

## All-Hazards Homeowners Insurance: A Possibility for the United States?

Howard Kunreuther\*

### Key Points

- In the United States, standard homeowners insurance policies do not include coverage for earthquakes or floods.
- Individuals often ignore potential disasters and overreact to recent ones, causing many to buy insurance only after a loss and to cancel coverage when they haven't had a claim. They may treat insurance as an investment rather than a protective measure.
- For all-hazards homeowners insurance policies to work effectively in the United States, insurers must be allowed to charge risk-based premiums so individuals have economic incentives to adopt cost-effective hazard mitigation measures.
- The public sector has a role in addressing affordability of coverage for lower-income residents and potentially helping to backstop catastrophic losses.
- Reauthorization of the National Flood Insurance Program provides an opportunity to implement reform—a long-term risk reduction and affordability strategy that could extend to other extreme events, thus providing a foundation for all-hazards policies.

### Background

In the United States, standard homeowners insurance policies cover damages from fire, wind, and hail but exclude earthquake and flood- or water-related losses. Earthquake insurance was first offered to homeowners by private insurers in the United States in 1916 and was

---

\*Kunreuther: [kunreuth@wharton.upenn.edu](mailto:kunreuth@wharton.upenn.edu); James G. Dinan Professor of Decision Sciences and Public Policy; Co-Director, Risk Management and Decision Processes Center, Wharton School, University of Pennsylvania.

This policy brief is derived from a discussion paper prepared for the “Improving Disaster Financing: Evaluating Policy Interventions in Disaster Insurance Markets” workshop held at Resources for the Future on November 29–30, 2016. We would like to thank our sponsors of this project: the American Academy of Actuaries; the American Risk and Insurance Association; Risk Management Solutions; the Society of Actuaries; and XL Catlin.

Read the discussion paper: Kunreuther, Howard. 2017. [All-Hazards Homeowners Insurance: Challenges and Opportunities](#). Discussion paper 17-08. Washington, DC: Resources for the Future.

widely available until after the 1994 Northridge earthquake when the insured damage was beyond expectations so that many feeling the risk was uninsurable. The lack of interest by insurers in offering quake protection led to the creation of a state-run insurance company—the California Earthquake Authority (CEA). Today the CEA is the principal provider of earthquake insurance in the state. Flood insurance coverage has followed a similar pattern: after the severe Mississippi floods of 1927, damage from floods was considered to be an uninsurable risk. Since 1968, flood coverage has been provided almost entirely by the federally run National Flood Insurance Program (NFIP).

In other parts of the world homeowners insurance provides coverage for all hazards. Notable examples include Belgium, Bermuda, France, Spain, and the United Kingdom. In these countries, insurance coverage is often required by the national government, but premiums are generally not risk based and hence may not encourage individuals to adopt mitigation measures.<sup>1</sup> For an all-hazards insurance system to take root in the United States, insurers must be allowed to charge risk-based rates. Property owners would then have an economic incentive to invest in loss reduction measures that reduce claims payments and hence lower the price of insurance, making coverage more affordable.

### **Demand for All-Hazards Insurance**

For homeowners, an all-hazards insurance policy offers multiple benefits, notably peace of mind in knowing that all potential disaster damages are covered. Additionally, many homeowners are unaware of which risks their policies currently cover and often treat some hazards as below their threshold level of concern. Because people tend to ignore a potential disaster and overreact to a recent one, their decisions may not accurately reflect expert risk assessments.

Empirical studies have revealed that many individuals engage in intuitive thinking and focus on short-run goals when dealing with unfamiliar risks (Cutler and Zeckhauser 2004; Krantz and Kunreuther 2007; Kunreuther et al. 2013). More specifically, individuals often exhibit systematic biases, such as the availability heuristic, where the judged likelihood of an event depends on its salience and memorability (Tversky and Kahneman 1973). This is a principal reason why individuals commonly purchase insurance only after a large-scale disaster and then cancel their policies after several years if they haven't suffered an insured loss. A challenge facing insurers is how to convince their policyholders that the best return on an insurance policy is no return at all.

Policyholders would like to be covered for all potential disasters that could damage their properties but don't want to pay higher premiums that reflect damage from hazards faced by insured homeowners in other parts of the country. For example, a homeowner in Baton Rouge would likely want her insurance policy to cover risks she faces—flood, wind, fire—but wouldn't want such a policy if the cost also reflected potential earthquake losses in California. Allowing an insurer to charge property owners premiums based on the risks specific to their location

---

<sup>1</sup> For more details on all-hazards insurance in other countries, see McAneney et al. (2015).

would ease these concerns and is technologically possible today, given dramatic improvements in mapping and catastrophe modeling.

## **Supply of All-Hazards Coverage**

Insurers could potentially benefit from offering all-hazards policies for several reasons. First, all-hazards coverage would allow insurance companies to avoid costly legal controversies over the causes of hurricane damage (wind vs. water), as was the case following Hurricane Katrina. Second, all-hazards policies would diversify insurers' risk, reducing the variance of losses via the law of large numbers. In other words, an estimate of expected claims payments is more certain if earthquakes, floods, hurricanes, and tornadoes are incorporated into one policy rather than if they were insured in separate policies. Insurers' marketing and administrative costs would also be lower if they offered single all-hazards policies rather than separate policies for earthquake and flood.

For insurers to want to market an all-hazards homeowners policy state insurance commissioners would have to allow them to charge premiums that reflect risk. Additionally, even if the variance from an all-hazards policy is decreased relative to separate policies, combining the risks from several hazards may pose a greater chance of suffering a catastrophic loss. For example, if wind and water damage coverage were included in a single policy, the chance of a large claim payment would be greater than under a homeowners policy that covered only wind damage.

## **Guiding Principles for Insurance**

The following two principles would make all-hazards insurance policies more likely to be considered by both insurers and property owners in hazard-prone areas.

### ***Principle 1. Premiums Should Reflect Risk***

Insurance premiums should be based on risk to provide individuals with accurate signals about the nature of the hazards they face and to encourage them to engage in cost-effective mitigation measures. If Principle 1 is applied to risks for which premiums are currently subsidized, some property owners will face large price increases. This concern leads to the second principle.

### ***Principle 2. Policies Should Address Equity and Affordability Issues***

Low- and moderate-income households may not be able to afford coverage, but being insured would enhance their resiliency. Any special treatment given to low-income individuals currently residing in hazard-prone areas should come from general public funding and not through insurance premium subsidies. Financial assistance should be available only to those who currently reside in hazard-prone areas. People who decide to locate in these regions in the future should be charged premiums that reflect the risk.

## **Public Sector Involvement**

The public sector can encourage private companies to offer all-hazards policies and consumers to purchase this coverage in several ways.

### ***Promoting Affordability***

One way to maintain risk-based premiums while addressing affordability is to offer means-tested vouchers that cover part of the cost of insurance, based on pre-specified criteria.<sup>2</sup> Existing programs, such as the Food Stamp Program and the Low-Income Home Energy Assistance Program, could serve as models for developing such a system. As a condition for the voucher, the property owner could be required to invest in cost-effective mitigation measures. Property owners are often reluctant to invest in these measures because of their high upfront costs, but programs such as FEMA's Flood Mitigation Assistance Program or Connecticut's Shore Up CT program could address this issue. The latter enables homeowners to obtain a 15-year loan ranging from \$10,000 to \$300,000 at an annual interest rate of 2.75 percent. If a property owner were offered such a multiyear loan to invest in mitigation, the voucher could cover not only a portion of the resulting risk-based insurance premium but also the annual loan cost to make the package affordable. Studies of voucher-mitigation programs have shown that measures such as home elevation can substantially reduce a homeowner's risk-based premium while also reducing the government's voucher cost (Zhao et al. 2016; Kousky and Kunreuther 2014).

### ***Permitting Multiyear Insurance***

As a complement to property improvement loans, insurers could consider designing multiyear insurance contracts of three to five years that would be approved by state insurance commissioners. The insurance policy would be tied to the structure, rather than the property owner, and carry an annual premium reflecting risk that would remain stable over the length of the contract. Property owners who canceled their insurance early would incur a penalty cost, in the same way that those who refinance their mortgages have to pay cancellation costs to the bank. With a multiyear contract, the insurer would have an incentive to inspect the property over time to ensure compliance with building codes, something it would be less likely to do with an annual contract.

### ***Providing Catastrophe Coverage***

Although private reinsurance and other forms of risk transfer will be essential to protect firms, public reinsurance or a federal backstop for the highest layer of losses may be needed. Programs in other countries, as well as the Terrorism Risk Insurance Act program here in the United States, could be models.

### ***Enforcing Regulations and Standards***

Given people's reluctance to voluntarily purchase insurance against losses, policymakers should consider requiring catastrophic coverage for all individuals who face risk. Risk-based insurance premiums could be coupled with well-enforced building codes so that those residing in hazard-prone areas adopt cost-effective loss-reduction measures, which in turn would lower

---

<sup>2</sup> See National Research Council (2015) for a discussion as to alternative criteria that could be utilized for determining who qualifies for financial assistance and how much they would receive.

the cost of insurance. A homeowner who implements mitigation measures could receive a seal of approval from a certified inspector that the structure meets or exceeds building code standards. A seal of approval could also increase the property's value by informing potential buyers that the mitigation measures will likely reduce damage from future disasters.

### **Modification of the NFIP**

Reforming the NFIP provides an opportunity to implement a long-term strategy for reducing flood risk that could eventually be extended to other extreme events. The following proposed changes, specific to flood hazards, could provide a foundation for all-hazards homeowners insurance.

- Specify the likelihood of hazards of different magnitudes or intensity and the resulting damage to property at risk, and set risk-based premiums accordingly.
- Provide publicly funded means-tested vouchers or tax credits to those who undertake cost-effective mitigation measures.
- Permit multiyear insurance policies.
- Encourage private reinsurance and risk-transfer instruments.

The social welfare benefits of these proposed changes would be significant: less damage to property, lower costs to insurers for protecting against catastrophic losses, more secure mortgages, and lower costs to the government for disaster assistance.

### **Conclusion**

The current challenge facing the insurance industry and those concerned with disaster preparedness and management is how to capitalize on the concerns raised by Hurricanes Katrina and Sandy and discussions on the renewal of the NFIP in 2017. Making communities more resilient to natural disasters by investing in loss-reduction measures is critical, given climate change patterns and economic development in hazard-prone areas.<sup>3</sup> All-hazards homeowners insurance can be part of such a strategy, with support from real estate agents, developers, banks and financial institutions, residents in hazard-prone areas, and public sector organizations at the local, state, and federal levels.

The need for risk-based premiums, affordability, and catastrophic loss coverage is common to all countries that use insurance as a policy tool for dealing with risk. The United States would do well to examine how other countries address the issue of insuring homeowners against all hazards and design long-term strategies that have a chance of being implemented because they also address short-term concerns.

---

<sup>3</sup> See National Research Council (2012).

## References

- Cutler, D.M., and R.J. Zeckhauser. 2004. Extending the Theory to Meet the Practice of Insurance. Washington, DC: Brookings Institute.
- Kousky, C., and H. Kunreuther, H. 2014. Addressing Affordability in the National Flood Insurance Program. *Journal of Extreme Events* 1(1): 1–28.
- Krantz, D., and H. Kunreuther. 2007. Goals and Plans in Decision-Making. *Judgment and Decision Making* 2(3): 137–68.
- Kunreuther, H., M.V. Pauly, and S. McMorro. 2013. Insurance and Behavioral Economics: Improving Decisions in the Most Misunderstood Industry. New York: Cambridge University Press.
- McAneney, J., D. McAneney, R. Musulin, G. Walker, and R. Crompton. 2015. Government Sponsored Natural Disaster Insurance Pools: A View from Down-Under. *International Journal of Disaster Risk Reduction* 15: 1–9.
- National Research Council. 2015. Affordability of National Flood Insurance Premiums: Report 1. Washington, DC: National Academies Press.
- Tversky, A., and D. Kahneman. 1973. Availability: A Heuristic for Judging Frequency and Probability. *Cognitive Psychology* 5(2): 207–32.
- Zhao, W., H. Kunreuther, and J. Czajkowski. 2016. Affordability of the National Flood Insurance Program: Application to Charleston County, South Carolina. *Natural Hazards Review*. DOI:[http://dx.doi.org/10.1061/\(ASCE\)NH.1527-6996.0000201](http://dx.doi.org/10.1061/(ASCE)NH.1527-6996.0000201).