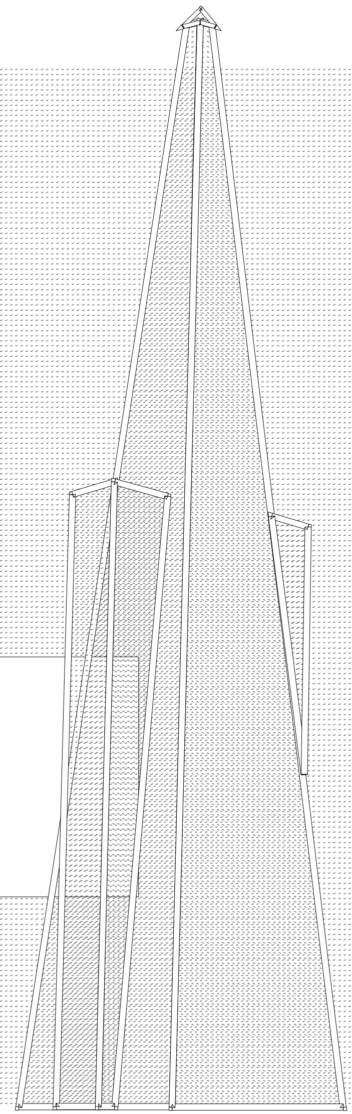
Knowledge. Experience. Performance.

THE POWER OF INSIGHT.sm



Life Reinsurance

Rejean Besner, FSA, MAAA, FCIA, FASSA
Vice President & Chief Actuary, International Division

Presented to the Conference on Insurance Regulation and Supervision in Asia, October 2004

TRANSAMERICA REINSURANCE

Reinsurance: What? Who? Why? How?

- What?
  - Reinsurer reimburses benefits in exchange for share of premium
- Who?
  - All US-based insurers use reinsurance to manage financial affairs
- Why?
  - Changes risk characteristics of the insurer
  - Changes amount and timing of income
- How?
  - Through a contract that clearly defines scope of business reinsured as well as mechanics of the transaction

Reinsurance Helps Insurers…

- Underwrite risks beyond their own capacity/willingness to retain such risks
  - Large risks
  - Impaired lives
  - Unusual underwriting profile (medical conditions, etc.)
- Develop new product ideas
- Refine underwriting skills
- Address lack of experience available to price risks
- Manage fluctuations in earnings (mortality only or all risks inherent in policies)
- Improve ROE

Reinsurance Helps Insurers…

- Reduce new business strain (cash or reserve)
- Reduce capital requirements
- Improve solvency ratios
- Accelerate realization of future profit streams
- Facilitate acquisitions
- Manage taxes and utilize tax loss carry forward

Reinsurance is a tool which when leveraged and regulated correctly can open doors of opportunity for the insurance industry to grow.

Reinsurance Does Not …

- Overcome insolvencies/credit risk
- Save a product with adverse risk profile

Retail Insurance vs. Reinsurance

Retail Insurance

- Assumes risk from consumer
- Collects premiums from consumer for providing protection
- Pays consumer (policyholder) for claim
- Incurs expenses
- Contract: Insurance Policy

Reinsurance

- Assumes risk from insurer
- Collects premiums from insurer for providing protection
- Reimburses insurer for policyholder claims
- Reimburses insurer for expenses
- Contract: Reinsurance Treaty

From a regulatory perspective, reinsurance is a specialized business which requires a different approach from retail insurance.

Life Reinsurance vs. Property & Casualty Reinsurance

	Life	P&C
■ **Risk Concentration**	Small	Large
■ **Duration of Risk**	Long	Short or Long
■ **Claim Amount**	Known	Unknown
■ **Premium Rates**	Fixed	Annual renewal
■ **Reinsurer**	Professional	Professional

Life and P&C reinsurance are very different in nature.
P&C reinsurance regulations do not automatically apply or may not be relevant to life reinsurance.

Life Reinsurance

- Reinsurer reimburses ceding company for covered losses
- No contractual relationship between policyholder and reinsurer
- Diverse applications
  - Traditional risk sharing
  - Financial management
  - Retrocession
    - Reinsurance for reinsurers

Traditional Risk Sharing

- Transfer mortality/morbidity risk
- Transfer lapse or surrender risk
- Transfer investment risk
- Limit catastrophe risk

Financial Management

- Cover costs of increasing new business
- Finance acquisitions
- Manage surplus and/or risk-based capital
- Tax planning

Life Reinsurance Structures

Non-proportional

- Risks not ceded individually by policy
- Catastrophe coverage, stop loss, etc.

Proportional

- Some portion of risks ceded proportionately (a pre-defined portion of each policy)
- Related to the ceding company’s retention limit
- Can have a significant impact on risk profiles of companies

Reinsurer Liability

- **Automatic Reinsurance (treaty business)**
  - Reinsurer is bound if policy satisfies general conditions
- **Facultative Reinsurance**
  - Reinsurer must underwrite each risk to be bound
- **Continuations**
  - Reinsurer continues to reinsure life through changes in policies

Proportional Life Reinsurance Structures

- Quota share
  - Reinsurer accepts a certain percentage of every policy covered in the treaty
  - Sometimes confused with original terms reinsurance or coinsurance

- Excess of retention (surplus)
  - Reinsurer assumes amounts over the insurer's retention limit up to the reinsurer's automatic binding limit

The reinsurance structure determines *how much* of the risk is ceded to the life reinsurer.

Life Reinsurance Methods

- Yearly Renewable Term (YRT or risk premium)
- Coinsurance
- Modified Coinsurance
- Coinsurance with Funds Withheld

The reinsurance method determines *how* the risk is ceded to the life reinsurer.

Life Reinsurance Methods

- **Yearly Renewable Term (YRT)**
- Coinsurance
- Modified Coinsurance
- Coinsurance with Funds Withheld

Characteristics

- Only mortality risk transferred
- Rates may vary by age, sex, duration, smoking
- Quoted by reinsurer, subject to negotiations
- May be used to cover mortality on term or permanent insurance
- Guarantee may exist, however, rates are rarely changed

Life Reinsurance Methods

- **Yearly Renewable Term (YRT)**
- Coinsurance
- Modified Coinsurance
- Coinsurance with Funds Withheld

Benefits to insurer

- Retain profit potential on asset accumulation
- Manage volatility at lowest cost
- Take advantage of reinsurance pricing

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- **Coinsurance**
- Modified Coinsurance
- Coinsurance with Funds Withheld

Characteristics

- Reinsurance premium rate equal to premium rate of original policy
- Reinsurer pays initial and renewal commission to compensate ceding company for commission and administration expenses
- Reinsurer sets up a reserve for its share of the risk
- Easier for the ceding company and the reinsurer to share fortune
- Very flexible, adapted to solve a range of business problems

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- **Coinsurance**
- Modified Coinsurance
- Coinsurance with Funds Withheld

Benefits to insurer

- Maximum risk transfer
- Capital management
- Removes barriers to sales growth

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- Coinsurance
- **Modified Coinsurance (modco)**
- Coinsurance with Funds Withheld

Characteristics

- Different from coinsurance in that reserve portion of the premium remains with ceding company
- Interest credit to reinsurer replaces actual earnings
- Achieves similar impact as coinsurance but leaves ceding company in control of assets
- Unfavorable treatment under new US GAAP accounting rule

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- Coinsurance
- **Modified Coinsurance (modco)**
- Coinsurance with Funds Withheld

Benefits to insurer

- Maximum risk transfer
- Capital management
- Removes barriers to sales growth
- Reduces credit risk issues
- Control and invest assets

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- Coinsurance
- Modified Coinsurance (modco)
- **Coinsurance with Funds Withheld**

Characteristics

- Assets corresponding to reserve portion remain with ceding company
- The reinsurer must set up reserves
- Assets retained by the ceding company "belong" to the reinsurer
- The reinsurer has an asset represented by the "funds withheld" which are an amount due by the ceding company
- The ceding company has a liability which is equal to the funds withheld and is an amount due to the reinsurer
- Unfavorable treatment under new US GAAP accounting rule

Life Reinsurance Methods

- Yearly Renewable Term (YRT)
- Coinsurance
- Modified Coinsurance (modco)
- **Coinsurance with Funds Withheld**

Benefits to insurer

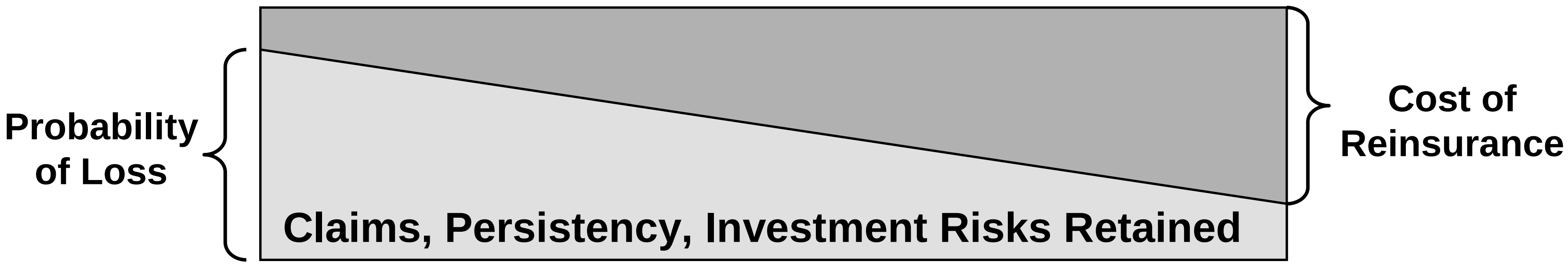
- Maximum risk transfer
- Capital management
- Removes barriers to sales growth
- Reduces credit risk issues
- Control and invest assets

Comparing Life Reinsurance Methods

Desired Result	YRT	Coinsurance	Modified Coinsurance	Coinsurance with Funds Withheld
Smooth mortality fluctuations	Most common way to smooth fluctuations	Same impact with additional benefits	Same impact with additional benefits	Same impact with additional benefits
New business strain relief	Not effective	Provides relief in many ways	Provides relief in many ways	Provides relief in many ways
Accelerate profit realization	Not applicable	Effective	Effective	Effective
Control and invest assets	Remain with ceding company	Remain with reinsurer	Remain with ceding company	Remain with ceding company

The most appropriate reinsurance method depends on the insurer's particular needs and the risk profile of the transaction.

Risk vs. Profit: The Trade-off



- Reinsurance transactions are distinguished by the motivation of ceding company and the willingness to share in the profitability of the business
- The elements of risk (mortality, persistency, investment, etc.) underlying the reinsurance contract can be the same as those of the insurance policy

Risk vs. Profit: Key Issues

- How does the reinsurance transaction effect the risk/reward profile of the ceding company and the reinsurer?
- Will the reinsurer be able to meet its obligations under the agreement?
  - An important regulatory focus

These issues are not determined by the type of reinsurance but rather by the specific contractual terms of each treaty

Key U.S. Reinsurance Treaty Provisions

- Definition of business covered
- Definition of risks
- Automatic vs. facultative acceptance of risks
- Initial/renewal commissions
- Experience refund
- Risk fees or charges
- Administrative options
- Termination or recapture provisions
- Insolvency language
- Parties to the agreement
- Arbitration
- Right to audit

Life Insurer Capital Requirements

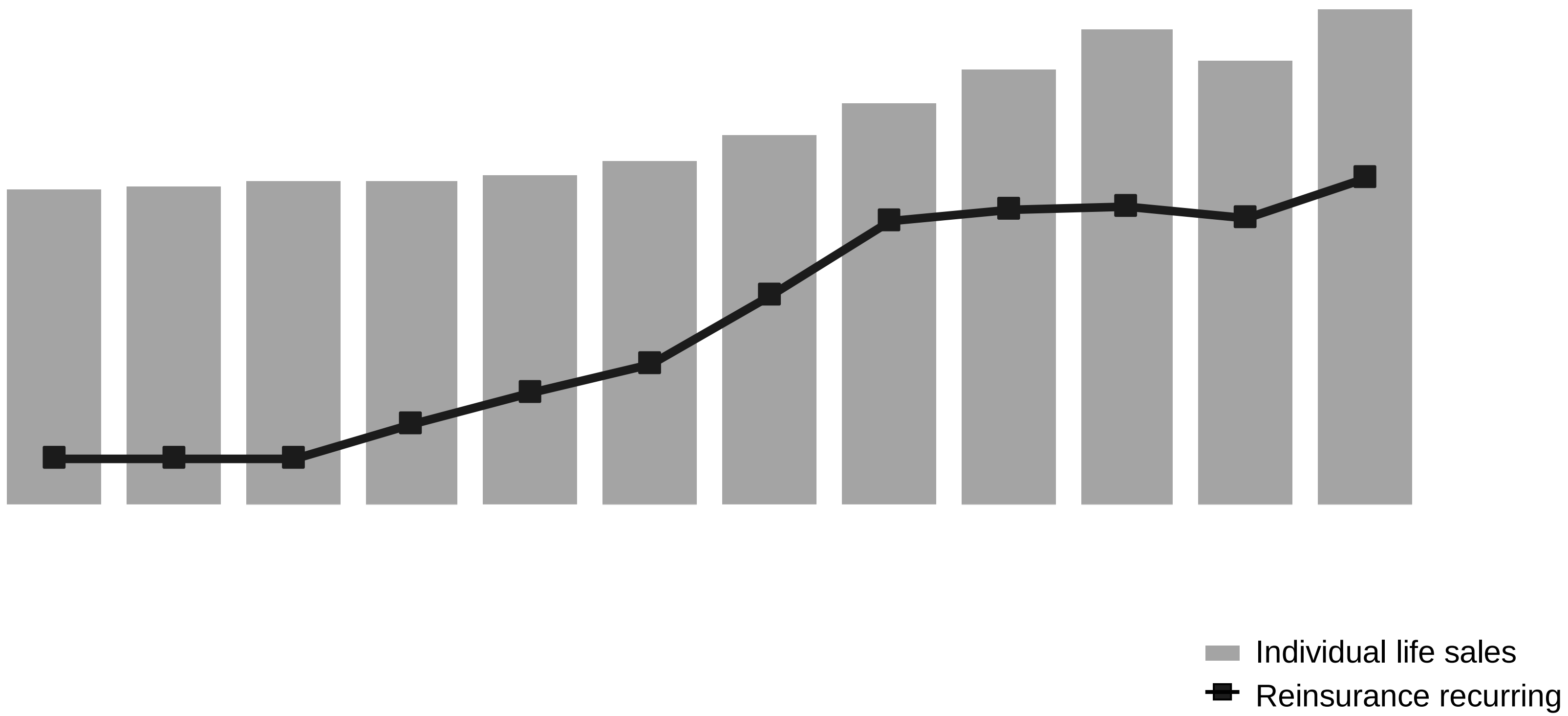
- Economic
  - To cover fluctuations
  - Unexpected adverse experience
  - Mispricing
- Statutory
  - Strain from conservative accounting
  - Risk-based capital
- Perception
  - Agents, customers
  - Rating agencies
  - Stock analysts

The capital requirements of an insurer can be managed through equity, debt, reinsurance or a combination of these.

U.S. Life Reinsurance Market Characteristics

Life Reinsurance Growth

Based on Face Amount



Sources: LIMRA estimate of U.S. individual life; Munich Re Survey of recurring reinsurance production
**2002 estimate projected based on LIMRA 3Q2002 Study*

U.S. Life Reinsurance Market Characteristics

- Insurance companies making more extensive use of reinsurance to manage their business
  - Less than 30% of new face amounts issued in 1995 ceded compared to more than 60% of new business in 2003
  - Bigger volumes of existing blocks ceded
- More innovative reinsurance approaches being used in the US compared to any other country
  - Lock in mortality cost
  - Manage solvency ratios
- Reinsurers increasingly perceived as risk management experts of the industry

U.S. Life Reinsurance Market Characteristics
Consolidation
Based on New Business

Top US Life Reinsurers in 1996

Rank	Company	Market Share
1	Transamerica Reinsurance	14.9%
2	Security Life / ING Re	11.5
3	Swiss Re	10.5
4	Lincoln Re	8.5
5	Life Re	8.4
6	RGA	8.1
7	Phoenix Home Life	6.1
8	Allianz	5.5
9	BMA / Generali Re	5.0
10	AUL	4.1
11	Munich American Re	3.4
12	Cologne Re	3.4
13	Revios	3.4
14	ERC	3.0
15	CNA Re	2.6
	Top 5	**53.8%**
	Top 15	**98.4%**

Top US Life Reinsurers in 2003

Rank	Company	Market Share	
1	Swiss Re	22.2%	
2	RGA	16.7	
3	ING Re	14.6	Recently announced
4	Transamerica Reinsurance	11.4	
5	Munich American Re	10.4	
6	Scottish Re (US)	6.0	
7	Generali USA Life Re	5.6	
8	SCOR Life Re	3.6	
9	Employers / ERC	3.2	
10	Canada Life	2.9	
11	Revios	1.6	
12	General & Cologne	1.3	
13	Annuity and Life Re	0.3	
14	Optimum Re	0.2	
15	Manufacturers Life	NM	
	Top 5	**75.3%**	
	Top 15	**100%**	

Top 5 players in 2003 accounted for 75% of the market; Scottish Re acquired ING Re earlier this month to consolidate market further

Reasons for Consolidation in U.S. Life Reinsurance

- Ratings downgrades
  - Large non-life losses following September 11, 2001 events
  - Asset portfolio declines due to equity market volatility
- Flight to quality
  - Financial security
  - Size critical to effectively competing
- Strategic initiatives by largest players to focus on core competencies
  - Spin-off of non-core units to raise capital
- Decreased retrocession capacity

U.S. Life Reinsurance Regulatory Environment

Forms of Regulation

- State laws
- Regulations (procedures advanced by insurance departments for implementing laws)
- NAIC model acts (to promote uniformity of state laws)
- Department Interpretations
- Accounting rules
- Professional guidance (compliance required to maintain credentials – AAA, AICPA)

Though not regulators per se, ratings agencies have an influential role in the U.S. insurance and reinsurance industries.

U.S. Life Reinsurance Regulatory Environment

United States

- American Council of Life Insurers (ACLI)
- National Association of Insurance Commissioners (NAIC)
- Reinsurance Association of America (RAA)

International

- Organization for Economic Cooperation and Development (OECD)
- International Association of Insurance Supervisors (IAIS)
- International Monetary Fund (IMF)

U.S. Life Reinsurance Regulatory Environment

Jurisdiction

- Generally regulated by state of domicile
- Regulation does not prohibit reinsurance agreements (exceptions: holding company, bulk reinsurance)
- Regulation controls allowable statutory accounting credit

By regulating whether a direct company can take credit for reinsurance, regulatory bodies effectively though indirectly regulate reinsurers.

NAIC Model Regulations Affecting Life Reinsurance

- Set forth the scope and purpose of reinsurance
  - Applies to life and property-casualty insurers
  - Governs both US and non-US reinsurers
- Define treaty requirements necessary for ceding company to take credit for reinsurance
- Define requirements of risk transfer and results of non-compliance

U.S. Statutory Risk Transfer Requirements

- Risk transfer requirements ensure that liability, net of reinsurance, is appropriately booked
  - Key to reinsurance accounting
  - Difficult to quantify
- Probability of reinsurer losing money not relevant

NAIC Model Regulation Provisions

- Set forth the scope and purpose of reinsurance
  - Applies to life and property-casualty insurers
  - Governs both US and non-US reinsurers
- Define treaty requirements necessary for ceding company to take credit for reinsurance
- Define requirements of risk transfer and results of non-compliance
- Define need for and types of permissable security

U.S. Reinsurance Security Requirements

No security required if reinsurer

- Licensed or accredited in the state
- Holds $20 million in surplus and licensed in any other state with substantially similar regulation
- Maintains U.S. trust fund equal to liabilities plus $100 million (Lloyd’s)

When required, permitted security includes

- Funds withheld
- Trust account
- Letter of credit
- Other collateral acceptable to commissioner (rare)

International Reinsurance Security Requirements

- Generally no collateral necessary
- Considered inter-professional market dependent on market forces and individual credit risk assessments
- Regulation promotes solvency through variety of reinsurer capital requirements

Reinsurance Security: Recent Activity/Proposals

U.S.

- Graded collateral based on commercial credit rating of reinsurer
- Collateral or extra RBC charge for release of RBC on account of reinsurance
- Reduction of collateral by 50% for “white list” alien reinsurers

International

- WTO General Agreement on Trade in Services – free trade without restrictions on market access
- European trade association discussions with NAIC for mutual recognition and/or reductions in collateral
- IASB accounting standards may limit reserve credit of any kind, making collateral obsolete
- IAIS developing principles for regulation which do not include collateral

Role of Regulators in Reinsurance

- Insurance regulation provides consumer protection to unsophisticated buying public
- Reinsurance regulation levels the playing field for acknowledged sophisticated business-to-business buyers

Reinsurance is a specialized business which requires a regulatory approach which is different from that required by retail insurance.

Role of Regulators in Reinsurance

- Clearly stated, consistent regulation sets the rules by which all companies must abide
  - Not subject to latest interpretation
  - Encourage prudent management practices
    - Consistent disclosure of the amount of risk a company is carrying and the relative adequacy of capital and surplus
    - Consistency and transparency with regard to the handling of insolvency for both insurers and reinsurers
  - Maintain or enhance security of insurance company’s commitment

Permits innovation and creativity within pre-set boundaries that helps insurance companies grow their business

Why Reinsurance?

- Relatively easy to implement and fairly inexpensive
- Makes use of the reinsurer's capital without compromising ownership of the company
- Provides flexible solutions
  - Tailored to specific situations
  - Used for large or small transactions
  - Structured as short term or long term solutions
  - Can be reviewed as the ceding company's situation changes or as the environment changes

Why Reinsurance?

- Improves policyholder protection by passing mortality and other risks (persistency, investment) to the reinsurer
- Provides readily available financing for new business in exactly the right amount
- Reduces ceding company’s solvency requirements in proportion to risk transferred to reinsurance company
- Ceding company’s cost of using reinsurer’s capital is tied to profitability of business ceded

Why Reinsurance?

- The reinsurer understands the ceding company's business and can bring significant added value
  - Underwriting assistance
  - Product development expertise
  - New market entry

Reinsurance is a flexible instrument for designing new business and financial management solutions which help insurers grow.