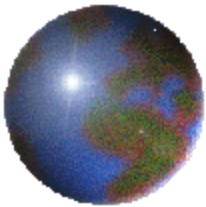


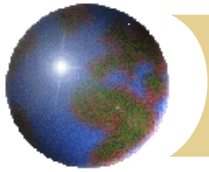
*ASSAL*

## Reinsurance



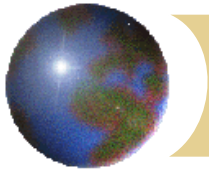
**Walter Bell – Alabama Commissioner of Insurance –  
NAIC President**





# *Purpose of Reinsurance Regulation*

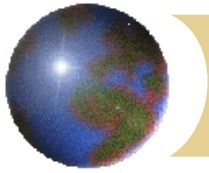
- ✦ Police the Solvency of Reinsurers and Ceding Insurers
- ✦ Ensure the Collectability of Reinsurance Recoveries
- ✦ Establish and Maintain a Method of Accurate Reporting of Financial Information Relied Upon by Regulators, Insurers and Investors
- ✦ Lacks the Consumer Protection Component Necessary for Primary Insurers
- ✦ Focuses on the Reinsurance Transaction



# Regulation of Reinsurers



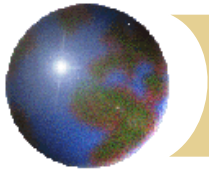
- ❖ U.S. reinsurers are subject to the same entity regulation as U.S. primary insurers, e.g., risk-based capital, holding company laws, state licensing laws, annual statement requirements, triennial examinations and investment laws.
- ❖ The exception is no regulation of rates and forms.



# *Risk Management Framework*

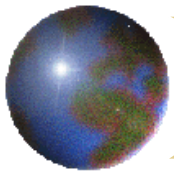
Insurer key risks might be categorized under the following major headings:

- ✚ Underwriting
- ✚ Credit
- ✚ Market
- ✚ Operational
- ✚ Liquidity
- ✚ Strategic



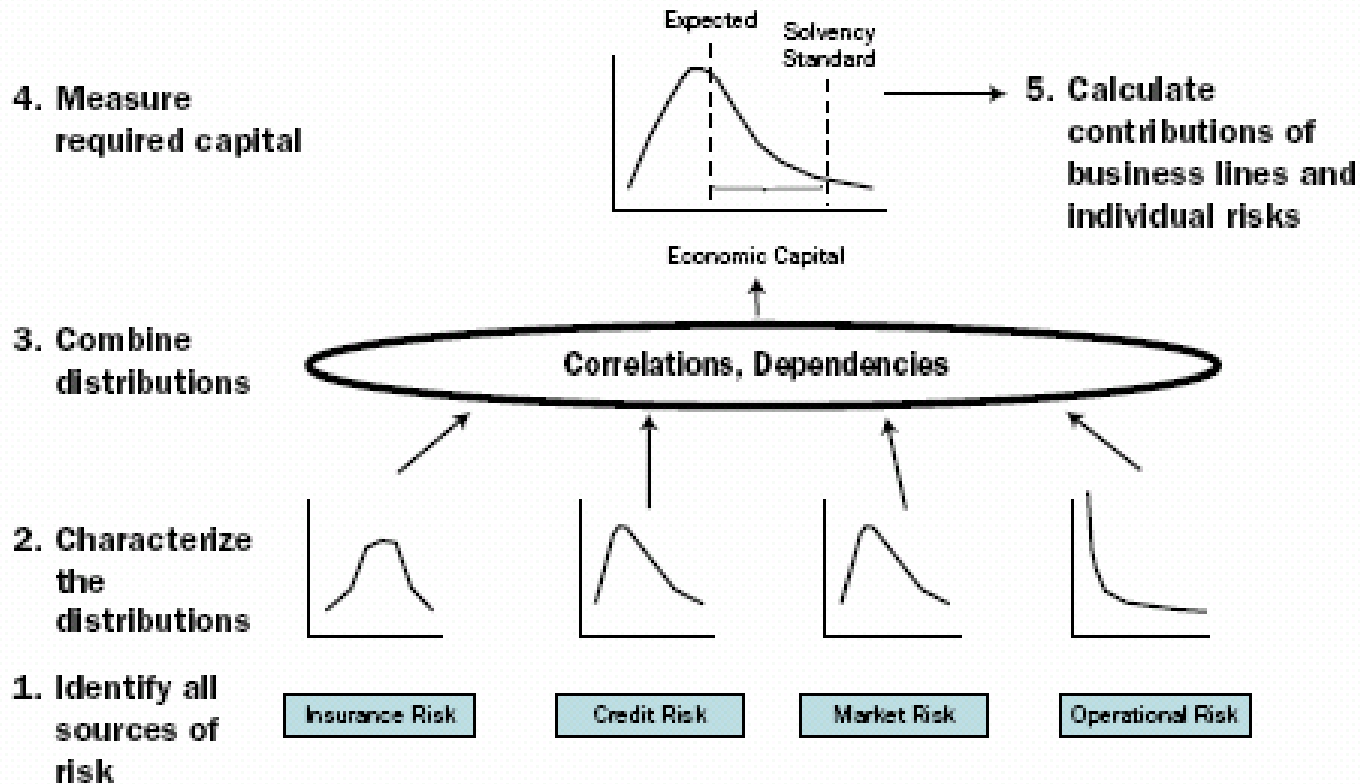
# *Operational Risk*

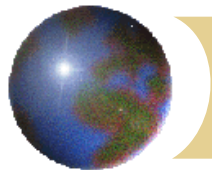
- ✚ The identification of insurer operational risk involves considering all the key functional areas of the insurer from each of the following perspectives:
  - ❏ Human capital risk (for example, employing people with the appropriate skills and experience)
  - ❏ Management control risk (for example, including appropriate sets of controls in internal processes and using and communicating those controls effectively)



# Risk Aggregation

Figure 1: Risk aggregation





# *Solvency I - Reinsurance*

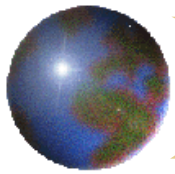
- ✚ According to the present EU legislation (Solvency I) you will get a relief on capital up to 50 % for non-life insurance (30 % quota share will give 30 % relief while 60 % will give 50 %). This will change with Solvency II and the quality of the reinsurer will also be taken account of in the form a credit risk rating.



# *Solvency II - Aims*

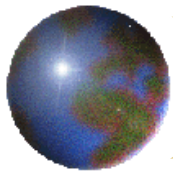
- ✚ Establish solvency standard to match risks
- ✚ Encourage risk control in line with IAIS principles
- ✚ Harmonise across the EU
- ✚ Assets and liabilities on fair value basis consistent with IASB if possible





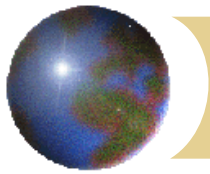
# *Solvency II – New Regulations*

- ✚ Some European supervisors are already attempting to meet the aims set for Solvency II
  - ❏ United Kingdom, Switzerland, Sweden (Life Insurance Only)
- ✚ In all cases, the new regulation is based on marking assets and liabilities to market and capital requirements based on scenario tests or economic modelling.



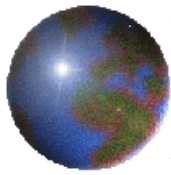
# *Findings – Technical Provisions*

- ❖ Problem areas noted were:
  - ❖ Lack of resources, time and experience
  - ❖ Lack of data and choosing actuarial assumptions
  - ❖ Derivation of Risk Margins
  - ❖ Treatment of Reinsurance
- ❖ Wide range of methods used by companies to produce results



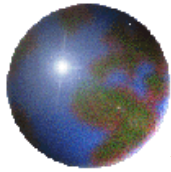
# *Solvency II – Reinsurance Implications*

- ❖ Reinsurance constitutes exchange of insurance risk (primarily underwriting & accumulation) for asset risk:
  - ❖ Asset risk carries a lower capital charge than insurance risk, thus reinsurance can be an effective way to manage regulatory capital needs
- ❖ Factor based models do not distinguish between proportion and non-proportional reinsurance
  - ❖ Risk mitigating effect of non-proportional reinsurance compared to ceding of profits are reflected more adequately within simulation based models



# *Effect of Reinsurance on Solvency Rules*

- ✚ Reinsurance provides:
  - ✚ Capital relief in MCR (Minimum Capital Requirement) and SCR (Solvency Capital Requirement):
- ✚ Rating of Reinsurers to be factored in -
  - ✚ The higher the rating of a reinsurer the lesser capital is needed
  - ✚ Increasing tendency to cover credit risk arising from reinsurance recoverables
    - Retrospective and prospective coverage reinsurance solutions



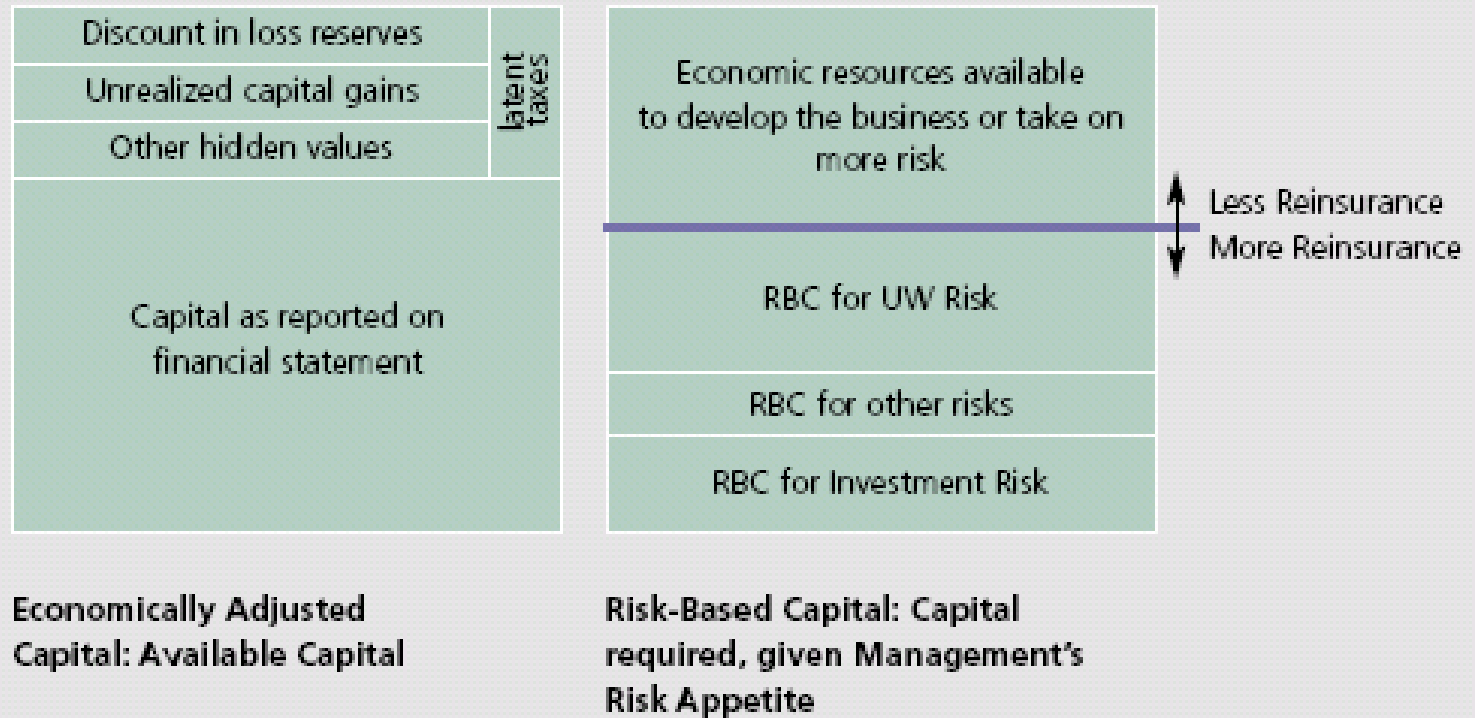
# *Effect of Reinsurance on Solvency Rules*

## ✚ Concentration of Credit Risk

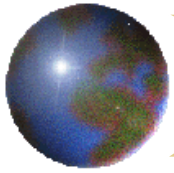
- ✚ UK FSA monitors annual premium ceded to one reinsurer (20%) and total recoverables from any one insurance group to not exceed 100% of capital resources



# Risk Based Capital



Due to the diversification ability of the reinsurer, more capital is freed up on the cedent's side than is bound on the reinsurer's side. Therefore, the cost of assuming the risk is lower for the reinsurer than for the cedent.



# *U.S. RBC Reinsurance Charge*

✚ 10% charge for reinsurance recoverables.

▣ *Rationale for the Reinsurance Charge*

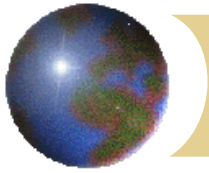
- The apparently high charge on reinsurance recoverables was motivated by reinsurance collectibility problems contributed to several major insurance company insolvencies in the mid-1980s.

✚ *Criticism of the Reinsurance Charge*

▣ *Incentives:*

▣ *Quality of Reinsurer:*

▣ *Collateralization.*

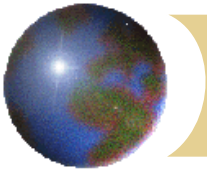


# *Alternative Risk Transfer*

Techniques other than traditional insurance and reinsurance to provide risk bearing entities with coverage or protection :

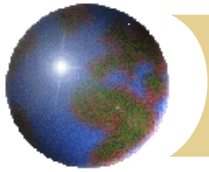
- ✚ Captives
- ✚ Finite Risk
- ✚ Securitization





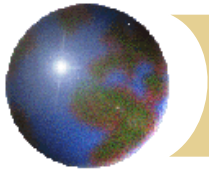
# Captives

- ❖ *Captives are becoming an increasingly important component of the risk management and risk financing strategy of their parent. A number of reasons have been put forward as the basis for the growth in the use of captives:*
  - ❖ *heavy and increasing premium costs in almost every line of insurance coverage.*
  - ❖ *difficulties in obtaining cover certain types of risk.*
  - ❖ *differences in coverage in various parts of the world.*
  - ❖ *Inflexible credit rating structures which reflect market trends rather than individual loss experience.*
  - ❖ *insufficient credit for deductibles and/or loss control efforts.*



# *Finite Risk, Defined*

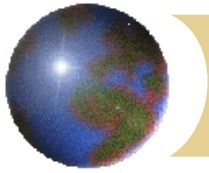
- ✦ Usually multiple-year
- ✦ Insured (or reinsured) pays significant portion of the losses
- ✦ Time value of money plays an important role in transaction value for both insurer and insured
- ✦ Relatively narrow band between potential profit and potential loss to counterparties
- ✦ Historically, long term budgeting and financial reporting have been key considerations



# *Securitization*

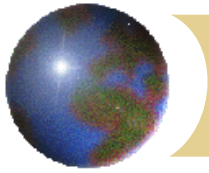
Securitization of insurance risks enables insurers to transfer their insurance risk directly to investors in the capital markets:

- ✦ Insurance company ***transfers*** underwriting risks to the capital markets by ***transforming*** underwriting cash flows into tradable financial securities
- ✦ Cash flows (e.g., repayment of interest and/or principal) are contingent upon an insurance event / risk



# *Factors Affecting Insurance Securitization*

- ❖ Recent catastrophe experience
  - ❑ Reassessment of catastrophe risk
  - ❑ Demand for and pricing of reinsurance
  - ❑ Reinsurance supply issues
- ❖ Capital market developments
  - ❑ Development of new asset classes and asset-backed markets
  - ❑ Search for yield and diversification
- ❖ Restructuring of insurance industry



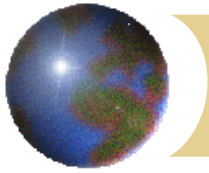
# Possible Reasons for Securitization

## Capacity

- ❑ Risk of huge catastrophe losses
- ❑ Would severely impair P/C industry capital
- ❑ Capital markets **could** handle

## Investment

- ❑ Catastrophe exposure is uncorrelated with overall capital markets. Thus, uncorrelated with existing portfolios.
- ❑ Diversification potential



# *Potential Success of Insurance*

## *Securitization?*

- ❖ Difficult to understand
  - ❑ Capital markets
  - ❑ Insurance markets
- ❖ Separation of insurance and finance functions in many companies
- ❖ Information and technology
- ❖ Difficult to price
- ❖ Expensive (vs. cat. reinsurance market)
- ❖ Legal / tax / accounting issues

