

The NFIP, Sandy and You

ACTUARIAL ISSUES

CAS Spring Meeting
Tuesday, May 21, 2013
10:00 – 11:30

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Agenda

- Brief background – AAA involvement
- Current Events
- Privatization of Flood Insurance
- Reinsurance or Capital Markets
- Community-based Flood Insurance
- Should Debt be Forgiven?
- Flood Modeling
- Questions and Answers

Brief background – AAA involvement

- *The National Flood Insurance Program: Past, Present...and Future? – 2011*
 - Purpose was to educate on the Flood program to aid in the public discourse
 - Primary audiences
 - Actuaries
 - Decision makers
- Capitol Hill briefing on monograph (July, 2011)
- Comment letters and written testimony to Congress when deliberations were ongoing (e.g., 6/28/12)
- Presentations to NCOIL and NAIC (2011,2012)

Current Events

- Conversation with GAO on privatization
 - One of the studies mandated by Biggert-Waters
 - Discussed general actuarial views on privatization
- Comment letter on HR1035
 - Community-based Flood Insurance

Privatization

- Why was flood deemed uninsurable?
 - Only those who would often get flooded were interested in buying it
 - Premium for those properties alone would be prohibitive
 - Small premium base wouldn't support catastrophic potential

Privatization

- Do past issues still exist?
 - Current situation
 - No one stepping in to profit from this niche
 - Some companies offer excess coverage on high valued properties
 - Large commercial properties usually covered in all-risk policies
 - Few buy NFIP insurance unless forced
 - And, enforcement not consistent when mandated
 - Can new technologies help?
 - Wharton/CoreLogic Study
 - *A Methodological Approach for Pricing Flood Insurance & Evaluating Loss Reduction Measures: Application to Texas*

Privatization

- Can it be properly rated? And would those rates be sustainable in the market?
 - Expected Losses can be estimated by models
 - Much more granular rating than NFIP
 - NFIP has no capital requirements – therefore, no capital cost load – private companies would need a significant load
 - An estimate has been made that rates would have to be roughly doubled if written privately
- Can it develop a broad base?
 - Without a mandate, it's hard to foresee increase in take-up rates

Reinsurance or Capital Markets

- Can these mechanisms be used to support the NFIP?
 - At current rate levels, there is little premium to cover the cost of private reinsurers
 - Could Federal government act as reinsurer instead of simply a lender?
 - One idea – Federal government pays for private market reinsurance
 - Would provide a stable expense for the government
 - Private/Public partnership in vogue now for some
 - Politically viable?

Reinsurance or Capital Markets

- Can these mechanisms be used to support a private market?
 - This could be a key piece of privatization – but requires enough premium to pay for the reinsurance

Community-based Flood Insurance

- HR1035 – mandating a study on community-based flood insurance
 - What does this envision?
 - Community is the insured
 - Risk assessment and pricing for community as a whole
 - Covers all properties in the community
 - Pros as per sponsors
 - Streamlined underwriting
 - Increased participation
 - Incentive for community-based mitigation
 - Issues
 - How do you decide how the taxpayers pay?
 - How do you get individual communities interested?

Should the Debt be Forgiven

- At current rate levels, it would take decades to repay debt – even without further major occurrences
 - After Katrina, about \$20B
 - After Sandy, authority up to \$30B
- Biggert-Waters requires FEMA to create a repayment schedule
 - Must submit to Congress a report on options to eliminate debt in 10 years

Should the Debt be Forgiven

- Reserve
 - Required by Biggert-Waters
 - 1% of "total loss potential" in force
 - Fund at 7.5% of reserve ratio until capitalized
 - If NFIP unable to make the minimum contribution, it must report this to Congress
 - How is this to be paid for?

Flood Modeling

- Hydrological model
 - Basis for NFIP rates
- Probabilistic models
 - Even more difficult to model than earthquake
 - Not currently as useful for US insurers as for Europe
 - Needs data at a very small granular detail for a large area of the country
 - Changes to river basins often change significantly

Questions and Answers