# Regulating Financial Systemic Risk

**Tuesday, September 29, 2009**

**B-354 Rayburn House Office Building**

AMERICAN ACADEMY of ACTUARIES

## Agenda

- Objective
- Results of Society of Actuaries Research on Financial Crisis
- Recommendations Regarding Systemic Risk Regulation
- Appendices: Professional research related to the crisis:
  - The Society of Actuaries (SOA) paper, "The Financial Crisis and Lessons for Insurers"
  - Academy testimony on Systemic Risk
  - ERM-II statement and collaboration
  - IAA statement on Risk Crisis

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## Objectives

- Present results of Society of Actuaries research into the financial crisis.
- Present initial American Academy of Actuaries recommendations with respect to Systemic Risk Regulation.

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## Capitol Hill Briefing

Actuaries
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Research Report of the Society of Actuaries

*Financial Crisis and Lessons for Insurers*

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Research Team:
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## Findings of Causes of the Financial Crisis

- Primary cause:
  - The widely held belief that housing prices could not decline significantly on a national basis.
  - This belief was shared by many, permeated the rating agencies' models, and was reinforced, for a time, in market prices through a self-fulfilling prophecy.
  - *It was a result of intelligence failure*
- Secondary causes:
  - Complex and ultimately ineffective regulatory regime in the U.S.
  - Various incentive problems in the originate-to-distribute model for securitization.
  - Over-reliance on credit ratings by market participants and regulators
  - etc

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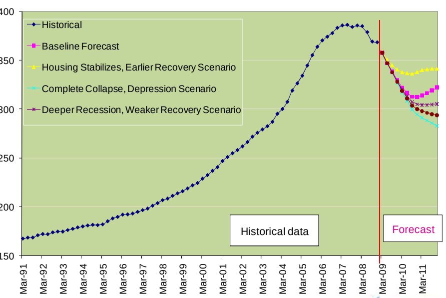
## Historical and Predicted FHFA House Price Index

(Source: Moody's)

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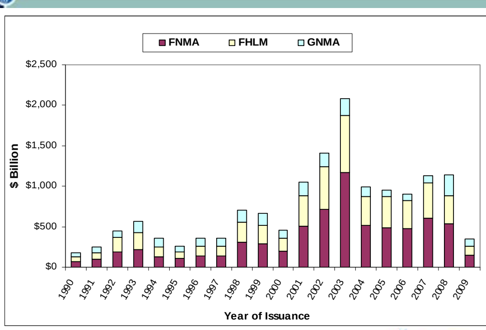
## Agency Issuance and Breakdown by GSE

(Source: Citigroup)

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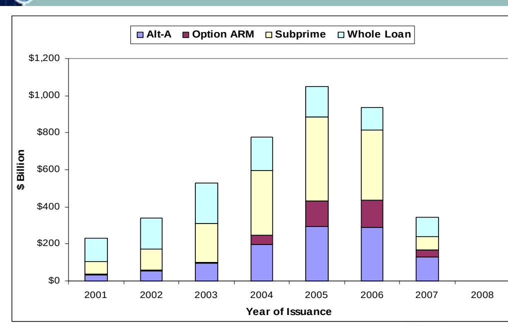
## Non-Agency Issuance and Breakdown by Type

(Source: LoanPerformance)

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## Findings of Insurers' Mortgage Exposures

- The life insurance industry has always had significant exposure to mortgages but we found little evidence that the industry as a whole chased the real estate bubble.
- With noticeable exceptions:
  - Some groups tended to have invested more aggressively than others;
  - Some large holding companies took on disproportionately large mortgage exposures through structured credit instruments;
  - Some monoline bond insurers guaranteed mortgage-related structured credit;
  - Mortgage insurers pushed beyond their traditional conforming business to assume risk in the non-conforming realm.



## Findings of Insurers' Asset Quality Changes

- Over the past 15 years, government bonds and agency-guaranteed obligations have lost ground to corporate bonds and private-label or non-agency MBS.
- This trend may have been accentuated to some degree by risk-based capital requirements, which effectively treated highly-rated private obligations as near-substitutes for public obligations.
- Groups investing in private-label structured credit were rewarded with higher yield at no additional cost in terms of capital charges based on NAIC asset classifications.



## Insurers' Asset Allocation and Total Return

**Table III.7**
**Life and P&C Insurers 2007 Allocation and 2008 Total Return**

| | 2007 Allocation | | 2008 Total Return | |
|---|---|---|---|---|
| | Life | P&C | Index | Index used |
| Inv. Grade Corp Bond | 41.0% | 13.9% | -11.9% | Barclays US Investment Grade Corporate Index |
| High Yield Corp Bond | 4.6% | 1.7% | -45.3% | Barclays US High Yield Corporate Index |
| ABS | 4.3% | 1.7% | -10.2% | US Aggregate ABS Index |
| CMBS | 6.7% | 2.3% | -38.1% | CMBS Index |
| Mortgage Loans | 12.6% | 0.3% | -36.9% | CMBS: Whole Loan Index |
| Equities | 1.3% | 17.8% | -48.6% | S&P500 Index |

Source: Barclays Capital: "Impact of the financial crisis on the insurance industry"



## Findings on Effectiveness of Insurance Regulation

- Insurance regulation appears in some respects to have served consumers and the industry better than its counterparts elsewhere within the financial system.
  - Strict regulation of derivatives (such as the NAIC Defined Limit Model Act for income generation purposes) may have prevented some insurers from adding leveraged exposure to the implosion of the housing market.
  - Rules regarding compartmentalization of the industry (i.e. monoline restrictions) may have prevented the worst of the housing carnage from affecting policyholders outside of the mortgage guaranty and financial guaranty lines.
  - Risk-based capital framework incented companies to allocate less to risky assets

## Findings on Effectiveness of Insurance Regulation (Continued)

- Rules-based vs. Principle-based regulation
  - Debate should shift to crafting a proper mix of the two.
  - The regulatory system should enable and encourage insurers to engage in the best risk management practices, suggesting that some form of ERM could be mandated in a principle-based framework.
- Regulatory intervention or action have been constrained by the legal burdens regulators may have to satisfy.
  - Regulators' willingness to exert such power may also be influenced by whether the regulatory framework is rules-based or principle-based.

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## Findings on Effectiveness of Insurance Regulation (Continued)

- Book vs. Fair Value Accounting
  - No one single accounting rule can serve the various users of insurer financial statements.
  - Consider more restrictive treatment on off-balance sheet activities.
- NAIC Risk-Based Capital (RBC)
  - There are rooms for improvement, including
    - reflection of insurer's size & diversification
    - reliance on third-party credit ratings.

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## Conclusions

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- Systemic risk has roots in accumulated imbalances, outsized financial institutions, wide interconnectedness of the financial system, and effectiveness of regulation.
- Much work remains to be done to address these issues, toward the goal of developing a sound financial system that supports the real economy.

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## The Regulation of Systemic Risk

Public Policy Recommendations

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## Academy Recommendations Regarding Systemic Risk Regulation

A systemic risk regulatory structure for the financial services industry that:

- Establishes limits on corporate actions that may create systemic risk
- Works in concert with functional regulation to assess the ability of companies to evaluate and manage their risks and to implement any of the actions needed to limit systemic risks
- Assures that rating agencies and other third party advisors provide adequate transparency about their assumptions, methodologies, and recommendations.


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## Systemic Risk Regulation

It is important that systemic risk nation-wide be monitored and evaluated at the national level, but also include an awareness of local and global influences and trends:

- Key goals for the effective regulation of systemic risk include:
  - Identification of systemic risk
  - Measurement and monitoring of systemic risk
  - Management of systemic risk
- Key steps to implement successful systemic risk regulation include :
  - Collection of the right data
  - Development of meaningful and actionable metrics
  - Inclusion of functional regulators and non-governmental bodies and defining effective SRR roles for them


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## Systemic Risk for Insurance

- Investment Risk
  - Similar to risks of banks
- Catastrophes
  - e.g. Multiple hurricanes in one area
  - Need to avoid over exposure in any one area or to any single type of risk
- Mortality/morbidity
  - Annuity and Life insurance mortality don't always offset
  - Not the same people
    - Annuities tend to be for older people
  - Not as much annuity mortality risk in force but growing
- Need to be particularly careful about reinsurers since they serve as risk mitigators
  - Much of their business deals with catastrophic or other tail events


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## Limitations to Avoid or Manage Systemic Risk

- The determination of an adequate level of capital for companies that provide any significant form of financial guarantees.
- The establishment of minimum capital requirements for companies where significant investments are exposed to systemic risk, e.g., derivatives.
- The regulation of risky investments by financial services companies where:
  - High volatility of results is expected and/or
  - The availability of information is limited making expectation of future returns speculative
- These regulations also should apply to new products that seek to manage insurance risks.


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## Essential Elements of a Risk-Based Regulatory System

- A risk-based regulatory environment should include:
  - Principle-based regulation that focuses on the risks unique to each company as well as the markets they affect.
  - Limitations to protect the public from the adverse financial consequences of risk and uncertainty under a principle-based system, e.g., especially where there is a lack of information to quantify risk there is a need to understand the limitations of the models and assumptions.
  - Quantitative risk measures to identify a minimum level of acceptable financial strength across the industry.
  - Qualitative measures intended to evaluate the effective financial and risk management of companies and their ability to take action when appropriate.
- Risk management is most effective when used to prevent crises rather than manage them
- Systemic risk regulation should complement functional regulation and involve the professionals who are skilled at evaluating various risks
- The increasing complexity of the asset and liability risks of financial institutions makes it critical to have:
  - appropriately qualified professionals, such as actuaries, within the company and at the regulatory level

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## Requirements for Rating Agencies and Other Third Party Advisors

- The financial services industry and its regulators rely upon the expertise of third party advisors, e.g., credit rating agencies.
- For new asset classes or businesses with little historical experience and potentially unknown volatility, the reliance on such advisors, and the limitations of their expertise, should be considered.
- Rating agencies and third party advisors should be required, or at least be held accountable, to provide substantive transparency as to the supporting data and methodologies underlying their conclusions, and to their limitations.
- Based on the information provided, the company and regulators can choose among advisors for the best information upon which to reach a decision.
- Accountability for conclusions reached rests with the user of information from third parties.

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## Constraints and Capital Requirements on Investments

- Insurance regulation has served the public well in recognizing the need to constrain investments in certain investment classes, i.e., limitation on derivatives for investment rather than hedging purposes.
- Financial services companies that issue guarantees should have a primary investment objective to manage their asset/liability risk in a prudent manner.
  - Investments such as derivatives have a place in this activity when used to manage risk rather than create risk.
  - There is a role for "riskier" investments designed to improve return on investments of the company capital
  - Regulation should address appropriate controls where investments are subject to high volatility, limited available information, or speculative returns, especially where systemic risk factors are in play.

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**Q&A**

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