Casualty Actuarial Society Antitrust Notice



2

- The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.
- Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.
- It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.



US Flood Insurance:Current NFIP and Public Policy Issues

Andy Neal

Federal Emergency Management Agency (FEMA)
Federal Insurance and Mitigation Administration (FIMA)

Today's Discussion

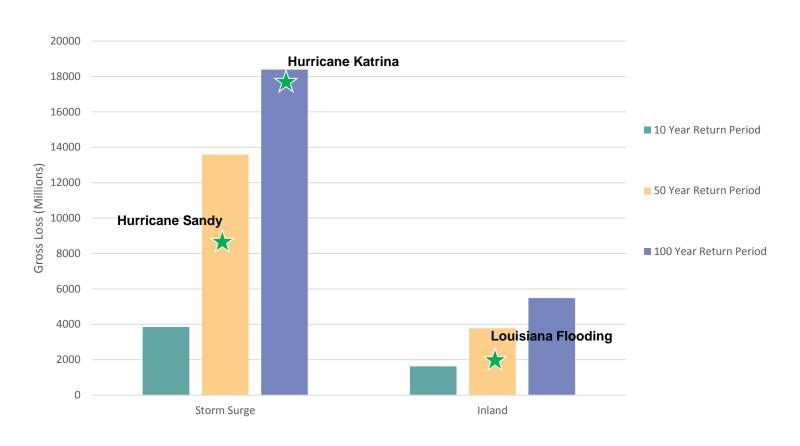


- > 2017 Reinsurance Program
- Risk Rating Redesign
- Sound Financial Framework
- Catastrophic Models

Historic Losses Compared with Expected Losses



Countrywide Expected Losses – Occurrence Basis



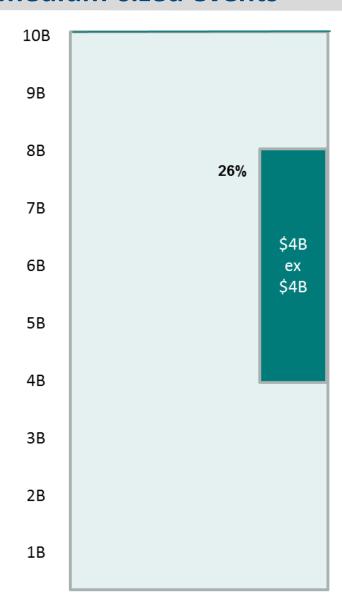
Market Engagement Summary



- > A notice was widely distributed to announce FEMA's intent to purchase reinsurance
- > FEMA requested pricing from **12** leading reinsurers
- > FEMA issued Firm Order Terms to **76** reinsurers
- > A total of **39** reinsurers offered capacity in support of the Program
- > FEMA signed the agreement with **25** reinsurers

The 2017 Reinsurance Program protects against medium-sized events





- > Transfers \$1.04B in NFIP flood risk to reinsurers
- Reduces the likelihood of exceeding the current claims paying capacity by 10%
- Attaches reinsurance at more likely loss levels, which is advantageous given NFIP's financial position as of January 2017

Program Design:

- 26% between \$4B and \$8B
- 14.4% Rate on Line
- Total Spend: \$150M

Risk Rating Background



- Current rating system jointly developed by NFIP and private insurance industry
 - Current system was developed in the 1960's and 1970's
 - Based on best practices of fire and home insurance sector
- NFIP has not stayed current with industry
 - NFIP risk rating approach has changed over time but without real regard for industry
 - Need to develop an approach that can be continuously upgraded and stay current
- A customer-experience assessment identified the following gaps:
 - policyholders lack understand their flood risk
 - Inconsistency in program value proposition

Updating the Risk Rating approach is a step towards improved customer experience



Experiment and innovate to continuously improve our understanding of risk

Examples of individualized risk in car insurance

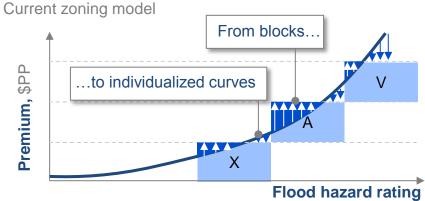


Incorporates behavioral changes in individual risk assessments, and adjusts premiums accordingly

GMAC Insurance

What this could look like for the NFIP

Structure-specific flood risk assessment



Communicate flood risk through a simple, integrated flood score

Examples of rating scales







What this could look like for the NFIP

Flood score that reflects individual property risk



SOURCE: Company websites; TMAC 2015 Interim Annual Report; FEMA's National Flood Hazard maps

Risk Rating Redesign Vision



Risk Rating Redesign will enable citizens to better understand their flood risk and the actions they can take to reduce that risk – ultimately saving lives and property.

- Provides a Flood Risk Score for every property
- Simplifies the sale of a flood insurance policy and opens up the possibility of online policy sales
- Allows for targeted floodplain management because a score would clearly identify the risk to an individual structure
- > Easier to prioritize mitigation projects to target the highest risk properties
- Mapping and catastrophic risk modeling will inform the severity of the risk to which an individual structure is exposed
- Supports FIMA Moon Shots:
 - Double Coverage by 2023
 - Increase Investment in Mitigation x4 by 2023

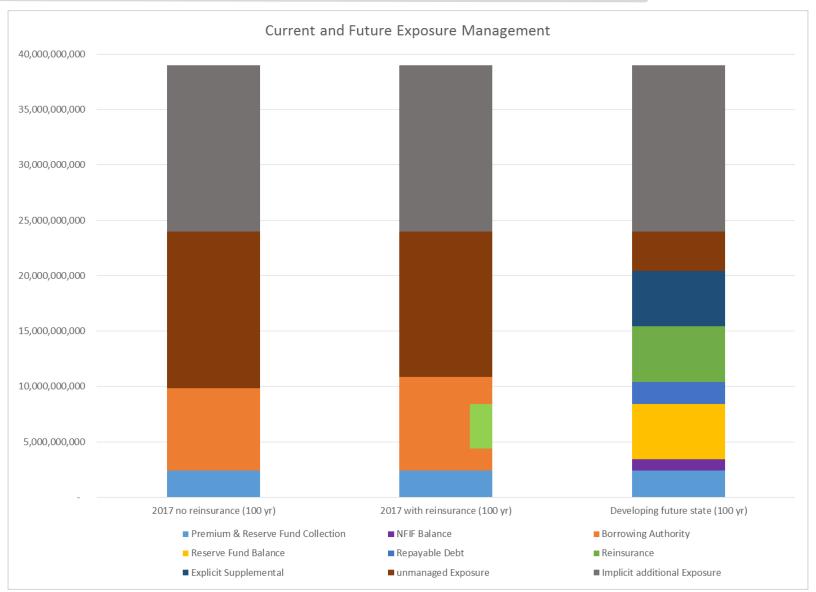
Risk Rating Redesign Methodology Goals



Accuracy	Improve accuracy of the NFIP's risk classification system and Risk Rating model to inform policy, pricing decisions, data collection, and cost
Agility	Increase agility by adapting to new methods and data that is current with industry standard, with a focus on continuous improvement
Cost-effective Methodology	Increase cost-effectiveness by using purposeful, value-driven approach to collecting, analyzing and communicating flood risk
Customer Orientation	Improve customer experience by improving policyholder understanding of their risk and the delivery of the pricing to the policyholders
Improved Floodplain Management	Support sound floodplain management by more clearly communicating risk at both the community and individual level

Sound Financial Framework





Catastrophic Flood Models



FEMA has plans to procure catastrophic flood models in 2017 in order to:

- > understand the program's risk and exposure to flood loss
- price reinsurance
- help the NFIP set rates for their policies
- understand and validate the accuracy and precision of available catastrophic flood models
- understand the ability of the catastrophic models to provide real-time event tracking information for major flooding events

Closing Remarks



- > FIMA is charged to increase the resiliency of the nation, to ensure that Americans are better prepared for and protected against flooding
- > Individuals understanding their own risk is important for building resiliency
- Risk Rating Redesign and Reinsurance are critical in building a sound financial framework

Thank You