeholders throughout this report refer to information obtained either through our roundtable discussion, individual interviews, or both. Further, information attributed to stakeholders does not imply an agreement among all stakeholders with whom we spoke, but instead indicates something mentioned by multiple stakeholders.

Stakeholders Identified Several Conditions That Must Exist to Encourage Private Sector Involvement in Flood Insurance

Stakeholders with whom we spoke or who participated in our roundtable discussion identified several conditions that would be needed to increase private sector involvement in flood insurance. First, private insurers would have to perceive floods as an insurable risk that they could profitably cover—that is, they would need to be able to estimate both the frequency and severity of future losses with some accuracy. Second, they would need the freedom to charge adequate rates and decide which applicants they would insure. Third, private insurers would need adequate consumer participation in order to manage and diversify their risk.

Private Insurers Must Be Able to Accurately Assess Flood Risk

Private insurers generally cover only what they see as insurable risks whose frequency and severity they can estimate with some accuracy. Being able to calculate the average frequency and severity of future losses enables insurers to set premium rates that are likely to be sufficient to pay all claims and expenses and yield a profit. For this reason, homeowners policies do not cover a variety of risks, such as flooding, which tend to occur unexpectedly and can cause a devastating amount of damage.²⁸ NFIP was created in part because the catastrophic nature of flooding made it difficult for private insurance companies to develop an actuarial rate structure that could adequately reflect the risks to flood-prone properties.²⁹ The program is the only provider of affordable flood insurance for most U.S. homeowners.

Stakeholders indicated that private insurers would need more information and more sophisticated modeling to assess flood risk before they could begin providing flood insurance.³⁰ Risk modelers with whom we spoke questioned the reliability of FEMA's flood risk zones, which in many areas, such as along coastlines, were determined using a less sophisticated methodology than what is available today. For example, one risk modeler said that FEMA's base flood elevations were likely too

²⁸George E. Rejda, *Principles of Risk Management and Insurance*, 8th ed. (Boston, Mass.: Pearson Education, Inc, 2003).

²⁹Federal Emergency Management Agency, *National Flood Insurance Program: Program Description* (Washington, D.C.: Aug. 1, 2002).

³⁰Modeling companies determine the probability of flooding and the associated cost of damage based on an analysis of flood hazards and a building's exposure and vulnerability to those hazards.

low in many places and that many structures across the country were at higher flood risk than the flood maps indicated. According to one insurer, determining flood risk for commercial policyholders involves reviewing specific information, including FEMA flood maps and satellite imagery, to determine a structure's flood zone, proximity to other flood zones, and elevation. This insurer uses geographical address information to determine flood risk on a building-by-building basis based on a range of factors that include the structural elements of a building and its contents. One risk modeler suggested that FEMA should design flood risk maps for future building stock and should model both current and future flood levels; however, the risk modeler said that determining future flood risks was a challenge and that the industry lacked consensus on the methodology that should be used.³¹

Stakeholders anticipated that risk modeling firms would be releasing new flood models in the next several years, providing the tools that private insurers would need to evaluate flood risk. Stakeholders also noted that a private market for flood insurance would likely create a market for modeling flood risk, attracting many companies to fill that need. Stakeholders said that if other conditions for private sector involvement in flood insurance were met, more risk-modeling companies or private insurers would begin developing models that private insurers could use to determine risks more accurately. For example, one risk modeler said risk modelers could determine how different bodies of water, such as two rivers, would interact and contribute to flood events—information that FEMA's flood maps do not include.

Stakeholders said that in addition to advanced computer modeling, access to NFIP policy and claims data would help private insurers assess flood risks and determine which properties they might be willing to insure. However, FEMA officials said the agency would need to address privacy concerns to provide property-level information to insurers, because the Privacy Act prohibits the agency from releasing detailed NFIP policy and claims data. The Privacy Act governs how federal agencies may use the

³¹The Biggert-Waters Act requires the newly created Technical Mapping Advisory Council to develop recommendations for FEMA for future conditions mapping, including the best available methodology to consider the impact of the rise in the sea level and future development on flood risk, and present its recommendations in a report. FEMA is required to implement such future risk assessment recommendations. Pub. L. No. 112-141, § 100215(d).

personal information that individuals supply when obtaining government services or fulfilling obligations.³² FEMA officials said that while the agency could release data in the aggregate, some information could not be provided in detail. For example, FEMA could provide zip-code level information to communities but would need to determine how to release property-level information while protecting the privacy of individuals.

Private Insurers Would Need Freedom to Charge Adequate Rates and Manage Risk

Stakeholders said that private insurers would also need to be able to charge adequate rates that would reflect the full estimated risk of flood loss and allow for profit. In our prior work, one of the public policy goals we adapted for evaluating options for increasing private sector involvement in flood insurance was charging premium rates that fully reflected estimated risks.³³ Actuarially sound rates determined by private insurers would differ from NFIP rates in that they would be calculated to account for potential losses, reflect the cost of capital to cover potential catastrophic losses, and provide a reasonable return for investors. As a result, these rates would be higher than present NFIP rates for many properties and could present affordability challenges for consumers. One stakeholder said higher prices could lead some homeowners to purchase lower amounts of coverage or choose not to purchase flood insurance at all. Further, another stakeholder said higher flood insurance rates could affect property owners' home value and ability to sell their property. For example, one stakeholder said that potential buyers might decide not to purchase a home in a high-risk area after determining the cost of flood insurance for the property.

Stakeholders said that the political environment could prevent insurers from setting adequate rates. For example, they expressed concerns that efforts to increase flood insurance rates would likely face public resistance or be politically unpopular. Stakeholders said it was challenging for private insurers to gain enough confidence to enter the flood insurance market because they feared not being able to charge actuarially sound rates or obtain a reasonable rate of return. For example, stakeholders said that state by state approval of flood insurance rates

³²Pub. L. No. 93-579, 88 Stat. 1896 (1974) (codified, as amended, at 5 U.S.C. § 552a).

³³We previously reported that charging full-risk rates would improve NFIP's financial soundness but could reduce property owner participation. See GAO, *Flood Insurance: Public Policy Goals Provide a Framework for Reform*, [GAO-11-670T](#) (Washington, D.C.: June 23, 2011).

might impede insurers' ability to obtain adequate rates. An insurer said that most state insurance regulators lacked knowledge about flood policies, but a state regulation official said that most states took a measured approach to rate regulation, with an eye toward allowing insurers to earn a reasonable profit. Further, one stakeholder said that private insurers would need flexibility to account for potential climate change effects when pricing flood, hurricane, and other risks associated with sea level rise. Although potential climate change effects would have a long time horizon, the stakeholder suggested it was an issue to consider regarding the regulatory environment for private insurers.

In addition, stakeholders said that private insurers would need freedom in underwriting policies so that they could accept and reject applicants as necessary to manage their risk portfolios. Insurable risks have certain characteristics that make providing coverage possible. As well as being estimable, for example, loss exposure should not be potentially catastrophic for the insurer.³⁴ Freedom to manage risk would help insurers manage potentially catastrophic losses and further encourage their participation in the flood insurance market. For example, insurers might determine that they needed to limit the number of policies in a geographic area because a single flood event could result in losses on many of those policies at the same time. Stakeholders said incentives would be needed to encourage insurers to assume greater risk, particularly in flood-prone areas. One stakeholder said the political environment could limit insurers' ability to accept and reject applicants as necessary to manage their risk exposure. Further, stakeholders said that different insurance regulations across states could further complicate insurers' ability to underwrite flood insurance.³⁵ One stakeholder said that insurers would need clarity on the political and regulatory environment before entering the flood market.

³⁴Rejda, *Principles of Risk Management and Insurance*.

³⁵States, rather than federal government, primarily regulate insurance. See GAO, *Insurance Markets: Impacts of and Regulatory Response to the 2007-2009 Financial Crisis*, [GAO-13-583](#) (Washington, D.C.: June 27, 2013).

Adequate Consumer Participation Would Also Be Necessary

Insurers need to be able to manage their risk exposure by having a large, diverse risk pool with premiums at a level that property owners are willing and able to pay.³⁶ Having a large and diversified risk pool would enable an insurer to better estimate losses based on loss data it collected over time and to spread the losses over a large number of properties. Economically feasible premiums would provide an opportunity or incentive for property owners to obtain coverage. Further, in our prior work, one of the public policy goals we adapted for evaluating strategies for increasing private sector involvement in flood insurance was encouraging broad consumer participation in the flood insurance market. We previously have found that efforts to encourage broader participation in NFIP could reduce costs, depending on how they were implemented.³⁷ Likewise, a large risk pool could help private insurers manage their exposure.

Broad consumer participation in the market would also be necessary to address adverse selection—the phenomenon that occurs when only those most in need typically purchase insurance, creating a pool of only the highest-risk properties. In this case, insurers must be confident that homeowners other than those in the highest-risk areas will obtain flood insurance, because adverse selection can hamper an insurer’s efforts to manage its risk. A 2006 study estimated that NFIP participation rates were as low as 50 percent in SFHAs, where property owners with loans from federally insured and regulated lenders were required to purchase flood insurance.³⁸ The study also found that participation rates outside of SFHAs were as low as 1 percent. Another study found that homeowners both within and outside SFHAs who did obtain flood insurance when purchasing their homes typically kept it for 2 to 4 years before canceling their policies.³⁹ Stakeholders said that homeowners were more likely to purchase flood insurance immediately following a flood event and to drop it later as their perception of their flood risk decreased.

³⁶Rejda, *Principles of Risk Management and Insurance*.

³⁷[GAO-11-670T](#).

³⁸RAND Corporation, *The National Flood Insurance Program’s Market Penetration Rate: Estimates and Policy Implications* (Santa Monica, Ca.: American Institutes for Research, Feb. 2006).

³⁹Erwann Michel-Kerjan, Sabine Lemoyne de Forges, and Howard Kunreuther, “Policy Tenure under the U.S. National Flood Insurance Program (NFIP),” *Risk Analysis*, vol. 32, no. 4, (2012).

Homeowners that do not purchase flood insurance, including many residing in SFHAs, make that decision for a number of reasons that would have to be addressed in order to make private flood insurance possible. Stakeholders said that affordability was one of the key challenges to providing flood insurance. In addition, stakeholders said that affordability could be a particularly difficult issue for low- and moderate-income homeowners, as evidenced by complaints surrounding rate increases under the Biggert-Waters Act. Further, stakeholders said that not all homeowners would be able to afford flood insurance at rates that private insurers would consider adequate for reflecting the full estimated risk of flood loss and allowing for profit.

Based on our analysis of stakeholder views and other information, many property owners may also have an inaccurate perception of their risk of flooding and thus do not buy flood insurance. For example, a 2012 study suggested that some property owners believe that only properties in SFHAs are in a flood zone and that properties located outside of SFHAs are not at risk of flooding.⁴⁰ Stakeholders said that it was difficult to convince homeowners to pay for coverage for an unlikely event, despite the potential for severe damage. The former definition of SFHAs as a “100-year” flood zone has contributed in part to this misperception, given the long time horizon, so that some property owners have assumed that after experiencing a flood loss, their properties would be free from flooding for the next 100 years.⁴¹ And one stakeholder indicated that many consumers mistakenly assumed that their homeowners insurance policies included flood coverage. In addition, a banking association with whom we spoke said that some lending institutions did not see flood risk as a threat to their safety and soundness and therefore often did not require flood coverage at mortgage origination, potentially contributing further to homeowners’ misperception of flood risk.

Finally, stakeholders suggested that many consumers did not obtain flood insurance because they assumed they would receive federal or state disaster assistance after a flood event. However, federal disaster assistance to individuals is limited. Disaster assistance is administered through several federal programs and is generally made available only

⁴⁰Michel-Kerjan, Lemoyne de Forges, and Kunreuther, “Policy Tenure under NFIP,” 10-12.

⁴¹To clarify the perception of risk among homeowners, FEMA revised the definition of SFHA to land “subject to a 1 percent or greater chance of flooding in any given year.”

after the President issues a disaster declaration, but homeowners seeking such assistance must first seek assistance from their flood insurance policy.⁴² Further, while one federal grant program is available—the Individuals and Households Program—federal disaster assistance to individuals and businesses for the repair or replacement of structures consists primarily of federal loan programs. These include loans from the U.S. Small Business Administration that are available to all first-time applicants but to repeat applicants only if they have flood insurance. Homeowners can apply for up to \$200,000 in home and property disaster loans for the repair or replacement of a primary residence to its predisaster condition. Business disaster loans of up to \$2 million are the primary form of federal assistance for the repair and rebuilding of nonfarm, private sector disaster losses.⁴³ One stakeholder said many homeowners without flood insurance would not qualify for individual assistance or loans from the U.S. Small Business Administration and that homeowners might not have options—other than filing for bankruptcy—to recover financially from a flood event.⁴⁴ We previously reported that while the federal government has provided significant financial assistance after

⁴²GAO, *Disaster Assistance: Federal Assistance for Permanent Housing Primarily Benefited Homeowners; Opportunities Exist to Better Target Rental Housing Needs*, [GAO-10-17](#) (Washington, D.C.: Jan. 14, 2010).

⁴³Homeowners may also purchase mortgage insurance through the Mortgage Insurance for Disaster Victims Section 203(h) program, administered by HUD, to finance the purchase or reconstruction of homes in presidentially designated disaster areas.

⁴⁴Other types of federal assistance might be available to qualifying disaster victims through programs not specific to disasters. For example, the U.S. Department of Agriculture's Rural Housing Repair Loan and Grant program provides loans of up to \$20,000 and grants of up to \$7,500 to very-low-income homeowners to repair, improve, or modernize their dwellings, or remove health and safety hazards, in eligible rural areas. Further, individuals or households with very low, low, and moderate incomes can obtain loans through the U.S. Department of Agriculture's Section 502 program to build, repair, renovate, or relocate a home in an eligible rural area.

major disasters, the federal role is primarily to assist state and local governments, which have the central role in recovery efforts.⁴⁵

Based on our analysis, all of these issues would need to be addressed to create the conditions that would encourage private insurers to consider providing flood insurance. Addressing them would be a complex task and would require difficult trade-offs. For example, raising rates beyond what FEMA currently charges could create significant hardship and put at risk the homes of those who could not afford flood insurance. Further, it could be a challenge to encourage property owners to purchase flood insurance, particularly when many of them do not believe they are exposed to the risk of flooding.

Several Strategies Could Encourage Private Sector Involvement, but a Governmental Role Would Likely Be Required

Stakeholders with whom we spoke or who participated in our roundtable discussion identified several strategies that could be used to help transfer some of the responsibility of providing flood insurance from the federal government to the private sector. These strategies, or certain aspects of them, could be used jointly to promote the conditions that stakeholders said would be necessary for private sector involvement—the ability to assess risk, the freedom to charge adequate rates and manage risk, and adequate consumer participation. These strategies serve only as broad potential frameworks, and because of the complexity of providing flood insurance, the success of any reform effort would also depend on how it is structured and implemented. Further, stakeholders said that any strategy will likely require certain roles for federal, state, and local government entities.

⁴⁵For example, FEMA's Hazard Mitigation Grant Program provides assistance to states, local governments, and Indian tribes to implement long-term hazard mitigation measures following a major disaster, and the agency's Flood Mitigation Assistance Program provides funds to assist states, local governments, and Indian tribes in implementing measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under NFIP. In addition, HUD has provided funding to states through the Community Development Block Grant program. States have often relied on this program for flexible funding that can be applied to disasters to help rebuild communities and, in some cases, make funds or services available to residents. See [GAO-10-17](#).

Several Strategies Could Help Create Conditions for Private Sector Involvement

One strategy stakeholders identified, which we have also mentioned in previous reports, would be for Congress to eliminate subsidized rates, charge full-risk rates to all policyholders, and appropriate funding for a direct means-based subsidy to some policyholders.⁴⁶ A second strategy that stakeholders identified would be for the federal government to provide only residual insurance, serving as the insurer of last resort for properties that the private sector is unwilling to insure. Alternatively, a third strategy would be for the federal government to serve as a reinsurer and charge private insurers a premium for the federal government to assume risk for losses that exceed a predetermined amount. In addition to these strategies, stakeholders proposed others, including mandatory coverage, reinsurance for NFIP, and catastrophe bonds.

Full-Risk Rates with Targeted Subsidies

Stakeholders proposed eliminating all subsidized rates and charging all policyholders rates that reflected the full estimated risk of flooding, with Congress providing a direct means-based subsidy to some policyholders.⁴⁷ Stakeholders generally agreed that any subsidies should be explicit and provided directly to the policyholder instead of hidden in a discounted premium rate, partly because such hidden subsidies conceal a property's actual flood risk and encourage development in high-risk areas. While the premium levels may be sufficient to cover claims in years with lower losses, the subsidies result in insufficient premium revenue over the long term to cover years with higher losses. As a result, the cost of subsidies is disguised from taxpayers and evident only in FEMA's need to borrow from Treasury. Making the subsidies explicit would require Congress to appropriate funds for them, increasing transparency by showing the exact annual cost of the subsidies. Such subsidies could require determining eligibility requirements—for example, a means test—as well as the amount of subsidies. We suggested that Congress consider this approach in a previous report and this strategy continues to be an option that could offer benefits to the program and could be implemented independent of any increase in private sector involvement in flood insurance.⁴⁸

⁴⁶See [GAO-09-20](#) and GAO, *FEMA: Action Needed to Improve Administration of the National Flood Insurance Program*, [GAO-11-297](#) (Washington, D.C., June 9, 2011).

⁴⁷Congress could provide such a subsidy in a number of ways including vouchers or tax rebates.

⁴⁸See [GAO-11-297](#).

Stakeholders said that removing the hidden subsidies and charging full-risk rates to all policyholders has a number of advantages. For example, demonstrating the political will to charge full-risk rates within NFIP could signal to private insurers a greater likelihood of being allowed the freedom to charge adequate rates in a private flood insurance market, thus encouraging their potential participation. However, stakeholders expressed concerns over discussions of proposals to delay rate increases, specifically those authorized by the Biggert-Waters Act.⁴⁹ These stakeholders said that such delays would increase private insurers' skepticism about the feasibility of participating in a private flood insurance market. Although raising rates could create affordability concerns for some, delaying the increases could reduce the chances of increasing private sector involvement in flood insurance, leaving taxpayers to continue paying for flood claims through future borrowing from Treasury.

Based on our analysis, providing means-tested subsidies to some property owners would allow Congress to address affordability concerns associated with premium rate increases. Currently, subsidies are available regardless of a property owner's ability to afford a full-risk premium. Means testing the subsidies would ensure that only those who could not afford full-risk rates would receive assistance and should increase the amount in premiums NFIP collects to cover losses. Collecting more in premiums by providing subsidies to fewer policyholders would reduce taxpayer costs, one of the goals for reforming catastrophe insurance. Finally, charging full-risk rates to all policyholders would demonstrate a property's actual flood risk to property owners, discourage further development in high-risk areas, and encourage property owners to invest in mitigation to lower their exposure to flood risk as well as their premium rate. However, while means-tested subsidies could make premium rates more affordable, they could also decrease a property owner's incentive to mitigate.

Stakeholders raised other concerns about increases in flood insurance premium rates. One stakeholder noted that rate increases could lower a home's market value because the cost of owning the home would rise. Further, stakeholders said that some communities with a high risk of flooding could become economically unviable if premium rate increases

⁴⁹As we have discussed, the Biggert-Waters Act eliminates subsidies in a number of situations, including for nonprimary residences, severe repetitive loss properties, business properties, properties that are sold, and when insurance coverage lapses.

made flood insurance unaffordable for too many residents. For example, stakeholders as well as participants in congressional hearings have said that rate increases in some high-risk areas could make it unaffordable for many homeowners within a community to stay in their homes, which could lead to declining property values for homes and businesses. Premium rate increases could also cause some property owners to cancel their coverage or opt not to purchase it, particularly those who were not already mandated to purchase flood insurance.⁵⁰ Reduced participation could negate some of the benefits of providing the targeted subsidies. Means-based subsidies could soften some of these potential effects, but any solution will need to consider whether other steps would be necessary to limit adverse effects on particular communities.

Finally, the Biggert-Waters Act eliminates the transfer of subsidies when homes are sold and the renewal of subsidized policies if a policyholder deliberately chooses to allow flood coverage to lapse. We previously have reported that the continuing implementation of the act is expected to decrease the number of subsidized policies.⁵¹ As the number of subsidized policies falls, NFIP's premium shortfall will decrease, helping its financial condition. Means-based subsidies could provide greater up-front savings by limiting the number of policyholders that would be eligible for the subsidies. However, there could be a point when the cost of continued means-based subsidies could exceed the level of subsidies that will otherwise exist as homes are sold or coverage lapses. Some stakeholders suggested that targeted subsidies should be temporary to help address this concern.

Government as Residual Insurer

According to stakeholders, another strategy for increasing the private sector's role in flood insurance is to have the federal government serve as the insurer of last resort. This strategy would give private insurers the opportunity to provide flood insurance to most property owners who desire it, and the federal government would offer coverage only to the highest-risk properties that private insurers were unwilling to underwrite. Stakeholders said that particularly in the early years, private insurers

⁵⁰Regulated lending institutions shall not make, increase, extend, or renew any designated loan unless the building or mobile home and any personal property securing the loan is covered by flood insurance for the term of the loan. 42 U.S.C. § 4012a.

⁵¹See GAO, *Flood Insurance: More Information Needed on Subsidized Properties*, [GAO-13-607](#) (Washington, D.C.: July 3, 2013).

might be conservative regarding the properties they were willing to insure, but many might be willing to insure more properties as they grew comfortable with underwriting flood coverage. Some states have similarly structured residual insurance programs for other perils that could provide insight and offer lessons in structuring such a program for flood insurance.⁵² For example, representatives from state residual insurance programs with whom we spoke said their programs charged rates that are higher than what would be available in the private market to ensure they remain insurers of last resort and discourage property owners from using it as an alternative to private sector coverage.

This strategy could help create the conditions we identified earlier in this report for increasing private sector involvement. To address private sector concerns about being able to accurately set rates, FEMA could grant private insurers access to historical claims data. However, as noted earlier FEMA would need to ensure that any disclosure complies with the Privacy Act. Further, the premium rates for residual coverage should be above what private market rates would be for comparable coverage to discourage property owners from using it as an alternative to private coverage.

Because this strategy would transfer many of NFIP's policies to the private sector, NFIP's total exposure would likely decrease. To the extent that the residual policies sold by NFIP were priced at full-risk rates, long-term taxpayer costs could be reduced. However, while full-risk rates would reduce taxpayer costs in the long-term, the average cost and volatility of the program's remaining policies would increase, because NFIP would be left with the highest-risk policies. Further, because these residual policies would have the highest risk, they would require high premium rates to cover their full risk of loss, potentially reducing consumer participation. Combining this option with means-based subsidies could help address affordability concerns and maintain consumer participation.

Government as Reinsurer

According to stakeholders, a third strategy for increasing private sector involvement in flood insurance would be for the federal government to

⁵²See GAO, *Natural Catastrophe Insurance Coverage Remains a Challenge for State Programs*, [GAO-10-568R](#) (Washington, D.C., May 17, 2010).

provide reinsurance to private insurers.⁵³ Specifically, the federal government could provide a backstop for private insurers by agreeing to pay the difference when total claims exceeded a certain amount within a specified period. To fund reinsurance claims for catastrophic losses, the federal government could collect premiums from private insurers. Some stakeholders said that the private reinsurance industry might be able to provide some reinsurance to private insurers, reducing the federal government's potential role in reinsurance. However, other stakeholders expressed concerns that private reinsurers might raise premium rates or cancel coverage after a catastrophic loss year, creating uncertainty for private insurers that could affect their willingness to enter the flood insurance market.

Stakeholders said that the risk of insolvency in the event of catastrophic flood losses might make some private insurers hesitant to enter the flood insurance market and that providing reinsurance could help address these concerns and encourage their participation. If the federal government collected adequate reinsurance premiums, this strategy could also reduce costs to taxpayers, one of the goals for reforming natural catastrophe insurance, because most of the flood risk would be transferred to the private sector. However, the costs of these reinsurance premiums would likely be passed onto the policyholder, and the resulting higher rates could reduce consumer participation. Once again, means-based subsidies could help soften these rate increases and maintain consumer participation.

Other Strategies

Stakeholders identified several other strategies that could help encourage private sector involvement in flood insurance.

Mandatory coverage. In particular, some stakeholders said that a federal mandate could help achieve the level of consumer participation necessary to make the private sector comfortable with providing flood insurance coverage. For example, some stakeholders said that the federal government could mandate that homeowners insurance policies include flood coverage or that all homeowners purchase flood insurance.⁵⁴ Either mandate could increase the number of homeowners

⁵³Reinsurance is insurance for insurers that enables the insurer to transfer some of its risk to another insurer, called a reinsurer.

⁵⁴In a separate report, we are examining perils that are excluded from homeowners insurance policies.

purchasing flood insurance, something that could help private insurers diversify and manage the risk of their flood insurance portfolio and address concerns about adverse selection. However, the stakeholders were also concerned that private companies might oppose a mandate that homeowners policies include flood coverage, potentially raising legal issues. Further, stakeholders said that some property owners—particularly those who perceived their flood risk to be low—might also resist being required to purchase flood insurance. Finally, as we have reported the federal government has faced challenges with enforcing the current mandatory purchase requirement for flood insurance, which applies to properties in high-risk areas with federally regulated mortgages.⁵⁵ If the federal government faces similar challenges with additional mandates, it might not realize the intended benefits of increased consumer participation.

Reinsure NFIP. Other stakeholders discussed NFIP purchasing reinsurance from the private sector to cover exposure to catastrophic losses rather than relying on borrowing from Treasury.⁵⁶ While doing so would increase private sector involvement in flood insurance, the federal government would still play an active role in flood insurance, because NFIP would still serve as the main provider of primary flood insurance coverage. However, the federal government's exposure to catastrophic losses could be reduced. On the other hand, stakeholders noted that private companies might cancel reinsurance after a catastrophic loss year, leading to uncertainty as to the degree to which the federal government's exposure would be mitigated. Further, stakeholders said that NFIP may need to collect additional premiums on its existing policies to pay for the reinsurance. However, given that NFIP's current premium levels are insufficient, NFIP may be unable to pay for this additional expense.

Catastrophe bonds. Stakeholders said that as an alternative to reinsurance, NFIP might be able to limit its exposure to large losses by transferring risk to capital markets through insurance-linked securities

⁵⁵See GAO, *Federal Emergency Management Agency: Ongoing Challenges Facing the National Flood Insurance Program*, [GAO-08-118T](#) (Washington, D.C.: Oct. 2, 2007).

⁵⁶The Biggert-Waters Act allows for NFIP to secure private market reinsurance, so FEMA would have the authority to do this without additional congressional action. Pub. L. No. 112-141, § 100232(d).

such as catastrophe bonds. For example, NFIP could issue interest-bearing bonds to investors willing to bear the risk of losing some of their investment if flood claims exceeded a predetermined amount. Like reinsurance, catastrophe bonds could help NFIP manage its risk exposure, but again it would need to be able to collect adequate premiums to cover any necessary payments of principal or interest. We have previously reported that state insurance entities, as well as private sector insurers, have used catastrophe bonds to manage their risk.⁵⁷

A Governmental Role Would Remain Even in a Private Flood Insurance Market

Stakeholders with whom we spoke or who participated in our roundtable discussion said that no matter which strategies Congress might choose for increasing private sector involvement in flood insurance, the federal government would likely still have some role. For example, some strategies include transforming the federal government's role from primary provider of flood insurance to a residual insurer or a reinsurer. As the private sector increases its role in providing flood coverage, various government entities could collaborate on other important roles. In particular, stakeholders said that it would continue to be important for federal, state, and local governments to encourage mitigation through direct funding or other less costly strategies and to promote risk awareness among consumers. Stakeholders said that government entities want to reduce property owners' current and future exposure to flood risk and increase the resiliency of their structures. Stakeholders also said that with private flood insurance, both the insurance company and the policyholder would have some incentive to mitigate, the insurer to reduce its risk exposure and the policyholder to lower the premium rate. More generally, stakeholders also said that various government entities should continue developing and enforcing building codes and land use agreements in order to reduce the flood risk of current structures and prevent future development in high-risk areas. Stakeholders also said that the federal government should ensure consistent insurance standards and regulations across states, in part through streamlined state regulations or federal oversight, to allow insurers to charge adequate rates.

⁵⁷See [GAO-10-568R](#).

Concluding Observations

While a number of conditions are important to attract private sector participation in the flood insurance market, key among them is the ability to charge rates that fully reflect the estimated risk of flooding. The Biggert-Waters Act includes a number of provisions that begin moving NFIP toward full-risk rates for some properties, a critical first step. Delaying or repealing rate increases in the Biggert-Waters Act may address affordability concerns but would likely continue to increase NFIP's long-term burden on taxpayers. Further, it may reinforce private insurers' skepticism that they would ever be permitted to charge adequate rates and make their participation unlikely in the foreseeable future. As debates over the private sector's role continue, one step to address the burden on low- and moderate-income policyholders could be taken immediately. As we have suggested previously, Congress could eliminate subsidized rates, charge full-risk rates to all policyholders, and appropriate funds for a direct means-based subsidy to eligible policyholders. The movement to full-risk rates would encourage private sector participation, and the explicit subsidy would address affordability concerns, raise awareness of the risks associated with living in harm's way, and decrease costs to taxpayers, depending on the extent and amount of the subsidy.

Agency Comments

We provided a draft of this report to the Federal Emergency Management Agency (FEMA) and the Federal Insurance Office for their review and comment. FEMA provided technical comments, which we have incorporated into the report.

We are sending copies of this report to the appropriate congressional committees, FEMA, and the Federal Insurance Office. In addition, the report is available at no charge on the GAO website at <http://www.gao.gov>.

If you have any questions about this report, please contact me at (202) 512-8678 or cackleya@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.



Alicia Puente Cackley
Director, Financial Markets and Community Investment

Appendix I: Objectives, Scope, and Methodology

The Biggert-Waters Flood Insurance Reform Act of 2012 (Biggert-Waters Act) mandated that GAO conduct a number of studies, including this study on assessing a broad range of options, methods, and strategies for privatizing the National Flood Insurance Program (NFIP).¹ This report discusses (1) conditions needed for private sector involvement in flood insurance and (2) strategies for increasing it.

To both identify conditions needed for private sector involvement in flood insurance and evaluate the benefits and challenges of strategies for increasing private sector involvement, we reviewed the laws, regulations, and history of NFIP, Federal Emergency Management Agency (FEMA) reports, academic studies, our prior work on NFIP, and other documentation and reports. We also held a roundtable in August 2013 composed of a variety of stakeholders to obtain their views on these issues. The 14 stakeholders participating in the roundtable included FEMA officials; state insurance regulators; a catastrophe modeling firm; an academic; and individuals representing associations of private insurers, reinsurers, actuaries, consumers, and floodplain managers. We supplemented information obtained through the roundtable with interviews with stakeholders representing the groups listed above as well as Federal Insurance Office officials; state residual insurance programs; and groups representing insurance adjusters, insurance agents, realtors, and mortgage bankers. We selected a diverse group of stakeholders for the roundtable and interviews based on type of organization, role, and membership. In addition, we identified some stakeholders based on work conducted from a prior report, and suggestions from other stakeholders. The roundtable discussion focused on four broad themes that included:

- a policy goals framework for evaluating options for increasing private sector involvement in flood insurance,
- barriers to private sector involvement that would need to be overcome,
- options for private sector involvement and associated benefits and challenges, and
- the governmental role that would remain in a private flood insurance market.

¹Pub. L. No. 112-141, § 100232(a).

We identified four public policy goals to evaluate options for changing the federal role in natural catastrophe insurance in a prior report.² These goals are generally consistent with the evaluation criteria the stakeholders discussed. Roundtable participants and other stakeholders generally agreed that these goals were applicable for evaluating options for increasing private sector involvement in flood insurance.

We conducted this performance audit from March 2013 to January 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

²See GAO, *Natural Disasters: Public Policy Options for Changing the Federal Role in Natural Catastrophe Insurance*, [GAO-08-7](#) (Washington, D.C.: Nov. 26, 2007).

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

Alicia Puente Cackley, (202) 512-8678 or cackleya@gao.gov

Staff Acknowledgments

In addition to the contact named above, Patrick Ward (Assistant Director); Emily Chalmers; Heather Chartier; William Chatlos; Christopher Fors; Patricia Moye; and Carrie Watkins made key contributions to this report.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's website (<http://www.gao.gov>). Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to <http://www.gao.gov> and select "E-mail Updates."

Order by Phone

The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's website, <http://www.gao.gov/ordering.htm>.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on [Facebook](#), [Flickr](#), [Twitter](#), and [YouTube](#). Subscribe to our [RSS Feeds](#) or [E-mail Updates](#). Listen to our [Podcasts](#). Visit GAO on the web at www.gao.gov.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Website: <http://www.gao.gov/fraudnet/fraudnet.htm>

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Katherine Siggerud, Managing Director, siggerudk@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548

