
Regulation of Systemic Risk in Insurance

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Regulation of systemic risk in insurance

■ Systemic risk regulation involves:

- *Definition.*
- *Measurement.*
- *Actions to mitigate or minimize.*

Who are the regulators?

Insurance company regulation

- ***Primary regulation and supervision of insurance companies in the U.S. is by the states.***
 - At operating insurance company level.
 - Goal is policyholder protection (gone concern).
- **Federal Reserve now regulates SIFIs (Pru and AIG)**
 - Regulation of consolidated entity.
 - Goal is financial stability (going concern).
- **Approaches vary outside the U.S.**
 - Generally regulate consolidated entity.
 - Many but not all insurance regulators outside the U.S. explicitly take systemic risk into account when regulating insurers.

International insurance company regulation: IAIS

- The Financial Stability Board, based on recommendations from the International Association of Insurance Supervisors (IAIS), designates some insurance companies as **Globally Systemically Important Insurers (G-SIIs)**.
 - Currently 9 insurers, including 3 from the U.S. (MetLife, Pru, and AIG), are G-SIIs.
 - The IAIS is developing an enhanced prudential regulatory framework that it recommends be applied to G-SIIs.
 - ◆ Goal is the first international, group-wide standards.
 - Progress is slow because of heterogeneity among insurance products across countries and variations in accounting and valuation procedures across countries.
 - FSB and IAIS actions are not binding on insurance supervisors.

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Definition of systemic risk

- The Dodd-Frank Act (DFA) says a company is a SIFI if “material financial distress at the U.S. nonbank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the U.S. nonbank financial company, **could pose a threat to the financial stability** of the United States.”
 - Implicitly a definition of systemic risk but not one that comes with an easy measuring stick.

Definition of systemic risk: threats to stability

■ How might failure/financial distress at an insurer threaten financial stability?

- *Asset liquidation* may cause fire sale externalities or otherwise damage market functioning.
- Counterparty risk (*exposure*).
- Damage to a *critical function or service* relied upon by market participants.

Regulation of systemic risk in insurance

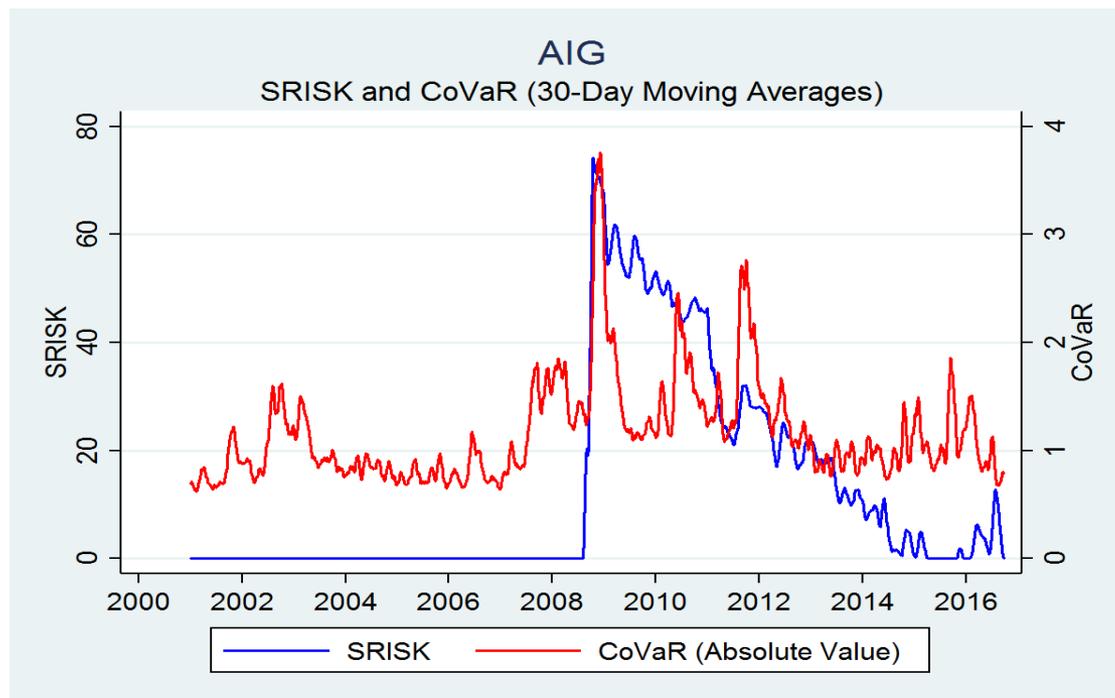
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Quantitative: which firms cause systemic risk?

- **Academic literature: mostly top-down quant. models**
 - Measure capital strength in market stress (e.g., MES/SRISK, DIP) or
 - Effect of firm distress on ‘financial system’ (e.g., ΔCoVAR).
- **IAIS uses bottom-up quantitative model as baseline for G-SII recommendations.**
 - Based on private information and designed for insurers.
 - Model weights size (5%), global activity (5%), interconnectedness (counterparty exposure 26.7%; macro exposure 22.5%), asset liquidation (35.9%), and substitutability (5%).
 - Individual indicators based on a mix of absolute and relative indicators.
 - ◆ Absolute: insurers ranked against some outside standard
 - ◆ Relative: insurers ranked against each other
 - There is some ex post subjective adjustments used to determine final recommendations.

Quantitative: which firms cause systemic risk?

- **Strength of quantitative measures are that they are objective.**
- **Issues (for regulation) are precision and consistency.**
 - Different picture of insurer systemic risk across measures (and sometimes across time).



Methods that are more qualitative: factors to consider

- **The FSOC uses a mix of quantitative and qualitative analysis when considering whether to designate a non-bank financial firm as a SIFI**
 - Looks at six categories:
 - ◆ size,
 - ◆ interconnectedness,
 - ◆ substitutability,
 - ◆ leverage,
 - ◆ liquidity risk and maturity mismatch, and
 - ◆ existing regulatory scrutiny.

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Actions to limit systemic risk

The DFA requires to Fed to establish enhanced prudential standards for SIFIs that include:

- Capital requirements
 - Stress testing
 - Liquidity requirements
 - Corporate governance
 - Risk management
 - Resolution planning
- } Need to be developed for insurers
- } Can build on requirements for banks

- **Standards to reflect the unique business model of insurers.**

Goals in development of systemic risk standards

- **Overall goal:** Minimize chance of costly asset liquidation, counterparty fail, or critical service interruption.
- **Focus on systemic rather than general (or policyholder) risk.**
- **Implement as soon as practicable.**
 - May want to develop standards over time (start simple, then increase granularity over time as necessary to achieve greater risk sensitivity).
- **Consistency across tools (capital standards, stress tests, liquidity rules, etc.).**
- **Minimize scope for regulatory arbitrage.**
 - For example, SIFI rules will co-exist with state regulation of operating companies.

Capital regulation to mitigate systemic risk

- **Capital regulation for insurers should be tailored to their specific risks.**
 - For example, less run risk than banks.
 - ◆ Still, some insurance products can be surrendered with little or no penalty.
 - Significant risk on liability side.
 - ◆ Harder to understand because less public information.
 - ◆ Difficult to model because risk can be non-linear and path dependent.
 - Some insurer liabilities have savings elements with minimum return guarantees and policyholder withdrawal (surrender) options.
 - Insurer hedging programs may be dynamic.

Development of systemic risk capital standard

- **The Federal Reserve has issued an advanced notice of proposed rulemaking (ANPR) on insurance capital standards.**
 - One option is building block approach.
 - ◆ For SIFIs, this would aggregate capital standards that might not be appropriate for systemic risk mitigation.
 - Another option is a Fed-developed rule.
 - ◆ Allows more focus on systemic risk.
 - ◆ Allows more coordination with other standards (esp. stress testing).

Stress testing to mitigate systemic risk

- **The Federal Reserve is also developing a tailored stress testing regime for SIFI insurers.**
 - Similar issues as with capital rule.
 - Issue to think about: how much to rely on internal insurer models.
 - ◆ Would have to move slowly and consider this before potentially adopting it.
 - How comparable are insurer stress scenarios to those for banks?

Where we are now with SIFI standards

- **Work on enhanced prudential standards for SIFIs is continuing.**
 - As noted, some options have been presented to the public while others are still in progress
- **We are learning from prior work and attempting to tailor standards to the unique characteristics of the insurance industry.**

Thank you for your attention.

Alternative approach: IAIS BCR and HLA

■ **Basic Capital Requirements (BCR) and Higher Loss Absorbency (HLA) for G-SIIs**

- BCR is yet-to-be-determined factor-based approach while HLA is add-on for G-SIIs (see below).

“In the second stage, the HLA is calculated using a combination of a “bucket” and a “factor-based” approach. G-SIIs are first placed into one of three buckets – a “Low,” “Mid” or “High” bucket – depending on its G-SII designation score. The Mid bucket utilises factors 50% higher than the Low bucket, with the High bucket similarly utilising factors 50% higher than the Mid bucket. The IAIS anticipates that the High bucket will initially remain unpopulated and therefore act as a disincentive for G-SIIs to increase their systemic importance.

“Once placed in a bucket a factor-based approach is taken with separate factors for Traditional Insurance and Assets, Non-Traditional Insurance business and some Non-Insurance business, Non-Insurance regulated banking, and unregulated banking (the later to reflect current global banking sectoral requirements). These factors are then applied to the exposures that are the uplifted BCR required capital amounts. Through the use of multiple buckets and the different factors that directly reflect the various business mixes of G-SIIs this design introduces risk sensitivity to the HLA.”

Source: IAIS 10/5/2015.

Alternative approach: Solvency II.

- **Solvency II sets out the basis for EU insurance regulation.**
- **Mostly focused on micro-prudential regulation.**
 - Insurers need capital to cover loss in 0.5% one-year tail.
 - ◆ Capital not a function of systemic impact.
 - EIOPA chair: “Our proposal is to use the 2021 overall review to integrate in Solvency II a macro-prudential framework for insurance.”