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Reforming the National Flood Insurance Program

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OBJECTIVE

The National Flood Insurance Program (NFIP) is a critical facility for helping Americans recover from catastrophic flooding events such as Hurricane Katrina, Superstorm Sandy, and many others. Yet the program is mired in controversy and debt as it heads into reauthorization in 2017. Marsh & McLennan Companies (MMC) has developed this paper to offer policymakers an overview of the NFIP, including several straightforward recommendations to improve customer experience, lower costs, reduce debt, and strengthen engagement among the relevant parties. We believe these measures would greatly improve the program for the American people.

This report is a collaborative effort by MMC subsidiaries Marsh, Torrent Technologies, Guy Carpenter, and Oliver Wyman. Marsh is a premier advisor in flood risk management. Through its Flood Service Center, Marsh offers more than 75 years of expertise placing and servicing flood insurance coverage. Torrent Technologies provides NFIP Write-Your-Own (WYO) companies and their agents with sophisticated cloud-based technology solutions, back-office services, and innovative tools that are critical for working with the program. Guy Carpenter, a leading reinsurance intermediary, provides expected loss estimates for flood perils in more than 20 countries. Oliver Wyman is a leading global management consulting firm that provides advisory services through three operating units — Oliver Wyman, Lippincott, and NERA Economic Consulting. During the course of 2013 and 2014, Guy Carpenter in concert with Oliver Wyman, Marsh, and others worked with the Federal Emergency Management Agency (FEMA) to deliver the *Flood Insurance Risk Study*[1] to Congress. This work studied the means by which the NFIP could consider privatization and how the NFIP might use reinsurance to support its risk management objectives.

1 The Flood Insurance Risk Study (FIRS): http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf

INTRODUCTION

Flood disasters — from Hurricane Katrina and Superstorm Sandy to the recent flooding in Florida, Texas, Louisiana, North Carolina, and South Carolina — represent the number one natural catastrophe in the US, affecting thousands of businesses, homeowners, and people each year. A major flood event can result in billions of dollars in property damage and business interruption losses. Between 1980 and 2013, floods caused more than $260 billion in damages, according to the US Treasury Department's Federal Insurance Office. Despite the loss potential, flood insurance is one of the most misunderstood lines of insurance for both homeowners and businesses in the US.

The NFIP has been a key component of flood coverage since its inception nearly 47 years ago. As the NFIP is set to expire on September 30, 2017, Congress in 2016 will need to turn its attention to reauthorizing the program with potential reforms. In this report, we have elected to focus on where we see the greatest potential for favorable change, including enhancing existing technology, streamlining and simplifying the NFIP for policyholders, and developing private market options. We also examine the NFIP's compensation structure, key challenges such as the NFIP's US Treasury debt, and obstacles to private flood insurance market participation.

THE STRUCTURE OF THE NFIP AND KEY PROGRAM PARTICIPANTS

Established in 1968, and based on technologies, engineering practices, and business models of the time, the NFIP is the primary underwriter of flood insurance in the US. Originally under the oversight of the US Department of Housing and Urban Development, the NFIP is now under the jurisdiction of the Federal Insurance and Mitigation Administration (FIMA) within FEMA, an agency of the US Department of Homeland Security. The NFIP is a comprehensive program that draws on the knowledge and expertise of many entities, including local communities, insurers, insurance agents, banks, surveyors, mapping specialists, the US Treasury, the Army Corp of Engineers, and vendors with flood insurance expertise and technology.

FIMA has three basic divisions:

- Risk analysis division: Oversees the development of the Flood Insurance Risk Maps (FIRMs), which are the primary determination of the level of flood risk for a specific property's location. This division also oversees the National Dam Safety Program and the Multi-Hazard Mitigation Program.
- Risk mitigation division: Oversees several programs that are intended to prevent properties from initially being flooded and help previously flooded properties to prevent future flood damage.
- Risk insurance division: Oversees the NFIP, which in recent history has received much negative press attention. This division is just one piece of a larger organization and is dependent on many other stakeholders to serve the public. Often, the term NFIP is used to refer to areas that are actually outside its jurisdiction, such as the mapping section of the risk analysis division.

COMMUNITIES

More than 22,000 communities in all of the 50 states and US territories participate in the NFIP. In exchange for access to flood coverage, these communities have adopted FEMA's minimum floodplain management guidelines and regulations to improve the flood mitigation infrastructure within Special Flood Hazard Areas (SFHAs). Communities with properties in flood zones that do not participate in the NFIP are ineligible for its coverage.

HOW POLICIES ARE OFFERED

The NFIP offers two channels for the distribution and servicing of flood insurance policies. Consumers can either establish a relationship with private market insurers that have contracted with the NFIP or they may go directly to the program itself to purchase the flood coverage.

Established in 1968, the NFIP is the primary underwriter of flood insurance in the US.

INSURANCE COMPANIES

In 1983, after more than 10 years of not being able to provide flood insurance to a significant number of homeowners and businesses, Congress created a public-private partnership with private sector property/casualty insurers called the Write-Your-Own program. Participating insurers that contract with the NFIP through an arrangement letter can market, sell, and service NFIP policies under their own name in exchange for an administrative allowance from the NFIP. Any claims payments that are made by WYO companies are reimbursed by the NFIP. WYO companies account for about 82% of the approximately 5.2 million NFIP policies in-force, according to FEMA. There are thousands of property/casualty insurers operating in the US, according to the National Association of Insurance Commissioners. Of those, approximately 80 participate in the WYO program.

The WYO program is a critical component of the flood insurance process. With it, the NFIP has access to the expertise of private market insurers and agents that have broad access to millions of clients. Participating WYO companies collect fees from the NFIP in exchange for selling and servicing policies and handling claims. WYOs, however, are not allowed to sell alternative solutions to the NFIP, even though their policy count and premium have been falling quickly due to competition from other non-WYO companies offering alternative private flood insurance at reduced rates.

DIRECT PROGRAM

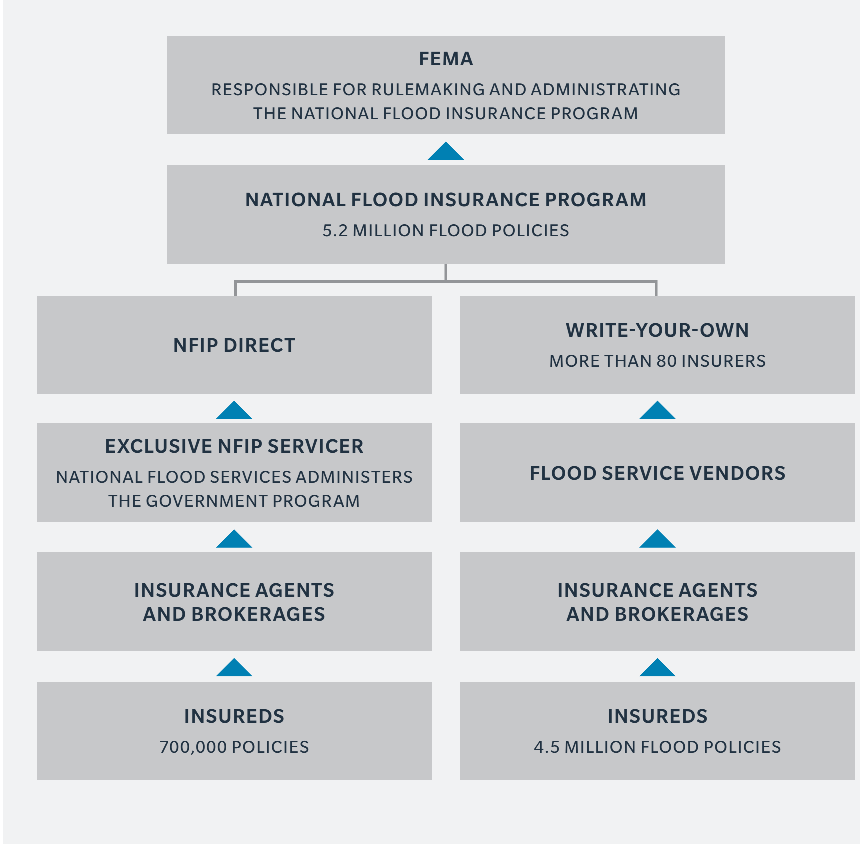
Insurance agents that do not conduct business with one of the WYO companies can still write flood insurance for their clients directly with the NFIP through the NFIP Direct Program (see Figure 1). The Direct Program is operated by a government contractor and performs the same basic functions as a WYO company. The Direct Program, however, has no marketing component. The contract to be the administrator for the Direct Program is usually re-evaluated and put out for public bid every five years.

FLOOD SERVICE VENDORS

Like the NFIP Direct Program, most WYO companies use a contractor to operate many areas of their flood insurance program. These contractors are commonly referred to as flood service vendors.

Although most all WYO companies welcome flood insurance business and consider it an important "in-house" option for their agents to have, many do not specialize in the area due in part to its relatively small premium volume and high product complexity. As a result, many elect to use flood insurance vendors to administer their program.

FIGURE 1 WYO and Direct Program Comparison
Source: Marsh & McLennan Companies



Flood service vendors have developed systems for agents and policyholders to use for selling and servicing flood policies (see Figure 2). These include: trained underwriters to review transactions and ensure policies are issued correctly; call centers to provide assistance to insurance agents; services for lenders and other stakeholders; claims examiners to work with policyholders and adjusters to make sure claims are settled fairly and efficiently; the maintenance of bank accounts and financial controls to ensure all monies are properly accounted for and transferred to the NFIP in a timely manner; policy and document mailings; and other functions necessary for operating within the NFIP.

Each flood vendor has its own software-based administrative platform, processes, and third-party relationships through which it provides insurance transaction processing and servicing to WYO companies and their agents. Vendors do not provide adjusting, engineering, or accounting services as they relate to claims. The vendors outsource this work to adjusters, engineers, or accountants that have specific training and expertise in facilitating the claims process at the direction of the WYO companies. Vendors do provide in-house examination services and during major events these services may also be outsourced.

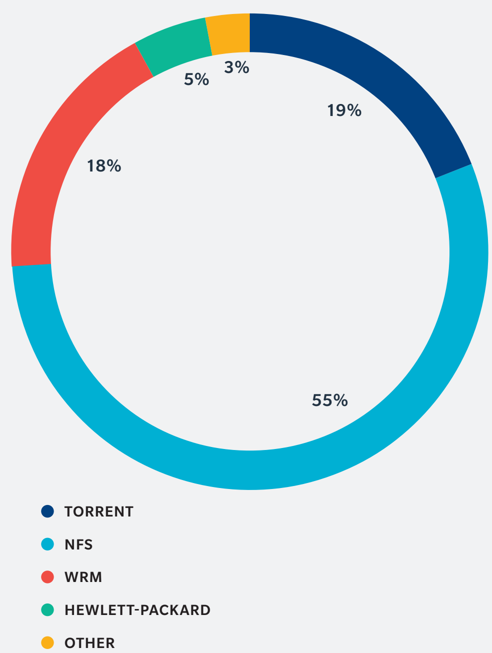
More than 90% of WYO companies outsource some or all NFIP functions to a flood vendor. Three flood vendors — Torrent Technologies, National Flood Services, and WRM America Indemnity Co. — handle approximately 92% of the flood vendor market (see Figure 3).

FIGURE 2 **Flood Vender Roles**
Source: Torrent

BACK OFFICE OPERATIONS	
CALL CENTER	PRINTING/OUTPUT
DOCUMENT MANAGEMENT	SOFTWARE MAINTENANCE
RATING SYSTEMS UPDATES	FEMA/TRRP REPORTING
THIRD-PARTY INTEGRATION	ONLINE PAYMENT SERVICES
MONTHLY WYO RECONCILIATION	ACCOUNTING & REPORTING

INSURANCE SERVICES	
UNDERWRITING	CLAIMS SUPPORT
POLICY ADMINISTRATION	BUSINESS INTELLIGENCE
FEMA COMPLIANCE	AGENCY SERVICES
AGENCY COMMISSIONS	POINT OF SALE/POLICY ISSUANCE
CASH MANAGEMENT	MARKETING SUPPORT & TRAINING

FIGURE 3 **Flood Vendor Market Share by Premiums Collected**
Source: Torrent



NFIP COMPENSATION

WYO companies are paid through:

- Direct compensation by the NFIP via a policy administration expense allowance, which for 2016 is 30.9% of net written premium. This expense allowance is primarily for commission directly to the agent and administrative costs. The majority of this allowance goes directly to the insurance agents as their commission for selling flood insurance. The agent commissions range from 15% to 26% of the net written premium. The remaining portion is allocated to the oversight, state tax administration, and sales of flood insurance policies (not for handling the claims).
  - In addition to the above compensation rate, WYO companies receive compensation for overseeing, administering, and paying claims. This compensation is commonly referred to as the unallocated loss adjustment expense (ULAE). For the 2016 fiscal arrangement year, the ULAE is reimbursed at the rate of 0.9% of net written premium with a potential additional 1.5% of incurred loss.
  - WYO companies can also receive additional earnings of up to 2% of net written premium through incentives for generating new policy growth. However, few WYOs actually receive this growth bonus because it has become difficult to expand the market due to increasing product complexity and higher premiums.

WYO companies do not receive commission on the total amount of premium collected from the policyholder. The federal policy fee, reserve fund assessment, and the Homeowner Flood Insurance Affordability Act's (HFIAA) surcharge are not included in the net written premium figure used to determine compensation payable to the WYO company. These fees and surcharges can sometimes comprise 50% or more of the total purchase price paid by the policyholder.

WYO companies are responsible for paying state premium taxes ranging from 2% to 4% of premium, in addition to agent commissions. Agent commissions have risen to as high as 26% in recent years for new business that an agent will write with the WYO company. This has occurred partly because WYOs cannot compete on premium rates as they are set by the NFIP, putting undue pressure on the only other economic component in the marketing of the NFIP flood product — the commission payment.

Typically, the WYO company will pay a flood service vendor fee of 3% to 6% of net written premium. This is down as much as 50% from over a decade ago, due in part to the upward progression of commissions to the insurance agent, which is resulting in fewer dollars being available for the WYOs and vendors. Any payment to the vendor from the bonus payment for generating new policies or from the ULAE is negotiated as part of the contract based on services provided. The vendor fee charged to the WYO company varies based on the:

- Services performed by the vendor.
- Written premium amount.
- Contracted service level agreements (SLA) requested by the company.

The NFIP average policy premium amount is $660 (this reflects only the portion that the WYO and agent compensation is based upon, not the total paid by the consumer). After paying the agent (20% average), state premium tax (2.5%), and flood service vendor (5%), the WYO typically nets about 4%, or $25 per policy on average. Even if the WYO contains internal costs such as staffing, advertising, and supplies, it could net as little as 2% — $12.50 or less per policy.

Flood adjusters are paid as part of the allocated loss expense (ALE) process and according to the adjuster's fee schedule, which is set by FIMA. Neither the WYO company nor the vendor retains a portion of the ALE. The fee schedule provides increased compensation to the adjuster based on the amount of the claim paid (to correlate with the complexity of the claim).

WYO companies are expected to review and examine claim reports submitted by the adjusters and policyholders. It is the WYO company's responsibility to ensure that the policyholder is paid the exact amount according to the damages covered by the NFIP flood policy. If a WYO overpays a claim, then it will be required to pay back any overages to the NFIP. WYOs typically strive to pay the policyholder the highest permissible claim amount to maintain their brand reputation and customer loyalty. The current business model does not allow the WYO any leeway in the claims payment process. For example, if a WYO believes a particular loss falls outside the coverage of the NFIP policy, it is required to deny that portion of the claim and advise the policyholder to file a lawsuit in federal court, even if it is for a $100 dispute. In these cases, a WYO will often pay small amounts out of its own corporate funds to the policyholder to protect its brand. But for a policy in which it may be netting less than $12.50 per year, it is hard for a WYO company to allocate significant funds to satisfy consumers. Many WYOs outsource this work to flood vendors.

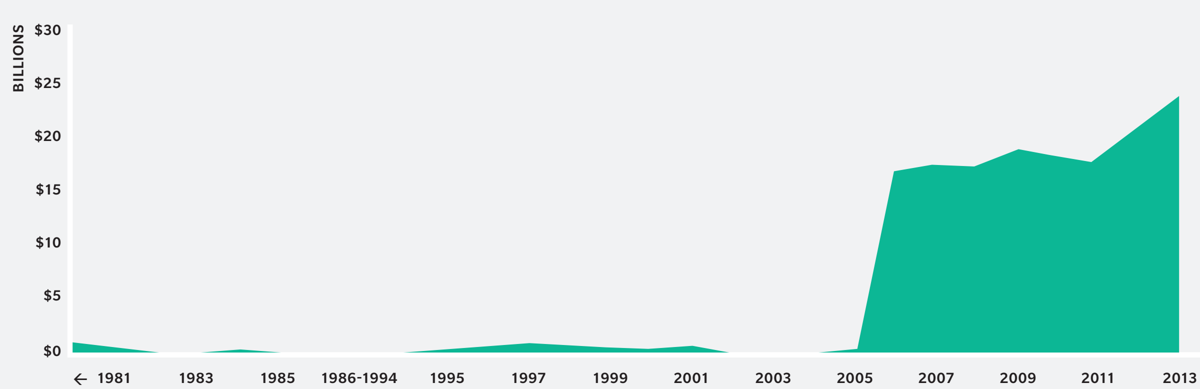
Other vendors such as engineers and accountants are paid according to the special allocated loss adjustment expense (SALAE) procedures. The payment of these professionals is not determined by the amount of the claim payment made to the policyholder. Examiners are paid by WYO companies or the vendors. Engineers and accountants are paid a negotiated hourly rate paid by the WYO or its vendor.

THE NFIP'S DEBT

To promote widespread access to and affordability of flood insurance, the NFIP has historically subsidized a portion — currently about 20% — of its policies, and cross-subsidized others. The majority of subsidized policies are for structures that were built before the first FIRM was created, thus the builder and homeowner may not have known how to safely build the structure. Although the subsidy increased the affordability of the coverage, this and other rate-setting problems have negatively affected the program's long-term ability to manage its financial obligations.

From 1968 to September 2005, the NFIP was primarily self-funded. The Atlantic hurricane season in 2005 was one of the most active on record, including hurricanes Katrina, Rita, and Wilma. These three storms caused billions of dollars in losses along the Gulf Coast and the Eastern seaboard, sending the NFIP approximately $19 billion into debt (of which approximately $2 billion has been repaid). Excluding the debt from the 2005 storms, the NFIP was self-funded again from 2006 until October 2012. Superstorm Sandy in 2012 created an additional $7 billion in debt from insured damages primarily in New Jersey and New York, resulting in a current $23 billion debt to the US Treasury (see Figure 4).

FIGURE 4 **NFIP Debt**
Source: US Department of Homeland Security, Federal Emergency Management Agency's Office of Legislative Affairs



There are a number of reasons why the NFIP has not been able to support itself independently since 2005, including:

- The program was never designed to fund large catastrophic events through policy premiums. In such loss years, the NFIP would use debt financing from the US Treasury to handle claim obligations; Hurricane Katrina in 2005 and Superstorm Sandy in 2012 were two extreme events that caused the NFIP to incur enough debt that without further reform, it will likely be challenging to repay.
- Low compliance with mandatory purchase requirements has resulted in lower premium income and policy spread across the country, which in turn has exacerbated the NFIP's deficit levels.
- Premiums that do not fully reflect the risk for some properties that were built before the FIRMs were first created.
- Subsidized repetitive loss properties (RLP): These properties have suffered multiple claims with damages totaling more than the value of the property and the amount of premiums collected.
- Annual premium rate increases that were capped at an artificially low level.
- The inability to establish loss reserves or purchase reinsurance: Prior to the Biggert-Waters Flood Insurance Reform Act in 2012, the NFIP was prohibited from establishing loss reserves or purchasing reinsurance.

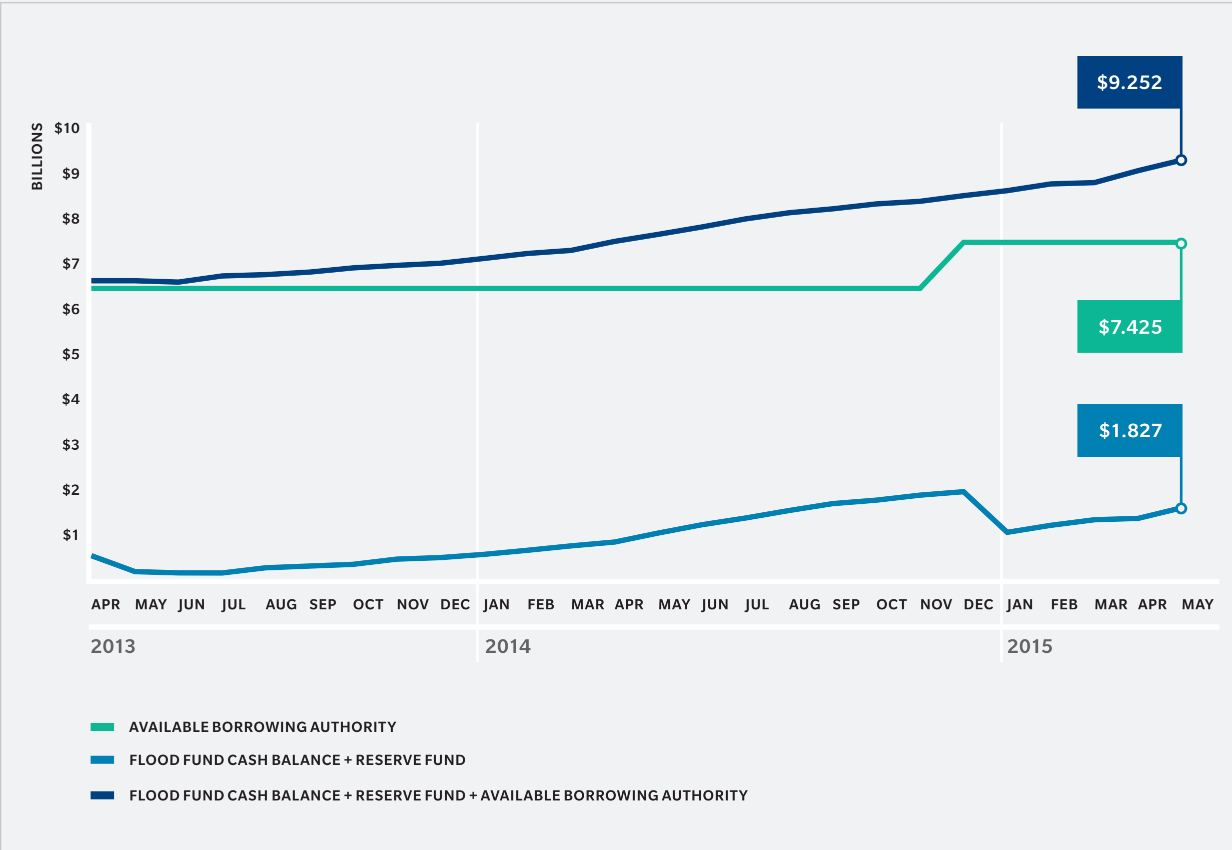
THE NEED FOR REFORM

Congress will soon address the reauthorization of the NFIP before its expiration on September 30, 2017. This presents an opportunity to ensure the sustainability of the program and the viability of the overall US flood insurance market. The NFIP's debt load, its policy retention, and the impediments to private market participation (discussed in further detail below) underscore the need for reform. While a number of reform measures — from Biggert-Waters in 2012 to the HFIAA in 2014 — improve the program, further enhancements are needed.

Congress will soon address the reauthorization of the NFIP before its expiration on September 30, 2017. This presents an opportunity to ensure the sustainability of the program and the viability of the overall US flood insurance market.

SPOTLIGHT: CURRENT NFIP FUNDING STATUS

Source: FEMA



CASH ON HAND	$1.588 BILLION AS OF 5/31/2015
RESERVE BALANCE FUND	$239.2 MILLION AS OF 5/31/2015
AVAILABLE BORROWING AUTHORITY	$7.425 BILLON AS OF 5/31/2015
BORROWING AUTHORITY	$30.425 BILLION
OUTSTANDING TREASURY BORROWING	$23 BILLION AS OF 5/31/2015
MOST RECENT REPAYMENT	$1.0 BILLION ON 12/31/2014
MOST RECENT BORROWING	$ 1.0 BILLION ON 3/31/2013
TOTAL INTEREST PAID ON BORROWING	$2.77 BILLION (SINCE HURRICANE KATRINA)

MARSH & McLENNAN COMPANIES FLOOD REFORM RECOMMENDATIONS

MMC has identified three major areas to focus reform efforts that we believe would provide enhancements to the NFIP that would yield significant financial stability. Below are those reform ideas and recommendations for Congress, FEMA, and the NFIP's administrators to consider ahead of the program's reauthorization.

1. INCREASE THE RISK COMMUNITY SIZE

A diverse and large number of policyholders are necessary to spread or balance the NFIP's flood insurance risk. There are several ways to drive policy growth in the program in order to spread the risk.

(A) Enforce the Mandatory Purchase Requirement:

Increase oversight of Biggert-Waters' insurance purchase requirements and the provisions for individuals with federally insured mortgages located in designated flood zones. Greater participation in the NFIP has the potential to ultimately strengthen the program. Of the 1.5 million structures in SFHAs that are required to have flood coverage, roughly 783,000 do so — a compliance rate of 53%, according to FEMA estimates (see Figure 5). The low take-up rates among homeowners in flood zones generally reflect non-compliance with the applicable laws on mandatory coverage and significantly contribute to the NFIP's current deficit. Driving growth through non-compliant industry

FIGURE 5 Special Flood Hazard Area (SFHA) Policy Penetration
Source: FEMA

TOP 10 COMPLIANT STATES
BOTTOM 10 COMPLIANT STATES

STATE	TOTAL STRUCTURES WITH POLICY COVERAGE	TOTAL STRUCTURES	MANDATORY PURCHASE REQUIREMENT PENETRATION RATE
LOUISIANA	39,793	49,278	80.75%
SOUTH CAROLINA	27,387	37,979	72.11%
NEW YORK	23,336	39,169	59.58%
FLORIDA	403,652	702,758	57.44%
TEXAS	58,763	102,607	57.27%
DELAWARE	1,753	3,107	56.42%
NEW JERSEY	33,131	61,710	53.69%
CALIFORNIA	63,862	119,728	53.34%
NEVADA	3,080	5,796	53.14%
ALABAMA	3,186	6,184	51.52%
MINNESOTA	830	8,358	9.93%
MAINE	262	2,260	11.59%
UTAH	230	1,893	12.15%
KANSAS	16	96	16.67%
MONTANA	15	88	17.05%
NEW HAMPSHIRE	844	4,656	18.13%
IDAHO	32	149	21.48%
HAWAII	1,910	8,173	23.37%
MISSOURI	2,208	9,052	24.39%
WISCONSIN	1,555	6,340	24.53%

sectors such as the mortgage lending industry, which lends to millions of homeowners who should have NFIP coverage but do not, will not only spread the risk, but will also increase the premium income to the program and ultimately help to reduce the debt.

(B) Promote Natural Program Growth:

The NFIP is overly complex for agents, claims adjusters, and insureds. This complexity can inhibit agents from writing flood insurance policies and can lead to distraught policyholders when they learn that certain damages are not covered. It is also difficult for agents to sell flood insurance because the program implements changes two or three times a year, making it difficult to keep up. FEMA should:

▷ Simplify the NFIP's documentation requirements, which currently can cause difficulties when purchasing the coverage or making a claim.

▷ Address what is not covered regarding earth movement/land subsidence.

▷ Clarify the definitions for "basements" and "elevated buildings." FEMA should:

— Retain basement restrictions, but subject to a pre-determined sublimit. FEMA could also consider adding optional basement coverage with a commensurate additional premium that provides the insured an option to purchase the coverage or to reject it. This may help reduce confusion and uncertainty regarding what is covered after a loss.

— Remove elevated building coverage limitations for post-FIRM buildings in SFHA's.

— Grant coverage to garages attached to elevated buildings in SFHAs when such structures are permitted; build in the additional flood payments into premium structure.

▷ Encourage greater participation by homeowners who do not currently have a standard flood insurance policy (SFIP) by offering extra coverage — for example, additional living expenses and/or refrigeration spoilage — in the event of a flood.

▷ Simplify the rating process so that insurance agents can offer more policies and provide accurate insurance quotes more quickly.

▷ Develop and publish expedited claims handling processes that are continuously maintained and easily deployed, which would provide much needed consistency.

▷ Publish in advance guidance for items that are common issues of contention after a loss, such as water remediation/dry out costs, unit cost pricing, and sales tax. This would expedite the claims process and mitigate confusion as to what is covered under the policy.

▷ Develop standard deductibles. The use of a standard

MMC has identified three major areas to focus reform efforts that we believe would provide enhancements to the NFIP that would yield significant financial stability.

deductible, regardless of zone or coverage amount, could lead to less confusion for agents and insureds, where simply increasing building coverage will cause the deductible to change.

- Eliminate the preferred risk policy and the newly mapped policy types. These different policy types are confusing to agents and consumers because they offer different and less coverage, which can often lead to coverage disputes after a flood loss. Instead, premium discounts or surcharges can be offered based on the risk and claims experience, similar to other lines of insurance.

(C) Streamline Agent Training:

Although it is a federal program, the sales and distribution of NFIP coverage is accomplished through state-licensed property/casualty insurance agents. How WYO companies appoint agents or brokers can vary by state, and there is little consistency in how states require flood insurance continuing education credits for agents to keep their license active. FEMA should:

- Develop consistent licensing (non-resident) and training requirements.
- Mandate that all agents — whether working for a WYO company or participating in the Direct Program — have consistent, uniform, and ongoing licensing requirements.

(D) Reduce the Homeowner Flood Insurance Affordability Act's (HFIAA) Surcharges for Non-Primary Residences:

Remove all distinction between the primary and non-primary residence buildings for the calculation of HFIAA surcharge. The surcharge, as it is applied, is punitive to secondary homeowners, small businesses, and renters as the cost of the rent reflects the costs to the owner. As a result, these entities choose not to purchase flood insurance because of the increased cost (see Figure 6).

(E) Promote Transparency in the NFIP Compensation Structure:

Review the compensation structure of all participants in the program to ensure that stakeholder value is maximized. The compensation structure review should also ensure that all service providers are incentivized and compensated for providing the best quality service and product innovation. Transparency and disclosure requirements within the claims process should also be implemented.

(F) Evaluate Current Application of Those Charges and Fees Outside the Premium:

The state premium tax that is paid could be redirected and used for risk mitigation and debt reduction.

FIGURE 6 NFIP Premium Increases
Source: Torrent

	2014	2015
PREMIUM	$392	$344
FEDERAL POLICY FEE	$22	$22
RESERVE FUND ASSESSMENT	$0	$35
HFIAA SURCHARGE	$0	$250
TOTAL PAID	$414	$655
PREMIUM AS % OF TOTAL	94.70%	52.50%
FEES AS % OF TOTAL	5.60%	46.90%

2. SHARE THE RISK COMMUNITY WITH THE PRIVATE INDUSTRY

Under the current system, the federal government assumes the vast majority of flood risk along multiple dimensions:

- The NFIP alone underwrites the majority of flood risk in the US.
- The NFIP is also responsible for flood risk mitigation through its flood risk reduction and assessment activities.
- The federal government is also expected to provide emergency funding to communities following a catastrophic flood event, such as Hurricane Katrina, in amounts that often exceed the claims dollars paid out by the NFIP — a significant unfunded liability.

Highly publicized instances of federal aid following catastrophic events have created a public perception that individual property owners do not need to purchase insurance against low probability, high severity flood events because they believe protection is already in place, effectively creating a moral hazard.

Reducing the federal government's exposure to flood risk through greater private insurer participation alone will not perfectly align incentives. However, it may result in improved incentive structures by allowing the federal government to focus on flood risk mitigation while markets focus on flood insurance underwriting.

STRUCTURAL OPTIONS

Outlined below are five structural options for delivering flood insurance to the US market.[2]

	CEDANT OPTION	RESIDUAL MARKET OPTION	REINSURER OPTION	POOL OPTION	OPEN MARKET OPTION
OVERVIEW	• NFIP provides primary insurance to policyholders • Portion of flood risk is transferred to private markets using reinsurance or an alternative risk transfer instrument	• Private insurers provide coverage to majority of policyholders • NFIP provides primary insurance focused on residual market risks	• Private insurers underwrite primary flood risk • Government acts as a reinsurer of a last resort	• Private insurers jointly underwrite primary flood risk • Private insurers pool flood risk and jointly reinsure • Government acts as a reinsurer of a last resort	• NFIP stops underwriting flood risk and run-offs portfolio
PRIMARY RISK TAKER(S)	• NFIP	• WYOs / private insurers • NFIP (residual market only)	• WYOs / private insurers	• WYOs / private insurers via NFIP pool	• WYOs / private insurers
SECONDARY RISK TAKER(S)	• Reinsurers • Capital markets	• Reinsurers • Capital markets	• NFIP • Reinsurers • Capital markets	• Reinsurers • Capital markets • Federal government	• Reinsurers • Capital markets
KEY HURDLES	• Cost associated with risk transfer • Reinsurance and capital markets capacity • Mismatch in primary and secondary market • Pricing	• Private insurers' access to data and technology needed to measure risk • Private insurers' ability to charge risk-based rates • Size of risk community	• Design of the reinsurance structure (e.g. tranching public-private loss)	• Achieving risk-based pricing • Size of risk community	• Private insurers' access to data and technology needed to measure risk • Private insurers' ability to charge risk-based rates • Size of risk community • Treatment of residual risks, access and affordability issues

The above options are organized from left to right in terms of the approximate level of government involvement, from the greatest involvement under the cedant option, in which the government is still the primary risk taker, to the least involvement under the open market option, in which the private market supports both primary and secondary risk taking. While each of the five options is unique, they are not necessarily mutually exclusive.

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2 The Flood Insurance Risk Study (FIRS): http://www.floods.org/ace-files/documentlibrary/2012_NFIP_Reform/Reinsuring_NFIP_Insurance_Risk_and_Options_for_Privatizing_the_NFIP_Report.pdf

PRIVATE MARKET

Greater participation by the private market can be easily encouraged by allowing WYOs to offer their own flood policy. This is currently prohibited. By opening up private market participation, the NFIP can help improve the program's sustainability by providing expertise and market stability. To achieve this, Congress should:

- Retain the WYO program. Without it, the NFIP would have to handle all aspects of the 5.3 million WYO flood policies, including sales, servicing, and claims. This would disrupt how NFIP coverage is written and increase the burden on the NFIP.
- Enact legislation that allows for more insurers, including the current WYOs, to offer non-NFIP flood policies that would meet the mandatory purchase requirements for SFHAs. This would diversify the insurance risk pool and reduce the aggregate flood insurance exposure to the NFIP by adding private flood policies, which could reduce the need for additional borrowing from the US Treasury.
- Continue phasing out rate subsidies so NFIP policies are priced at actuarially sound rates. The path towards achieving fully risk-based pricing must be gradual, as a rapid transition may prove politically impractical and administratively unfeasible.

EXPLORE REINSURANCE OR OTHER RISK TRANSFER MECHANISMS

Under Biggert-Waters, FEMA has the authority to purchase reinsurance as a means to support the risk management efforts of the NFIP. The use of reinsurance can help:

- Evaluate and manage the available risk capital that providers have to deploy.
- Stabilize the financial results of the NFIP by removing volatility and reducing the use of post-event debt financing through taxpayers after severe flooding events.
- Inform the NFIP of private sector pricing levels. To reflect these pricing levels within its rating structure while moving the original NFIP rates toward risk-based pricing over time, the government can better communicate the risk and associated cost that flooding presents to communities, businesses, and homeowners. This can also improve risk management and community resilience.

3. ADOPT MODERN TECHNOLOGIES AND BUSINESS MODELS

The NFIP is currently using technologies and business techniques common in the 1960s. For example, properties in SFHAs must have an elevation certificate completed by a surveyor using transits and levels. Consumers have to pay hundreds of dollars for new elevation certificates each time the property is bought and sold because there is no central repository or database of the elevation data that is accessible to the public.

Areas to focus on technology modernization and insurance innovation include:

- Creating repositories or databases for key information such as flood zones and elevation data. These databases should be established and made available to the public.
- Using modern data sources like Global Positioning Systems and remote sensing technology such as light detection and ranging (LIDAR) instead of requiring physical inspections or surveys of each property.
- Implementing current data analytic tools for flood risk assessment such as flood maps and advanced storm surge and inland flood modeling; using the more than 50 years of loss history data is critical to better measure price and understand risks.
- Establishing a secure, scalable, flexible, and transparent technological platform to better protect taxpayers and improve claims processing, business analytics, and customer care. Flood service vendors have already implemented real-time systems that are faster and more accurate than the systems currently used by the NFIP, which provide data and reports that can be three months behind.
- Establishing a technical advisory insurance council comprising FEMA representatives,

vendors, industry experts, WYO companies, and others to review and make recommendations to FEMA regarding:

- Flood insurance coverage, underwriting, claims handling, processing, and distribution.
- How potential changes to the flood program will impact policyholders and companies participating in the NFIP.
- Resolutions for existing NFIP problems and inefficiencies.
- Securing and retaining key insurance professionals to help guide the program through the aforementioned items.

ADVANTAGES OF ALTERNATIVE SOLUTIONS

Three key advantages of increasing the risk community, sharing the risk with the private market, and implementing the use of modern systems and tools include:

1. Innovation: Increased competition in the flood insurance market can spur innovative products, processes, and marketing of flood policies. While there has been significant progress in measuring and mitigating flood risk since the establishment of the NFIP, private sector competition could catalyze innovations in flood risk analytics and modeling and produce new products that would better meet customer needs and yield greater levels of insurance market penetration. Private sector competition also can provide much needed excess capacity.

2. Insurance market efficiency: Homeowners primarily access flood insurance through the NFIP. A competitive private sector could introduce alternatives and provide insureds with additional benefits, including broader coverage and the ability to combine perils to allow property owners to purchase a single policy for all their exposures, including flood. This would simplify the distribution of the product and improve customer experience. Greater private sector participation could also create a competitive environment that would encourage operational and market efficiency. The private sector would be driven by market forces to streamline the processes used to market, sell, underwrite, and process flood insurance policies and to service flood insurance claims. This would also help to ensure that the private sector stayed in the market for the long-term, even after a large storm.

For example, insurers could seek out alternative approaches to estimating the elevation of individual structures, which currently requires costly elevation certificates provided through professional surveyors. They could potentially lower these underwriting costs by using technologies to estimate elevation, including property specific data from Google Street View or LIDAR technology. Such operational efficiencies could help both the NFIP and the private sector to lower operating costs. In general, a competitive insurer would tend to lower prices, making flood insurance more affordable to many homeowners and thereby improve penetration rates.

3. Alignment of incentives and roles: Greater private sector participation and the use of more modern, less labor intensive tools could potentially improve the alignment of incentives for those involved in insuring flood

There are advantages to increasing the risk community, sharing the risk with the private market, and implementing the use of modern systems and tools.

risks, including the federal government, communities, private insurers, and property owners. There are several other advantages that are unique to the insurance industry, particularly when:

- The insurance industry pre-finances catastrophic risks by managing aggregate capital, thereby reflecting the cost of holding that capital in its rate/premium charges, thus paying catastrophic claims from current revenue and surplus funds.

- The insurance industry diversifies catastrophic risks with uncorrelated or less correlated risks from other catastrophic perils, other geographic regions, non-catastrophic risks, and risks from unrelated lines of business.

- Individual insurers decline risks that are priced inadequately or are highly correlated with their portfolio, although insurers typically share in the pooling and cross-subsidization of such risks that are unable to find private market insurance.

- Individual insurers have the flexibility to increase price quotes for risks that contribute more correlation to their total portfolio of risks, subject to regulatory constraints.

Many of the risks where individual insurers decline coverage or quote higher rates may find their way to other insurers whose portfolios are less correlated to those risks, or to public-sector sponsored residual markets that will assume the risks that private insurers will not write. In the case of flood insurance, this is an important consideration: If the effort to privatize flood insurance shifts the risks from the NFIP to state-based residual markets, it may undermine the desired outcome. In many cases state-sponsored pools already have challenges managing the catastrophe exposures they carry, often relying on surcharges, levies, and other post-disaster financing methods, which directly or indirectly can impact policyholders.

CONCLUSION

Congress will very soon begin debating the reauthorization of the NFIP. This iteration of reform presents a prime opportunity to deliver meaningful change to this important program.

Undoubtedly, the frequency and severity of future flooding events in the US will impact the program and possibly add additional debt to an already strained NFIP. Policymakers should simplify the program, upgrade the technology, and harness the ingenuity and capital of the primary insurance and reinsurance markets to transform the NFIP so that it can serve communities and individuals for decades to come.

We have presented several policy recommendations for policymakers to consider prior to the expiration of the NFIP. Although the recommendations in this report do not specifically address the current NFIP debt in detail, they do provide options to promote greater insurance sector participation that will help mitigate future claims on the US Treasury and bring much needed innovation and technology to better serve policyholders.

Specifically, policymakers should enact provisions that encourage the growth of the overall flood insurance policy base (including enforcement of the existing mandatory purchase requirement for lenders) and allow for greater private flood insurance sector participation to qualify for the mandatory purchase requirement. This can help diffuse the portfolio risk for the NFIP after a flood event.

FEMA should expeditiously seek reinsurance or other alternative capital schemes to reinsure a portion of the federal program exposed to flood losses. FEMA should also select and implement new systems that enable more efficient and effective sales, service, and oversight of NFIP insurance policies.

By implementing these suggestions and the others in this report, the NFIP would increase the public awareness of the program, drive growth potential, and create less risk exposure — all of which would help potentially reduce the debt over time and reinvigorate the program to better serve consumers.

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