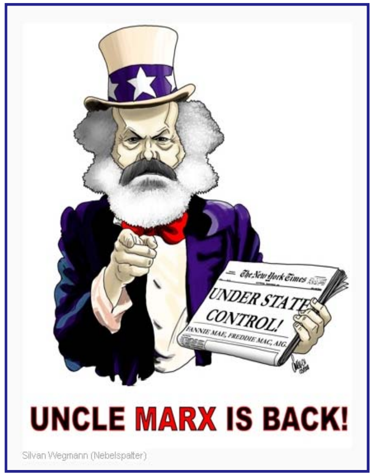
Institute of Insurance Economics

University of St.Gallen

Insurers and the Credit Crisis: Consequences for Regulatory and Solvency Systems



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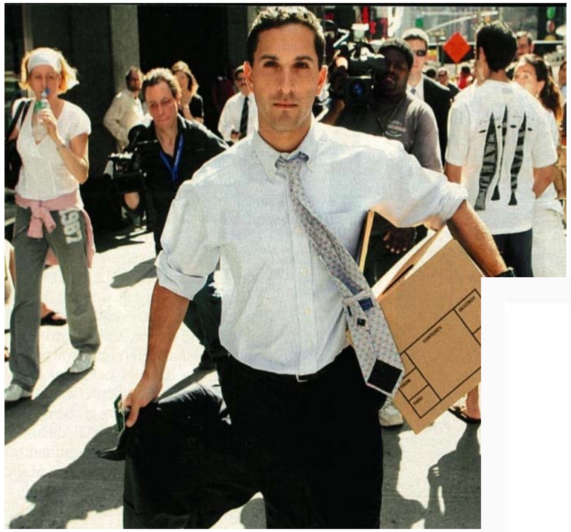
Credit Crisis

1. Financial Crises and Insurance



Silvan Wegmann (Nebelspalter)

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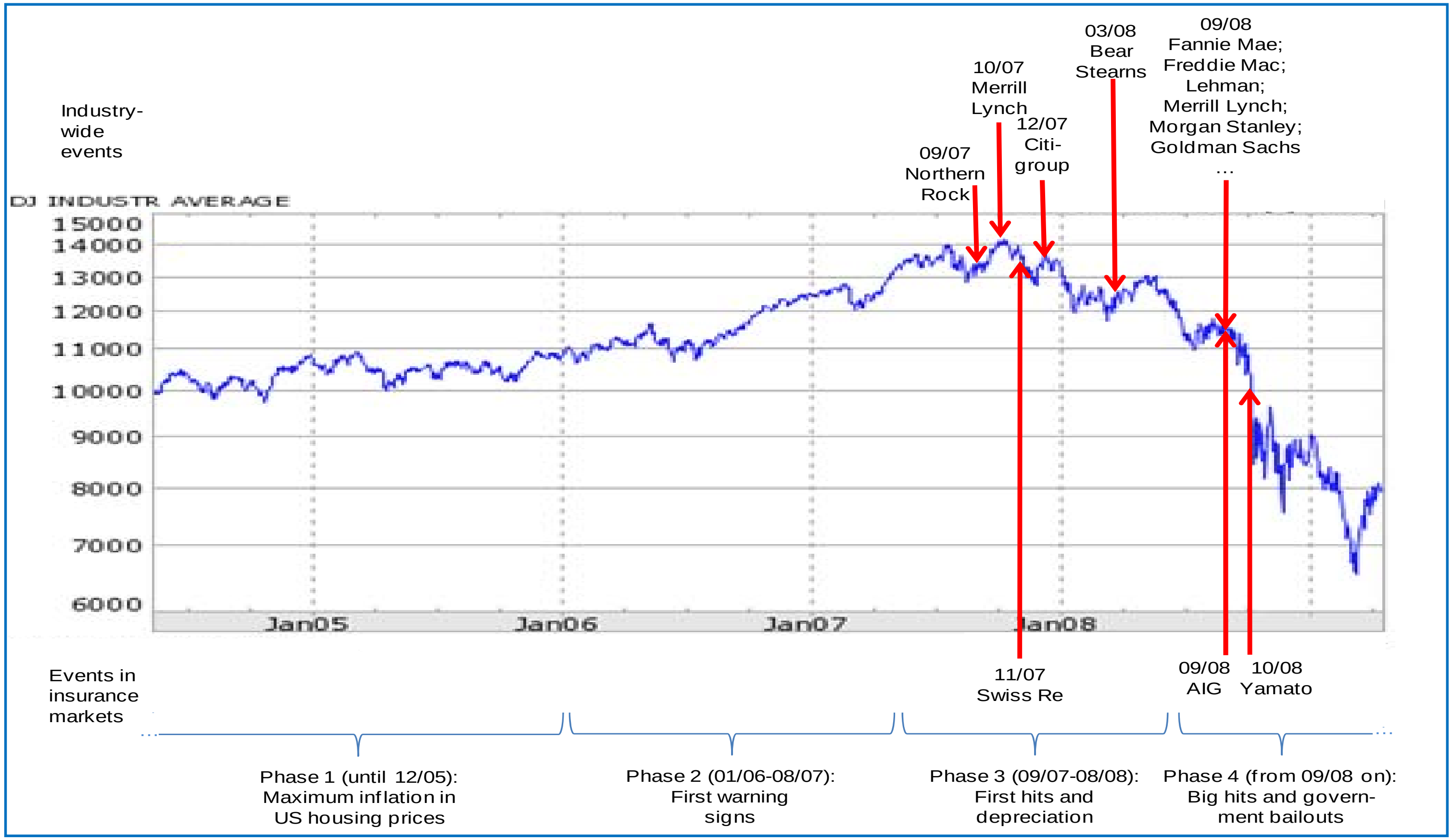
- Dow Jones 30 index and main events of the financial crisis



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- Estimates by IMF

- Losses from current market turmoil estimated of around 4'100 Billion USD

- Depreciations in the banking sector of worldwide 2'700 Billion USD

- Necessary capital for the banking system in the next years: 1'300 Billion USD

- Worldwide losses of insurance companies are estimated to 300 Billion USD (realized and non-realized losses)

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- Reasons

- Propensity to consume and global financing policy of the U.S.?
- Intransparent cross-linked capital markets?
- Incentive structures in corporations led by managers?
- Stochastic models and their interpretation?

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- Search for "culprit"


Analysis

System error

Why computer models proved unequal to market turmoil

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- Solvency is of special importance in the insurance sector:

  - Insolvency of an insurance company can lead to "ruin" of the policyholder
  - Third party problem
  - Safety level of the insurance company directly influences the product quality
  - Willingness to pay reacts extremely sensitive to variations in the safety level of the insurance company

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2. Ten Consequences for Risk Management and Supervision

1) We need to strengthen risk management and supervision

2) We need to take care of model risk and non-linearities

3) We need easy to use and understandable risk management

4) Right incentives are needed

5) Bear in mind lessons from portfolio theory – Risk, return, and diversification

Scource: Eling and Schmeiser, 2010, 35(1), Geneva Papers, 9-34

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6) Principles instead of rules – Solvency II and SST are the right steps

7) A concept for a controlled run-off in the insurance industry is needed

8) Financial conglomerates need to be supervised at the group level

9) No regulatory arbitrage in financial services markets

10) Transparency, market discipline, and accountability is needed

Scource: Eling and Schmeiser, 2010, 35(1), Geneva Papers, 9-34

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- Is an Insurance Guarantee Fund IGF a solution for 7)?

- Current situation in the EU: In 13 of the 27 EU member states operate one (or more) IGF(s)

- Financing and distribution is different in all IGFs

- Current discussion in the EU as a solution of 7) in order to avoid government bail-outs

- Working paper: "Under which conditions is an IGF beneficial for policyholders?" (Rymaszewski, Schmeiser, and Wagner 2010)

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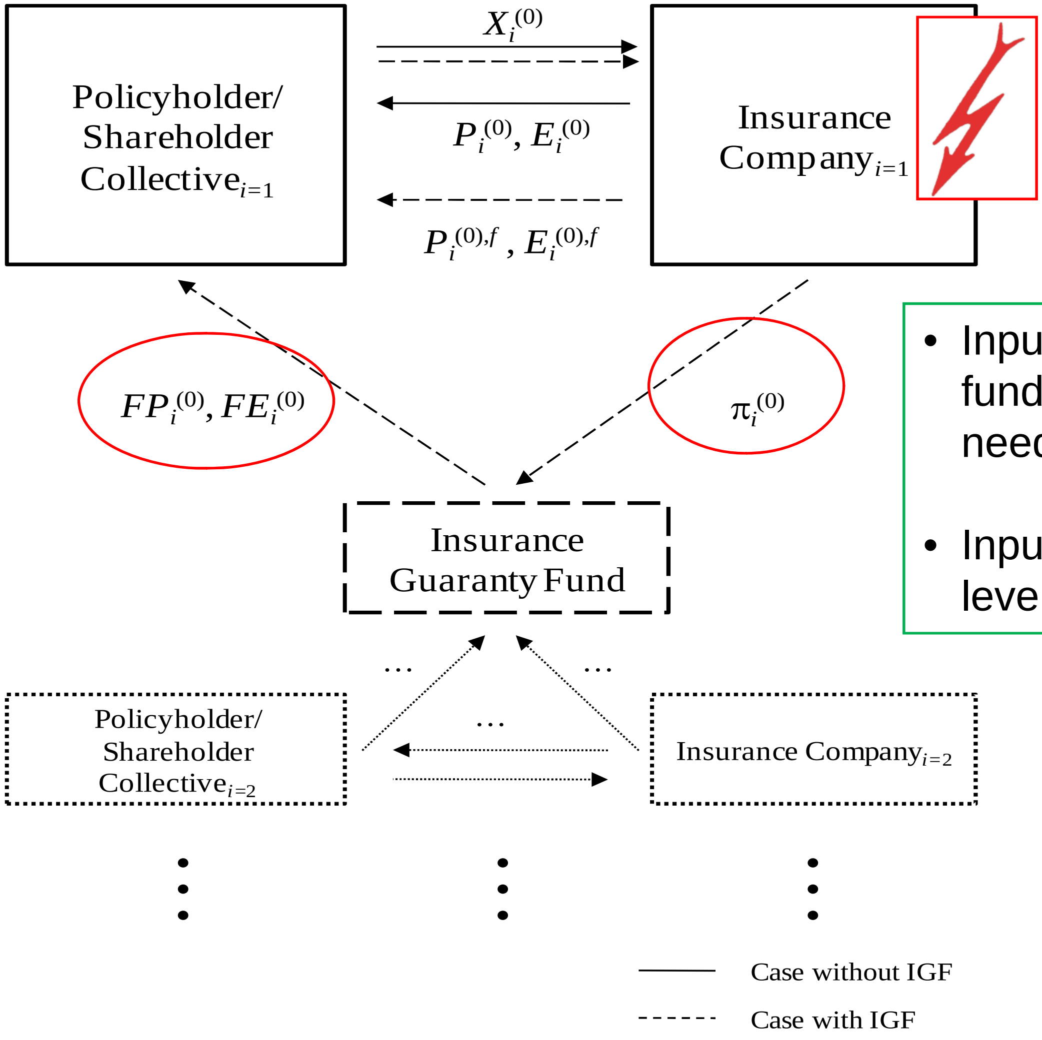

- Input (premiums paid into the funds) and output in the IGF needs to be defined
- Input influences the safety level of the insurer

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1. Model framework: Contingent claims approach (option pricing)

- All stakes are priced in a fair manner; in particular, IGF Premium = PV(Payments out of the IGF)
- Result: No advantages or disadvantages can be derived from an IGF (as long as there are no transaction costs)

2. Model framework: Risk averse policyholders

- Mutual insurance companies that differ in assets, liabilities and correlation structure
- Define that expected input (premiums) = expected IGF payout at the end of the period

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- For an insurer i, conditions can be formulated that lead to advantages (utility increase) through an IGF

- However, if and to which extent advantages exist will be different for all insurance companies (even if all insurers in the market possess the same risk attitude)

- In general, premiums can be calculated that lead to the same (relative) increase in utility – if advantages through an IGF can be derived

  However, this solution is associated with problems as it can lead to wrong incentives for insurance companies

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3. Conclusion regarding an IGF

- The introduction of an IGF will most probably lead to a situation in which some groups of policyholders achieve advantages (to very different extents) and some not

- Severe problem in a free market economy

- Hence, there is some work left in order to find a solution for 7)

Thank you very much for your attention

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