



April 2017

# FLOOD INSURANCE

## Comprehensive Reform Could Improve Solvency and Enhance Resilience

# GAO Highlights

Highlights of [GAO-17-425](#), a report to congressional addressees

## Why GAO Did This Study

Congress created NFIP to reduce the escalating costs of federal disaster assistance for flood damage, but also prioritized keeping flood insurance affordable, which transferred the financial burden of flood risk from property owners to the federal government. In many cases, premium rates have not reflected the full risk of loss, so NFIP has not had sufficient funds to pay claims. As of March 2017, NFIP owed \$24.6 billion to Treasury. NFIP's current authorization expires in September 2017.

In this report, GAO focuses on potential actions that can help reduce federal fiscal exposure and improve resilience to flood risk. GAO reviewed laws, GAO reports, and other studies. GAO interviewed officials from FEMA and other agencies. GAO also solicited input from industry stakeholders (including insurers, reinsurers, and actuaries) and nonindustry stakeholders (including academics, consumer groups, and real estate and environmental associations) through interviews, a nongeneralizable questionnaire, and four roundtable discussions.

## What GAO Recommends

To improve NFIP solvency and enhance national resilience to floods, Congress should consider comprehensive reform covering six areas: (1) outstanding debt, (2) premium rates, (3) affordability, (4) consumer participation, (5) barriers to private-sector involvement, and (6) NFIP flood resilience efforts.

View [GAO-17-425](#). For more information, contact Alicia Puente Cackley at (202) 512-8678 or [cackleya@gao.gov](mailto:cackleya@gao.gov).

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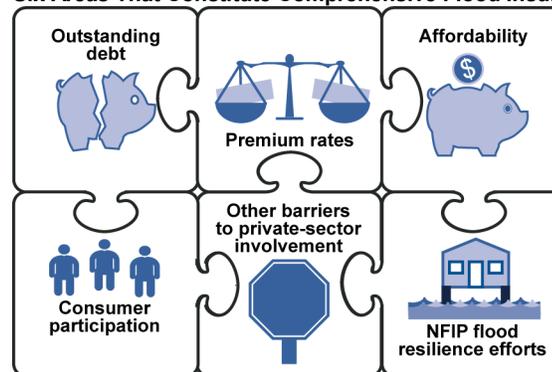
## FLOOD INSURANCE

### Comprehensive Reform Could Improve Solvency and Enhance Resilience

## What GAO Found

Based on discussions with stakeholders and GAO's past work, reducing federal exposure and improving resilience to flooding will require comprehensive reform of the National Flood Insurance Program (NFIP) that will need to include potential actions in six key areas (see figure below). Comprehensive reform will be essential to help balance competing programmatic goals, such as keeping flood insurance affordable while keeping the program fiscally solvent. Taking actions in isolation may create challenges for some property owners (for example, by reducing the affordability of NFIP policies) and therefore these consequences also will need to be considered. Some of the potential reform options also could be challenging to start or complete, and could face resistance, because they could create new costs for the federal government, the private sector, or property owners. Nevertheless, GAO's work suggests that taking actions on multiple fronts represents the best opportunity to help address the spectrum of challenges confronting NFIP.

#### Six Areas That Constitute Comprehensive Flood Insurance Reform



Source: GAO. | GAO-17-425

Through its work, GAO identified the following interrelationships and potential benefits and challenges associated with potential actions that could be taken to reform NFIP in the six areas:

- **Outstanding debt.** The Federal Emergency Management Agency (FEMA), which administers NFIP, owed \$24.6 billion as of March 2017 to the Department of the Treasury (Treasury) for money borrowed to pay claims and other expenses, including \$1.6 billion borrowed following a series of floods in 2016. FEMA is unlikely to collect enough in premiums to repay this debt. Eliminating the debt could reduce the need to raise rates to pay interest and principal on existing debt. However, additional premiums still would be needed to reduce the likelihood of future borrowing in the long term. Raising premium rates could create affordability issues for some property owners and discourage them from purchasing flood insurance, and would require other potential actions to help mitigate these challenges.

- Premium rates.** NFIP premiums do not reflect the full risk of loss, which increases the federal fiscal exposure created by the program, obscures that exposure from Congress and taxpayers, contributes to policyholder misperception of flood risk (they may not fully understand the risk of flooding), and discourages private insurers from selling flood insurance (they cannot compete on rates). Eliminating rate subsidies by requiring all rates to reflect the full risk of loss would address an underlying cause of NFIP's debt and minimize federal fiscal exposure. It also would improve policyholder understanding of flood risk and encourage private-sector involvement. However, raising rates makes policies less affordable and could reduce consumer participation. The decreases in affordability could be offset by other actions such as providing means-based assistance.
- Affordability.** Addressing the affordability issues that some consumers currently face, or might face if premium rates were raised, could help ensure more consumers purchase insurance to protect themselves from flood losses. GAO previously recommended that any affordability assistance should be funded with a federal appropriation (rather than through discounted premiums) and should be means-tested. Means-testing the assistance could help control potential costs to the federal government, and funding with an appropriation would increase transparency of the federal fiscal exposure to Congress. Many industry and nonindustry stakeholders with whom GAO spoke said affordability assistance should focus on helping to pay for mitigation—such as elevating buildings—because mitigation permanently reduces flood risk (thus reducing premium rates). Mitigation efforts can have high up-front costs, and may not be feasible in all cases, but many stakeholders suggested that federal loans could be used to spread consumer costs over time.
- Consumer participation.** According to many industry and nonindustry stakeholders with whom GAO spoke, some consumers might not purchase flood insurance because they misperceive their flood risk. For example, consumers located outside of the highest-risk areas, who are not required to purchase flood insurance, may mistakenly perceive they are not at risk of flood loss. Consumers also may choose not to purchase flood insurance because they overestimate the adequacy of federal assistance they would expect to receive after a disaster. Expanding the mandatory purchase requirement beyond properties in the highest-risk areas is one option for encouraging consumer participation in flood insurance. However, doing so could face public resistance and create affordability challenges for some, highlighting the importance of an accompanying affordability assistance program. Increasing consumer participation could help ensure more consumers would be better protected from the financial risk of flooding.
- Other barriers to private-sector involvement.** Industry and nonindustry stakeholders with whom GAO spoke cited regulatory uncertainty and lack of data as barriers to their ability to sell flood insurance, in addition to the less than full-risk rates charged by FEMA. For example, some industry and nonindustry stakeholders told GAO that while lenders must enforce requirements that certain mortgages have flood insurance, some lenders are uncertain whether private policies meet the requirements. Clarifying the types of policies and coverage that would do so could reduce this uncertainty and encourage the use of private flood insurance. In addition, some stakeholders said that access to NFIP claims data by the insurance industry could allow private insurers to better estimate losses and price policies. FEMA officials said they would need to address privacy concerns to provide such information but have been exploring ways to facilitate more data sharing.
- NFIP flood resilience efforts.** Some industry and nonindustry stakeholders told GAO that greater involvement by private insurers could reduce funding available for some NFIP flood resilience efforts (mitigation, mapping, and community participation). For example, some of these stakeholders said that as the number of NFIP policies decreased, the policy fees FEMA used to help fund mitigation and flood mapping activities also would decrease. Potential actions to offset such a decrease could include appropriating funds for these activities or adding a fee to private policies. This would allow NFIP flood resilience efforts to continue at their current levels as private-sector involvement increased.

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## Abbreviations

Biggert-Waters Act	Biggert-Waters Flood Insurance Reform Act of 2012
FEMA	Federal Emergency Management Agency
HFIAA	Homeowners Flood Insurance Affordability Act of 2014
NFIP	National Flood Insurance Program
SFHA	special flood hazard area
Treasury	Department of the Treasury
WYO	Write Your Own

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April 27, 2017

Congressional Addressees

The National Flood Insurance Program (NFIP) plays a critical role in federal efforts to improve resilience to flooding (the ability to absorb and recover from such events), but as we have previously reported, it faces a number of financial and management challenges.<sup>1</sup> Competing aspects of NFIP—keeping flood insurance affordable while making the program fiscally solvent—have made it challenging to reform the program. Specifically, it has been challenging to promote participation in the program while at the same time attempting to fund claim payments with premiums paid by NFIP policyholders. For example, to help promote the purchase of flood insurance, Congress has authorized the program to charge discounted premium rates to many policyholders but no appropriations have been made available to make up for that discount. As a result, premium revenue has been insufficient to pay claims over the long term, and the Federal Emergency Management Agency (FEMA) has had to borrow from the Department of the Treasury (Treasury) to pay losses resulting from major natural disasters (such as Hurricanes Katrina, Rita, and Wilma in 2005 and Superstorm Sandy in 2012).<sup>2</sup> As of March 2017, NFIP was \$24.6 billion in debt to Treasury.

At different points, FEMA, which administers NFIP, and Congress focused on making the program more fiscally self-sustaining but have made limited progress in achieving this goal. For example, in 1983 we reported that FEMA had set a goal of making the program self-sustaining by 1988.<sup>3</sup> Subsequently in 2012, the Biggert-Waters Flood Insurance Reform Act of 2012 (Biggert-Waters Act) required FEMA to phase out

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<sup>1</sup>GAO, *High-Risk Series: Progress on Many High-Risk Areas, While Substantial Efforts Needed on Others*, [GAO-17-317](#) (Washington, D.C.: Feb. 15, 2017); *Overview of GAO's Past Work on the National Flood Insurance Program*, [GAO-14-297R](#) (Washington, D.C.: Apr. 9, 2014); and *FEMA: Action Needed to Improve Administration of the National Flood Insurance Program*, [GAO-11-297](#) (Washington, D.C.: June 9, 2011).

<sup>2</sup>Larger than expected catastrophic losses can also contribute to a need to borrow from Treasury to pay claims.

<sup>3</sup>GAO, *National Flood Insurance Program: Major Changes Needed If It Is to Operate without a Federal Subsidy*, [GAO/RCED-83-53](#) (Washington, D.C.: Jan. 3, 1983).

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almost all discounted insurance premiums and establish a reserve fund.<sup>4</sup> But the Homeowners Flood Insurance Affordability Act of 2014 (HFIAA) reinstated certain subsidies removed by the Biggert-Waters Act and generally limited yearly premium rate increases.<sup>5</sup>

While the volatile nature of flooding makes it difficult to predict the losses the program might experience in the future, we have stated in past reports that FEMA is unlikely to be able to repay its current debt, primarily because premium rates charged to many policyholders do not reflect the full risk of loss.<sup>6</sup> Insurance companies, academics, consumer advocates, and others have proposed a number of options for reforming NFIP. These options include changes to NFIP premium rates, increased involvement of private-sector insurers, new roles for the federal government, and revisions to requirements for the purchase of flood insurance. Currently, owners of properties in special flood hazard areas (SFHA) that are secured by federally backed mortgages or mortgages obtained from federally regulated institutions generally must purchase flood insurance.<sup>7</sup>

In September 2017, NFIP's current authorization will expire. We performed our work under the authority of the Comptroller General in light of congressional interest in flood insurance and NFIP's impending reauthorization. This report examines actions Congress and FEMA could take to reduce federal fiscal exposure and improve resilience to flood damage. We specifically focused our review on potential actions in six key areas: (1) outstanding debt, (2) premium rates, (3) affordability, (4) consumer participation, (5) barriers to private-sector involvement, and (6) NFIP flood resilience efforts.

To address this objective, we reviewed our prior related reports and other studies, analyzed relevant laws, and conducted semi-structured

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<sup>4</sup>Pub. L. No. 112-141, §§100205, 100207, 100212, 126 Stat. 405, 917, 919, 922 (2012), codified as amended at 42 U.S.C. § 4014(a)(2) and (g), 42 U.S.C. § 4015, 42 U.S.C. § 4017a.

<sup>5</sup>Pub. L. No. 113-89, 128 Stat. 1020 (2014).

<sup>6</sup>GAO, *Flood Insurance: Potential Barriers Cited to Increased Use of Private Insurance*, [GAO-16-611](#) (Washington, D.C.: July 14, 2016); and *National Flood Insurance Program: Continued Progress Needed to Fully Address Prior GAO Recommendations on Rate-Setting Methods*, [GAO-16-59](#) (Washington, D.C.: Mar. 17, 2016).

<sup>7</sup>SFHAs, which are depicted on NFIP maps, represent the land areas that would be submerged by the floodwaters of the "base flood" or a flood that has a 1 percent chance of being equaled or exceeded in any given year.

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interviews with relevant stakeholder groups.<sup>8</sup> We also sent a questionnaire to more than 100 stakeholders, judgmentally selected to include a broad range of perspectives, including state and federal officials, insurers, reinsurers, catastrophe modelers, academics, and consumer advocates. We obtained a response rate of 76 percent and used the results to gather stakeholder input on options for reforming NFIP and policy goals for evaluating those options. We also conducted four web-based roundtables with a total of 43 stakeholders judgmentally selected to represent diverse groups with flood insurance knowledge to further identify and analyze flood insurance reform options. We discuss our scope and methodology in more detail in appendix I.

We conducted this performance audit from September 2015 to April 2017 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.

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## Background

Congress first proposed providing flood insurance in the 1950s, after 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.<sup>9</sup> In 1968, Congress created NFIP to help reduce escalating costs of providing federal flood assistance to repair damaged homes and businesses.<sup>10</sup> According to FEMA, NFIP also was designed to address the policy objectives of identifying flood risk, offering affordable insurance premiums to encourage program participation, and promoting community-based floodplain management. To meet these policy objectives, NFIP has four key elements: identifying and mapping

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<sup>8</sup>Industry stakeholders include insurers, insurer associations, reinsurers, reinsurer associations, insurance agents, insurance agent associations, insurance adjuster associations, actuary associations, and catastrophe modelers. Nonindustry stakeholders include academics, consumer advocates, environmental associations, federal agencies, lender associations, mitigation associations, real estate associations, state insurance programs, state insurance regulators, and think tanks.

<sup>9</sup>Federal Emergency Management Agency, *National Flood Insurance Program: Program Description* (Washington, D.C.: Aug. 1, 2002).

<sup>10</sup>Pub. L. No. 90-448, Tit. XIII, 82 Stat. 476, 572 (1968).

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flood risk, floodplain management, flood insurance, and incentivizing risk reduction through grants and premium discounts.

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## NFIP Flood Hazard Mapping and Mitigation

Through NFIP, FEMA maps floodplain boundaries and requires participating communities to adopt and enforce floodplain management regulations that mitigate the effects of flooding and reduce overall costs. According to FEMA, floodplain management standards are designed to prevent new development from increasing the flood threat and to protect new and existing buildings from anticipated flooding.<sup>11</sup> FEMA has a division responsible for flood mapping activities and policy and guidance, but stakeholders from all levels of government and the private sector participate in the mapping process. For instance, FEMA relies on local governments to provide notice of changes in communities that can pose new or changed flood hazards and works with localities to collect the information needed to update flood maps.

FEMA's Flood Insurance Rate Maps serve several purposes. They provide the basis for setting insurance rates and identifying properties whose owners are required to purchase flood insurance. For example, since the Flood Disaster Protection Act of 1973, as amended, homeowners with federally backed mortgages or mortgages held by federally regulated lenders on property in an SFHA are required to purchase flood insurance.<sup>12</sup> Others may purchase flood insurance voluntarily if they live in a participating community. The maps also provide the basis for establishing floodplain management standards that communities must adopt and enforce as part of their NFIP participation. As of February 2017, 22,235 communities across the United States and its territories voluntarily participated in NFIP by adopting and agreeing to

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<sup>11</sup>Federal Emergency Management Agency, *Answers to Questions about the NFIP*, FEMA F-084 (Washington, D.C.: March 2011).

<sup>12</sup>Federal law requires each federal entity for lending regulation to direct regulated lending institutions to ensure that borrowers with mortgages held by regulated lending institutions and secured by properties located in SFHAs in communities participating in NFIP purchase and maintain flood insurance (mandatory purchase requirement). 42 U.S.C. § 4012a(a). "Federal entity for lending regulation" refers to the Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Office of the Comptroller of the Currency, National Credit Union Administration, and Farm Credit Administration. "Regulated lending institution" means any bank, savings and loan association, credit union, farm credit bank, federal land bank association, production credit association, or similar institution subject to the supervision of a federal entity for lending regulation (that is, the federal entity primarily responsible for supervising the institution). 42 U.S.C. § 4003(a).

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enforce flood-related building codes and floodplain management regulations.

FEMA has stated that resilience to flooding is a key objective of NFIP. Broadly speaking, resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to actual or potential adverse events. Resilience is closely linked with flood mitigation activities. For example, FEMA estimated that its floodplain management efforts resulted in avoidance of \$1.87 billion in flood losses annually, and FEMA officials said they expect this amount to increase over time as additional new construction is built to increasingly better standards.

FEMA supports a variety of flood mitigation activities that are designed to reduce flood risk and thus NFIP's financial exposure. These activities, which are implemented at the state and local levels, include hazard mitigation planning; the adoption and enforcement of floodplain management regulations and building codes; and the use of hazard control structures such as levees, dams, and floodwalls or natural protective features such as wetlands and dunes. FEMA provides community-level mitigation funding through grant programs. At the individual property level, mitigation options include elevating a building, relocating the building to an area with lower flood risk, or purchasing and demolishing a building and turning the property into green space.

Another tool FEMA uses to incentivize efforts to reduce flood risk is the Community Rating System. The Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from community actions that meet the three goals of reducing flood damage to insurable property, strengthening and supporting the insurance aspects of NFIP, and encouraging a comprehensive approach to floodplain management.

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## NFIP Coverage, Premium Rates, and Rate Setting

Insurance offered through NFIP includes different coverage levels and premium rates, which are determined by factors that include property characteristics, location, and statutory provisions. NFIP coverage limits vary by program (regular or emergency) and building occupancy (for example, residential or nonresidential).<sup>13</sup> In NFIP's regular program, the maximum coverage limit for 1-4 family residential policies is \$250,000 for buildings and \$100,000 for contents. For nonresidential or multifamily policies, the maximum coverage limit is \$500,000 per building and \$500,000 for the building owner's contents. Separate coverage is available for contents owned by tenants.

To set premium rates, FEMA considers several factors including location in flood zones, elevation of the property relative to the community's base flood elevation, and characteristics of the property such as building type, number of floors, presence of a basement, and the year a structure was built relative to the year of a community's original flood map. Additionally, FEMA allows policyholders to pay lower premiums if they opt for higher deductible amounts. Most NFIP policies are deemed by FEMA to be full-risk rates, while some are less than full-risk (subsidized).

- FEMA defines full-risk rates as those charged to a class of policies that generate premiums sufficient to pay the group's anticipated losses and expenses.<sup>14</sup> According to FEMA, these rates are based on the probability of a range of possible floods, damage estimates based on that level of flooding, and accepted actuarial principles. FEMA staff noted that approximately 80 percent of FEMA's policyholders pay full-risk rates.
- Subsidized rates do not fully reflect the risk of flooding but are intended to provide policyholders with more affordable premiums while encouraging floodplain management in communities and the widespread purchase of flood insurance.<sup>15</sup> Generally, subsidized

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<sup>13</sup>The Emergency Program is the initial phase of a community's participation in NFIP before flood maps are available. FEMA makes available to community residents a limited amount of flood insurance coverage at less than actuarial rates and requires the community to adopt minimum floodplain management standards. When flood maps are completed, communities are converted to the Regular Program, under which higher amounts of flood insurance coverage are provided and more comprehensive floodplain management requirements are required.

<sup>14</sup>As we discuss later, FEMA generally does not consider grandfathered premium rates as being subsidized.

<sup>15</sup>FEMA defines subsidized rates as those charged to a group of policies that result in aggregate premiums insufficient to pay for anticipated losses and expenses.

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policies cover properties in high-risk locations that otherwise would have been charged higher premiums and that were built before flood maps became available and their flood risk was clearly understood. FEMA staff said they had begun increasing rates for certain subsidized properties as prescribed under the Biggert-Waters Act and HFIAA. This included increased rates for subsidized policies covering businesses, nonprimary residences, severe repetitive loss properties, and substantially damaged/substantially improved properties as required by the Biggert-Waters Act. In addition, HFIAA required increased rates for subsidized policies covering primary residences. When setting subsidized rates for individual properties, FEMA staff said they also consider flood risk, previous rate increases, and statutory limits on rate increases.<sup>16</sup>

FEMA also allows some policyholders to receive grandfathered premium rates, which allows policyholders who have been mapped into higher-risk flood zones to pay lower premiums associated with their previous lower-risk flood zone. FEMA officials said that in the aggregate, policy classes that contain grandfathered policies collect enough in premiums to reflect the full risk of loss for that class, but as we have previously reported, FEMA does not yet possess the data necessary to verify this.<sup>17</sup>

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## NFIP Funding and Borrowing Authority

FEMA funds NFIP primarily through the insurance premiums paid by policyholders. In addition to covering insurance claims, NFIP premiums also are intended to cover outreach, research, and operating expenses. FEMA also charges a Federal Policy Fee on NFIP policies that helps fund efforts that include mitigating flood risk on properties covered by NFIP policies and developing and maintaining flood maps.<sup>18</sup> In addition, FEMA received appropriations of \$190 million in fiscal year 2016 for mapping and other specified statutory requirements.

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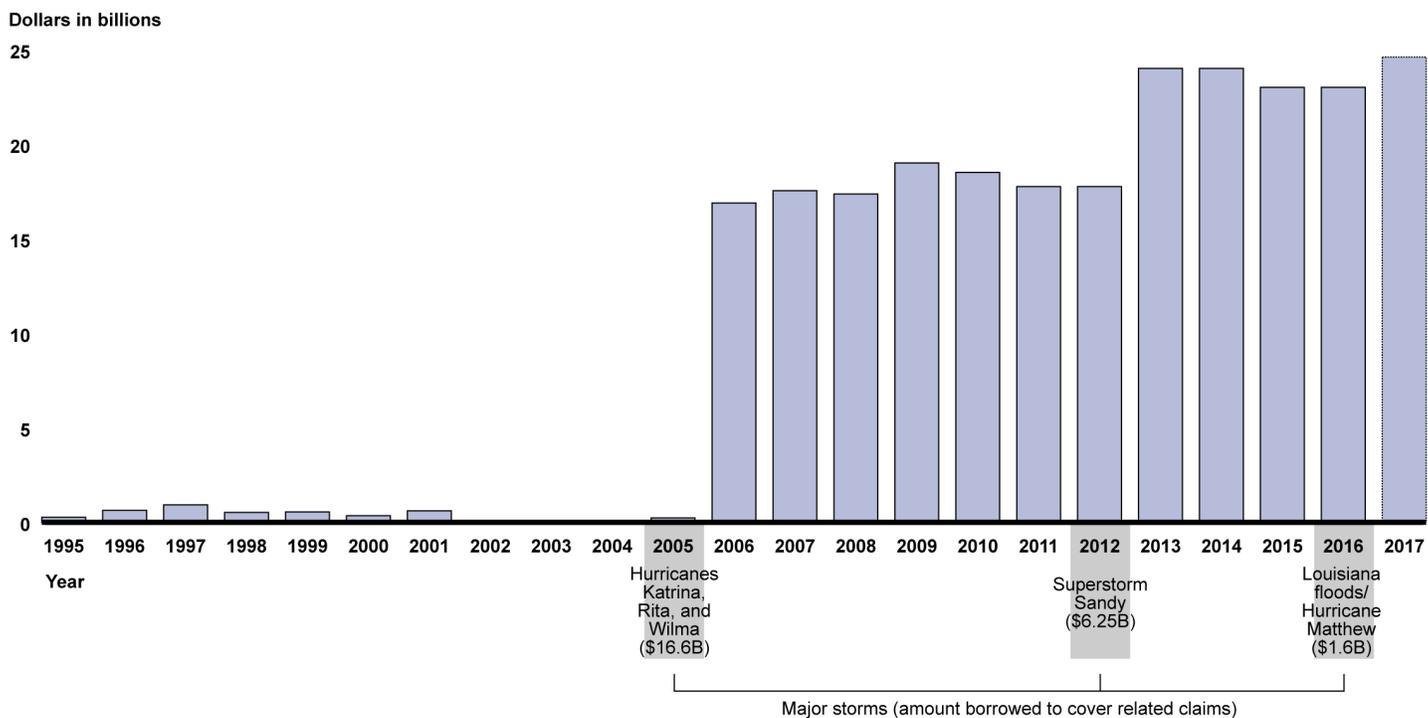
<sup>16</sup>HFIAA generally established caps on the yearly percentage rate increases for rate classes and individual properties. Pub. L. No. 113-89, § 5, 128 Stat. 1020, 1022 (2014).

<sup>17</sup>GAO, *Flood Insurance: FEMA's Rate-Setting Process Warrants Attention*, [GAO-09-12](#) (Washington, D.C.: Oct. 31, 2008) and [GAO-14-297R](#).

<sup>18</sup>In addition to supporting floodplain management and flood mapping, FEMA uses Federal Policy Fee revenue to fund insurance operations and NFIP management. Most policies have a \$45 fee, but preferred risk policies have a \$22 fee. Preferred risk policies offer lower-cost protection for homes and apartments in areas of low-to-moderate flood risk.

Congress authorized FEMA to borrow from Treasury when needed, up to a preset statutory limit. Originally, Congress authorized a borrowing limit of \$1 billion and increased it to \$1.5 billion in 1996. Following the catastrophic hurricanes of 2005, Congress amended FEMA’s borrowing authority three more times to more than \$20 billion. After Superstorm Sandy in 2012, Congress increased FEMA’s borrowing authority to \$30.425 billion. In January 2017, FEMA borrowed an additional \$1.6 billion, increasing the total debt to \$24.6 billion. Before 2005, NFIP was mostly self-sustaining, only using its borrowing authority intermittently and repaying the loans.<sup>19</sup> Figure 1 shows outstanding debt from 1995 through 2017.

**Figure 1: National Flood Insurance Program Annual Year-End Outstanding Debt to Treasury, Fiscal Years 1995–2017**



Source: GAO analysis of National Flood Insurance Program data. | GAO-17-425

<sup>19</sup>Congress appropriated funds to retire NFIP’s approximately \$200 million debt to Treasury in 1985. NFIP also had intermittent debt in the 1990s, reaching nearly \$1 billion in 1997, but paid off the debt in subsequent years.

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## Recent Legislative Reforms to NFIP

The Biggert-Waters Act affected many aspects of NFIP. For example, it required FEMA to

- increase rates at 25 percent per year until full-risk rates were reached for certain subsidized properties, including secondary residences, businesses, and severe repetitive loss properties;
- increase rates over a 5-year period to phase out grandfathered policy rates;
- prohibit subsidized rates for properties purchased after, or not insured, as of July 6, 2012;
- create a reserve fund that would maintain at least 1 percent of the total annual potential loss exposure faced by NFIP based on outstanding flood insurance policies in force in the prior fiscal year;<sup>20</sup>
- improve flood risk mapping; and
- develop new methods related to compensation for companies that sell, write, and service flood insurance policies; that is, Write Your Own (WYO) insurers.

However, concern over rapid rate increases led to the passage of HFIAA in 2014, which repealed or altered portions of the Biggert-Waters Act. HFIAA reinstated certain rate subsidies removed by the Biggert-Waters Act, including those for properties purchased after, or not insured, as of July 6, 2012. For these properties, and certain others, rates would rise by at least 5 percent per year. HFIAA also established a new subsidy for properties that are newly mapped into higher-risk zones. The subsidy is phased out for individual properties over time. HFIAA also restored grandfathered rates and generally limited yearly increases in property-specific rates to 18 percent. In addition, HFIAA created a premium surcharge that would be deposited into the reserve fund (generally, \$25

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<sup>20</sup>The reserve fund is to be phased in over time, with at least 7.5 percent of the total required by statute added yearly, but FEMA is not permitted to exceed annual rate increase caps to build up or maintain the reserve fund. NFIP's exposure was \$1.24 trillion as of February 2017, meaning the reserve fund eventually would need to hold \$12.4 billion, and FEMA would have to collect approximately \$930 million annually (7.5 percent of \$12.4 billion) to meet statutory targets.

for primary residences and \$250 for others).<sup>21</sup> As of November 2015, the last time we reviewed the implementation of these acts, FEMA estimated that it had met the requirements for almost two-thirds of the Biggert-Waters Act provisions and about half of the HFIAA provisions and was taking actions on others. Table 1 provides additional detail of some of the selected requirements of the two laws.

**Table 1: Selected Requirements from the Biggert-Waters Act and HFIAA**

Biggert-Waters Act	HFIAA
Premium guidelines – Minimum and maximum annual premium increase	
Generally, within any rate class the premium may not be increased by an amount that would result in an average yearly rate increase of more than 20 percent. (100205(c)(2)).	<p>Within any rate class, generally, the average yearly premium rate increases cannot be greater than 15 percent. (Sec. 5(6)).</p> <p>Generally, the risk premium rate for a specific property may not increase by more than 18 percent per year. (Sec. 5(5)).</p> <p>Certain pre-FIRM rate classes must increase by not less than 5 percent. (Sec. 5(5)).</p>
Premium guidelines — Premium as a percentage of coverage	
N/A	HFIAA encourages FEMA to strive to minimize the number of policies in which premiums exceed 1 percent of the coverage amount, and requires FEMA to report such policies to Congress. (Sec. 7).
Grandfathering	
Properties remapped to higher-risk flood zones but paying lower-risk premium rates because of grandfathering will now pay the premium rate charged for current risk of flood to the property, as phased in over 5 years. (100207).	<p>Repeals the Biggert-Waters Act provision that terminated grandfathering. (Sec. 4). If the property is sold, grandfathered status will be passed on to the new owners.</p> <p>When the property is newly designated as within a special flood hazard area and the premium rate is calculated as a full-risk rate, a preferred risk premium is permitted for the first year. Thereafter, in accordance with premium rate increase guidelines, the property's final rate is phased in. (Sec. 6).</p>

<sup>21</sup>HFIAA requires FEMA to add an annual surcharge of \$25 for all NFIP policies covering primary residences (owner-occupied, single-family detached buildings and individual condominium units) and \$250 for policies for all other buildings, the proceeds of which are deposited in the reserve fund. In addition to these surcharges, FEMA uses reserve fund assessments to help build the reserve fund. The reserve fund assessments are based on the underlying premium rate and are therefore subject to annual rate increase caps. However, the surcharges are flat amounts not related to the underlying premium rate and are not subject to rate-change caps.

Biggert-Waters Act	HFIAA
Subsidies	
<p>The Biggert-Waters Act excludes or removes subsidies for certain properties, including</p> <ul style="list-style-type: none"> <li>• properties purchased after July 6, 2012;</li> <li>• properties not insured as of July 6, 2012 or those with lapsed insurance coverage as a result of a deliberate choice of the policyholder;</li> <li>• secondary residences;</li> <li>• business properties; and</li> <li>• severe repetitive loss properties. (100205).<sup>a</sup></li> <li>• Rates for subsidy removal for certain properties (such as secondary residences, business properties, and severe repetitive loss properties) shall be increased by 25 percent per year until the average risk premium rate of the properties is equal to the full-risk rate.</li> </ul>	<p>HFIAA generally</p> <ul style="list-style-type: none"> <li>• repealed the property sales trigger for automatic full-risk rates and allows home buyers to assume flood insurance at the same risk rate;</li> <li>• prohibited FEMA from immediately removing subsidies specifically because any property was not insured by the flood insurance program as of July 6, 2012; and</li> <li>• retained the Biggert-Waters Act's phase-out of subsidies for certain property classes (secondary residences, business properties, and severe repetitive loss properties) and maintained the 25 percent increase per the Biggert-Waters Act. (Sec. 3).</li> </ul>
Refunds	
N/A	<p>FEMA must issue refunds directly to those who paid NFIP premiums under the Biggert-Waters Act in excess of rates set under HFIAA. Refunds apply to policyholders who (1) purchased property after July 6, 2012; (2) were not insured prior to but purchased insurance after July 6, 2012; and (3) let their policy lapse (certain policyholders). (Sec. 3(a)(4)).</p>
Reserve fund and premium surcharges	
<p>FEMA must create a reserve fund that maintains at least 1 percent of the total annual potential loss exposure. The fund will be phased in over time with at least 7.5 percent of the total added yearly, but FEMA is not permitted to exceed annual rate increase caps to build up or maintain the reserve fund. (100212).</p>	<p>Adds a premium surcharge, all of which must be deposited in the reserve fund. Generally, a policy for a primary residence will include a \$25 surcharge and all other policies will include a \$250 surcharge. (Sec. 8).</p>
Debt reporting	
<p>FEMA must issue a report to Congress setting forth options to repay FEMA's total debt to Treasury within 10 years. The report was due by January 2013. After borrowing funds, FEMA must report to Congress and the Department of the Treasury every 6 months on the progress of the payments. (100213).</p>	N/A

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**Biggert-Waters Act****HFIAA**

## Notification

N/A	Requires FEMA, at least 6 months prior to implementation of rate changes as a result of this act, to make publicly available the rate tables and underwriting guidelines that provide the basis for the change. (Sec. 31(a)). By June 2014, FEMA was supposed to submit to Congress a report on the feasibility of releasing property-level policy and claims data for flood insurance coverage and establishing guidelines for releasing property-level policy and claims data in accordance with the Privacy Act of 1974. (Sec. 31(b)).  FEMA must clearly communicate full flood risk determinations to individual property owners regardless of whether premium rates are full actuarial rates. (Sec. 28).
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Legend: Biggert-Waters Act = Biggert-Waters Flood Insurance Reform Act of 2012; FEMA = Federal Emergency Management Agency; FIRM = Flood Insurance Rate Map; HFIAA = Homeowners Flood Insurance Affordability Act of 2014; N/A = Not applicable; and NFIP = National Flood Insurance Program.

Source: GAO analysis of the Biggert-Waters Act and HFIAA. | GAO-17-425

<sup>a</sup>The complete list covers any property that incurred flood-related damage in which the cumulative amounts of payments under NFIP equaled or exceeded the fair market value of the property; any property which on or after July 6, 2012, experienced or sustained substantial damage exceeding 50 percent of the property fair market value or substantial improvement exceeding 30 percent of the property fair market value; and any prospective insured who refuses to accept any offer for mitigation assistance from FEMA, including an offer for mitigation assistance following a major disaster or in connection with a repetitive loss property or a severe repetitive loss property. (Biggert-Waters Act 100205)

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## Policy Goals for Evaluating Potential Options for Reforming Flood Insurance

Using the input of stakeholders and based on our prior work, we identified five policy goals for the flood insurance program: (1) promoting flood risk resilience, (2) minimizing fiscal exposure to the federal government, (3) requiring transparency of the federal fiscal exposure, (4) encouraging consumer participation in the flood insurance market, and (5) minimizing transition and implementation challenges.<sup>22</sup> For each goal we identified several characteristics that illustrate how potential reform proposals might help meet the objective of the goal (see table 2).

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<sup>22</sup>GAO, *Flood Insurance: Strategies for Increasing Private-Sector Involvement*, [GAO-14-127](#) (Washington, D.C.: Jan. 22, 2014); *Federal User Fees: A Design Guide*, [GAO-08-386SP](#) (Washington, D.C.: May 29, 2008); and *Natural Disasters: Public Policy Options for Changing the Federal Role in Natural Catastrophe Insurance*, [GAO-08-7](#) (Washington, D.C.: Nov. 26, 2007). Also see Federal Emergency Management Agency, *National Flood Insurance Program: Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP* (Washington, D.C.: Aug. 13, 2015).

**Table 2: Policy Goals for Evaluating Options for Reforming Flood Insurance**

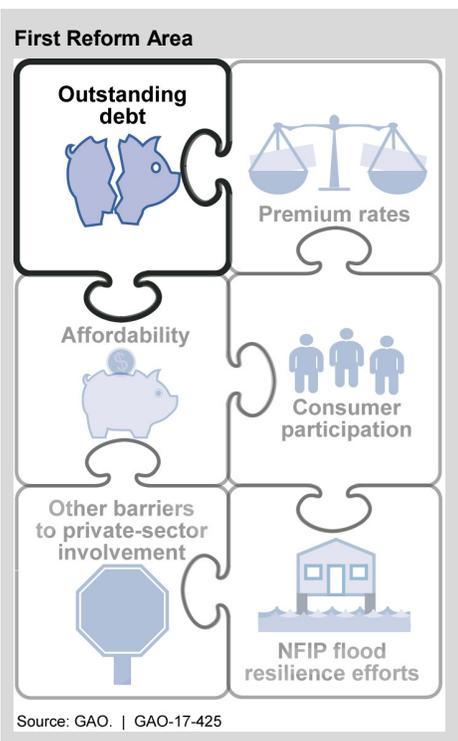
Goals	Characteristics
Promote flood risk resilience	<p>Encourages and enables property-level mitigation efforts to reduce the risk of damage from flooding</p> <p>Encourages and enables community-level mitigation efforts to reduce the risk of damage from flooding</p> <p>Encourages sound floodplain management and building codes, and discourages development in high-risk areas</p> <p>Promotes a more realistic perception and understanding of risk by, among other things, charging premium rates that reflect the full risk of loss and informing the uninsured</p> <p>Enables property owners and communities to more easily and effectively recover after a flood</p>
Minimize fiscal exposure to the federal government	<p>Minimizes overall costs to the federal government of providing coverage, premium assistance, mitigation funding, etc. to make the program as self-sustaining as possible given other goals</p> <p>Minimizes administrative costs of running the program</p> <p>Minimizes adverse effects on other federal programs, such as disaster assistance</p> <p>Encourages the private sector to assume greater financial responsibility for managing flood risk</p> <p>Encourages states and communities to assume greater financial responsibility for managing flood risk</p>
Require transparency of federal fiscal exposure	<p>Encourages better estimation of all potential federal costs</p> <p>Ensures all estimated federal costs are appropriately reflected in the federal budget</p> <p>Allows for appropriate congressional oversight and public scrutiny over federal fiscal exposure</p>
Encourage consumer participation in the flood insurance market	<p>Provides incentives for property owners to purchase an appropriate amount of insurance</p> <p>Addresses affordability challenges to property owners by accounting for their ability to pay</p> <p>Provides incentives for insurers to offer insurance coverage</p> <p>Reduces risk to insurers by expanding the pool of insureds (by number covered and types of risks covered)</p> <p>Ensures coverage is available to those who need or want it</p>
Minimize transition and implementation challenges	<p>Minimizes and manages costs and disruptions associated with any transitions from the current flood insurance market</p> <p>Considers the complexity of implementation and ensures proper and adequate communication of changes and other information to affected stakeholders</p> <p>Considers the risk of unintended consequences and the long-term viability of the system</p> <p>Minimizes any legal, regulatory, or statutory barriers to reform</p>

Source: GAO. | GAO-17-425

## Potential Comprehensive Reform of NFIP Would Require Actions in Six Key Areas

Our review of literature and prior GAO reports and interviews, a questionnaire, and roundtable discussions with industry and nonindustry stakeholders identified a number of potential reform actions that can be considered to improve NFIP's solvency and enhance the nation's resilience to flood risk. These potential reform actions fall into the following six areas: (1) outstanding debt, (2) premium rates, (3) affordability, (4) consumer participation, (5) barriers to private-sector involvement, and (6) NFIP flood resilience efforts. However, actions for reform in one area have implications that could affect reform actions in other areas. Therefore, it is necessary to consider flood insurance reform comprehensively. In the following sections, we present information for each of the six areas, including why reform is needed, the potential actions we identified from our review, and the potential implications of each of these reform actions that will need to be considered.

### Eliminating Outstanding Debt



According to industry and nonindustry stakeholders with whom we spoke, potential reform actions will need to address the \$24.6 billion debt to Treasury. Servicing the debt puts a strain on NFIP operations and burdens current policyholders. If the debt were eliminated, FEMA could reallocate funds used for debt repayment for other purposes such as building a reserve fund and program operations. Any reforms related to the debt also have potential implications for issues such as premium rates and consumer participation. These implications are discussed in the following relevant sections.

#### Why Reform Is Needed

**Outstanding debt.** FEMA's \$24.6 billion outstanding debt, as of March 2017, represents a significant financial obligation for the program and making principal and interest payments on that debt has tied up funds that might otherwise have been used for program operations. Since FEMA initially borrowed \$17.5 billion to pay losses from the 2005 catastrophic flood events, FEMA has paid about \$6.3 billion in principal and interest on its outstanding balance. However, since 2005 FEMA has

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had to borrow additional funds from Treasury (following Superstorm Sandy in 2012 and a series of floods in 2016).<sup>23</sup>

In prior reports, we found that while Congress has directed FEMA to provide subsidized premium rates for policyholders meeting certain requirements, it has not provided FEMA with funds to offset these subsidies, which has contributed to FEMA's need to borrow.<sup>24</sup> Despite these requirements and the resulting insufficiency in premiums, current law requires FEMA to repay its borrowing from Treasury.<sup>25</sup> However, we reported that FEMA is unlikely to be able to repay this debt, and some industry and nonindustry stakeholders with whom we spoke said that Congress should eliminate it, as Congress has done when FEMA accrued NFIP debt in the past.<sup>26</sup> Eliminating the debt would require Congress to either appropriate funds for FEMA to repay the debt, or change the law to eliminate the requirement that FEMA repay the accumulated debt.

Since 2010, NFIP has benefited from low interest rates. For example, interest rates on the debt during fiscal years 2013–2015 ranged from 0.125 percent to 2.5 percent.<sup>27</sup> As of March 2017, FEMA estimated that NFIP's \$24.6 billion debt would require annual interest-only payments of nearly \$400 million. If interest rates increased, FEMA's annual interest payments could rise significantly. As such, FEMA may not be able to retire any of its debt, even in low-loss years.

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<sup>23</sup>NFIP borrowed \$17.5 billion for claims related to Hurricanes Katrina, Rita, and Wilma in 2005; \$6.25 billion for claims related to Superstorm Sandy in 2012; and \$1.6 billion for claims related to a series of floods in 2016.

<sup>24</sup>GAO, *Flood Insurance: More Information Needed on Subsidized Properties*, [GAO-13-607](#) (Washington, D.C.: July 3, 2013); *Flood Insurance: Forgone Premiums Cannot Be Measured and FEMA Should Validate and Monitor Data System Changes*, [GAO-15-111](#) (Washington, D.C.: Dec. 11, 2014); [GAO-16-59](#); and [GAO-09-12](#).

<sup>25</sup>42 U.S.C. § 4016.

<sup>26</sup>In fiscal year 1985, Congress appropriated approximately \$200 million to repay the debt to Treasury that NFIP accrued. Department of Housing and Urban Development – Independent Agencies Appropriation Act, 1985. Pub. L. No. 98-371, 98 Stat. 1213, 1224 (1984).

<sup>27</sup>As of January 17, 2017, FEMA had six outstanding notes to Treasury, with loan amounts, interest rates, and maturity dates as follows: \$2 billion at 0.625 percent due on December 31, 2017; \$4 billion at 1.125 percent due on December 31, 2018; \$7 billion at 1.625 percent due on October 31, 2019; \$3 billion at 1.125 percent due on December 31, 2019; \$1.6 billion at 1.375 percent due on December 31, 2019; and \$7 billion at 2.5 percent due on December 31, 2024.

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**Charging current policyholders to repay past debt.** In the Biggert-Waters Act, Congress set an expectation that FEMA would repay its debt through funds collected from current and future policyholders. That is, in addition to charging policyholders enough to pay for their current risk of flood losses (provisions subsequently revised under HFIAA), FEMA also must collect a surcharge from all NFIP policyholders to help repay program debt, among other things.<sup>28</sup> This creates a potential inequity because policyholders would not only be charged for the flood losses they are expected to incur, but also losses incurred by past policyholders. Such surcharges could discourage some homeowners from purchasing flood insurance from NFIP.

Charging current policyholders to pay for debt incurred in past years is contrary to actuarial principles and insurers' pricing practices, as described by industry stakeholders with whom we spoke, and could encourage some low-risk policyholders to leave NFIP. According to actuarial principles, a premium rate is based on the risk of future losses and does not include past costs. For example, if in prior years an insurer's claim payments had exceeded the premiums collected, it would not recoup those payments from current or future policyholders because those claims payments would have resulted from risks faced by past policyholders. According to one industry stakeholder, any shortfall in premiums needed to pay claims would be made up by using funds from the insurance company's surplus.<sup>29</sup>

#### Potential Reform Actions

- Congress could eliminate FEMA's debt to Treasury.

#### Implications of Potential Reform Actions

- Eliminating the debt would allow FEMA to take funds currently used for principal and interest payments and reallocate them for other purposes such as building a reserve fund or financing program operations. It also would be more equitable for current policyholders and consistent with actuarial principles.

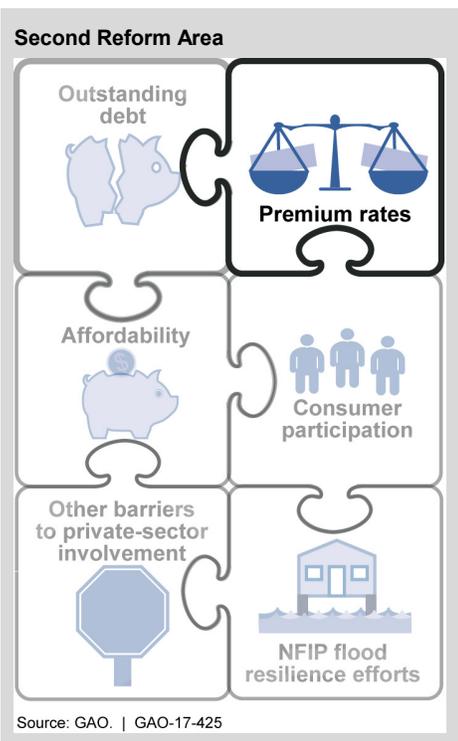
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<sup>28</sup>The Biggert-Waters Act required FEMA to create a reserve fund to help meet expected future obligations including payment of claims, claims adjustment expenses, and the repayment of debt. To fund the reserve fund and repay its debt, FEMA implemented surcharges and assessments on NFIP policyholders. HFIAA required FEMA to institute a premium surcharge of \$25 or \$250, depending on the type of property, to help fund the reserve fund.

<sup>29</sup>Surplus is the amount by which assets exceed liabilities.

Eliminating the debt in concert with other actions mentioned in this report would be important because eliminating the debt without addressing an underlying cause of the debt—insufficient premium rates—would keep in place an unsustainable system. That is, NFIP likely would need to rely on new borrowing from Treasury to help pay claims for future flood losses because of its premium structure.

## Establishing Premium Rates That Reflect the Full Risk of Loss



Source: GAO. | GAO-17-425

As we previously reported, challenges resulting from NFIP’s current rate structure include fiscal unsustainability, policyholder misperception of flood risk, limits to competition from private-sector insurance, and limited transparency of federal fiscal exposure.<sup>30</sup> Reforming rates so that they reflect the full risk of loss would address several of the policy goals we identified for NFIP because a reformed rate structure would place the program on a more financially sustainable path and policyholders could better understand their flood risk. Additionally, a reformed rate structure would encourage more private insurers to enter the flood insurance market, and Congress and taxpayers would be better informed about federal fiscal exposure. However, it is important to remember that this reform action could affect the implementation of other reform actions such as eliminating the debt, expanding requirements to purchase flood insurance, removing barriers to private-sector involvement, and funding for NFIP mitigation and mapping. These implications are discussed in each of the sections related to the other reform actions.

### Why Reform Is Needed

**Insufficient premiums.** As previously discussed—and as we have been reporting since as early as 1983—NFIP’s premium rates do not reflect the full risk of loss because of various legislative requirements, which exacerbates the program’s fiscal exposure. For example, in a December 2014 report we estimated that the legislative requirements for subsidized premium rates left FEMA with a premium shortfall of \$11–\$17 billion for the period from 2002 to 2013.<sup>31</sup> Subsidized premium rates and several years with catastrophic losses have led to the need for NFIP to borrow from Treasury to pay claims. While actuarially sound premium rates that reflect the full risk of loss would reduce the likelihood of future borrowing, they would not fully eliminate it. Because of the highly variable nature of

<sup>30</sup> GAO-16-611; GAO-16-59; GAO-14-127; GAO-13-607; and GAO-09-12.

<sup>31</sup> GAO-15-111.

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flood risk, the chance exists that adverse loss experience over a relatively short period could require borrowing if a sufficient reserve had not yet been accumulated.<sup>32</sup> As noted earlier, the Biggert-Waters Act required FEMA to phase out subsidized and grandfathered rates, both of which allowed premium rates that did not reflect the full risk of loss. However, due to concerns that increased premiums created affordability concerns for some policyholders, HFIAA slowed the phase-out of subsidized premium rates and reinstated grandfathered rates for most properties.

**Elevation certificates.** As we previously reported, the Biggert-Waters Act also required FEMA to phase in full-risk rates, but FEMA does not have data that would allow it to determine full-risk rates for currently subsidized policies.<sup>33</sup> Specifically, according to FEMA, it lacked elevation information for 97 percent of subsidized policies as of February 2017.<sup>34</sup> In 2016, FEMA said that obtaining data for the approximately 1 million subsidized policies could take considerable time and cost several hundred million dollars. According to FEMA, obtaining an elevation certificate typically would cost a policyholder from \$500 to \$2,000 or more; however, some nonindustry stakeholders with whom we spoke said that the cost for some certificates could be below this range.<sup>35</sup> According to FEMA, some policyholders already have paid to obtain the certificates because doing so could enable them to receive lower premium rates and that they expected more policyholders to do so as rate increases continued. This property-level information is necessary for FEMA to determine the difference between subsidized and full-risk rates and to determine when full-risk rates have been reached. Thus, the incomplete information on rates prevents Congress and the public from understanding the amount of unfunded subsidization within the program, and therefore the federal fiscal exposure it creates.

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<sup>32</sup>Due to the highly uncertain nature of flood risk, the risk of long-term debt accumulation would remain even if full-risk premium rates were charged for all policies. Although unsubsidized premiums would significantly reduce the risk of long-term debt, the rates still would be based on estimated losses, which could prove to be lower than actual losses.

<sup>33</sup>[GAO-13-607](#).

<sup>34</sup>Surveyors calculate the elevation of the first level of a structure in relation to the expected flood level, or base flood elevation.

<sup>35</sup>According to some nonindustry stakeholders, the costs can vary across the country and by type of structure, such as rural and urban, and pre-existing homes and new construction.

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**Reinsuring for catastrophic risk.** To reflect the full risk of loss, premium rates need to account for the risk of catastrophic losses—large aggregate losses resulting from relatively infrequent phenomena. Many private insurers purchase reinsurance to mitigate the risk of such large financial losses. In January 2017, FEMA executed a 1-year agreement with a consortium of 25 private reinsurers, transferring more than \$1 billion of its flood risk exposure to the private reinsurance market.<sup>36</sup> FEMA officials said that this reinsurance not only will protect the program from some financial risk, but also help FEMA gain experience purchasing reinsurance and the private sector gain experience insuring flood risk. Based on our analysis, reinsurance could be beneficial because it would allow FEMA to recognize some of its flood risk and the associated costs up front through the premiums it must pay to the reinsurers rather than after the fact in borrowing from Treasury. However, because reinsurers must charge FEMA premiums to compensate for the risk they assume, reinsurance’s primary benefit would be to transfer and manage risk rather than to reduce NFIP’s expected long-term fiscal exposure. Furthermore, if FEMA did not charge its policyholders for the cost of reinsurance premiums—and more broadly, implement full-risk rates for all policyholders—it could continue to face challenges relating to the transparency of NFIP’s federal fiscal exposure and the sustainability of its program.

**Effects on private sector and consumer perception of risk.** Industry and nonindustry stakeholders with whom we spoke said that it is difficult for private insurers to compete with NFIP premium rates that do not reflect the full risk of loss. To remain solvent, private insurers must charge premium rates that are adequate to cover long-term estimated losses and associated expenses. If NFIP rates were not set similarly, they would be below what private insurers would need to charge, and the private insurers would be unable to compete for these policies based on price.<sup>37</sup>

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<sup>36</sup>Under the agreement, the reinsurers agreed to indemnify FEMA for flood claims paid during 2017 on an occurrence basis. The reinsurance is structured to cover 26 percent of losses between \$4 billion and \$8 billion (a combined total of \$1.042 billion of NFIP’s flood risk).

<sup>37</sup>Private insurers also must build in other costs, such as the cost of capital to protect against unexpectedly large losses, into their premium rates, while NFIP does not have similar costs, as its “capital” is mostly provided by Treasury. However, NFIP premiums are also used to fund activities (such as developing flood maps) private insurers do not perform.

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As a result, the private market for flood insurance would continue to be limited.

We also have previously concluded, and many industry and nonindustry stakeholders with whom we spoke affirmed, that because NFIP premium rates do not reflect the full risk of loss, consumers may not understand the risk of flood loss associated with a particular property.<sup>38</sup> HFIAA requires FEMA to clearly communicate flood risk to individual property owners regardless of whether their premiums are based on full actuarial rates.<sup>39</sup> FEMA officials said they had begun implementing this requirement by notifying policyholders receiving a subsidy that their premium rates do not reflect the full risk of loss. However, we previously reported that FEMA officials noted that determining a full-risk rate would require elevation information, which FEMA does not have for most subsidized properties.<sup>40</sup> Without the appropriate information on a property's potential for flood damage, consumers may not be discouraged from purchasing homes in risky areas or they may not take actions to mitigate potential flood damage, which would undermine the nation's resilience to flood risk and also potentially increase NFIP's fiscal exposure.

**Basis for surcharges.** Similarly, the surcharges used to build the reserve fund are not charged based on the risk of the individual properties. For example, owners of properties used as second homes pay a significantly higher policy surcharge—\$250, compared to \$25 for primary residences—regardless of the risk of flood loss that each property faces. State regulations regarding rate setting by private insurers generally stipulate that premium rates should reflect the underlying risk insured by the policy and not be excessive, inadequate, or unfairly discriminatory. However, NFIP's surcharges are flat and not risk-based. Furthermore, NFIP surcharges, particularly the \$250 surcharge, can be significant when compared with the annual premium rate and might affect policyholder behavior. For example, according to FEMA officials, as of February 2017, the average annual premium (including all surcharges

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<sup>38</sup>[GAO-15-511](#).

<sup>39</sup>Pub. L. No. 113-89, § 28, 128 Stat. 1020, 1033 (2014).

<sup>40</sup>[GAO-13-607](#).

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and fees) for NFIP policies subject to the \$250 surcharge was \$1,791.<sup>41</sup> Some industry and nonindustry stakeholders told us that the surcharges could cause certain NFIP policyholders to discontinue their NFIP policies, and they might or might not purchase private flood insurance instead.

**Grandfathering.** NFIP allows some property owners to continue to pay grandfathered rates, which do not reflect the most recent reassessments of flood risk (which occur when the properties are remapped into higher-risk flood zones). The grandfathered policies continue to pay premium rates as if they were still located in lower-risk zones. FEMA does not categorize policies with grandfathered rates as subsidized because they are within classes of policies that FEMA says are not subsidized as a whole. FEMA officials acknowledged that in such classes of policies, property owners who obtain grandfathered rates are cross-subsidized by other policyholders in the same flood zone. That is, other policyholders pay higher rates to cover the shortfall in premiums from grandfathered policies.

As a result, both grandfathered policies and the policies that cross-subsidize them do not pay rates in line with the risk of the individual property and can send inaccurate risk signals to policyholders. Furthermore as we found in prior reports, FEMA does not know how many of its current policies pay grandfathered rates, which raises questions about its rate-setting process.<sup>42</sup> Before 2010, it did not identify whether newly issued policies were receiving grandfathered rates.<sup>43</sup> As a result, it cannot currently verify whether grandfathered policies result in premium revenue sufficient to pay for the estimated full long-term risk of flood loss. However, FEMA officials said that in April 2016 they had begun a phased effort to collect the information necessary to identify and analyze grandfathered policies, and that they expect to complete the effort by September 2018.

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<sup>41</sup>Excluding the surcharge, the reserve fund assessment, and the Federal Policy Fee, the average premium rate for policyholders subject to the \$250 surcharge was \$1,280. The average premium rate for policyholders not subject to the \$250 surcharge was \$758 in total and \$604 excluding surcharges and fees.

<sup>42</sup>[GAO-16-59](#) and [GAO-09-12](#).

<sup>43</sup>In [GAO-09-12](#), we found that FEMA did not track the number of grandfathered properties or calculate how much lower grandfathered premiums were than rates that fully reflected risk. As a result, FEMA did not know the effect of grandfathered properties on the program's total premium collection.

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## Potential Reform Actions

- As we previously recommended, FEMA needs to obtain the information necessary to determine full-risk rates for subsidized policyholders.<sup>44</sup>
- As we previously recommended, FEMA needs to collect information on the location, number, and losses associated with grandfathered policies and analyze the financial effect these properties had on NFIP.<sup>45</sup>
- As we previously suggested, Congress could eliminate subsidized premium rates and require FEMA to charge all policyholders premium rates that reflect the full risk of loss.<sup>46</sup>
- In addition, Congress could ensure that premium rates are more closely linked to the individual property's flood risk by eliminating flat HFIAA surcharges and requiring FEMA to incorporate necessary reserve fund charges into premium rates based on individual property risk.

## Implications of Potential Reform Actions

- Requiring FEMA to obtain elevation certificates for subsidized policyholders and data on grandfathered policies could address the policy goal of making NFIP's federal fiscal exposure more transparent and facilitate congressional oversight. The cost of obtaining elevation certificates could be burdensome for some policyholders, but could be considered as part of an affordability assistance program (see following section) and also could help some policyholders reduce their premium rates.
- Eliminating subsidized premium rates and requiring FEMA to charge all policyholders premium rates that reflect the full risk of loss could reduce fiscal exposure to the federal government and promote flood risk resilience, two of the policy goals we identified. Full-risk rates would help ensure that premiums collected were sufficient to pay claims in the long-term, and therefore reduce the likelihood that the program would need to borrow from Treasury. Full-risk rates would provide incentives for mitigation measures that would reduce flood risk and thus premium rates. Full-risk rates also could allow more opportunities for private-sector insurers to enter the flood insurance market, transferring federal fiscal exposure to flood risk to the private sector.

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<sup>44</sup>[GAO-13-607](#).

<sup>45</sup>[GAO-09-12](#).

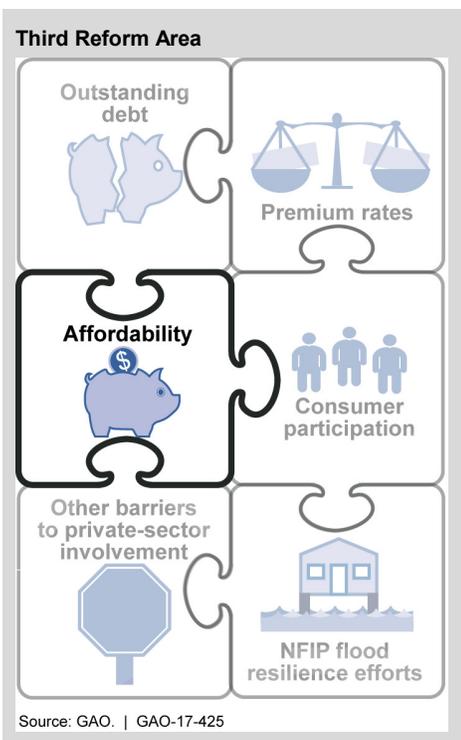
<sup>46</sup>[GAO-14-127](#) and [GAO-11-297](#).

- Eliminating reserve fund surcharges, and instead charging full-risk premium rates based on individual property risk, which would include funding a reserve for future adverse experience, could address the policy goal of encouraging consumer participation in flood insurance for those whom FEMA might be charging premium rates higher than appropriate for their flood risk. Doing so also could encourage private insurers to compete for more flood insurance policies, rather than only for policies in which NFIP premium rates are higher than the associated flood risk.

Taking these actions in concert with other actions mentioned in this report would be important because implementing full-risk rates will create affordability concerns for some consumers, highlighting the need for other assistance to help reduce negative consequences on consumer participation.

### Creating an Affordability Assistance Program That Is Funded with Appropriations, Means-Based, and Prioritized to Mitigate Risk

Industry and nonindustry stakeholders with whom we spoke said that rate increases associated with the transition to full-risk premium rates can raise affordability concerns for some policyholders and create a risk that fewer consumers would purchase flood insurance. Some key characteristics for designing an affordability assistance program that addresses the goals of encouraging consumer participation and promoting resilience include providing assistance through appropriations rather than through discounted premiums, making it means-based, and prioritizing it to mitigate risk. The implementation of affordability reforms has implications for other issues such as premium rates, requirements to purchase flood insurance, and barriers to private-sector involvement. Discussions about these implications are included in each section of this report related to those specific areas.



Source: GAO. | GAO-17-425

#### Why Reform Is Needed

**Making premium assistance more transparent.** As we previously reported, subsidized rates are available regardless of a property owner’s ability to afford a full-risk premium. Because NFIP offers discounted or “subsidized” rates for some policyholders, NFIP collects insufficient revenue to fully pay expected claims over the long term, and these costs generally remain hidden until NFIP must borrow from Treasury to fund a shortfall. This lack of transparency in relation to program costs hinders the ability of Congress to oversee the program and the public to scrutinize it.

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As we previously reported, means-testing premium assistance would help ensure that only those who could not afford full-risk rates would receive assistance and may increase the amount NFIP collects in premiums, thus reducing the program's federal fiscal exposure.<sup>47</sup> In our February 2016 report, we estimated that 47–74 percent of policyholders could be eligible for the subsidy, when income eligibility was set at 80 percent or 140 percent of area median income, respectively.<sup>48</sup> Ultimately, the change in federal fiscal exposure generated by means-tested premium assistance would depend on how the assistance was structured, as illustrated by the following examples:

- Higher premiums collected from currently subsidized policyholders who can afford the full-risk premium rate could be offset by premium assistance to policyholders currently paying full-risk rates and deemed eligible for the means-based assistance.
- Savings resulting from restricting premium assistance to those with a demonstrated need could be offset by increasing the amount of assistance given to each individual eligible recipient.
- If consumer participation increased, the change in fiscal exposure also would depend on the extent to which new policyholders were eligible for the means-based subsidies.

Limiting potential sources of additional costs (for example, by limiting the amount of the subsidy) could help ensure that NFIP's fiscal exposure would be reduced. Some nonindustry stakeholders with whom we spoke suggested that any premium assistance should be temporary and only used to help policyholders transition to full-risk rates rather than provided indefinitely. However, it is important to note that while making premium assistance temporary could help reduce fiscal exposure, it also could create affordability concerns in future years for some policyholders.

As we previously reported, a premium assistance program could be designed to consider effects on the private flood insurance market.<sup>49</sup> For

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<sup>47</sup>[GAO-14-127](#).

<sup>48</sup>GAO, *National Flood Insurance Program: Options for Providing Affordability Assistance*, [GAO-16-190](#) (Washington, D.C.: Feb. 10, 2016). In this report, we described options to target assistance to policyholders, estimates of eligible policyholders and associated costs of these options, and mechanisms for delivering assistance. We also noted that a generally recognized definition of affordability did not exist for flood insurance.

<sup>49</sup>[GAO-16-190](#).

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example, if premium assistance were made available only for NFIP policies and not for private flood insurance policies, private insurers would continue to be at a significant competitive disadvantage, thus hindering the growth of the private market. An option for addressing this concern would be to make private policies eligible for the same affordability assistance. However, during the course of this review, we determined that the federal government would have to overcome implementation challenges; for example, developing and implementing a program to provide assistance for the purchase of private flood insurance policies.

**Linking affordability to mitigation.** Many industry and nonindustry stakeholders with whom we spoke said that instead of premium assistance, it would be preferable to address affordability by providing assistance for mitigation measures that would reduce the flood risk of the property—thus enhancing resilience—and ultimately result in a lower premium rate.<sup>50</sup> Premium assistance does not reduce a property’s flood risk and also reduces incentives for mitigation. Although mitigation assistance would entail a larger up-front cost, it would increase resilience by reducing the risk of loss and reduce the need for premium assistance. Reducing flood risk through mitigation also could reduce the need for federal disaster assistance, further decreasing federal fiscal exposure.<sup>51</sup>

A number of recent studies have proposed linking mitigation assistance to premium assistance by requiring mitigation financed through a low-interest loan and providing a means-tested voucher.<sup>52</sup> Many industry and

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<sup>50</sup>While there are also a number of community-level mitigation efforts that can be taken to reduce the risk of flooding, we focused our discussion on mitigation efforts for individual properties.

<sup>51</sup>As we discuss later, many consumers have the false perception that individual disaster assistance will be sufficient to help them recover and rebuild after a flood, leading them to not purchase flood insurance. However, much of disaster assistance goes to pay for rebuilding public infrastructure and assistance for individuals is limited.

<sup>52</sup>Carolyn Kousky and Howard Kunreuther, “Addressing Affordability in the National Flood Insurance Program,” working paper 2013-12 (Philadelphia, Penn.: The Wharton School, University of Pennsylvania, 2013); Wendy Zhao, Howard Kunreuther, and Jeffrey Czajkowski, “Affordability of the National Flood Insurance Program: Application to Charleston County, South Carolina,” *Natural Hazards Review*, vol. 17, no. 1 (February 2016); and National Research Council of the National Academies, *Affordability of National Flood Insurance Program Premiums – Report 1* (Washington, D.C.: March 2015). The Academies issued the second report in December 2015, which proposes procedures with which FEMA might analyze those policy options. See National Academies of Sciences, Engineering, and Medicine, *Affordability of National Flood Insurance Program Premiums – Report 2* (Washington, D.C.: 2015).

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nonindustry stakeholders with whom we spoke said that funding mitigation activities through loans would be preferable to funding through grants because loans would be repaid by the consumer and represent a lower cost to the federal government in the long term. For example, one study suggested that the consumer's total annual cost could be equal to the loan servicing cost (interest plus some repayment of principal) plus the flood insurance premium, with the premium being lower after mitigation efforts were completed and had reduced the risk of flood loss.<sup>53</sup>

Under one proposal developed by some academics who have conducted extensive research on flood insurance, the program would determine the annual amount of flood insurance costs the consumer would be able to afford (for example, a percentage of annual household income), and the annual voucher would be equal to any difference between the consumer's annual cost—post-mitigation premiums and servicing of the mitigation loan—and what they were determined to be able to pay.<sup>54</sup> The voucher would be tied to individuals and their income level but the loan would be attached to the property so that it could be transferred if the property were sold. Under a related study, for properties for which elevation is not cost effective, other mitigation measures, such as modifying the ground floor with wet floodproofing and moving habitable areas to the second floor of multistory homes, could be helpful.<sup>55</sup> As would be the case with premium assistance, Congress would need to provide funding for any mitigation loan program.

## Potential Reform Actions

- Building on what we previously recommended, Congress could create an affordability assistance program that (1) is funded through an appropriation rather than through discounted premiums, (2) is means-tested, (3) considers making any premium assistance temporary, (4) considers allowing assistance to be used for private policies, (5)

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<sup>53</sup>Kousky and Kunreuther, "Addressing Affordability in the National Flood Insurance Program."

<sup>54</sup>Kousky and Kunreuther, "Addressing Affordability in the National Flood Insurance Program."

<sup>55</sup>Zhao, Kunreuther, and Czajkowski, "Affordability of the National Flood Insurance Program: Application to Charleston County, South Carolina." FEMA defines wet floodproofing as permanent or contingent measures applied to a structure or its contents that prevent or provide resistance to damage from flooding while allowing floodwaters to enter the structure. Generally, this includes properly anchoring the structure, using flood resistant materials below the base flood elevation, and protection of mechanical and utility equipment.

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prioritizes investments in mitigation efforts over premium assistance whenever economically feasible, and (6) prioritizes mitigation loans over mitigation grants.<sup>56</sup>

## Implications of Potential Reform Actions

- Providing premium assistance through appropriations rather than through discounted premiums would address the policy goal of making the fiscal exposure more transparent because any affordability discounts on premium rates would be explicitly recognized in the budget each year.
- Because current subsidies are not based on the policyholder's ability to pay, means-testing assistance would restrict subsidies to those with a demonstrated need, which could lower the number of policyholders receiving a subsidy and therefore reduce fiscal exposure while maintaining consumer participation (two of the policy goals we identified). However, creating and administering a premium assistance or mitigation loan program would entail some administrative costs. Furthermore, any premium assistance (including vouchers) could continue to reduce incentives for mitigation to some extent.
- Making premium assistance temporary could help address the policy goal of reducing long-term federal fiscal exposure, but could leave some affordability concerns unaddressed, thus potentially reducing consumer participation.
- Prioritizing mitigation over premium assistance could address the policy goal of enhancing resilience because it would involve taking steps to reduce the risk of the property, thus reducing the likelihood of future flood claims and potentially reducing long-term federal fiscal exposure.
- Creating an affordability program would require determining how to assess eligibility for the assistance, which also would include the collection of consumer data. Some mitigation efforts, such as elevating a house, can be expensive and may require significant up-front costs, increasing federal fiscal exposure in the short term. However, these costs could be recaptured over time through reduced flood exposure in the long term and as policyholders repaid mitigation loans.

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<sup>56</sup>[GAO-11-297](#).

- Increased consumer participation in NFIP (by making insurance more affordable) as well as higher levels of subsidies than currently provided could result in higher fiscal exposure.

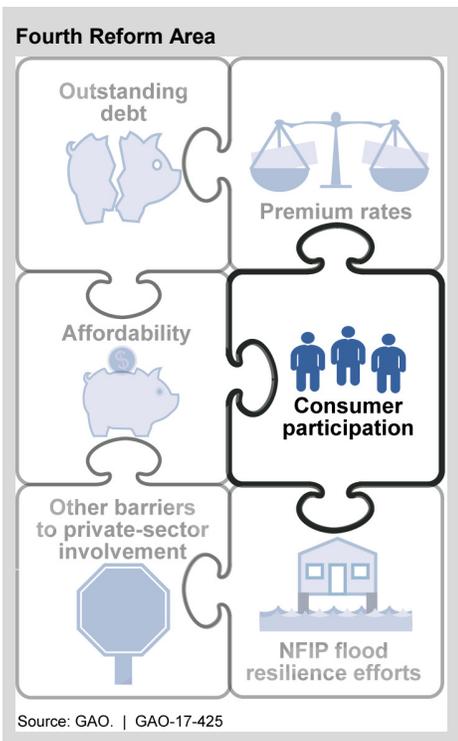
Taking these actions in concert with other actions mentioned in this report would be important because creating a system for providing means-based assistance without establishing full-risk premium rates for all policyholders, or establishing a source of funding for that assistance, could increase the fiscal exposure NFIP creates for the federal government.

## Increasing Consumer Participation by Expanding the Mandatory Purchase Requirement and Improving Risk Communication

Based on our analysis of stakeholder comments, issues relating to the policy goal of encouraging consumer participation include the effects of the mandatory purchase requirement and disaster assistance on consumer perception of flood risk. If the mandatory purchase requirement were expanded to more (or all) mortgage loans made by federally regulated lending institutions for properties in communities participating in NFIP, consumer participation could increase, more consumers would have some protection from the financial effects of flooding, and private insurers would have a greater incentive to offer flood insurance coverage. Any reforms related to consumer participation will have potential implications for full-risk rates, affordability assistance, and barriers to private-sector involvement. Discussions about these implications are included in each section of this report related to those specific areas.

### Why Reform Is Needed

**Consumer participation and the mandatory purchase requirement.** As discussed earlier, owners of properties in participating communities in SFHAs generally are required to purchase flood insurance if their mortgage loans are made by federally regulated lenders (mandatory purchase requirement). This requirement was created to increase the number of consumers who purchase flood insurance coverage. A number of studies have shown that individuals focus on short time horizons and have difficulty fully understanding low-probability, high-severity risks such as flooding.<sup>57</sup> For example, a 1 percent chance of flooding in a single year may seem like a low probability to many—despite being FEMA’s defined



<sup>57</sup>For example, see Howard Kunreuther, "Insurance against Extreme Events: Pairing Short-Term Incentives with Long-Term Strategies," *Issue Brief*, vol. 4, no. 7, October 2016 (Philadelphia, Penn.: The Wharton School, University of Pennsylvania, 2016).

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threshold for high risk—and lead homeowners to believe they will never experience flooding and that flood insurance coverage is not necessary.<sup>58</sup>

In addition, many industry and nonindustry stakeholders with whom we spoke said that the requirement's current structure discourages some consumers from purchasing coverage. For example, many industry and nonindustry stakeholders with whom we spoke (including FEMA representatives), described the SFHA designation as an "in or out" line that unintentionally gives consumers the false perception that because they are not required to purchase flood coverage, they are not at risk of flooding and do not need the coverage. While FEMA considers areas outside of SFHAs to be at low- to moderate-risk of flooding, it estimated that properties outside of SFHAs accounted for about 20 percent of NFIP claims from 2006 through 2015.<sup>59</sup> But according to a 2006 study, only an estimated 1 percent of consumers outside of SFHAs purchase flood insurance.<sup>60</sup> Moreover, in a 2008 report, we discussed areas of the country that appeared to have higher populations and flooding risks relative to their policy volumes, thus indicating the potential for an increase in the number of consumers with flood insurance coverage.<sup>61</sup> Many industry and nonindustry stakeholders with whom we spoke suggested eliminating the SFHA designation and expanding the mandatory purchase requirement to include more (or all) federally regulated mortgages. Some of these stakeholders acknowledged that flood insurance coverage, and therefore a purchase requirement, might not be as necessary for some consumers with properties at an extremely

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<sup>58</sup>See Howard Kunreuther, "Reducing Losses from Catastrophic Risks through Long-term Insurance and Mitigation," working paper 2008-06-10 (Philadelphia, Penn.: The Wharton School, University of Pennsylvania, 2008); and Erwann 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 (April 2012).

<sup>59</sup>The percentage represents the claim count for X-zone preferred policies as a percentage of all policies excluding X-zone standard, which were excluded because FEMA was unable to determine the SFHA status of these properties because of grandfathering. The source of the data is FEMA's Calendar/Accident Year Report from the Actuarial Information System. Using this calculation, the percentage by total claim amount paid was 16 percent for properties outside of SFHAs.

<sup>60</sup>RAND Corporation, *The National Flood Insurance Program's Market Penetration Rate: Estimates and Policy Implications* (Santa Monica, Calif.: American Institutes for Research, February 2006).

<sup>61</sup>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).

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low risk of flooding but noted that in those situations, the premium rate should be extremely low to reflect the low flood risk of the property.

Limited information is readily available to help inform consumers who may be inclined to purchase flood insurance coverage voluntarily. For example, mortgage documents inform the borrower if the property is in an SFHA and the flood zone in which the property is located. However, for most properties outside of SFHAs, the flood zone is listed as “X” without any additional information on the property’s risk. As a result, according to industry and nonindustry stakeholders with whom we spoke, the borrower may be unclear if the property is at moderate risk or at a very low risk for flooding.

One nonindustry stakeholder with whom we spoke has proposed communicating flood risk to consumers by creating a flood safety score, similar to a credit score, that reinforces the idea that flood risk is on a continuous spectrum rather than undifferentiated high-risk versus not high risk.<sup>62</sup> Industry and nonindustry stakeholders with whom we spoke generally agreed with the potential merit of such a system, and one also highlighted the importance of ensuring that such a system be as public and transparent as possible so that consumers would understand it. As mentioned previously, HFIAA requires FEMA to communicate full flood risk to existing policyholders but does not require FEMA to improve communication of risk to consumers who lack NFIP coverage. While HFIAA does not specifically require a risk score, such a scoring system could help communicate risk to all consumers and potentially improve consumer participation.

**Enforcement of the mandatory purchase requirement.** Many industry and nonindustry stakeholders with whom we spoke expressed concern that the mandatory purchase requirement has not been adequately enforced. However, few specific examples of noncompliance exist, so the extent of compliance remains unknown. For example, a 2006 study estimated that NFIP participation rates were 75–80 percent in SFHAs, in which property owners with loans from federally regulated lenders are

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<sup>62</sup>Erwann Michel-Kerjan (presentation at the National Flood Conference, Arlington, Va., May 15-18, 2016).

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required to purchase flood insurance.<sup>63</sup> However, FEMA officials said that estimates indicate that as little as one-third of residential properties in SFHAs have flood insurance coverage. A 2012 study found that homeowners both inside and outside SFHAs who obtained flood insurance when purchasing their homes typically kept it 2–4 years before canceling the policies.<sup>64</sup> Furthermore, some industry and nonindustry stakeholders with whom we spoke cited recent flooding in Louisiana (2016) and South Carolina (2015) and the fact that so few consumers had flood insurance as additional evidence that either the enforcement of the mandatory purchase requirement needed to be improved or its scope needed to be expanded. However, one official from the lending industry with whom we spoke noted that federal banking regulators have found few examples of noncompliance in lending institutions. The lack of clarity on the extent of compliance with the mandatory requirement poses the risk that compliance could be low, resulting in actions not being taken to address the situation.<sup>65</sup>

**Disaster assistance and consumer participation.** Many industry and nonindustry stakeholders with whom we spoke, including FEMA representatives, said that many consumers have the false perception that individual disaster assistance will be sufficient to help them recover and rebuild after a flood, leading them to forgo purchasing flood insurance. Literature we reviewed has noted that individual assistance is limited and means-based, and much of the disaster assistance goes to pay for rebuilding public infrastructure, as the following examples illustrate:

- A FEMA official said that homeowners should not rely on potential grant programs as an alternative to flood insurance coverage to recover after a flood because such assistance is not designed to repair and rebuild a property. For example, after the floods in Louisiana in 2016, NFIP policyholders received claim payments that averaged approximately \$86,500, while assistance payments to individuals averaged approximately \$9,150.

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<sup>63</sup>*The National Flood Insurance Program's Market Penetration Rate: Estimates and Policy Implications.* Note that not all homeowners with properties in SFHAs are subject to the mandatory purchase requirement, which applies to properties in SFHAs that have a federally backed mortgage or a mortgage loan made by a federally regulated lender.

<sup>64</sup>Michel-Kerjan, Lemoyne de Forges, and Kunreuther, "Policy Tenure under the U.S. National Flood Insurance Program (NFIP)."

<sup>65</sup>Assessing the extent of compliance with and enforcement of the mandatory purchase requirement would require a detailed study that was beyond the scope of this report.

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- A 2012 study found that public perception of federal post-disaster assistance creates a moral hazard that not only discourages consumers from purchasing flood insurance but also discourages flood risk mitigation and encourages people to live in high-risk areas.<sup>66</sup> The study concluded that available disaster assistance “is relatively small and certainly does not make people whole after devastating events.” According to FEMA officials, FEMA provides post-disaster grants of up to \$33,300 to repair and rebuild, but recent payments have averaged around \$4,100.<sup>67</sup> The Small Business Administration also offers loans for repair and rebuilding after a disaster, but these are means-tested, and because they must be repaid by the homeowner, they do little to protect against the financial risk of flooding.<sup>68</sup>
  - Nonindustry stakeholders with whom we spoke said that most disaster assistance is provided to state and local governments to repair infrastructure rather than to individuals.
  - Furthermore, a 2014 study found that when the average individual assistance grant increased by \$1,000, average flood insurance coverage per policy in that community dropped by about \$6,400.<sup>69</sup>

Many industry and nonindustry stakeholders with whom we spoke agreed that misperceptions about disaster assistance can negatively affect consumer participation in flood insurance, resulting in more exposure to financial loss from flooding.

## Potential Reform Actions

- Congress could expand the mandatory purchase requirement to more (or all) mortgage loans made by federally regulated lending institutions for properties in communities participating in NFIP.

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<sup>66</sup>Carolyn Kousky and Leonard Shabman, “The Realities of Federal Disaster Aid: The Case of Floods,” Resources for the Future issue brief 12-02 (Washington, D.C.: April 2012). Moral hazard refers to one party taking on more risk because another party bears the cost of that risk.

<sup>67</sup>Specifically, \$33,300 refers to the fiscal year 2017 maximum grant amount for assistance to individuals under the Individuals and Households Program, and \$4,100 was the average grant payment for this program in calendar years 2007–2016.

<sup>68</sup>Consumers with properties in an SFHA who lack flood insurance coverage when their property is flooded generally must purchase flood insurance coverage before they can receive loan funds from the Small Business Administration.

<sup>69</sup>Carolyn Kousky, Erwann O. Michel-Kerjan, and Paul A. Raschky, “Does Federal Assistance Crowd Out Private Demand for Insurance?” working paper 2014-04 (Philadelphia, Penn.: The Wharton School, University of Pennsylvania, 2014).

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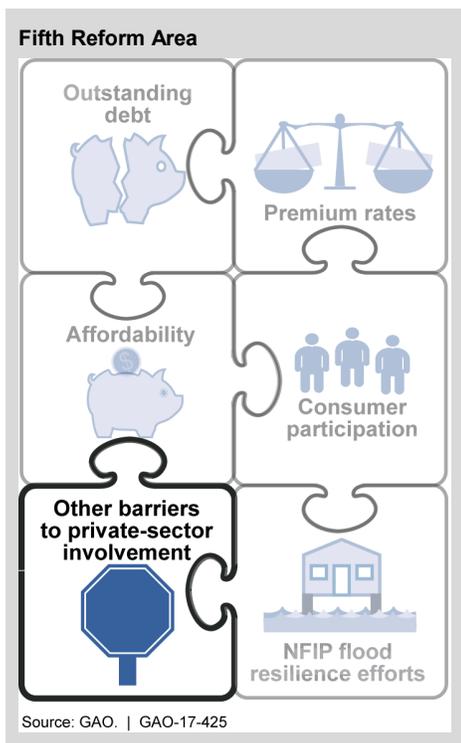
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Implications of Potential Reform Actions

- Congress could require FEMA to explore ways to improve its communication of risk to all consumers; for example, through a risk scoring system.
- Expanding the mandatory purchase requirement to more (or all) mortgage loans made by federally regulated lending institutions in communities participating in NFIP (rather than only those in an SFHA) could address the policy goal of increasing consumer participation in flood insurance.
- Expanded purchase requirements likely would face resistance from consumers who do not wish to purchase coverage or who might face affordability issues.
- Lenders also may object to being responsible for enforcement of mandatory purchase requirements on an expanded number of properties.
- Expanded purchase requirements could affect the values of properties subject to the new requirement to purchase flood insurance.
- Increased consumer participation would address the goal of enhancing resilience by providing consumers with some protection from the financial effects of flooding and reduce the need for disaster assistance, therefore potentially reducing federal fiscal exposure.
- Increased consumer participation could increase the size and scope of NFIP and potentially increase federal fiscal exposure, but this could be reduced by implementing full-risk rates and balanced by an increasing number of lower-risk properties.

Taking these actions in concert with other actions mentioned in this report would be important to address affordability concerns associated with an expanded mandatory purchase requirement. Furthermore, accurate, property-specific premium rates would be necessary to provide assurance that policyholders newly mandated to purchase flood insurance coverage would be paying rates based on their risk of flood loss.

## Removing Other Barriers to Private-Sector Involvement



According to some industry and nonindustry stakeholders with whom we spoke, private insurer interest in selling flood insurance has been increasing. Also, according to industry and nonindustry stakeholders with whom we spoke, NFIP's subsidized premium rates remain the primary barrier to private-sector involvement in flood insurance. As we previously reported, besides NFIP's subsidized rates, other barriers to private-sector involvement include uncertainty about how private coverage could satisfy the mandatory purchase requirement and FEMA policies on continuous coverage and premium refunds.<sup>70</sup> If such barriers were removed, private-sector involvement in flood insurance could increase, potentially resulting in a reduced size and scope for NFIP's insurance activities and allowing FEMA to focus on other activities such as mitigating flood risk and developing flood maps. As a result, this could address the policy goal of reducing federal fiscal exposure while promoting flood resilience. Increased private-sector involvement has implications for other issues such as full-risk premium rates, consumer participation, and NFIP flood resilience efforts. Discussions about these implications are included in each section of this report related to those specific areas.

### Why Reform Is Needed

#### Private-sector coverage and the mandatory purchase requirement.

Industry and nonindustry stakeholders with whom we spoke cited uncertainty among lenders and insurers about regulations specifying how private flood insurance policies could satisfy the mandatory purchase requirement. The Biggert-Waters Act requires regulated lending institutions to accept private flood insurance, but as of March 2017, federal banking regulators had not issued final rules with such directions.<sup>71</sup> As a result, it is not known what the regulations will be and how lenders and private insurers ought to comply. Furthermore, some

<sup>70</sup>GAO-16-611 and GAO-14-127.

<sup>71</sup>In October 2013, the Office of Comptroller of the Currency, Board of Governors of the Federal Reserve System, Federal Deposit Insurance Corporation, Farm Credit Administration, and National Credit Union Administration issued a proposed rule that included regulations to address the private flood insurance requirements of the Biggert-Waters Act (for loans in SFHAs). Loans in Areas Having Special Flood Hazards, 78 Fed. Reg. 65108 (Oct. 30, 2013). The agencies received comments and finalized parts of the proposed rule, but not the provisions regarding private flood insurance. In November 2016, the same agencies issued another proposed rule regarding private flood insurance. Loans in Areas Having Special Flood Hazards – Private Flood Insurance, 81 Fed. Reg. 78063 (Nov. 7, 2016).

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industry and nonindustry stakeholders with whom we spoke were concerned that private policies lenders had accepted as satisfying the mandatory purchase requirement might retroactively be deemed noncompliant if they did not meet the requirements of the new regulations. The stakeholders added that issuance of final rules on the acceptance of and definition of private flood insurance could help provide more clarity and could lead to increased private-sector involvement in flood insurance.

**Continuous coverage, premium refunds, and WYO noncompetitor clause.** Some industry and nonindustry stakeholders with whom we spoke also cited FEMA's interpretation of the continuous coverage requirement in connection with private flood insurance and the effect on consumers' ability to qualify for NFIP discounted rates as a barrier to private-sector involvement in flood insurance. FEMA prohibits the use of subsidized rates for policies for which there has been a lapse in NFIP coverage of more than 90 days.<sup>72</sup> That is, if a NFIP policyholder who qualified for a subsidized rate switched to a private flood policy, and then switched back to an NFIP policy (more than 90 days after originally cancelling the NFIP policy), the policyholder would no longer qualify for the subsidized rate.

FEMA officials noted that in these cases they disallowed private coverage from constituting continuous coverage because of the agency's interpretation of a HFIAA provision on policy lapses.<sup>73</sup> Some industry and nonindustry stakeholders with whom we spoke also noted that FEMA's decision to exclude private flood insurance policies in these cases could have financial repercussions for some consumers seeking to reinstate their previously discounted NFIP coverage. Some of these industry and nonindustry stakeholders said that due to the risk of losing their

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<sup>72</sup>Effective April 1, 2016, FEMA prohibits the use of discounted rates for policies that reinstate coverage for buildings previously insured by NFIP in cases in which the reinstatement occurs through payments received more than 90 days after expiration or cancellation of the policy. Federal Emergency Management Agency, *NFIP Flood Insurance Manual*, RATE 21 (March 2016). Discounted insurance premiums (rates) include both subsidized and grandfathered policies.

<sup>73</sup>The National Flood Insurance Act, as amended by HFIAA, states, in part, that "[t]he Administrator shall not provide flood insurance to prospective insureds at [subsidized rates]... for ... any policy under the flood insurance program that has lapsed in coverage, unless the decision of the policyholder to permit a lapse in flood insurance was as a result of the property covered by the policy no longer being required to retain such coverage." Pub. L. No. 113-89, § 3, 128 Stat. 1020, 1021 (2014) (codified at 42 U.S.C. § 4014(g)).

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discounted NFIP rates, consumers might avoid the private market. However, to the extent that reforms result in the elimination of discounted rates, this issue could become less of a concern.

Furthermore, some industry and nonindustry stakeholders with whom we spoke said that FEMA's policy related to policy cancellations could discourage the use of private flood insurance by consumers. FEMA allows full or partial refunds of paid NFIP premiums for coverage terminated in accordance with its accepted cancellation reasons, but does not allow policyholders to cancel their NFIP policy and obtain a refund if they obtained a non-NFIP policy (private flood insurance).<sup>74</sup> These industry and nonindustry stakeholders said that private insurers typically allow refunds to policyholders when switching insurers. FEMA officials said that FEMA only can allow cancellation of policies and refunds according to its standard policy terms and conditions (which only reference cancellations of NFIP policies). However, FEMA previously allowed such refunds and could have taken steps to revise guidance to allow them. Allowing this type of refund would be in line with industry practice to allow for refunds of paid premiums as well as Congress's interest in transferring some of the federal government's exposure to flood risk to the private sector. We previously recommended that FEMA consider reinstating the cancellation reason code allowing policyholders to be eligible for prorated premium refunds if they obtained a private policy and then cancelled their NFIP policy.<sup>75</sup> FEMA agreed with our recommendation and said it planned to implement the policy change effective October 2017.

Some industry and nonindustry stakeholders with whom we spoke also told us that certain FEMA restrictions on WYO insurers—private insurers that sell and service policies and adjust claims for NFIP—may be an impediment to increasing the availability of private flood insurance. Specifically, NFIP's arrangement with the insurers restricts them from

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<sup>74</sup>Federal Emergency Management Agency, *National Flood Insurance Program: Flood Insurance Manual* (Washington, D.C.: June 2014, revised November 2015). In May 2015, FEMA issued a memorandum to WYO insurers and NFIP servicing agents stating that the insured obtaining a non-NFIP policy (private flood insurance policy) no longer represented a valid cancellation reason.

<sup>75</sup>[GAO-16-611](#).

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selling stand-alone flood insurance coverage outside of NFIP.<sup>76</sup> The stakeholders said that this restriction can limit companies with the most experience in flood insurance from entering the private market. FEMA officials stated that, despite this restriction, a number of companies have found ways to offer flood insurance while remaining compliant with the arrangement. For example, if a subsidiary of a large insurance company were a WYO, the parent company could offer stand-alone flood coverage. Alternatively, the WYO insurer could offer flood coverage as part of a multiperil policy.

**NFIP claims data.** Many industry and nonindustry stakeholders with whom we spoke also noted the lack of access to NFIP data on flood losses and claims as a barrier to more private companies offering flood insurance. In our previous work, industry and nonindustry stakeholders said that access to such data would allow private insurance companies to better estimate losses, price flood insurance premiums, and determine which properties they might be willing to insure.<sup>77</sup> According to FEMA officials, the agency would need to address privacy concerns to provide property-level information to insurers, because the Privacy Act of 1974 prohibits the agency from releasing detailed NFIP policy and claims data.<sup>78</sup> FEMA officials said that while the agency could release data in the aggregate, some information could not be provided in detail. For example, in 2017 FEMA publicly released ZIP code-level data but would need to determine how to release property-level information while protecting the privacy of individuals. According to officials from the National Association of Insurance Commissioners, it is coordinating with FEMA actuaries to determine how FEMA could share specific data with states, without disclosing personally identifiable information.

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<sup>76</sup>Federal Emergency Management Agency, Federal Insurance and Mitigation Administration, Financial Assistance/Subsidy Arrangement, Art. XIII (codified at 44 C.F.R. pt. 62, app. A). This restriction applies solely to policies providing only flood insurance; WYO insurers are not restricted from selling flood insurance as part of multiple peril policies or policies that are over and above the limits NFIP allows.

<sup>77</sup>[GAO-16-611](#) and [GAO-14-127](#).

<sup>78</sup>Pub. L. No. 93-579, 88 Stat. 1896 (1974) (codified, as amended, at 5 U.S.C. § 552a).

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## Potential Reform Actions

- Congress could amend (or clarify) the statutory definition of private flood insurance as it relates to the mandatory purchase requirement.<sup>79</sup>
- Congress could direct FEMA to allow private coverage to satisfy NFIP continuous coverage requirements.
- As we previously recommended, FEMA could reinstate the ability for policyholders replacing their NFIP policies with private policies to be eligible for prorated refunds.<sup>80</sup>
- Congress could direct FEMA to eliminate the WYO noncompete clause.
- Congress could determine the appropriateness of amending the privacy law to allow for FEMA to enter into confidentiality agreements to share claims data with the insurance industry.

Depending on the extent to which a private flood insurance market develops over time, other changes to further encourage the private market and potentially change the role and structure of NFIP could be considered. Such potential actions are discussed in appendix II.

## Implications of Potential Reform Actions

- Increased private-sector involvement could address the policy goal of reducing the federal fiscal exposure relating to flood risk by reducing the number of properties that NFIP covers with flood insurance.
- Reduced size and scope of NFIP's insurance activities could free up resources and allow FEMA to focus more heavily on other activities such as mitigating high-risk properties and developing and maintaining flood maps, thus potentially addressing the policy goal of enhancing resilience.
- Increased private-sector involvement could make flood insurance more attractive to consumers by introducing products more tailored to each consumer's needs.
- Some industry stakeholders with whom we spoke said that private insurers would be able to price flood risk more accurately for each individual property because they have better flood-loss modeling

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<sup>79</sup>On March 8, 2017, Representative Dennis Ross and Senator Dean Heller introduced legislative bills (H.R. 1422 and S. 563, respectively) relating to the statutory definition of private flood insurance and other issues related to private-sector involvement in flood insurance. In April 2016, the House of Representatives had unanimously passed a similar bill.

<sup>80</sup>[GAO-16-611](#).

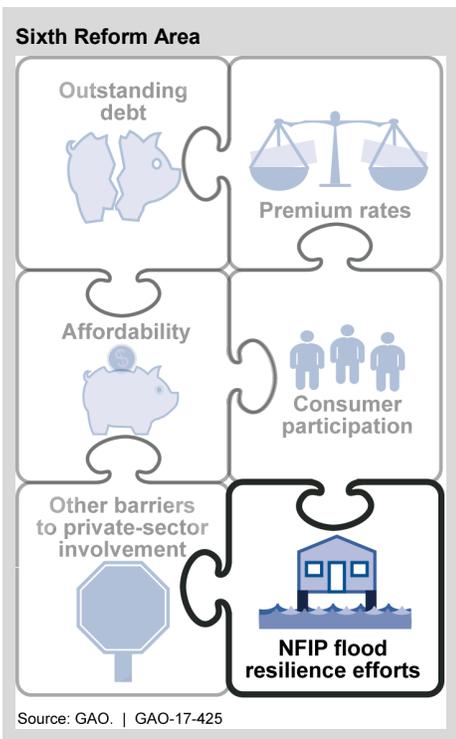
capabilities (and thus consumers pay for the risk of their own property and do not significantly cross-subsidize other policyholders).

- Increased private-sector involvement could cause a greater portion of NFIP's portfolio to be composed of higher-risk policies.

Taking these actions in concert with other actions mentioned in this report, such as addressing NFIP's subsidized rates, would be key to encouraging private-sector involvement because industry and nonindustry stakeholders with whom we spoke cited subsidized rates as a significant barrier to private-sector entrance into the flood insurance market. And, it is unclear how effective these actions would be without addressing subsidized rates.

## Protecting and Enhancing NFIP Flood Resilience Efforts

NFIP flood resilience efforts include mitigation, mapping, and floodplain management through community participation. Based on our analysis of the policy goals we identified, supporting these activities could address the policy goal of enhancing resilience by ensuring flood risk was identified through mapping and reduced through mitigation and floodplain management. Any reforms related to NFIP flood resilience efforts will have potential implications for issues such as premium rates, consumer participation, and private-sector involvement in flood insurance. Discussions about these implications are included in each section of this report related to those specific areas.



### Why Reform Is Needed

**Mitigation and mapping funding.** NFIP's flood resilience efforts (mitigation, mapping, and floodplain management through community participation) are important and deliver a wide range of benefits. For example, a 2005 report estimated that for every \$1 spent on mitigation, losses were reduced by an average of \$4.<sup>81</sup> Furthermore, FEMA officials said that mitigation programs have saved the American public an estimated \$3.4 billion annually. Mapping is essential to NFIP rate setting and risk identification. If private insurers began to write a significant number of flood insurance policies, and NFIP wrote fewer, there would be less funding for such resilience efforts.

<sup>81</sup>National Institute of Building Sciences, The Multihazard Mitigation Council, *Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities* (Washington, D.C.: 2005).

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As discussed previously, FEMA charges a fee on NFIP policies that helps fund efforts to mitigate flood risk on properties covered by NFIP policies and develop and maintain flood maps. While FEMA also received \$190 million in appropriations in fiscal year 2016 to help fund its mapping efforts, it expects to collect about \$197 million in fee revenue in 2017. As a result, to the extent that the private flood insurance market grew and policies moved from NFIP to private insurers, FEMA would no longer collect fees on those policies.

Nonindustry stakeholders have proposed a number of solutions for addressing this issue. For example, the Association of State Floodplain Managers proposed requiring an equivalency fee (equal to the Federal Policy Fee) on all private flood insurance policies because it would help pay for floodplain management and flood mapping services that also would benefit private insurance companies.<sup>82</sup> For example, flood maps are an important source of flood risk data that private insurers could use to assess risk, and mitigation helps lower the risk of properties and make them more insurable. While other industry and nonindustry stakeholders with whom we spoke shared the concern over the effect on fee revenue, some instead preferred to compensate for the diminished fee revenue by funding mitigation and mapping directly through an appropriation in the federal budget because the services benefit all taxpayers.

**Community participation.** Increased private-sector involvement in flood insurance also has the potential to negatively affect flood resilience because communities may have less of an incentive to meet floodplain management standards. Industry and nonindustry stakeholders with whom we spoke said that many of the more than 22,000 communities currently participating in NFIP do so primarily because participation provides community residents with access to NFIP coverage. In exchange, communities must adopt and enforce floodplain management standards that help to reduce flood risk.<sup>83</sup> According to FEMA, structures built to NFIP standards experience 73 percent less damage than structures not built to these standards and result in a \$1.9 billion annual reduction in flood losses. Some nonindustry stakeholders with whom we spoke said that the availability of private flood insurance coverage could

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<sup>82</sup>Senate Committee on Small Business and Entrepreneurship, *No More Hikes: Small Business Survival amidst Unaffordable Flood Insurance Rate Increases*, 114th Cong., 2nd sess., June 30, 2016; testimony of Ceil Strauss, Association of State Floodplain Managers.

<sup>83</sup>44 C.F.R. § 59.2.

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lead some communities to drop out of NFIP and rescind some of the standards and codes they had adopted. However, rescinding these standards could increase the risk of flood damage and therefore the cost of flood insurance premiums, which could be an incentive for keeping the standards in place. The Association of State Floodplain Managers proposed addressing this issue by allowing private flood policies to meet the mandatory purchase requirement only if they were sold in participating NFIP communities.<sup>84</sup>

#### Potential Reform Actions

- Congress could establish a fee on private flood insurance policies to address the loss in NFIP fee revenue used to fund mitigation and mapping activities.
- Alternatively, Congress could appropriate funds for mitigation and mapping activities to offset the diminished fee revenue.

#### Implications of Potential Reform Actions

- Proactively addressing potential effects on policy fee revenue could address the policy goal of enhancing resilience by helping ensure that flood risk would be identified through mapping and reduced through mitigation activities and floodplain management. In turn, enhancing resilience could address the policy goal of reducing federal fiscal exposure in the long term because property would be at a lower risk of flood loss and therefore less likely to experience flood claims.
- Ensuring that these activities continued even as the number of NFIP policies decreased could support the private flood insurance market, which in turn could address the policy goal of reducing federal fiscal exposure (through transfer to the private market). For example, private insurers could use flood maps to assess risk and mitigation could make more properties insurable.
- A requirement for a fee on private flood insurance policies could face resistance from insurers, and creating a federal appropriation to pay for mitigation and mapping would be a new cost. There also could be implementation costs and challenges associated with administering a fee on private insurers.

Taking these actions in concert with other actions mentioned in this report would be important because doing so could ensure that efforts to increase private-sector involvement in flood insurance would not harm resilience efforts, particularly funding for mitigation and mapping, and community participation in NFIP.

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<sup>84</sup>Senate Committee on Small Business and Entrepreneurship, *No More Hikes: Small Business Survival amidst Unaffordable Flood Insurance Rate Increases*.

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## Conclusions

NFIP has experienced significant challenges because FEMA is tasked with pursuing competing programmatic goals—keeping flood insurance affordable while keeping the program fiscally solvent. Emphasizing affordability has led to premium rates that in many cases do not reflect the full risk of loss and produce insufficient premiums to pay for claims. In turn, this has transferred some of the financial burden of flood risk from individual property owners to taxpayers as a whole and resulted in the program owing \$24.6 billion to Treasury. Without reforms, the financial condition of NFIP could continue to worsen. Shifting the emphasis toward fiscal solvency would reduce the burden on the taxpayer, but would require increasing premium rates, which could create affordability challenges for many policyholders and discourage consumer participation in flood insurance.

Private insurers' interest in selling flood insurance has been increasing, which could transfer some risk from the federal government. This increased interest, combined with the challenges experienced by the program, create an opportunity for Congress to consider potential reforms to NFIP as well as the best role for the federal government in relation to flood insurance. Regardless of changes in private-sector involvement or the government's role, congressional oversight of the program's federal fiscal exposure will remain important.

Actions in six areas could advance programmatic goals, mitigate some of the trade-offs resulting from the competing goals, and reform the flood insurance program by (1) promoting flood risk resilience, (2) minimizing fiscal exposure to the federal government, (3) requiring transparency of the federal fiscal exposure, (4) encouraging consumer participation in the flood insurance market, and (5) minimizing transition and implementation challenges. However, a piecemeal approach will not address NFIP's ongoing challenges. Rather, taking actions from a comprehensive perspective—in all six areas—could help balance or mitigate the various trade-offs and challenges.

The sequence of actions for these areas is also important. That is, some actions would be more likely to achieve goals if they followed others, while some could be taken concurrently. For example, when addressing barriers to private-sector involvement, it would be important to protect NFIP's flood resilience activities at the same time. Other important reforms such as requiring full-risk rates for all policyholders and expanding the mandatory purchase requirement would create affordability concerns, so they would warrant having an affordability assistance

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program already in place. Finally, addressing the outstanding debt would best be accompanied by premium rate reform to help reduce the likelihood of a recurrence of another unpayable debt buildup. Taking these factors into consideration will therefore be important for any reform decisions made.

We recognize that many of the potential reforms, in and of themselves, involve competing goals, and that taking some actions in isolation could create challenges for some property owners. We also recognize that many reforms can be challenging to start or complete because they could involve new programs, new appropriations, and revisions to current law. As such, they could face resistance because they could create new costs for the federal government, the private sector, or property owners. Nevertheless, taking actions on multiple fronts represents the best opportunity to help address the spectrum of challenges confronting NFIP, advance private-sector participation, reduce federal fiscal exposure, and enhance resilience to flood risk.

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## Matter for Congressional Consideration

As Congress considers reauthorizing NFIP, it should consider comprehensive reform to improve the program's solvency and enhance the nation's resilience to flood risk, which could include actions in six areas: (1) addressing the current debt, (2) removing existing legislative barriers to FEMA's revising premium rates to reflect the full risk of loss, (3) addressing affordability, (4) increasing consumer participation, (5) removing barriers to private-sector involvement, and (6) protecting NFIP flood resilience efforts. In implementing these reforms, Congress should consider the sequence of the actions and their interaction with each other.

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## Agency Comments

We provided a draft of this report to the Department of Homeland Security and the Department of the Treasury for review and comment. Both departments provided technical comments, which we incorporated, as appropriate.

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If you or your staff have any questions concerning this report, please contact me at (202) 512-8678 or [cackleya@gao.gov](mailto: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 major contributions to this report are listed in appendix III.



Alicia Puente Cackley  
Director, Financial Markets and Community Investment

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*List of Addressees*

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

The Honorable Robert Menendez  
Ranking Member  
Subcommittee on Housing, Transportation, and Community Development  
Committee on Banking, Housing, and Urban Affairs  
United States Senate

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

The Honorable Scott Perry  
Chairman  
Subcommittee on Oversight and Management Efficiency  
Committee on Homeland Security  
House of Representatives

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# Appendix I: Objectives, Scope, and Methodology

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In September 2017, the National Flood Insurance Program's (NFIP) current authorization will expire, and reauthorization of the program provides Congress with an opportunity to consider options for improving the program and changing the federal role in flood insurance. We performed our work under the authority of the Comptroller General in light of congressional interest in flood insurance and NFIP's impeding reauthorization. This report examines potential reform actions Congress and the Federal Emergency Management Agency (FEMA) could take to reduce federal fiscal exposure and improve resilience to flood damage.

To identify these actions, we took an iterative multiphase approach that included reviewing available information on flood insurance reform; obtaining input on potential reform actions from knowledgeable stakeholders through semi-structured individual interviews, a questionnaire, and a series of roundtables; identifying policy goals for flood insurance reform; and evaluating the various actions using these policy goals. The information on flood insurance reform that we reviewed included prior GAO reports, relevant laws, NFIP history, academic papers, and testimonies. We interviewed officials of or representatives from FEMA, the Congressional Budget Office, the Federal Insurance Office, the National Association of Insurance Commissioners, insurance industry associations, catastrophe modelers, state insurance programs, an actuarial association, consumer advocacy groups, think tanks, academics, and others to gather information on flood reform options. We also attended the National Flood Conference in May 2016, which was attended by hundreds of flood insurance stakeholders and included discussion of a number of topics related to flood insurance reform.

Furthermore, we developed a questionnaire to gather stakeholder input on options for reforming NFIP, policy goals for evaluating those options, and the roles for the private sector, federal government, and state governments in providing flood insurance coverage and managing flood risk. Specifically, we judgmentally selected a diverse group of 108 stakeholders for the questionnaire based on a review of available literature on flood insurance reform, work conducted for our prior reports on flood insurance, and suggestions from stakeholders we interviewed. Questionnaire respondents represented a number of stakeholder categories: insurers, insurance agents, insurance adjuster associations, reinsurers, catastrophe modelers, lender associations, federal agencies, state insurance regulators, state residual insurance programs, consumer advocates, academics, think tanks, mitigation associations, real estate associations, and environmental associations. We conducted the questionnaire in June 2016 and received responses from 82 of the 108

questionnaire recipients. The results from the questionnaire are not generalizable to the population of respondents and only represent the opinions of the individuals but provided insights into potential flood insurance reforms.

We also conducted four web-based roundtables in August and September 2016 with a variety of stakeholders to obtain their views on flood insurance reform. The 43 roundtable participants represented the same stakeholder categories from which we drew our questionnaire respondents as well as FEMA. We judgmentally selected a diverse group of stakeholders for the roundtable based on their knowledge of flood insurance reform. We used stakeholders' responses to the questionnaire to ensure that each roundtable was balanced with a diverse range of perspectives on flood insurance reform. Two of the roundtables focused on reforming the flood insurance marketplace and explored several topics, including the roles of the private sector and the federal government in primary insurance and managing catastrophic risk. The other two roundtables focused on promoting flood risk resilience and explored several topics, including enhancing resilience for existing structures and future development, the roles of mitigation assistance and premium assistance, and strategies for encouraging greater consumer participation in flood insurance.

We also identified five policy goals for evaluating options for flood insurance reform by reviewing prior GAO reports—one of which included policy goals for federal involvement in natural catastrophe insurance—and FEMA's 2015 report on options for privatizing NFIP.<sup>1</sup> We validated the goals by discussing them during stakeholder interviews, and obtaining input on them in the questionnaire, including asking questionnaire respondents to rate the policy goals, provide comments, and suggest revisions. We analyzed and incorporated all input as necessary and then developed the five following policy goals: (1) promoting flood risk resilience, (2) minimizing fiscal exposure to the federal government, (3) requiring transparency of the federal fiscal exposure, (4) encouraging consumer participation in the flood insurance market, and (5) minimizing transition and implementation challenges. Within each of these goals, we identified several characteristics to help illustrate how various reform

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<sup>1</sup>GAO-14-127; GAO-08-386SP; and GAO-08-7. Also see Federal Emergency Management Agency, *National Flood Insurance Program: Report to Congress on Reinsuring NFIP Insurance Risk and Options for Privatizing the NFIP* (Washington, D.C.: Aug. 13, 2015).

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proposals might meet each goal. We used these policy goals and the information we gathered from the interviews, questionnaire, and roundtables to evaluate potential actions for flood insurance reform.

We conducted this performance audit from September 2015 to April 2017 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.

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# Appendix II: Additional Reforms That Are Contingent on the Development of the Private Flood Insurance Market

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Based on our review of the literature and discussions with industry and nonindustry stakeholders, we identified two other frequently cited potential flood insurance reforms: (1) converting the National Flood Insurance Program (NFIP) to the insurer of last resort (residual insurer), and (2) having NFIP act as a reinsurance backstop to the private flood insurance market. However we determined, based on input from industry and nonindustry stakeholders with whom we spoke, that implementing such reforms now could be premature because they would depend on the extent to which a private market for flood insurance developed. Instead, these additional reforms could be considered and evaluated once the reforms discussed in this report were implemented, and the extent of development of a private flood insurance market determined. Because these options were widely mentioned in our meetings and discussed in the literature we reviewed, we summarized them in this appendix for completeness.

Many industry and nonindustry stakeholders with whom we spoke believed that as the private sector enters the flood insurance market, NFIP could naturally become the insurer of last resort, or residual insurer, and that this would be a more appropriate role for the federal government in the long term than the current program. However, because the private flood insurance market remains in the early stages of development, some said that it would be preferable to allow the private market to further develop before considering whether a structured residual insurance program might be needed or how such a program might be structured. For example, some state residual insurance programs require their rates to be at or above that of the highest private-sector rate to ensure they do not compete with private insurers and that they only provide insurance coverage to those unable to find it in the private market. If NFIP's premium rates continued to be less than full-risk and impeded private-sector involvement, it might become necessary to create a program to transfer policies to the private sector as we have seen with some state residual insurance programs. For example, Florida Citizens Property Insurance Corporation developed a two-pronged effort that (1) provides claims and risk data to private insurers through a confidentiality agreement that allows the insurers to determine which policies they would like to cover, and (2) allows private insurers to submit an application with detailed risk characteristics to a clearinghouse that matches existing policies to those characteristics.

Some nonindustry stakeholders with whom we spoke expressed concern that private insurers only would offer coverage to NFIP's lowest-risk policies and leave NFIP with the higher-risk policies, increasing the risk

exposure of the program. Similarly, some nonindustry stakeholders with whom we spoke expressed concern that private insurers only would be able to compete for those policies that had premium rates higher than what the private insurers determine to be necessary to reflect their full risk of loss, thus leaving NFIP with policies that had less than full-risk rates. As a result, the decrease in premium revenue could outpace the decrease in expected flood losses. However, some nonindustry stakeholders with whom we spoke that had direct experience with residual insurance programs said that they discovered that private insurers had been willing to insure much riskier policies than they originally expected. One industry stakeholder explained that higher-risk policies can be desirable for private insurers because they have the potential for higher profit than lower-risk policies, and a private insurer's concern is not so much the risk of the individual properties it insures but rather the correlation of risk among those properties. A nonindustry stakeholder said that insurers were willing to insure higher-risk properties as long as they were geographically diversified and balanced by lower-risk properties. One industry and one nonindustry stakeholder acknowledged that there will always be some properties that are too risky for the private market, and that these likely would fall to NFIP as a residual insurer.

While the average risk of residual policies that remain in NFIP would be higher than NFIP's current average risk level, the aggregate exposure to risk could be much lower because of the lower number of policies. Some industry and nonindustry stakeholders with whom we spoke also said that if NFIP became a smaller program of the highest-risk properties, it would be much better positioned to target its mitigation efforts to those properties. Furthermore, the concern that a residual flood insurance program would have increased fiscal exposure exists primarily because of the existence of less than full-risk rates. Therefore, if rates accounted for the full risk of loss, the program ought to be collecting sufficient premium revenue to pay for the estimated losses associated with the high-risk policies over the long term, although with significant uncertainty because of the nature of the risk.<sup>1</sup>

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<sup>1</sup>While actuarially sound premium rates that reflect the full risk of loss would reduce the likelihood of future borrowing, they would not eliminate it. There would be a chance of adverse loss experience over relatively short time periods that could require borrowing if a sufficient reserve had not yet been accumulated. Also, due to the large degree of uncertainty associated with estimating long-term losses, the risk of debt accumulation over the long term would remain.

Many industry and nonindustry stakeholders with whom we spoke agreed that the private reinsurance market had a significant capacity to reinsure flood risk for private insurance companies, but disagreed on whether the federal government also would need to play a role in providing such reinsurance. For example, some industry and nonindustry stakeholders said that private reinsurers had an abundance of capital available and saw flood risk as an attractive option for diversifying their portfolios and earning a return on the capital. Some of these industry and nonindustry stakeholders said that the private reinsurance market would be sufficient to fully reinsure a private flood insurance market.

However, other industry and nonindustry stakeholders with whom we spoke said that the federal government would need to act as a backstop to reinsure the most catastrophic flood risks (those capable of causing losses at levels above which the private market would be unwilling to reinsure). Because the private flood insurance market is still developing, it is unclear whether such a gap in the market might develop. Thus, it could be premature to create a federal reinsurance program, but the issue could be revisited after it is seen how the private insurance and reinsurance markets developed.

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# Appendix III: GAO Contact and Staff Acknowledgments

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## Contact

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## Acknowledgments

In addition to the contact named above, Patrick Ward (Assistant Director); Christopher Forys (Analyst in Charge); Abby Brown; Pamela Davidson; Eli Harpst; Carol Henn; Elizabeth Jimenez; John Karikari; Marc Molino; Patricia Moye; Carl Ramirez; Oliver Richard; Barbara Roesmann; Jessica Sandler; Joe Silvestri; Andrew Stavisky; and Frank Todisco made key contributions to this report.

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