Impact

A regulatory impact analysis must accompany every economically significant federal rule or regulation. The Office of Policy Development and Research performs this analysis for all U.S. Department of Housing and Urban Development rules. An impact analysis is a forecast of the annual benefits and costs accruing to all parties, including the taxpayers, from a given regulation. Modeling these benefits and costs involves use of past research findings, application of economic principles, empirical investigation, and professional judgment.

Acceptance of Private Flood Insurance for Federal Housing Administration-Insured Mortgages

Maria Chelo Manlagnit De Venecia
U.S. Department of Housing and Urban Development

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Summary of Proposed Rule

On November 23, 2020, the Federal Housing Administration (FHA) proposed a rule that would allow a private flood insurance option instead of insurance through the National Flood Insurance Program (NFIP),[1] when FHA requires flood insurance.[2] The Flood Disaster Protection Act of 1973

[1] NFIP, which is being administered by the Federal Emergency Management Agency (FEMA), is a federally operated program that aims to reduce the adverse economic impact of flooding on private and public structures by offering flood insurance to properties with significant flood risk; and encouraging communities to adopt and enforce floodplain management regulations.

[2] Note that this impact analysis was based on the proposed rule published in the Federal Register last November 23, 2020 (https://www.federalregister.gov/documents/2020/11/23/2020-25105/acceptance-of-private-flood-insurance-for-fha-insured-mortgages).
Currently, a final rule is being drafted to address the public comments received when it was published in the Federal Register. As such, it is possible that there could be changes in the final rule and impact analysis.

(FDPA) requires the owner of a property mapped in a special flood hazard area (SFHA)[3] and located in a community participating in the NFIP to purchase flood insurance as a condition of receiving a federally backed mortgage. Current regulations of the FHA do not permit private flood insurance as an option to satisfy the mandatory purchase requirement under the FDPA; instead, FHA requires owners to obtain and maintain NFIP flood insurance during such a time as the mortgage is insured, to the extent that NFIP insurance is available. The proposed rule will amend the FHA regulations to allow mortgagors the option to purchase private flood insurance on properties located in SFHAs, in satisfaction of the mandatory purchase requirement for FHA-insured mortgages. This amendment also reflects the intent of the Biggert-Waters Insurance Reform Act of 2012 (Biggert-Waters Act) to encourage private-sector participation in the provision of flood insurance.[4]

Acceptance of private flood insurance would benefit borrowers, particularly those who are in low-income communities but located in higher flood risk areas, who want FHA-insured mortgages by providing them consumer choice, including the opportunity to obtain private flood insurance policies that may be more affordable than NFIP policies. Overall, the proposed rule would reduce the regulatory restrictions on flood insurance for FHA-insured loans that include preventing lenders' refusal to accept flood insurance on FHA-insured mortgages and reducing housing costs to homebuyers associated with delay in home sale closings if there is a lapse in NFIP's authorization.

There would be approximately 900 to 1,500 flood insurance policies on FHA-insured mortgages in SFHAs that would adopt private flood insurance. The change in homeowners' flood insurance provider from NFIP to a private insurance company would result in a transfer of flood risk from the federal government through NFIP coverage of homes with FHA-insured mortgages to the private insurance sector. Associated with this transfer of risk would be a transfer of insurance premium revenues from NFIP to the private insurance market, which is estimated to be between $1.3 million and $2.2 million. There is a compliance cost related to the acceptance of private flood insurance by FHA-insured mortgages in SFHAs, including costs associated with modifying existing FHA policies and procedures and training employees to review private flood insurance policies.[5] These activities would add to administrative workload and incur some cost; however, such costs are expected to be small and insignificant.

Background

The National Flood Insurance Program

For almost 50 years, NFIP has been the primary source of flood insurance coverage for residential properties in the United States. The low supply of flood insurance by private insurers was one of

[3] SFHAs, also referred to as 100-year floodplains, are areas within a flood plain having a 1 percent or greater chance of flood occurrence in any given year (44 CFR 59.1) and are delineated on maps issued by FEMA for individual communities (44 CFR part 65).

[4] Reforms on the Biggert-Waters Act were designed to improve the financial integrity and stability of the NFIP, and to increase the role of private markets in the management of flood insurance risk.

[5] To help mortgagees evaluate whether a flood insurance policy meets the definition of "private flood insurance," HUD is proposing to provide a compliance aid. This compliance aid will also address concerns that a mortgagee, especially small mortgagees who lack technical expertise regarding flood insurance policies, could have difficulty evaluating whether a flood insurance policy meets the definition of "private flood insurance."

the reasons that Congress created the NFIP in 1968. However, private flood insurance was offered by the private sector between 1895 and 1927. The losses incurred from the 1927 Mississippi River floods and additional flood losses in 1928 led most insurers to stop offering flood policies (National Research Council, 2015a). At that time, private insurers contended that flood risk was uninsurable due to the catastrophic nature of flooding, the magnitude of damage, the difficulty of determining actuarially fair insurance rates, and the concern that private insurance companies could not profitably provide flood coverage at a price that consumers could afford (GAO, 2014; Horn and Webel, 2018).

As of November 2018, Federal Emergency Management Agency (FEMA) data show that the NFIP has over 5.1 million flood insurance policies nationwide in 22,315 communities,[6] providing over $1.3 trillion in coverage and collecting about $3.6 billion in annual premium revenue. Among the 5.1 million NFIP policies, 95 percent are residential policies, and the rest is commercial policies. The distribution of NFIP policies varies across the country. September 2018 data show that about 35 percent of all policies in force are in Florida, 15 percent are in Texas, and 10 percent are in Louisiana. California comes in fourth (4.5 percent), followed by New Jersey (4.4 percent) and South Carolina (4 percent). These top six states account for approximately 72 percent of all the policies in the program.

The NFIP flood premiums are set based on flood zones,[7] depicted on Flood Insurance Rate Maps (FIRMs).[8] The insurance rates vary within each zone due to certain aspects of the property and across all zones to reflect different types of properties—for example, single-family residential versus commercial.[9] Within SFHAs, premiums vary significantly by zone and elevation. For example, in 2016, for all policies in the "A" zones, the average premium was $1,432, whereas, in the "V" zones, the average was $4,759. Data on NFIP policies by flood zone comparing 2015 and 2018 show that residential policies are almost evenly divided between areas inside and outside the SFHA. Policies for single-family homes decreased to 73 percent in 2018 from almost 90 percent in 2015. In contrast, policies for other family homes have increased from 5 percent to 22 percent. However, Kousky et al. (2018) noted that although it is evident that NFIP policies are concentrated in hurricane-prone coastal communities—e.g., Florida, Texas, and Louisiana accounting for almost 60 percent of all contracts nationwide—many of these contracts are outside the area mapped as at

[6] Communities voluntarily participate in NFIP to have access to federal flood insurance and in return are required to adopt minimum floodplain standards. Homeowners in communities that do not participate in NFIP or have been suspended or sanctioned cannot purchase NFIP flood insurance. Horn and Webel (2021) noted that homeowners in these nonparticipating or suspended communities face challenges receiving federal disaster assistance in flood hazard areas, and have difficulties receiving federally backed mortgages.

[7] SFHAs are labeled as Zones A (A1-30), AE, AH, AO, V, VE, VO, and V1-30. "A Zones" refer to inland floodplains and coastal floodplains subject to waves of less than 3 feet, whereas "V Zones" refer to narrow strips on the coast subject to breaking waves of at least 3 feet. Other designations for classifying zones in the SFHA are Zone AR and Zone A99. Outside SFHA, zones include B, C, and X for moderate-to-low risk and D for undetermined risk. See https://www.fema.gov/flood-zones for details.

[8] Across the country, FIRMs vary in age and are updated on a prioritized basis.

[9] The NFIP rates by zone are determined by the following factors: (1) SFHA—type of property, number of floors, basement presence, elevation relative to base flood elevation (BFE), year of construction, presence or absence of obstructions, and replacement cost ratio; and (2) outside SFHA—type of property, basement type, and loss history. For details, see https://www.fema.gov/faq/calculation-flood-insurance.

risk of high storm surge (A Zone). Only about 1 percent of policies are for homes inside the area mapped as at risk of high storm surge (V Zone).

Federal Housing Administration-Insured Mortgages[10]

Preliminary data from The U.S. Department of Housing and Urban Development (HUD) and FEMA,[11] which are limited to locations or by flood zones of the housing units with FHA-insured loans only—i.e., inside SFHAs or outside SFHAs—show that, on average, 3 percent of housing units with FHA-insured mortgages are in SFHAs. Within SFHAs, approximately 99.6 percent of all housing units with FHA-insured mortgages are located in "A" Zones, whereas the remaining 0.4 percent of the housing units are in "V" Zones. Among the states, Louisiana has the highest share of housing units in SFHAs, at 17 percent, followed by Florida (13 percent), Mississippi (7 percent), and West Virginia (5 percent).

Estimating the number of properties affected by the proposed rule

The proposed rule would affect all FHA-insured borrowers buying homes located in SFHAs and who must comply with the requirement to purchase flood insurance. The maximum number of affected borrowers is estimated by assuming that every homeowner with an FHA-insured mortgage located in SFHA would otherwise maintain flood insurance from NFIP.[12] Previous studies of the flood insurance market enable us to determine how the market for private flood insurance may respond to FHA's regulatory relaxation.

Kousky et al. (2018) estimated that the current private flood insurance in the United States accounts for 3.5 to 4.5 percent of primary residential flood insurance policies. Using this information and available data on FHA and NFIP premiums in 2016, we estimated that the adoption rate of private flood insurance for FHA-insured mortgages would be between 3 to 5 percent in the first few years and could increase in the future.[13] This is a conservative estimate of the number of flood insurance policies on FHA-insured mortgages that would be covered by private flood insurance, given the likely increase in private flood insurance in the future. As a result of the proposed rule, there would be 900 to 1,500 flood insurance policies on FHA-insured mortgages in SFHAs that would adopt private flood insurance.[14]

[10] To date, there are no available data on flood insurance policies in-force for properties with FHA-insured mortgages, policy tenure, compliance to the mandatory purchase requirement after the initial approval of mortgage guarantee to homeowners with FHA-insured mortgages, or properties with FHA-insured mortgages that are receiving rates that are lower than FEMA full risk rates (pre-FIRM and grandfathered properties).

[11] Using data from HUD's database of active single-family FHA-insured mortgages and FEMA National Flood Hazard Layer, October 2018. Data include all 50 states, plus Washington, D.C., Puerto Rico, Virgin Islands, and Guam.

[12] A divergence from this assumed scenario occurs when FHA-insured borrowers let their flood-insurance policies lapse after receiving a mortgage loan.

[13] According to Kousky et al. (2018: 2), "As insurers' familiarity with flood catastrophe models grows, as underwriting experience develops, and as state regulatory structures evolve, the number of private flood policies in force could continue to grow."

[14] Merged data from HUD and FEMA showed that there were 31,000 FHA-insured mortgages located in SFHA in 2016; and 3 to 5 percent of the 31,000 properties is 900–1,500 properties.

However, we do not expect that all homeowners with FHA-insured mortgages in SFHA will switch to private flood insurance. Market failure was the original justification for NFIP and could still be why significant growth is not expected in the private insurance market for now. In addition, these are some of the reasons why not all homeowners with FHA mortgages are expected to move to the private flood insurance market: *first*, the presence of NFIP's subsidized rates (pre-FIRM and grandfathered policies); *second*, the motivation to maintain NFIP's "continuous coverage" policy[15] to avoid the risk of losing discounted NFIP rates; and *third*, certain properties or locations (e.g., repetitive loss properties, severe repetitive loss properties, or high-tide flooding areas) that private insurance companies may be selective in underwriting. FEMA's new rating system, Risk Rating 2.0, which will go into effect on October 1, 2021, could also affect borrowers' decisions.[16]

Transfer from the Proposed Rule

HUD expects that the change in flood insurance carrier of homeowners with FHA-insured mortgages from NFIP to private insurance companies would result in a transfer of flood risk from the federal government through NFIP coverage of homes with FHA-insured mortgages to the private insurance sector. Associated with this transfer of risk away from the federal government would be a transfer of revenues from NFIP to the private insurance market. Using the data on the reported number of FHA-insured mortgages in SFHAs in 2016, which was 31,099, transfers of revenues from NFIP to private insurance companies if all policyholders with FHA-insured mortgages in SFHAs choose to purchase private flood insurance would be $45 million annually, accounting for 1.3 percent of NFIP's earned premium.[17] Alternatively, using the estimated 900 to 1,500 flood insurance policies on FHA-insured mortgages in SFHAs that would adopt private flood insurance, transfers of revenues from NFIP to private insurance companies would be between $1.3 million and $2.2 million, accounting for 0.04 percent to 0.1 percent of NFIP's earned premium in 2016. These estimates, which only include properties with FHA-insured mortgages with mandatory purchase requirements, could increase if properties outside the SFHAs would also be included in the estimation.

This transfer is currently estimated to be small and relatively insignificant. However, in the future, if the transfer becomes significant, it could potentially impose costs to NFIP by increasing its risk in four ways.[18] First, there is a potential increase[19] in the rates for some remaining policyholders to support and keep NFIP afloat that could possibly accelerate the move of policyholders to private insurance companies, and second, communities may rescind floodplain management standards and codes as they drop out of the NFIP (see GAO, 2017). Third, FEMA will no longer be able to

[15] Continuous coverage is required for property owners to retain any subsidies or cross-subsidies in their NFIP premium rates. A borrower may be reluctant to purchase private insurance if doing so means they would lose their subsidy should they later decide to return to NFIP coverage. See Horn and Webel (2019).

[16] See https://www.fema.gov/flood-insurance/risk-rating.

[17] Computed using available data on NFIP premiums in 2016 for policies in SFHA.

[18] Currently, there is an issue of sustainability of the program. The NFIP owes $20.525 billion to the U.S. Treasury, with only $9.9 billion left in borrowing authority from a $30.425 billion limit in law. This debt, which is conceptually owed by current and future participants in the program, is serviced by the NFIP, and interest is paid through premium revenues. See Horn and Webel (2021).

[19] HFIAA permits individual property increases of up to 18 percent but limits the rate class increases to 15 percent per year. See 42 U.S.C. §4015(e).

collect the Federal Policy Fee (FPF),[20] which is one of the funding sources of floodplain mapping and management programs. Fourth, FEMA will no longer be able to collect the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA) mandated surcharge that goes into the NFIP Reserve Fund to support the financial stability of the NFIP and offset the slowdown of the elimination of current subsidized rates.[21]

Costs of the Proposed Rule

There is a compliance cost related to the acceptance of private flood insurance by FHA-insured mortgages in SFHAs that include costs associated with modifying existing FHA policies and procedures and training employees to review private flood insurance policies and evaluate whether they meet the definition of "private flood insurance" under the mandatory acceptance provisions. These activities would add to administrative workload and incur some cost, which is expected to be small and insignificant.

Benefits of the Proposed Rule

Consistency with Statutory and Industry Standards

Amending the current FHA regulations would harmonize its policies with the Biggert-Waters Act in promoting the growth of the private flood insurance market and would promote consistency with industry standards by aligning FHA standards with federal agency lenders and government-sponsored entities (GSEs)[22] for private flood insurance. In the process, this would ensure that all homebuyers with federally backed mortgages would have the same flood insurance options, which could increase consumer choice and potentially affect the affordability of flood insurance.

Increase Consumer Choice

Having the option to purchase flood insurance from NFIP and private companies increases homeowners' choice in terms of flood insurance provider, flood insurance products, and coverage that are better matched to their needs. Some of the additional options that private insurance companies could offer that are not currently available under the NFIP include living expenses while the property is being repaired, coverage of basement and other structures on a property, coverage limits greater than $250,000,[23] higher contents coverage, loss-of-use coverage, shorter waiting periods before policies take effect, and flood coverage as an add-on to a standard homeowner's policy (CIPR, 2017; Horn and Webel, 2018).

[20] FPF is part of the premium paid by all NFIP policyholders.

[21] As of April 1, 2015, every NFIP policy includes an annual surcharge required by the HFIAA. See https://www.fema.gov/media-library-data.

[22] The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are collectively known as GSEs.

[23] According to the U.S. Census Bureau, the median sales price of new, single-family homes with a FHA-insured mortgage in 2018 was $249,500, whereas the average sales price was $263,500, indicating that homes are worth more than the $250,000 NFIP ceiling.

Affordability of Flood Insurance

In terms of flood insurance affordability, SFHAs are relevant because flood insurance premiums are generally higher in SFHAs, and flood insurance is mandatory for households with federally backed mortgages in these areas. A report on flood insurance affordability by FEMA (2018) shows that the combination of higher premiums and lower incomes in the SFHA creates an affordability burden on households. The report also finds that low- and middle-income households may be forgoing flood insurance, even though they are more likely to live in high-risk flood zones, and affordability is more of a problem inside SFHAs. For example, from the 5.1 million households included in the study, FEMA estimates that about 1.8 million households (35 percent) in the SFHA have flood insurance with a median household income of $77,000 per year, whereas 3.3 million households (65 percent) in the SFHA are without a flood insurance policy and have a median household income of $40,000.

Existing studies[24] that closely examined the NFIP noted that private insurers might be able to offer lower premiums for flood insurance. Kousky and Lingle (2018) showed that private flood insurance policies in Puerto Rico could compete with NFIP and offer less expensive flood policies than the NFIP because they do not include congressionally mandated surcharges and fees and inherent common construction practices (e.g., more structurally sound homes made of poured concrete, slab on grade, and with concrete roofs) that are not accounted for in NFIP rates. In addition, they were able to compete with NFIP policies by coupling flood coverage with vandalism coverage and by offering higher coverage limits. In general, with lower premiums, there could be potential savings to homeowners with private flood insurance.[25]

Private insurance companies can potentially offer lower premiums to homeowners through two methods: NFIP coarse rating and cross-subsidization. First, the NFIP has a coarse rating system[26] that is differentiated by aspects of the property, particularly by elevation relative to base flood elevation (BFE)[27]; the same rating tables are used in large zones across the country (Kousky et al., 2018). However, an empirical study by Czajkowski, Kunreuther, and Michel-Kerjan (2012) in Texas found that within zones of similar risk classification, there is significant variation in flood exposure and local conditions, and this should be reflected in the premiums. Second, there is cross-subsidization within NFIP. FEMA charges full-risk[28] for some classes of NFIP policies and lower than the full-risk rates for others. Currently, two main groups of properties pay less

[24] See CIPR (2017), Czajkowski, Kunreuther, and Michel-Kerjan (2012), Horn (2019b), Horn and Webel (2018), Kousky (2017), Kousky et al. (2018), and National Research Council (2015b).

[25] Note that quantifying the potential savings from lower premiums for some policyholders' private insurance is difficult because the amount and extent of cross-subsidization within the NFIP is currently unknown (Horn and Webel 2018).

[26] Related to this issue, the NFIP is coming out with a new risk rating, Risk Rating 2.0, which will be implemented on October 1, 2021. This development could potentially affect the choice of homeowners in purchasing their flood insurance.

[27] FEMA defines BFE as the regulatory requirement for the elevation or floodproofing of structures. Inside the SFHA, the annual premiums will increase significantly for properties below the BFE. See also Kousky (2017), Kousky, Lingle, and Shabman (2017), and Kousky and Shabman (2014).

[28] FEMA defines a full-risk premium rate as one "charged to a group of policies that results in aggregate premiums sufficient to pay anticipated losses and expenses for that group." About 80 percent of NFIP policies are currently paying full risk rates (Kousky et al., 2018).

than NFIP full-risk rates: pre-FIRM properties and grandfathered properties.[29] As of September 2018, pre-FIRM properties are estimated to be around 13 percent of NFIP policies, whereas grandfathered properties represent 9 percent of NFIP policies (Horn and Webel 2019).[30] Under the existing law, the pricing subsidy for pre-FIRM policies are being gradually eliminated out of the NFIP,[31] whereas grandfathering, which FEMA determines, is retained indefinitely.[32]

Since the NFIP does not receive any taxpayer funds to offset the price discounts for properties that pay less than NFIP full-risk rates in the program, there is cross-subsidization (Kousky, Shabman, and Lingle, 2016). The NFIP tries to recoup the actuarially low rates by charging higher rates across all other properties in the entire zone (GAO, 2014; Horn and Brown, 2018; Kousky and Shabman, 2014; National Research Council, 2015a). For example, the discounts for grandfathered properties are offset by the higher rates on other policies in the zone, i.e., there are property owners paying rates not commensurate with the risk—both those who are underpaying because they are grandfathered and those who are overpaying to offset the grandfathering (Kousky, Shabman, and Lingle, 2016).

The other cross-subsidization noted by Kousky, Lingle, and Shabman (2017) is in the "AE" Zone (AE Zone is in A Zone, and BFEs have been calculated for this zone). Currently, the premium for the coastal "AE" Zone (area subject to breaking waves of 1–3 feet) is the same as the inland "AE" Zone (not subject to the force of waves). Given that flood claims might be larger or more frequent in an area exposed to wave action, other properties in the "AE" Zones subsidize those in coastal "AE" Zones. The other group with cross-subsidization is the Community Rating System (CRS) program of the NFIP. The CRS is a voluntary NFIP program that receives discounted rates and rewards communities that take actions to lower their flood risk. As of June 2017, 1,444 communities nationwide participate in the program. Although communities in this program represent only 5 percent of all communities in the NFIP, they represent more than 69 percent of all policies in force (FEMA, 2017). Policyholders in SFHAs in communities participating in the CRS receive another 5 percent discount on premiums, up to 45 percent for certain floodplain management actions (Horn and Brown, 2018; Kousky, Lingle, and Shabman, 2017). The cross-subsidization occurs when the discount for communities in CRS ends up being offset by increased premium rates in all communities across the NFIP.

Overall, the cross-subsidization and coarse rating used by the NFIP create areas where private insurers may be able to offer premiums more closely tied to individual risks (e.g., property-

[29] These discounted rates are based on the age of the structure and not on household income or wealth. Pre-FIRM properties, through a statute, are properties that were constructed or substantially improved before FEMA had mapped the flood risk in a community. Grandfathered properties (by zone or elevation), as determined by FEMA's authority, maintain their old insurance rate class if properties are remapped into new flood rate class. There are other small groups of policies in SFHA that pay lower premiums and get charged the rate for outside SFHAs. These groups include post-FIRM properties in V zones built between 1975 and 1981, A99 properties, and AR properties. See Kousky, Lingle, and Shabman (2017) for details.

[30] Earlier studies of Horn and Brown (2018) and Kousky, Lingle, and Shabman (2017) estimated pre-FIRM properties to be around 16–20 percent of NFIP policies.

[31] The phased out of pre-FIRM from the NFIP was initially required under Section 100205 of BW-12, as revised by Sections 3 and 5 of the HFIAA.

[32] Although Congress has eliminated the practice of offering grandfathering to policyholders after new maps were issued in Biggert-Waters Insurance Report Act of 2012, the practice has been reinstated in HFIAA.

specific rating), which could be lower premiums for some policyholders. If private insurance can identify homes at lower risk than surrounding properties, they can offer lower premiums with better terms than comparable NFIP coverage because private insurance does not have the higher-risk NFIP policies that are underpriced either due to cross-subsidization or imprecise rate structures. This potential effect on the affordability of flood insurance could enhance flood insurance coverage nationwide.

Reduce Regulatory Burden

Prevent Lenders' Refusal to Accept Private Flood Insurance on FHA-Insured Loans

Since FHA's existing regulations on mandatory purchase requirements do not permit private flood insurance, lenders are refusing to accept private flood insurance on FHA-insured mortgages even if such policies provide more comprehensive coverage and/or are available at lower premiums. The proposed rule would remove this regulatory restriction, giving homeowners the option to purchase private flood insurance.

Reduce Affected Home Sales if NFIP Lapses

The NFIP is currently authorized until September 30, 2021. The NFIP was extended 17 times between 2008 and 2012 and lapsed four times in 2010–2011 and 2 times in 2018.[33] As shown in the past NFIP lapses, borrowers could not obtain flood insurance to close, renew, or increase loans secured by property in an SFHA until the NFIP was reauthorized. During the lapse in June 2010, the National Association of Realtors estimates that for each day that the NFIP lapsed, approximately 1,330 home sale closings were delayed or canceled nationwide, and home sale closings could reach 40,000 per month across the nation (Evangelou, 2017; Hepp, 2011). Although the NFIP had lapsed several times in the past years, Congress has passed short-term reauthorizations to avoid interruptions to the program, or Congress reauthorized the NFIP retroactively. However, in each instance of a lapse, there is uncertainty about when the NFIP would be reauthorized.

Focusing on FHA-insured mortgages that could be affected by the proposed rule, there were 34,203 residential properties in FHA-insured purchase transactions located in SFHA in 2017. On average, there were 94 home sale closings per day (34,203 divided by 365). Cancellation of home sale closings is unlikely to occur; however, it is possible that any lapse in NFIP could potentially delay home sale closings, and this would impose costs on homebuyers who are purchasing a home.

HUD assumes that in the case of a lapse, any closings scheduled on a day during which the NFIP lapses would be delayed by an average of 15 days, and households would incur costs during their delay equivalent to their existing housing costs. The average monthly housing cost is $1,074 for current owners and $991 for current renters; 15 days of such costs amount to $537 and $496, respectively. Each day of NFIP lapse is estimated to result in a total of $47,731 in costs to homebuyers (27 x $537 = $14,499 for current owners and 67 x $496 = $33,232 for current renters).

[33] Between 2008 and 2012, the NFIP lapsed four times. Recent NFIP lapses include between January 20 and January 22, 2018, and in the early morning of February 9, 2018, for approximately 8 hours during a brief government shutdown. See Horn (2019a).

Over the span of 9 years, there were six NFIP lapses. In terms of the total number of days, the NFIP lapsed for 55 days. Given this, the probability of lapse-related costs on any given day is 1.7 percent (55 days divided by 3,285 days), and the daily expected value of losses from an NFIP lapse is $811.43 for an annual expected cost of approximately $296,000.[34]

Conclusion

Current FHA regulations do not allow private flood insurance as an option and require mortgagors to obtain and maintain NFIP flood insurance for the duration of the mortgage to the extent NFIP is available. HUD is proposing to amend FHA regulations to allow mortgagors the option to purchase private flood insurance on FHA-insured mortgages for properties located in SFHAs in satisfaction of the mandatory purchase requirement under the National Flood Insurance Act of 1968. Acceptance of private flood insurance would benefit borrowers, particularly those in low-income communities that are located in higher flood risk areas, who want FHA-insured mortgages by providing them consumer choice, including the opportunity to obtain private flood insurance that is more affordable than NFIP policies. Overall, the proposed rule would reduce the regulatory barriers for borrowers with FHA-insured mortgages and enhance consistency with statutory and industry standards.

As mentioned, market failure was the original justification for NFIP. That could still be a reason not to expect significant growth in the private insurance market, especially in SFHAs. Allowing private sector participation in the provision of flood insurance would not by itself correct this market failure. The combination of moral hazard, NFIP's coarse rating and cross-subsidization, the geographic and temporal concentration of risk, and long-term risks of climate change needs to be addressed and incorporated in the structural reform of the program. Instead of short-term NFIP reauthorizations and stagnating reform initiatives, substantive reform of NFIP is needed.

Every time the NFIP is scheduled to be reauthorized is an opportunity to make significant changes to the program to improve its effectiveness. Several reform bills and legislations had been introduced or passed in the past but were not implemented after facing significant challenges. Thus, structural reforms have been difficult to accomplish. With the onset of private sector participation, reform legislation could work *in partnership* with the private sector to encourage the purchase of flood insurance and investment in cost-effective adaptation measures (see Kunreuther, 2018).

Even after FEMA conducted an affordability study (FEMA, 2018) that was required by Congress regarding participation in NFIP and affordability of premiums, there was no change in the pricing structure in NFIP.[35] Although there should be an affordability burden to the extent that taxpayers should not subsidize properties in higher risk areas, finding the right balance between risk and affordability for a policy change remains challenging. The promise of FEMA's new methodology, Risk Rating 2.0, which calculates premiums based on specific features of an individual property, could be a good start.

[34] Computed using 1.7 percent x $47,731 total cost per day x 365 days.

[35] FEMA, however, does not currently have the authority to implement an affordability program, nor does NFIP's current rate structure provide the funding required to support an affordability program. For further discussion, see Horn and Webel (2021).

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Author

Maria Chelo Manlagnit De Venecia is a senior economist in the Public Finance and Regulatory Analysis Division of the Office of Policy Development and Research, U.S. Department of Housing and Urban Development.

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