

THE NATIONAL FLOOD INSURANCE PROGRAM: *Directions for Reform*

*As Congress considers legislative changes to the debt-ridden National Flood Insurance Program, **Carolyn Kousky** discusses four key issues for reform.*



Created in 1968, the National Flood Insurance Program (NFIP), housed in the Federal Emergency Management Agency (FEMA), provides flood insurance to residents of participating communities. The program was established in response to the perception that flood coverage was not widely available on the private market. Today, homeowners can purchase up to \$250,000 of building coverage and up to

Increasing Take-Up Rates

Low take-up rates for flood insurance have long plagued the program. This led Congress early on to make the purchase of flood insurance mandatory for homeowners in mapped 100-year floodplains with a loan from a federally backed or regulated lender. After a slow start, the number of policies in force nationwide grew rapidly, leveling off only in the past few years, as shown in

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\$100,000 of contents coverage through the NFIP. Business coverage is also available. The federal government bears the risk, but private insurance companies write policies and process claims in exchange for a fee.

Because of historic decisions about pricing, the program was ill prepared to handle the catastrophic flood year of 2005. The NFIP paid out more claims that year than it had paid over the life of the program and went deeply in debt to the US Treasury. Hurricane Sandy has only deepened that debt, with Congress needing to increase the NFIP's borrowing authority to more than \$30 billion in 2012.

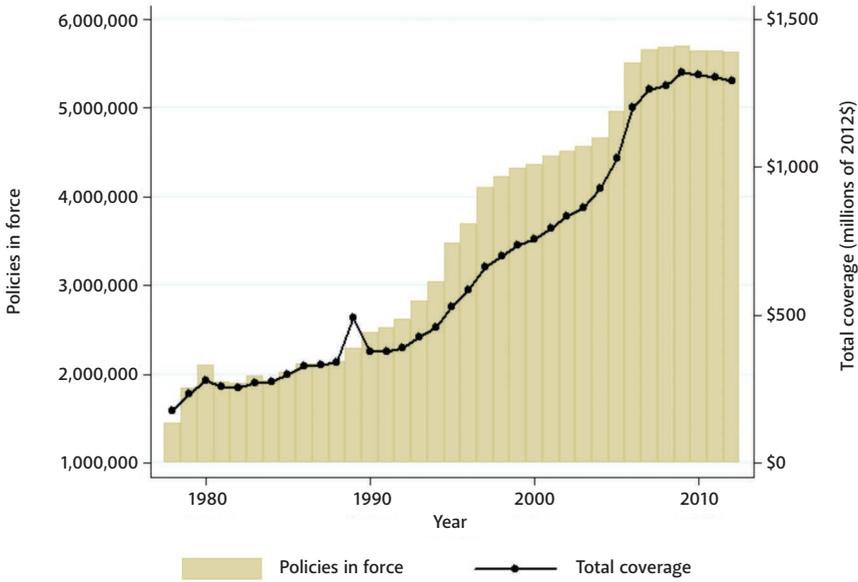
The debt and other issues generated strong interest in reform of the program. After multiple short-term extensions and debate on reform options, the Biggert-Waters Flood Insurance Reform Act passed with overwhelming bipartisan support in early July 2012. As some of the legislation's impacts begin to take effect, Congress is revisiting its decision, and changes to the NFIP are once again being discussed. Central to this debate are four key issues that should be considered in further NFIP reform.

Figure 1 on page 40. At the end of 2012, more than 5.5 million policies were in force, representing almost \$1.3 trillion in coverage. The program is highly concentrated geographically, however, with the state of Florida accounting for roughly 40 percent of the entire NFIP portfolio.

Despite the program's growth, many homeowners in areas of high risk forgo insurance. Possible explanations include budget constraints, lack of understanding of the risk, incorrect perceptions that homeowners policies cover flood damage, lack of enforcement of the mandatory purchase requirement over the life of a loan, and a misperception of the goals of insurance. One possible change to the program that would increase take-up rates is to enroll entire communities instead of households. RFF Resident Scholar Leonard Shabman has explored this idea, and in future work at RFF, we will examine it in more detail. Community enrollment would broaden the policy base and also create a tool to incentivize community-level hazard mitigation.

Two ongoing projects that I am involved in at RFF address the question of whether

Figure 1. Policies and Coverage in the NFIP



postdisaster aid creates a disincentive to insure. Erwann Michel-Kerjan of the Wharton School, Paul Raschky of Monash University, and I are examining whether homeowners decrease insurance coverage or drop policies after receipt of FEMA postdisaster grants or subsidized disaster loans from the Small Business Administration. Other work that Shabman and I have undertaken finds that traditional postdisaster funds for households from FEMA have many restrictions in place to reduce perverse incentives. This does not mean that individuals have all this information, however. Our working hypothesis is that improved information on the limitations of federal postdisaster aid could potentially help individuals make more informed decisions and highlight the benefits of insurance.

Increasing the Financial Security of the Program

The NFIP has always had multiple goals, influencing its pricing strategy. Apart from providing insurance, the program has

sought to promote sound floodplain management, encourage communities to join the program, and encourage households to insure. Historically, a group of policies—those built in a high-risk area before FEMA had mapped the flood hazard—received discounted rates. In the 1980s, the decision was made that the combined revenue from the discounted policyholders and those paying the full premium should cover the average historical loss year. In higher-than-average years, the program was given borrowing authority from the US Treasury.

The problem with this approach is that flooding is a catastrophic risk. Unlike, say, automobile insurance, where claims are fairly constant from year to year, flood claims can deviate dramatically from the mean. Pricing for the average year prevented the program from being able to cover the losses of a catastrophic year, as we saw in 2005.

The legislation that passed in July 2012 phases out these discounts, a decision that should help move the program to sounder financial footing. FEMA actuaries Thomas



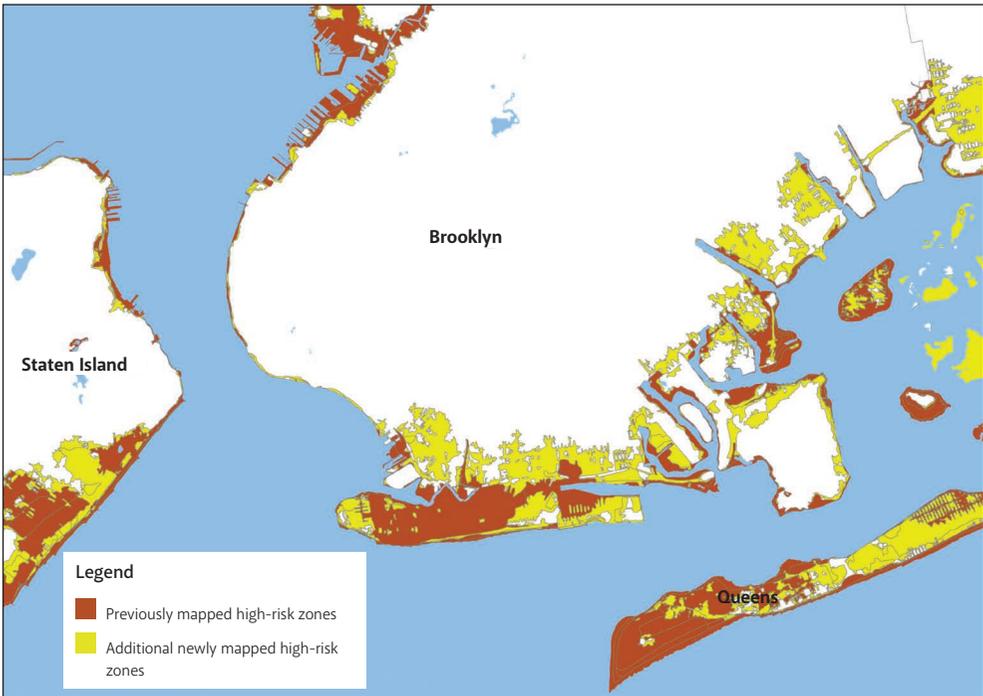
Hayes and Andrew Neal estimate that elimination of the discounts would increase aggregate premium revenue for the NFIP by 50 to 75 percent. The program will need to first begin paying down its massive debt before it is able to use the increased revenue to be better prepared for large loss years. Some observers have argued that given the historic goals and rate structure, the debt may need to be forgiven.

Once the new pricing is fully phased in, the NFIP should consider risk management mechanisms to help it handle catastrophic loss years. One option would be the purchase of private reinsurance (or insurance for insurers). There is some precedent for this in state insurance programs, such as the California Earthquake Authority. The Biggert–Waters bill called for a study of such an option. Another option would be the issuance of catastrophe bonds. More research is needed on how such mechanisms would work and the implications for pricing and risk management in the program.

Providing Up-to-Date Flood Hazard Information

FEMA produces flood hazard maps for communities defining different flood zones. Zones are one determinant of premiums and also inform other regulatory requirements of the NFIP. Yet many maps are outdated, and FEMA has been updating them around the country in order to incorporate more recent data, improved mapping methodologies, and changing conditions. For example, the current maps for coastal New York and New Jersey are more than 25 years old. FEMA was in the process of revising these maps when Hurricane Sandy hit. While not finalized, the maps were released in an advisory capacity to guide rebuilding after Sandy. In June 2013, FEMA updated the advisory maps into so-called preliminary work maps, although they are still not finalized or adopted for rate setting and regulation. These new maps—as in some other places around the country—show increases in high-risk areas. Figure 2 on page 42 shows the newly mapped, high-

Figure 2. High-Risk Areas in New York City



hazard (100-year floodplain) areas for parts of Staten Island, Brooklyn, and Queens.

Accurate risk information is essential for sound investment decisions and appropriate pricing. The long delay between map updates hinders decisionmaking and invites backlash when large changes are imposed on a community abruptly. This has been exacerbated by the Biggert–Waters bill, which eliminates the historical practice of grandfathering rates. Before the bill passed, if a household was newly mapped into a high-hazard area (where insurance is mandatory and rates are higher, commensurate with the higher risk), as long as it maintained its policy, it could be grandfathered at the lower rates of the old zone. Now, when newly mapped into a riskier zone, households must pay the full rate for that zone.

Before the reform bill, the average rates for nondiscounted policies were just over \$400 a year outside of high-risk areas, just over \$500 a year for properties in a 100-

year floodplain but not subject to storm surge, and over \$3,000 a year for those in coastal 100-year floodplains where wave action is possible. The new maps for coastal areas in New York and New Jersey also show advisory base flood elevations, or the height of water estimated for a 100-year flood. The difference between this and the height of one's home influences the premium: lower homes pay higher rates, as they are at greater risk. The new maps show some households below the new base flood elevation estimate, which means even higher premiums, conceivably reaching into the tens of thousands of dollars annually for some homeowners unless they elevate their properties. FEMA is in the process of studying rates for these so-called negatively elevated structures.

The financial implications make the new maps contentious (see next section on affordability). Still, the program must find a way to issue map updates more frequently,

since decades between maps starve communities of important information on changing conditions. Involving the private sector could potentially help generate more frequent updates in hazard information.

Wharton School Professor Howard Kunreuther, is the use of an insurance voucher system, similar to food stamps. Under this scheme, flood insurance premiums would be based on risk levels, providing

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Another information need is how risks may change in the face of development and climate change projections. Sea-level rise will not only threaten some coastal areas with inundation but also allow storm surge to push farther inland, exposing more areas to coastal flood hazards. Although annual pricing does not require projections decades into the future, development and infrastructure decisions are long-lived and should be informed by projections of changing conditions. The Biggert–Waters legislation has instructed FEMA to investigate the possibility of mapping future conditions. This type of mapping could also provide a way to warn homeowners that their risk zones may change in the future so new designations do not come as a surprise.

Addressing Affordability

As NFIP discounts phase out and new maps expand high-risk areas, some homeowners are finding they are not able to afford flood insurance. The homeowner upset over these price increases has made some politicians seek to reestablish the original discounts in the program or slow down the phase-in of higher rates. But the discounts that were in the program were never based on ability to pay.

One approach to keep low-income residents from being locked out, suggested by

important risk information to those making development and investment decisions. But households with demonstrated need—such as those with incomes below certain levels—would be eligible for vouchers, used only for insurance, to help offset the cost of their policies. We are exploring whether this could be coupled with loans for hazard mitigation to reduce damages and also premiums. Affordability is a critical issue, but discounts should be targeted at low- and moderate-income households and tied to hazard mitigation to make everyone safer.

FURTHER READING

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