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FINANCIAL SERVICES  
AND THE FREEDOM TO DARE.



# *Capital Markets and Risk Management: An Insurance Perspective*

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# *The More Things Change, The More They Stay The Same*

- Capital Markets can ONLY transfer individual risks.
- At the systemic level, risk is increased by risk concentrations, reduced by diversification.

# Introduction

- Personal, not AIG views.
- Insurance, not Financial Services activities of AIG.
- Reactions to IMF April 2004 Report, at the level of the facts.

## *The Bottom Line*

- CRT Instruments have negligible influence on AIG's insurance investments
- Deep Capital Markets offer opportunity to broaden risk diversification within the company.
- Associated analytics enhance risk management on BOTH sides of the balance sheet, for both credit and market risk.

## *Credit Risk in Insurance*

- Insurance companies are credit risk intermediaries
- Insurance is often not profitable at the risk free rate
- This goes right to the heart of the question of risk neutral vs. actuarial pricing.

# *Credit Derivatives and CRT*

- For AIG, securitization is essential change in CRT
- Progressive increase over 4 decades in liquidity of both types and amounts of credit risk
- Information asymmetries lose relevance to parallel degree
- Credit modeling of all types replaces idiosyncratic information
- Credit derivatives extend trend without changing its fundamental nature

# *Capital Market Product Features in Life Insurance Products*

- Rapid penetration into life insurance and annuity products
- New modeling and risk management challenges
- Requires deep integration of capital market and actuarial models
- Requires major culture change
- Challenges regulators to integrate approaches

## *Most New Features Contain Non-diversifiable Risks*

- Option risk generally non-diversifiable
- Equities, interest rates, volatilities are risk factors
- Directly or indirectly, “reinsurance” must be through capital markets
- Generally, not natural offset within insurance sector



## *Main Modeling Problems*

- Quasi-option character requires stochastic simulation
- Long-dated, no adequate term structure model
  - For either equities or interest rates
- Available assets don't hedge liabilities well
  - basis risk
- Non-economic lapse behavior

## *Conclusions*

- Well developed capital markets are essential for sound insurance risk management
- Finance methodologies will increasingly pervade insurance risk management