

Insurance Strategies in the Current Economic Environment

Presentation to Actuaries Club of the Southwest

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The Insurance Industry: Where Are We?

The Asset Side

- Yield targets of insurance portfolios corresponding to level-premium products have remained unchanged during a systematic decline in interest rates
 - Reaching for a constant book yield resulted in insurance companies taking on significant interest rate and credit risk
 - Competitive pressures in other lines of business have led to aggressive investment in higher yielding spread products as well

- Actual returns diverged significantly from book yields due to
 - Increase in corporate defaults and decline in recovery rates
 - Short options that were exercised (mortgages, callables)

- Reinvestment risk was not effectively managed, hampering returns further

The Insurance Industry: Where Are We?

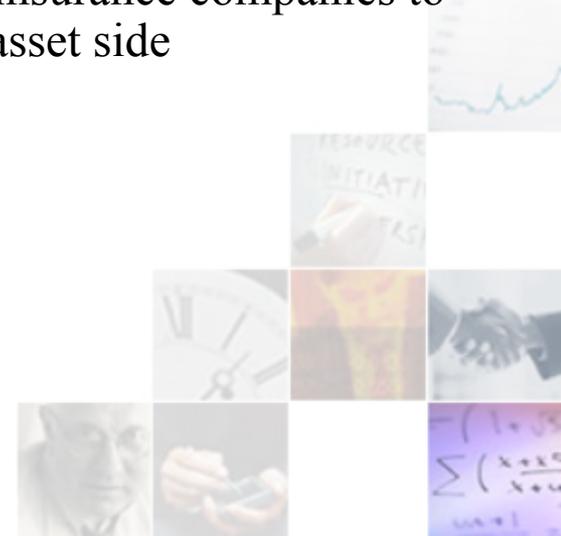
The Asset Side

- Despite the largely fixed income nature of liabilities, asset allocations have involved equities and alternative investments
 - Durations of fixed income portfolios are often shorter than those of liabilities
 - Equities and alternative investments are considered proxies for long duration assets due to the following “conventional wisdom”
 - Equities outperform fixed income over very long periods of time and provide a better inflation hedge
 - Risk should be reduced via diversification not hedging
 - Equity allocations allow for higher expected return assumptions, reducing the present value of liabilities
 - Investment in equities were also considered as mitigating reinvestment risk
- This asset allocation has exposed insurance companies to a simultaneous decline in equity markets and interest rates

The Insurance Industry: Where Are We?

The Liability Side

- The fight for market share has forced insurance companies to short an increasing amount of options embedded in liabilities
 - In the past two years, these unhedged short options became in-the-money and were exercised
- Liabilities have been and remain priced using unrealistic assumptions regarding future expected returns
 - Regulatory rules also make it challenging to re-price certain types of liabilities, effectively forcing insurance companies to maintain constant yield targets on the asset side

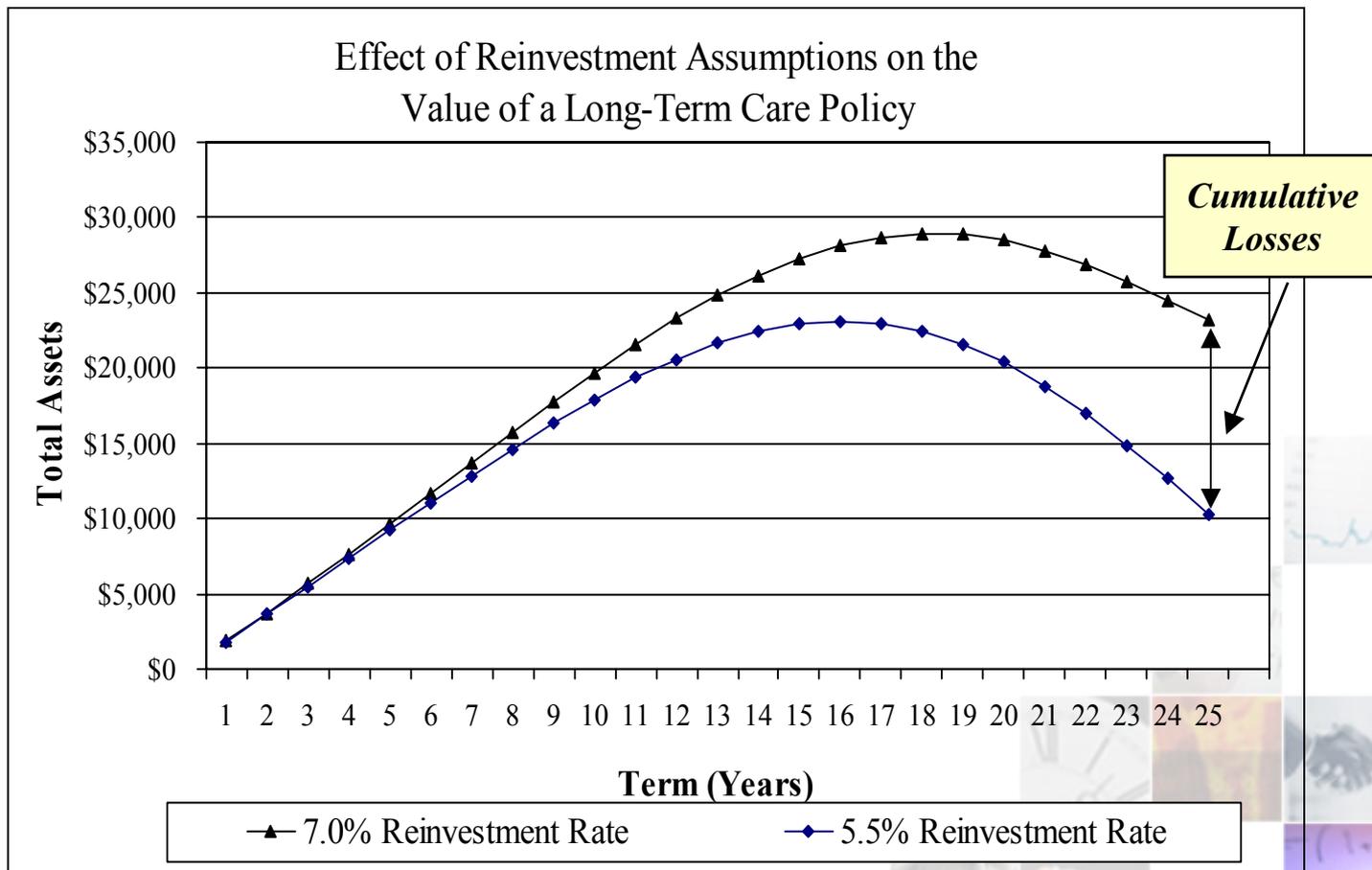


Types of Options Embedded in Insurance Products

Product Type	Policy Types	Product Feature	Embedded Short Option
Risk	Term Life Disability, Long-Term and Cancer Care	Option to renew a policy at guaranteed premiums	Call on the value of future benefit payments
Investment	Fixed and Variable Annuities	Right to deposit additional premiums into existing fixed rate deferred annuity Withdrawal option and various guaranteed death and income benefits Guaranteed min return with appreciation potential	Call on the value of future annuity payments Put on the value of the policy Interest rate floor
Hybrid	Permanent, Whole and Variable Life	Option to convert the policy to cash Option to borrow cash against the policy at pre-determined interest rates	Put on the value of the policy Series of puts on fixed rate bonds

Importance of Assumptions Regarding Long-Term Expected Returns

- Assumptions regarding long-term expected returns influence the liability side of the balance sheet as well

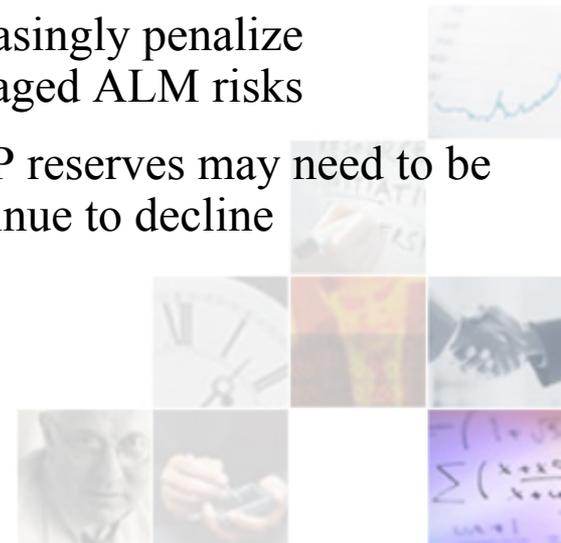


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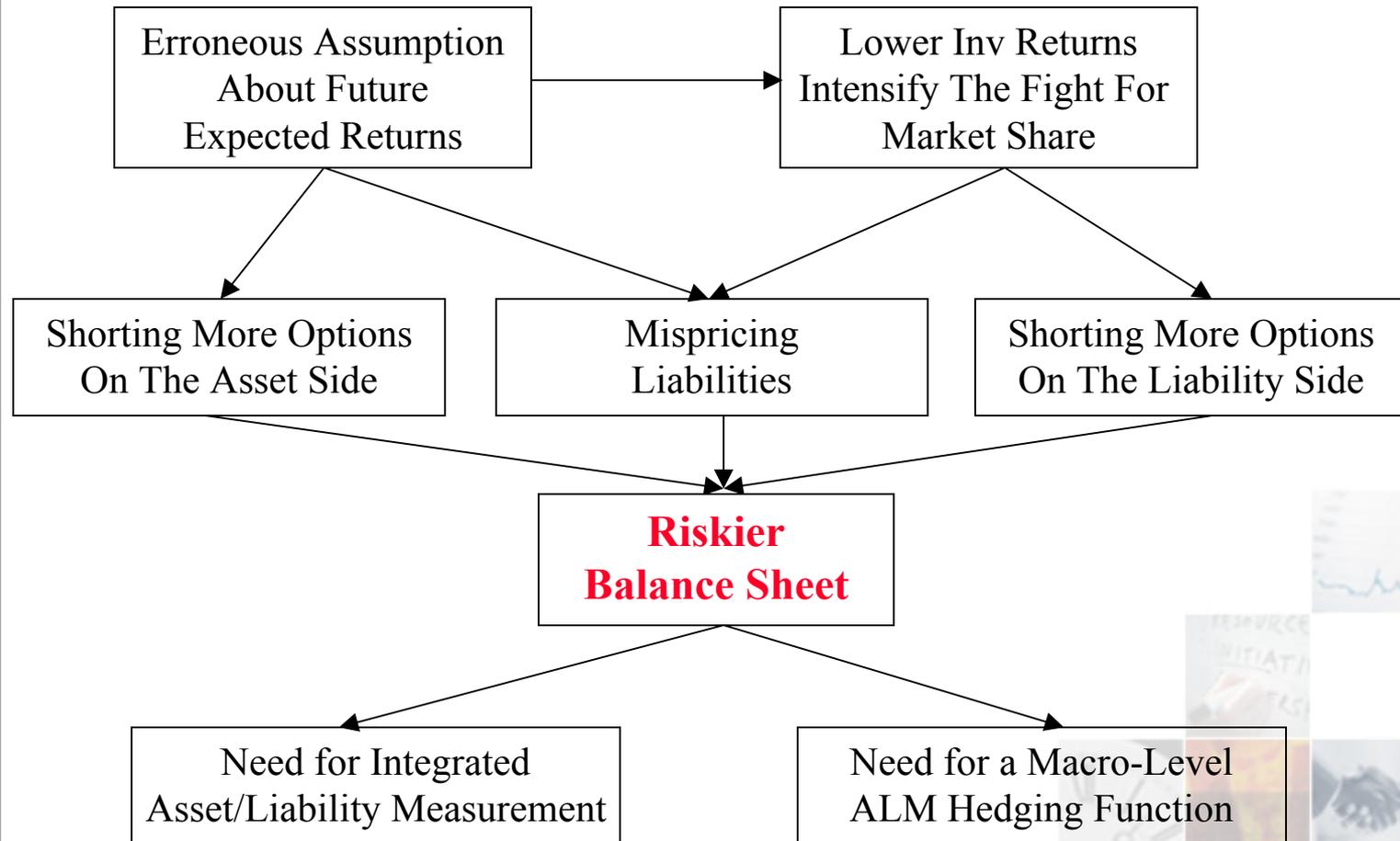
The Result

- Rating agencies have revised the outlook on the insurance industry to negative, citing
 - Deterioration in asset quality
 - Equity losses
 - Corporate defaults
 - Earnings pressures

- Going forward,
 - Markets and rating agencies will increasingly penalize companies for misunderstood/mismanaged ALM risks
 - Because of mispriced liabilities, GAAP reserves may need to be increased portfolio earnings rates continue to decline

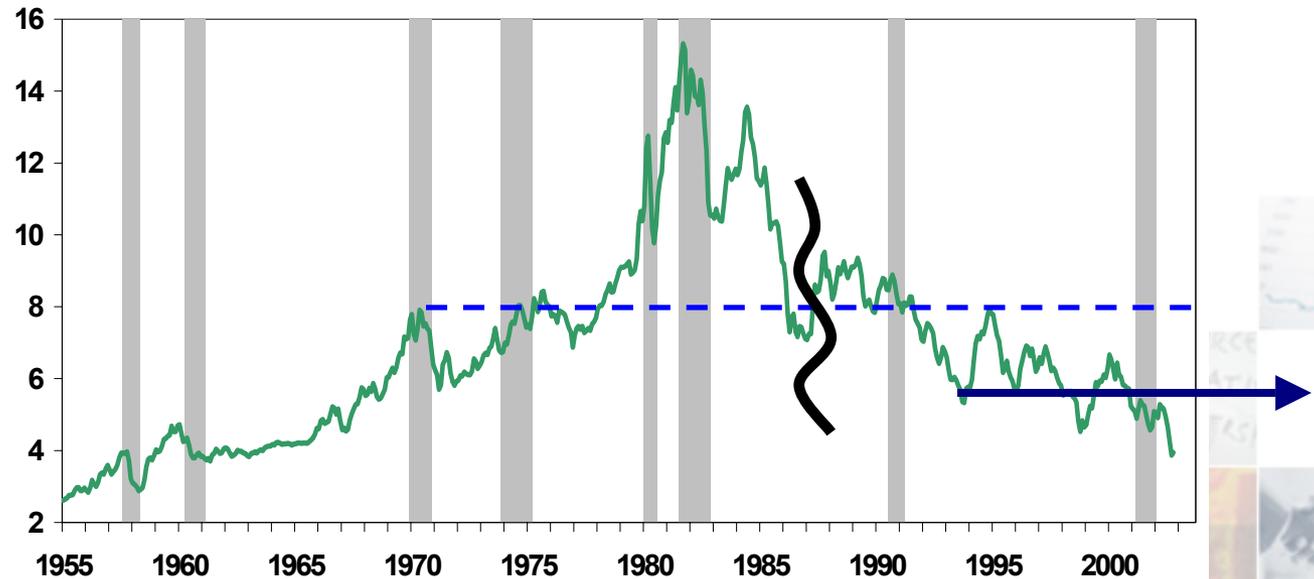


Critical Importance of Assumptions Regarding Future Returns

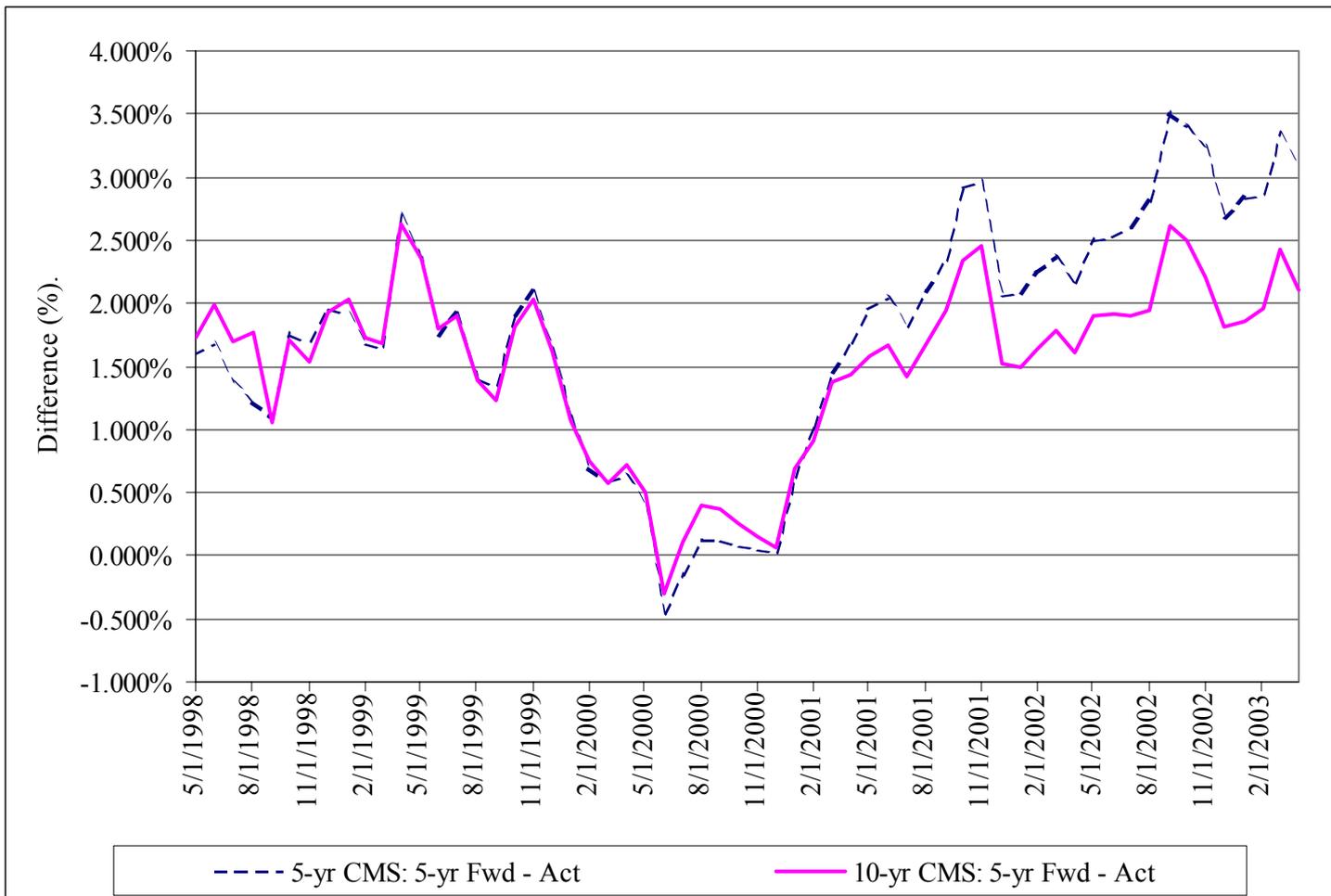


Bear Stearns Baseline Economic Outlook

- Robust growth, low inflation, low inflation premium over the next decade
 - The 10-yr Treasury yields are expected to average 5%-5.5%
 - Returns on balanced portfolios 5.5%-6%
 - Targets: 7% for insurance companies, 8-9% for pension plans



Forward Rates Usually Overestimate Actual Future Rates, Confirming Forecast



Challenges Facing Insurance Industry

1. Assets and liabilities remain mismatched
 - Durations of asset portfolios corresponding to level-premium products remain generally shorter than those of liabilities
 - Short options on both asset and liability sides are unhedged
 - Reinvestment risk is not explicitly managed
 - Unhedged equity positions amplify ALM risks
 - Impact/benefits of alternative debt structures are not explored

2. Lower expected return environment is here to stay
 - Yield targets on the portfolio side have not been adjusted
 - Liabilities are being priced using unrealistic return assumptions
 - Reach for yield is making the balance sheet riskier

3. Hedge accounting remains unfriendly
 - There is a need for innovative solutions tailored specifically to the insurance industry

Products and Solutions for ALM

1. Products that manage asset/liability risks
 - Interest rate, equity, and credit derivatives
 - Innovative MTNs and structured products
 - Fixed/floating mixes and other aspects of debt issuance
2. Products that provide additional yield in a lower expected return market environment
 - Innovative MTN structures and callable agencies
 - Mortgage credit and REITs
 - Structured products (PRISMS, HIPS, GRIPS)
 - PPNs of funds of hedge funds
3. Products related to regulatory capital, accounting, rating agency, and on/off balance sheet issues
 - PERTs, CMBS, and other uses of securitization technology

Opportunity: Turn Risk Into Operating Income

- Future cash flows (variable annuity fees, premium flows, coupon income, and maturing assets) are,
 - *If used effectively*, an asset that can enhance operating income by taking advantage of the positive slope of the yield curve
 - *If unhedged*, a source of risk due to uncertainty regarding future reinvestment rates
- Effective management of future cash flows involves
 - “Optimal” issuance strategies that monetize future cash flows
 - Use of current market opportunities that enable to lock into high forward rates in a risk-controlled fashion
- Companies have taken advantage of their future cash flow in 3 ways
 - Utilizing GICs
 - Securitization
 - Using a combination of interest rate and credit derivatives

Opportunity:

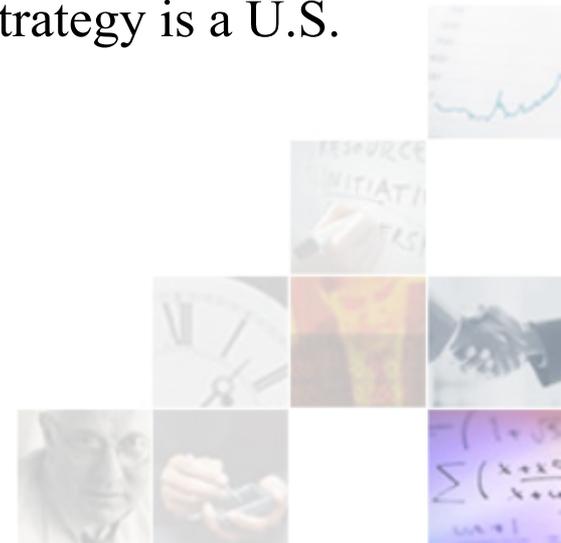
Sell Options Granted to Company by Policyholder

- Fixed annuity writers typically have the right to change their crediting rate
- This right is analogous to the right to enter into an interest rate swap with the policyholder
- This swaption can be sold to raise the funds to buy protection against policyholder put options
- This strategy enables variable annuity writers to offer a significantly more competitive fixed rate option on their products in addition to a higher crediting rate on 1-year reset annuities



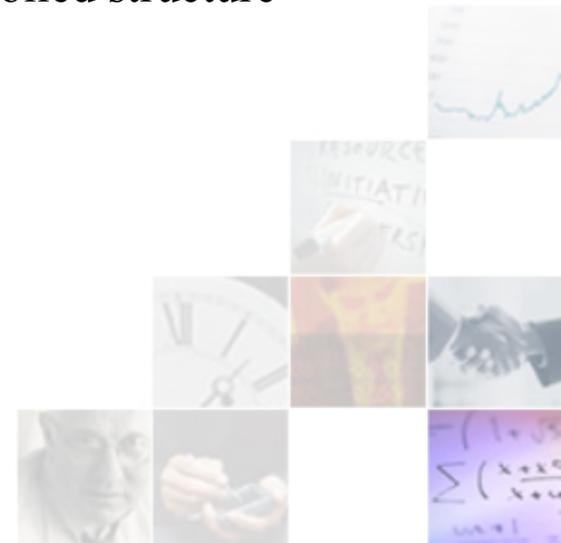
A number of companies are exploring ways to hedge their Variable Annuity Guarantees and recoverability of acquisition costs

- Reinsurance is generally no longer available for Guaranteed Living and Guaranteed Death benefits
- Most major variable annuity writers are exploring two solutions to manage this risk:
 - Equity Derivatives
 - Securitization
- FAS 133 accounting has been a major stumbling block for U.S. GAAP filers. The only company that we know that has executed an equity derivative hedging strategy is a U.S. subsidiary of a Canadian company.



Opportunities in the Credit Default Swap Market

- The credit default swap market is presenting attractive hedging, diversification and yield enhancement strategies
- With the recent spread tightening, a number of companies are buying protection and hedging their current spread
- Companies are taking advantage of structures involving credit defaults to:
 - Gain better diversification by being able to access names whose spreads are generally too tight to own outright
 - Achieve attractive yields in a risk-controlled structure



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