

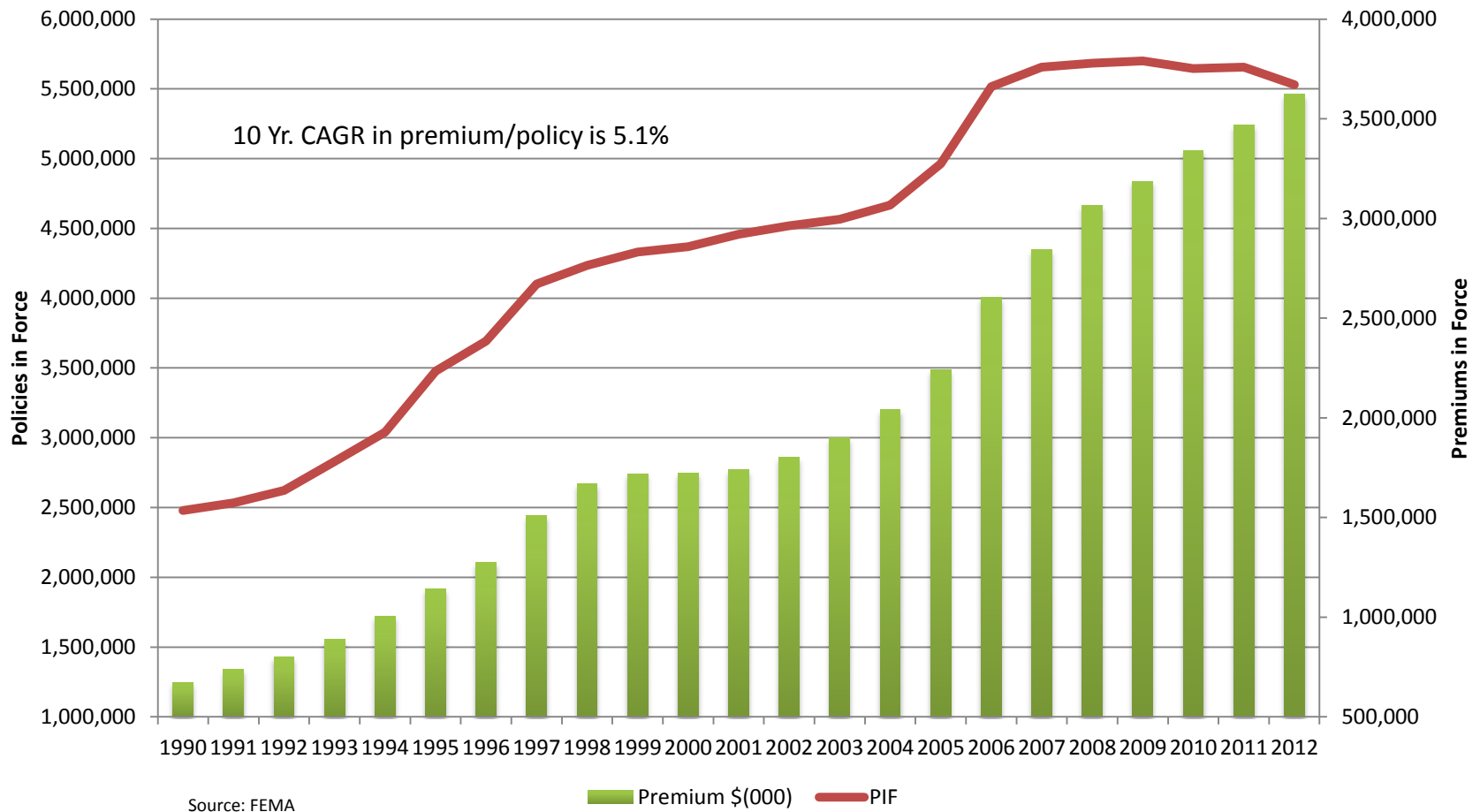
Privatization of the NFIP?

Provisions of the 2012 Flood Bill and the Role for Reinsurers

2013 Seminar on Reinsurance

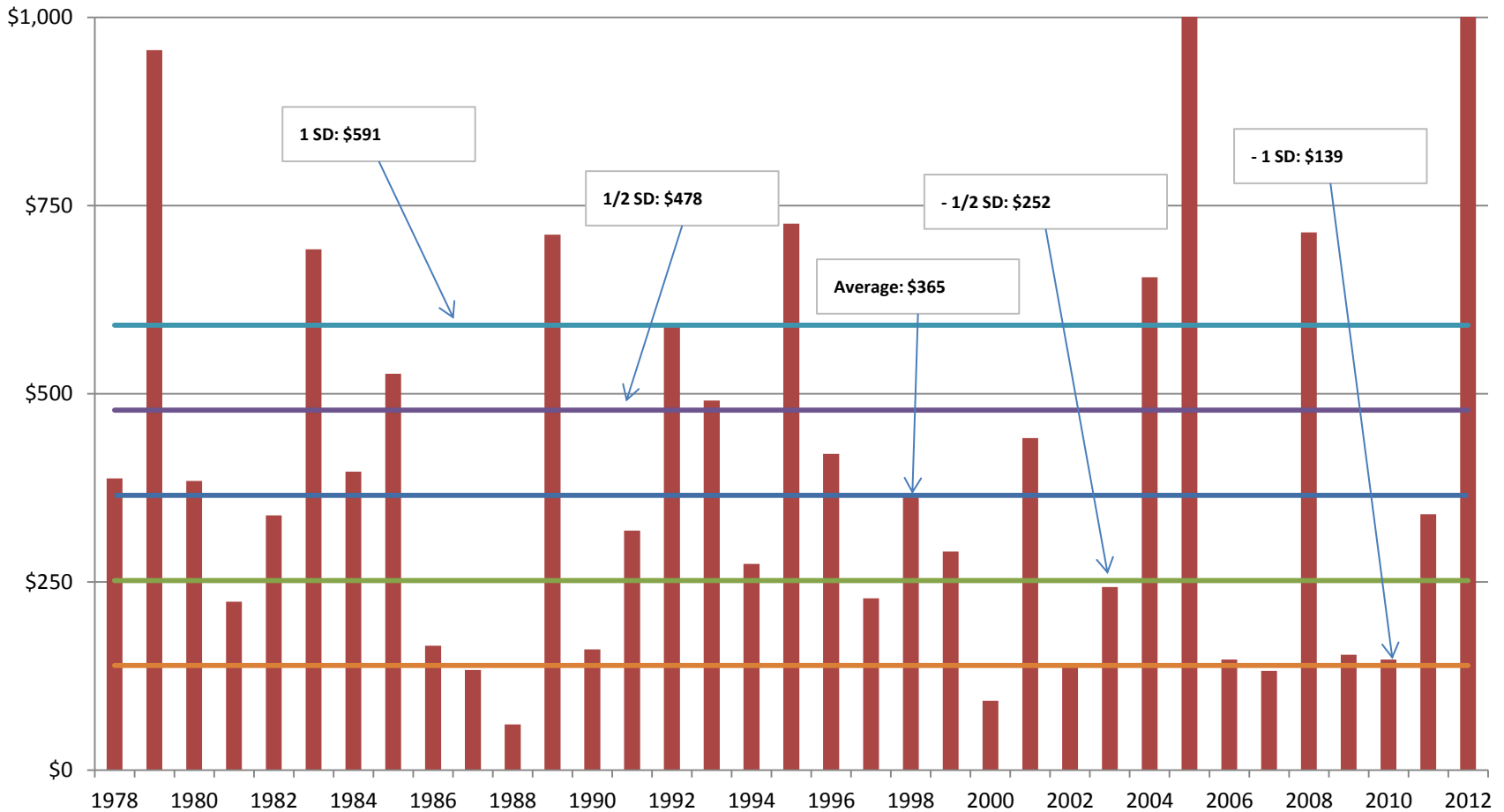
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NFIP Program is Large; Flood Risk Much Larger than This...



NFIP Loss History Erratic, but Uninsurable?

Average flood losses per NFIP policyholder in \$2012



Source: FEMA, Averages shown exclude 2005 and 2012 (Katrina and Sandy)

Financial and Actuarial Considerations: Pre 2012 Flood Bill (including affects of Sandy)

- Financial situation is dire
 - Program nearing \$30 billion in debt
 - Virtually all attributable to Katrina and Sandy
 - Surprisingly, system appears in balance (but for mega cats), but looks deceiving...
- Substantial subsidization
 - 21.5% of policyholders pay 40-45% of full risk premiums
 - Subsidies across states, within flood zones, and from inland risks to the coast (Wharton)
- Exposures, already big, don't reflect country's exposure to flood
 - Average annual NFIP losses around \$3-\$4 bil. depending timeframe selected
 - \$700 billion of structural value and 4 mil. homes exposed to storm surge (CoreLogic)
 - 60% of Federal Disaster Declarations since 1953 are from flood
 - **By most estimates, only 20-30% who need flood insurance buy it!**

Changes Called for in Biggert-Waters Flood Bill (2012): Political will to Implement?

- **Reform of Premium Rate Structure**
 - Phase in of actuarial rates for certain properties (up to 25% increase per annum)
 - Non-primary residences, repetitive loss structures
 - Elimination of subsidy on new or lapsed policies
 - Consideration of catastrophic years in calculation of average losses
- **Mandatory Purchase Requirements**
 - Permits lending institutions to accept private primary flood in lieu of NFIP policy
 - Raises penalties for lenders failing to ensure maintenance of in-force flood
- **Mapping**
 - Authorizes \$400 million for mapping and calls for forward progress on map updating
- **Reinsurance and other studies**
 - Affirms ability of FEMA to purchase reinsurance
 - Calls for assessment of reinsurance market's capacity to assume NFIP risks

Challenges to Privatization (Reinsurance/Private Market Perspective)

- Data
 - Data made available by the NFIP too summarized to be of value
 - Exposure data is available (e.g., storm surge models), but...
 - Vulnerability data (loss given event) is one of key missing ingredients!
- Technology
 - Elevation certificates are expensive and time consuming
- Correlation of wind and water
 - Is this concern dissipating as collateralized capacity takes 25%+ wind risk?
- Complexity
 - Issue of federal vs. state regulation paramount
 - And then there is the politics to contend with...

Opportunities from Privatization: (Reinsurance/Private Market Perspective)

- The business development opportunity of the next decade
 - Theoretically a \$20-24 billion market over time:
 - \$3.5 billion grows to \$5 - \$6 billion correcting for rate subsidy (NFIP rate filing)
 - \$5 - \$6 billion grows to \$20 - \$24 billion assuming penetration of the ~75% of market that should (but does not) currently buy flood
- Technology
 - Accurate, desk-top elevation information critical to unlocking market
 - Technology seems to be close(?). Private equity money should flow here...
 - Inland flood models under development
- U/W Matters
 - Unlike wind, small differences in location can make huge difference in risk profile
- Relevance
 - Can't hurt image of reinsurers in eyes of politicians (Neal Bill)

Questions: The Best Path Forward?

- Maintain status quo (with respect to WYO companies), but have FEMA access the **reinsurance** markets directly?
 - Is data good enough?
- Privately underwritten by WYO carriers, who purchase **reinsurance** for their own accounts?
 - Leaves FEMA as the insurer of last resort; smaller book with worse risk and profit profile
- Follow crop model. WYO Cos. take all comers but cede to FEMA within discretionary guidelines, then purchase **reinsurance**.
- Role for the capital markets? If wind and EQ can be make investable asset classes, why not flood? Role for **reinsurers**?

About Assured Research and Disclosure

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Assured Research acts as a consultant to **Wright National Flood Insurance Company**, the country's largest NFIP WYO carrier. While Wright Flood provided certain background information for this presentation, the views expressed in this presentation (as well as any inaccuracies) are those of Assured Research.