

Howard Kunreuther, Robert Meyer and Erwann Michel-Kerjan: Why relatively few Americans in catastrophe-prone areas invest in risk-reduction measures

BY HOWARD KUNREUTHER, ROBERT MEYER and ERWANN MICHEL-KERJAN
Sunday, March 7, 2010

The following is excerpted from a Wharton Risk Center issue brief on decisions related to catastrophe risk. To read the full report, visit: tinyurl.com/y9ov62k or opim.wharton.upenn.edu/risk/issuebriefs.php.

Q. Why do few people in catastrophe-prone areas invest in risk-reduction measures?

A. Studies have identified eleven psychological and situational barriers to how we make decisions under uncertainty and plan for the future.

1. Lack of risk awareness. The simplest explanation is that people are not aware they reside in high-risk areas.
2. Underestimation of the risk. Even when residents are aware of the risks, they often underestimate the risk and often believe that the future disaster “cannot happen to me.” This bias is exacerbated if insurance premiums in hazard-prone areas are highly subsidized.
3. Budget constraints. One frequently hears the following comment: “I live from pay day to pay day. I cannot afford the high costs of these measures.”
4. Difficult computations for understanding cost-benefit tradeoffs. Individuals are not skilled in or drawn to making tradeoffs between costs and benefits of these measures, which requires comparing the upfront costs of the measure with the expected discounted benefits in the form of loss reduction over time.
5. Hyperbolic discounting. People place too much weight on immediate considerations. They do not consider the long-term benefits of investing in these mitigation measures that promise to reduce losses for the life of the house, which can be many years.
6. Short planning horizons. Many homeowners think that they will move in several years, so the costs of the measures are not justified economically. These individuals reason that “I will not live here for more than a few years, why should I spend money to make the house more resilient?”
7. Procrastination. There is a natural tendency to postpone taking actions that require investments in time and money.
8. Learning failures. Following a disaster, people are likely to rebuild their home in the same location. People do not seem to learn from past experiences of disaster.

9. The Levee Effect. Those residing in areas built behind a levee perceive — and often are told — they are immune to future losses from floods and hurricanes. As the result, there is increased economic development in these areas and property owners see no need to invest in protective measures. When the levee is overtopped or fails, the resulting losses can be catastrophic.

10. Samaritan's Dilemma. People who expect the government to provide substantive disaster relief have a tendency to refuse to invest in risk-reduction measures because the federal government (the Good Samaritan) will rescue them.

11. The Politician's Dilemma. An elected official who saddles its constituency with additional taxes for risk reduction measures that have long-term benefits may lose the next election. This NIMTOF (Not in My Term of Office) attitude leads to inaction. Following a catastrophic loss there is a tendency for officials to lobby for federal disaster relief, a more popular political move. Recent research actually shows that the federal response is more generous following disasters that occur in the year of a presidential election.

Q. What should we do?

A. 1. Allow insurance premiums to reflect the level of exposure. Property owners will thus know the risk they face. They could then receive insurance premium reductions if they invest in mitigation to reflect the reduced claims that public and private insurers will have to pay following the next disaster. When premiums are subsidized in high hazard areas, there is no economic incentive for insurers to offer such premium discounts.

2. Provide long-term loans for loss-reduction measures. The loans could be tied to an existing mortgage so as to spread the upfront costs of the loss-reduction measures over time.

3. Adhere to well-enforced building codes. By requiring homes inspected to meet existing building codes, property owners will have good reason to take out a long-term loan to pay for measures that will ensure that their structure meets the current standard. The concomitant reduction in insurance premiums will address the affordability issue.

4. Grant seals of approval. Place a seal of approval to indicate the property is now protected against future disasters. This seal should increase the property value of the house and encourage other residents in the community to also invest in these mitigation measures.

5. Offer tax credits. Cities, state and federal governments can offer tax credits for encouraging mitigation measures and for property that has received a seal of approval. The city of Berkeley, Calif., and the state of South Carolina have taken a lead in this regard.

Professors Howard Kunreuther, Robert Meyer and Erwann Michel-Kerjan are directors of the Wharton Risk Management and Decision Processes Center at the University of Pennsylvania.

