

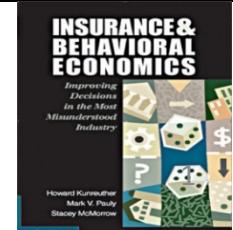
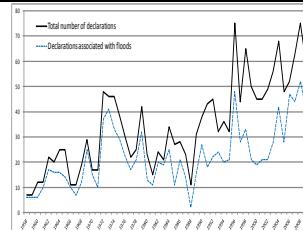
Role of Disaster Insurance in Improving Resilience: An Expert Meeting

The Resilient America Roundtable

Introduction to the Earthquake Insurance Meeting

Howard Kunreuther
kunreuth@wharton.upenn.edu

National Academy of Sciences
Washington, DC
July 9-10 2015



Key Roles of Insurance

Insurance today is not effectively meeting two of its most important objectives:

- Providing information to those residing in hazard prone areas
- Incentivizing those at risk to invest in loss reduction measures

Factory mutual companies in the 19th century played these roles very effectively:

- Required inspections of factories prior to issuing a policy
- Poorly-monitored factories had their policies canceled
- Premiums reflected risk and were reduced for factories that instituted loss prevention measures

Guiding Principles for Insurance

Principle 1: Premiums reflecting risk

Insurance premiums should be based on risk to provide individuals with accurate signals as to the nature of the hazards they face and to encourage them to engage in cost-effective mitigation measures to reduce their vulnerability.

Principle 2: Dealing with equity and affordability issues

Any special treatment given to those deserving special treatment (e.g., low-income individuals) currently residing in hazard-prone areas should come from general public funding and not through insurance premium subsidies. Funding could be obtained from several different sources (e.g., general taxpayer revenue, state government or taxing insurance policyholders) depending on the response to the question, “Who should pay?”

Long-term Strategies for Dealing with Extreme Events

Choice architecture

- Frame the problem so that the risks are salient
- Develop scenarios so people recognize the importance of insurance and investing in loss reduction measures prior to a disaster

Public-private partnerships

- Assist those who cannot afford to invest in protective measures
- Public sector provides financial protection against extreme tail risks that are viewed as uninsurable by the private sector

Multi-year insurance

- Provide premium stability
- Lower marketing costs
- Reduction in the cancellation of coverage by those at risk

Purposes of Expert Insurance Meeting

Ways to reduce future losses from floods and earthquakes

Scientific bases for insurance to encourage loss prevention

Coupling insurance with other policy tools to make
communities more resilient

History of Earthquake Insurance

Availability of earthquake insurance by private sector

- First offered coverage in 1916
- Until after San Fernando earthquake of 1971, few homeowners and businesses in California had purchased coverage
- California legislature passed a law in 1985 requiring insurers to offer earthquake insurance to homeowners, with no requirement to buy coverage

Concern with providing earthquake insurance by private sector

- Northridge earthquake of January 1994 caused insured losses of \$20.6 billion
- Demand for earthquake insurance by homeowners increased 19 percent in 1994, 20 percent in 1995 and 27 percent in 1996
- Private insurers in California re-evaluated their seismic risk exposures.
- California Insurance Department found that up to 90 percent had stopped or placed restrictions on the selling of new homeowners' policies.

Current Status of Earthquake Insurance

Formation of California Earthquake Authority (CEA) in 1996

- State-run earthquake insurance company
- Set risk-based premiums using catastrophe models
- Minimum deductible was raised from 10 percent to 15 percent of insured value of the property
- Price/coverage combination was not attractive to homeowner

Status of earthquake insurance today

- Only 10 percent of homeowners in California have coverage
- Little interest by private sector in marketing coverage in California
- Private sector markets provide coverage in other states
- Few homeowners in other parts of the country have coverage

Questions to Be Addressed on Earthquake Insurance

What role can EQ insurance play with other policy tools to reduce future earthquake-related losses?

What can be done to increase penetration/adoption/demand for earthquake insurance in seismically active areas?

What are roles can public entities and private insurers play to build resilience in earthquake- prone communities?

What can we learn from other countries (e.g., Chile, New Zealand)?

Structure of the Day

Panel Discussion 1: Earthquake Insurance Market in the U.S.

- How can one characterize the supply and demand for earthquake insurance in the United States?
- How does affordability of earthquake insurance affect the demand for earthquake coverage?
- Has earthquake insurance encouraged adoption of other types of loss reduction measures?
- What can be done to improve California's public-private partnership for earthquake insurance and what are some alternative models for earthquake insurance?

Moderator: Arrietta Chakos, Resilient America Roundtable Member

Panel Discussion 2: New Ways Forward for Earthquake Insurance and Resilience

- What motivates people to buy or not buy earthquake insurance?
- How can insurance coupled with other policy tools increase community resilience with respect to the earthquake risk?
- How do actions of retrofitting work with earthquake insurance to increase resilience?
- What are the lessons from California and other countries that can be applied to those who reside in other seismically active areas in the United States?

Moderator: Reginald DesRoches, Resilient America Roundtable Member

Working LUNCH with a Group exercise:

Build a list of options and strategies that mitigate or reduce earthquake losses and help communities to become more resilient to earthquakes

Expected Outcomes from the Expert Meeting

Specify roles of insurance coupled with other policy tools for making communities more resilient against disasters

Proposed long-term strategy for roles of public and private sectors in encouraging mitigation and providing insurance protection against floods and earthquakes

Short-term measures supporting proposed long-term strategy

- Roles of financial institutions and developers/real-estate agents
- Modifying the National Flood Insurance Program to be renewed in 2017
- Modifying the California Earthquake Authority to encourage mitigation