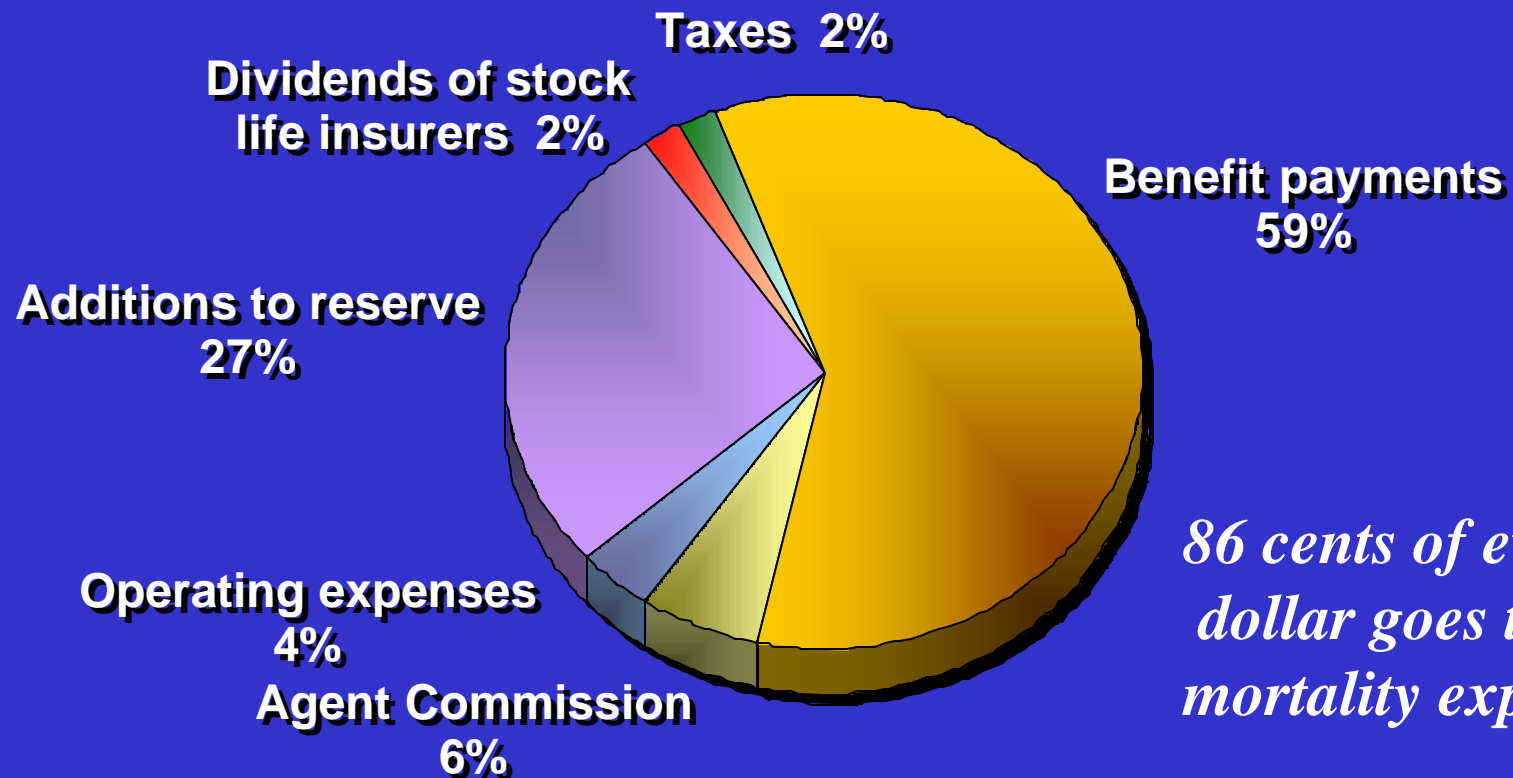


# **Lincoln Re Case Study**

## **1997-2000 Services Renewal**

# Why is Mortality Management Important?

## Distribution of Life Insurance Expenditures, 1998



*86 cents of every dollar goes to mortality expense!*

Source: American Council of Life Insurance

# The Role of Reinsurance

- **Reinsurance is insurance for insurance companies.**
- **In exchange for a premium, the reinsurance accepts a portion of the risk written by the primary insurer.**
- **It generally involves risks which are large or complicated.**

# **How Do Reinsurers Make Money?**

## **Underwriting Profit**

- **Reinsurance Premiums**
- **Less Commission and Expense Allowance Paid to Direct Company**
- **Less Claim Costs**
- **Plus Interest on Cash Flow**
- **Less Reinsurance Expenses**

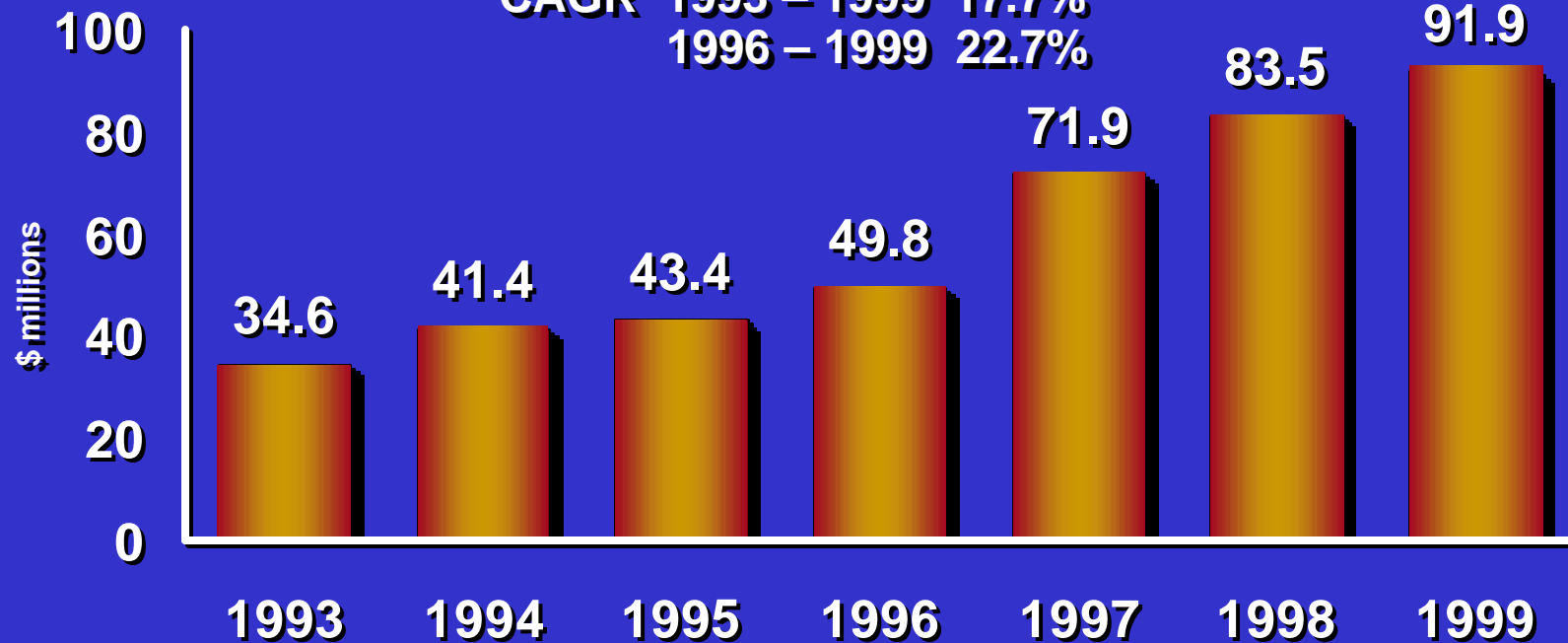
# **The Old Model: Coinsurance**

- **Annual Gross Reinsurance Premium:  
\$3.26 Per \$1,000 of Face Amount**
- **Commission and Expense Allowance:  
100% First Year; 20% Renewal Years**
- **Present Value of After Tax Profits:  
\$750 Per Million**
- **Profit Margin: 4.0%**
- **Return on Investment: 16%**

# Lincoln Re Life Reinsurance Steady Growth

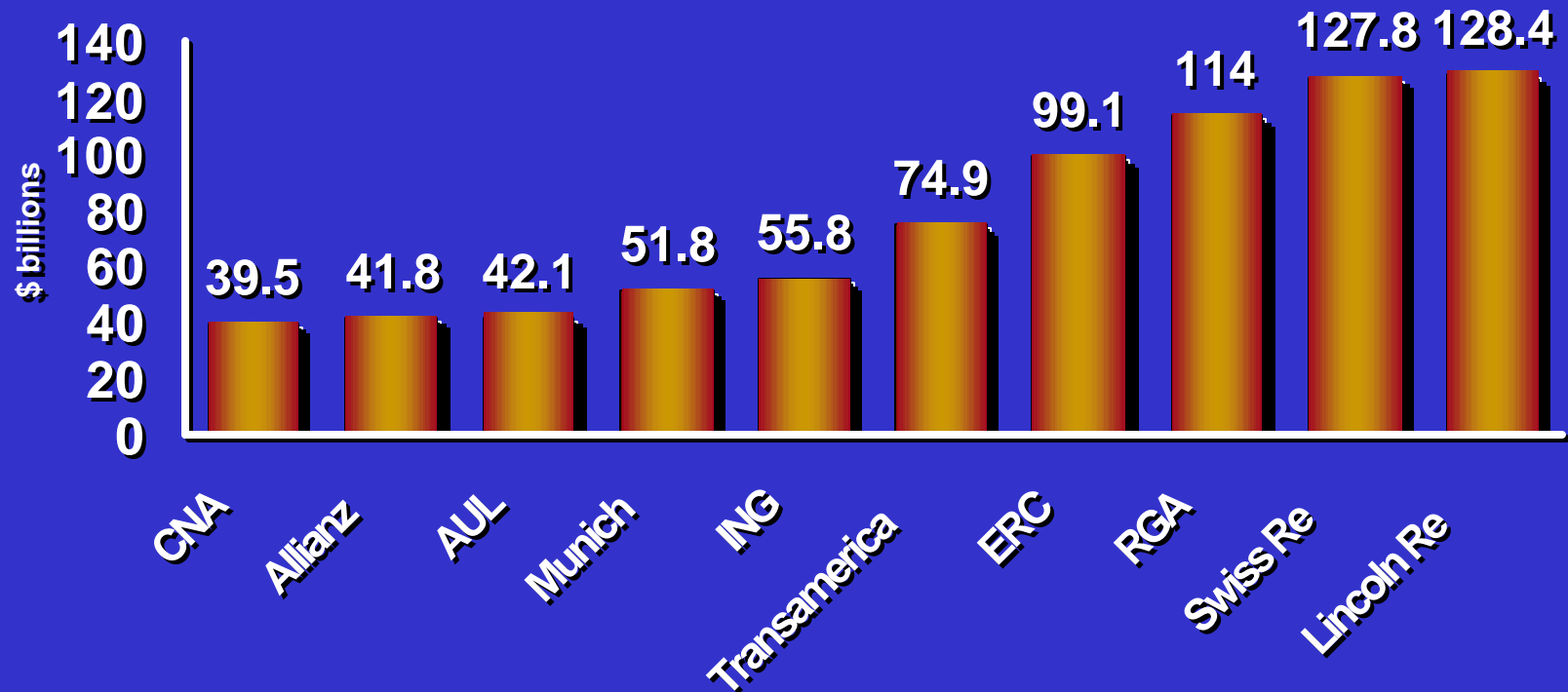
## Individual Life Earnings

CAGR 1993 – 1999 17.7%  
1996 – 1999 22.7%



# Life Reinsurance – U.S. Leadership

## Top U.S. Life Reinsurers

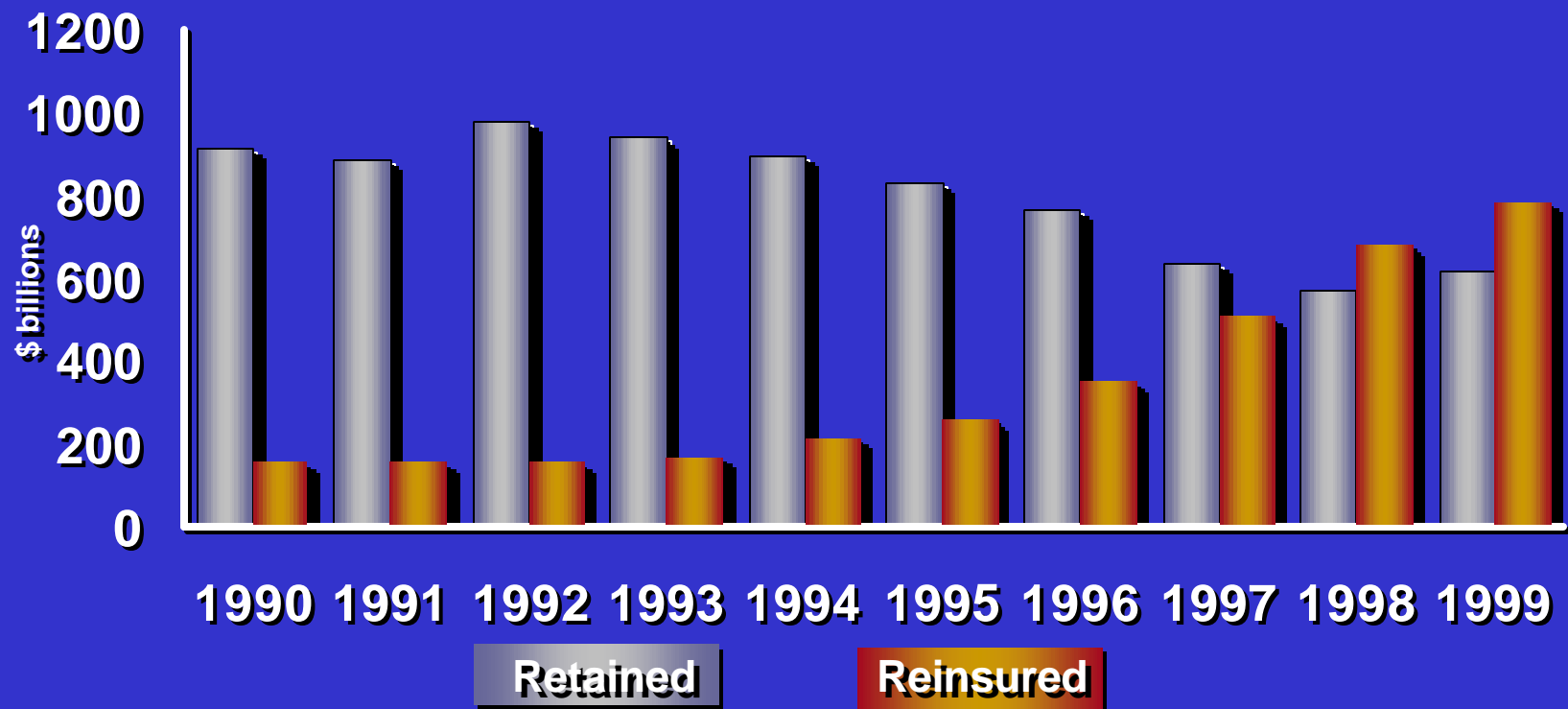


Source: SOA / Munich Re Survey

# Reinsurance versus Retained Business

## U.S. Ordinary Individual Life Insurance Sales

**More Business is Now Reinsured than Retained!**



Source: SOA / Munich American Re Survey

# Life Reinsurance versus Direct

## Direct Market Size

(\$ billions)

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>CAGR</u>
<b>Retained</b>	894	833	768	635	574	613	-7.3%
<b>Ceded</b>	<u>216</u>	<u>261</u>	<u>350</u>	<u>507</u>	<u>679</u>	<u>787</u>	<u>29.5%</u>
<b>Total</b>	<b>1,110</b>	<b>1,094</b>	<b>1,118</b>	<b>1,142</b>	<b>1,253</b>	<b>1,400</b>	<b>4.8%</b>
<b>Ann. %</b>		-1.4	2.2	2.1	9.7	11.7	

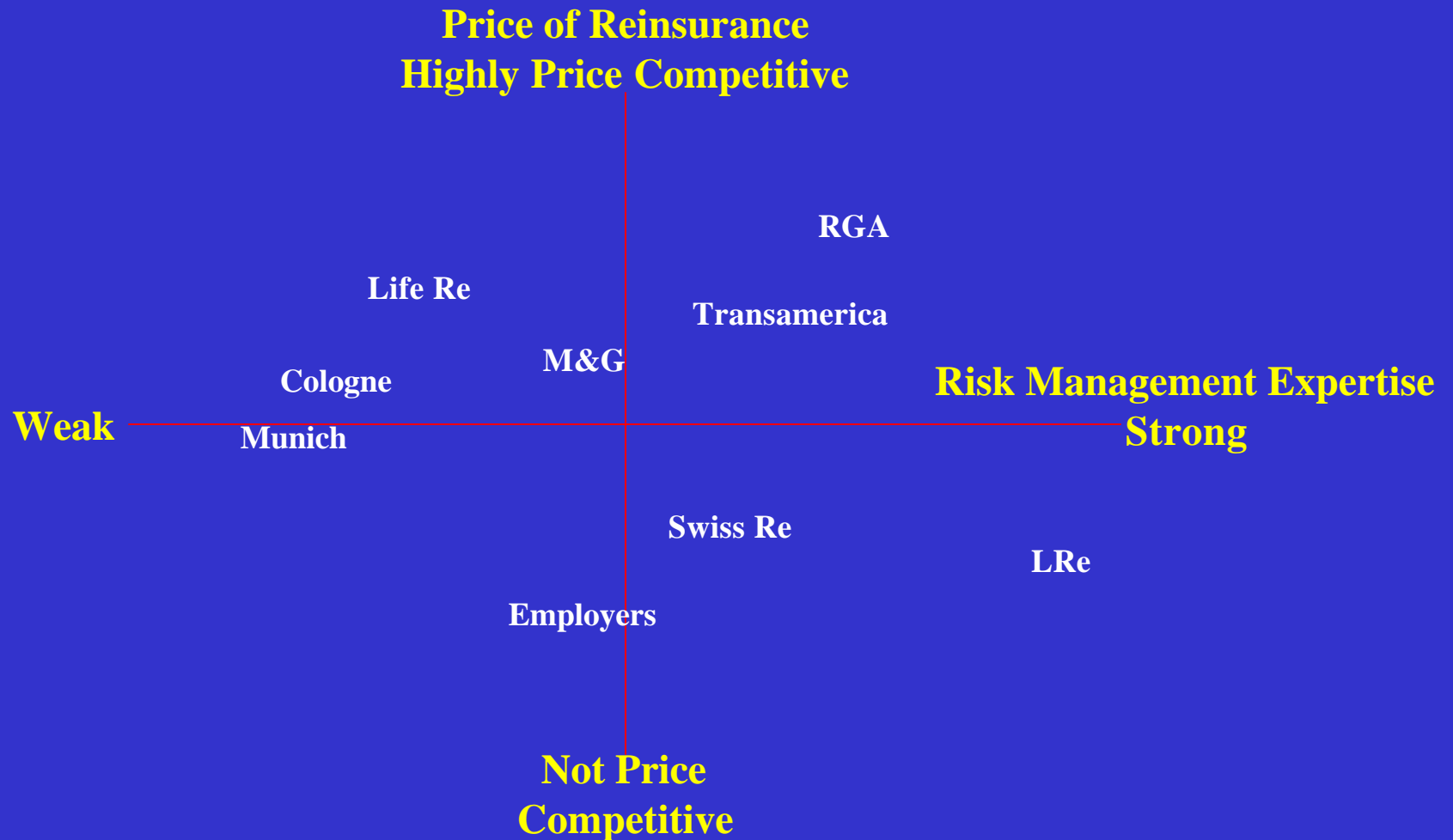
*The reinsurance market's growth is six times the direct market's!*

Source: SOA / Munich American Re Survey

# Not All Is Roses

- **Traditional reinsurance is becoming a commodity product because there is an excess of capital in the market.**
- **Off Shore reinsurers fighting to enter US market.**
- **The challenge facing LincolnRe was/is to “decommoditize” reinsurance through services innovation and a new business model.**

# Good, but Expensive



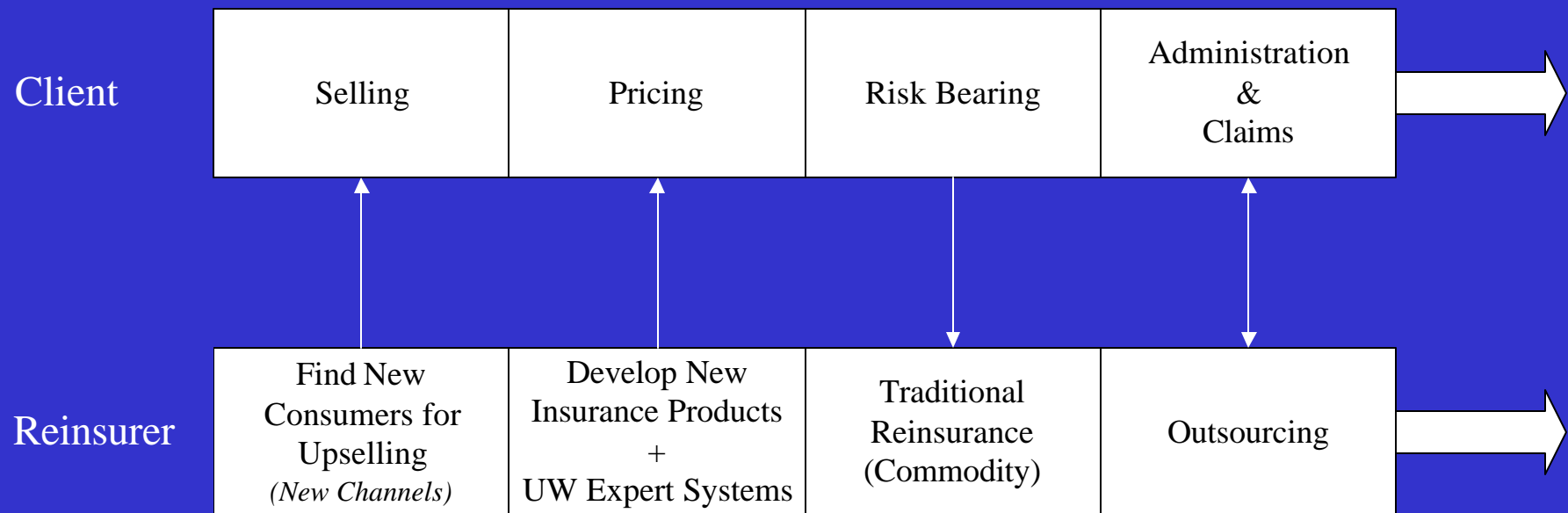
# The New Strategy

- **Accept Underwriting Risk**
- **Create Solutions**
- **Provide Service**

# An Emerging Risk Management Solutions Value Chain

(where Traditional Risk Transfer is but a Subsystem)

- Develop unique, customized risk management solutions by sharing risk, knowledge, capital and the capability of alliance partners.
- Avoid being a commodity. Compete by applying resources toward solutions involving as many of the value creating activities of clients as possible.
- Make the strategy real by creating families of solutions from components which can be re-configured and re-used.

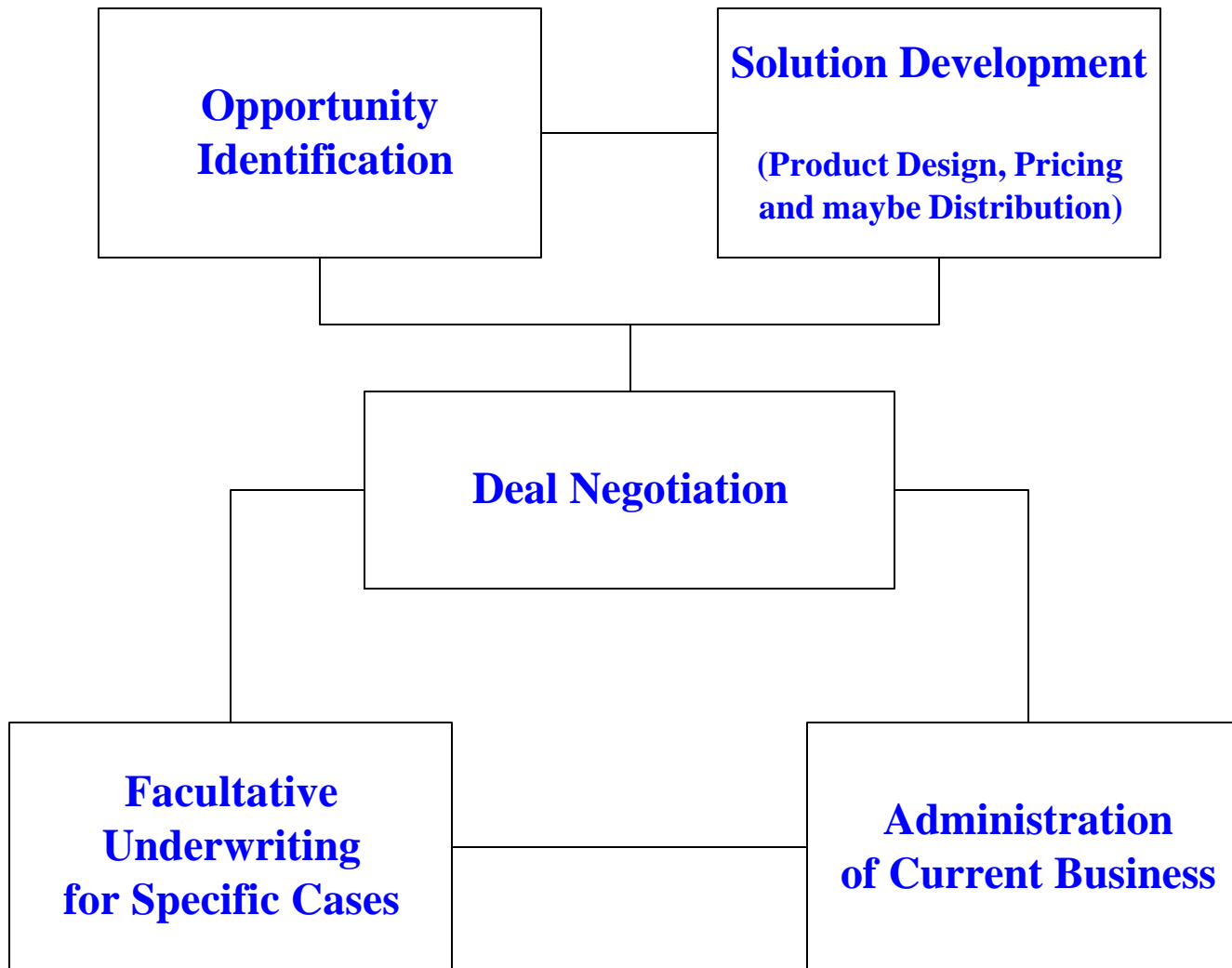


# **Develop and Beta with a Lead User**

## **A New Preferred Term Life Deal**

- **Preferred Risk Term Insurance -- low cost insurance, great interest in the industry because it can generate great consumer demand - but not trivial to deliver effectively (terms, conditions, pricing, and individual case underwriting guidelines require special expertise).**
- **One large insurer/client had tried to offer a Preferred Term product and failed; the product proved too “expensive” in terms of the loss ratio (claims to premiums paid)**
- **LincolnRe design a new Preferred Term product based on LincolnRe's proprietary data and underwriting knowledge.**
- **LincolnRe’s reinsurance contract with the client was “quota share” -- a split of the premium dollars from new insurance sales. Not \$3 per \$1000 anymore.**
- **The client has sold \$5 billion of the new Preferred Term Product -- and for LincolnRe, the quota share is very profitable -- with good loss ratio experience due to the application of the LincolnRe Mortality System.**

# The New Services Architecture



Lincoln Re: 50% of new revenue in growth from \$1B to \$1.5B

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	<b>The Problem</b>	<b>Conventional Solution</b>	<b>Innovative Solution</b>
<b>Opportunity Identification</b>	<p>Insurers are under increasing price and performance pressure.</p> <p>They require new products, more aggressive pricing, and new distribution channels.</p>	<p>Traditionally, reinsurers are only concerned with servicing existing business from clients.</p>	<p>Account executives looked for growth opportunities within specific clients that could only be achieved by application of Lincoln Re's actuarial expertise and financial resources as a reinsurer.</p> <p>New Strategy. New Marcomm</p>

	<b>The Problem</b>	<b>Conventional Solution</b>	<b>Innovative Solution</b>
<b>Solutions Development</b>	Insurers need to develop new solutions for consumers who are more interested in mutual funds as investment vehicles, and see insurance only as a gap filler.	Reinsurers leave this one to the insurers to figure out.	Lincoln Re combines its underwriting knowledge and actuarial expertise into an expert system (software) that is used to tune packaging and pricing.
<b>Insurance Product Development</b>	New and existing insurance products need to be adjusted for new risk factors in society, both here and abroad.	All reinsurers have actuaries, underwriters, and medical directors.  Do they innovate? Most often, NO.	Lincoln Re's seeks to understand the underlying rates and causes of mortality, using both internal knowledge and external information.  <b>LMS</b>
<b>Distribution</b>	Clients need to find new channels to upsell their existing customers with new products and services.	Reinsurers leave this one to the insurer to determine and implement.	Lincoln Re has purchased two direct mail and email brokers, one for the US and the other for Europe.  These companies can be brought into any deal negotiation. <b>NEW CHANNELS</b>

	<b>The Problem</b>	<b>Conventional Solution</b>	<b>Innovative Solution</b>
<b>Deal Negotiation</b>	The insurance client is looking for the best value/cost proposition.	<p>Traditionally, reinsurers compete on price more than they do on 'value' or underwriting expertise.</p> <p>Lincoln Re has traditionally argued that its better understanding of risk warrants a higher price for reinsurance contracts.</p> <p>Competitors take business by discounting Lincoln Re's prices.</p>	<p>Rather than be paid a several dollars on every \$1000 of reinsured face amounts, Lincoln Re shares in the premium dollars and total potential claim of the policy.</p> <p><b>QUOTA SHARE</b></p>

	<b>The Problem</b>	<b>Conventional Solution</b>	<b>Innovative Solution</b>
<b>Facultative Underwriting</b>	<p>Once a reinsurance contract is in place, individual policies must still be assessed for risk and specific pricing.</p> <p>This can be expensive, particularly given that new competitors are selling insurance through ATM's or the Internet.</p>	<p>Reinsurance underwriters traditionally receive policy applications information.</p> <p>They assess risk.</p> <p>The order physician exams, blood tests, motor vehicle reports, talk to agents, etc.</p>	<p>Lincoln Re does traditional facultative underwriting.</p> <p>However, it has also developed an underwriting expert system.</p> <p>It automates ordering.</p> <p>If a client uses the expert system to underwrite a case, the reinsurance part of it will be automatically priced by the system.</p> <p><b>LUS</b></p>

	<b>The Problem</b>	<b>Conventional Solution</b>	<b>Innovative Solution</b>
<b>Administration</b>	Clients need correct tracking and invoicing of reinsurance activity, and payment of claims, with electronic communication.	Most reinsurers are at parity in having cumbersome, inflexible mainframe administration systems.	Lincoln Re is no different than most:  It has mainframe legacy systems that it is trying to reimplement as client server applications.  <b>AT PARITY</b>

# Teams Mirror the Platform Strategy

Co-rewarded on Multiple Measures

**Account Executive**

**Pricing Actuary**

**Case Underwriter**

**Administrative  
Specialist**

# **Measures of Overall Subsystem Effectiveness:** *The Value Drivers*

## **Problem Seeking and Opportunity Identification** (creating opportunities for deals)

Growth of inforce insurance (annualized, averaging about 10%)

## **Solution Development and Deal Negotiation** (pricing and structuring deals right)

Book New Business (in millions of dollars)

Profit / Premium (percentage, ranging about 7.5%)

Return on Investment (percentage, ranging between 17 and 20%)

## **Underwriting and Research and Development** (protecting value)

Actual Mortality(loss ratio of claims to premiums --ranging from 75% to 85%;

Actual Lapse Rate (non-renewed insurance, ranging from 8% to 15%)

## **Administration** (operating efficiency)

Actual expenses (non-claims) versus premiums (percentage, ranging about 7.5%)

# Specific Measures for Teams/People

## Account Managers

**Business Measures:** LincolnRe market penetration by account number and business volume

**Activity Measures:** % accounts visited, % with account plans

**Per Visit Ratio's :** insurer size, Rx potential, new business, visit expenses, quote opportunities

**Other Measures:** # of Rx quotes, number of wins/number of quotes , volume won/volume quoted

**Knowledge Use:** % of time mortality experience used in quotes

## Pricing Actuaries:

% of quotes reviewed

Volume reviewed at individual policy level

## Underwriters

% of cases reviewed (facultative UW)

Number of case audits

Average age or cycle time of case worksheets (measure of work in process)

Variance of post facto case audit results to initial risk assessment

## Administrative Specialists:

**Claims:** % claims reviewed

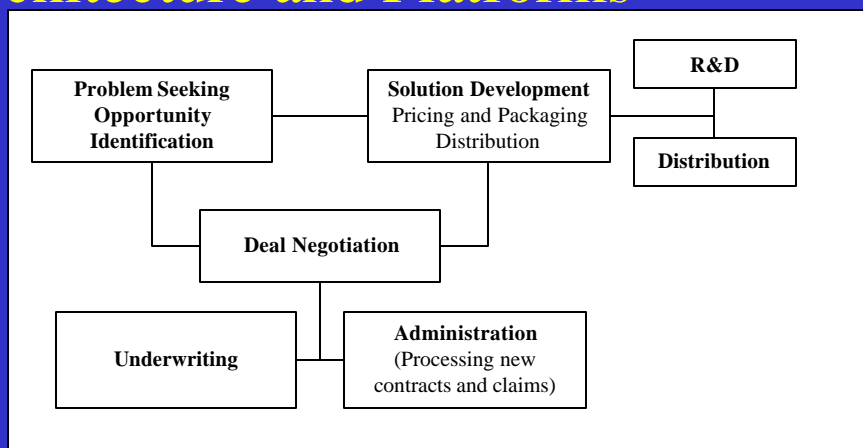
**Administration:** % of policies reviewed, average age of unsigned Rx agreements

**Legal/contracts:** % contracts reviewed, number of conflicts, retention limits

# Platforms and Derivative Products

Leveraging a Platform Subsystem  
as a New Business Area

## Architecture and Platforms



Expert Systems  
for licensing to 3rd parties

Preferred Term Life

Variable Life Insurance

Future Products .....

Derivative Products are Application of the  
Services Platform to New Lines of Insurance

# **The New Model**

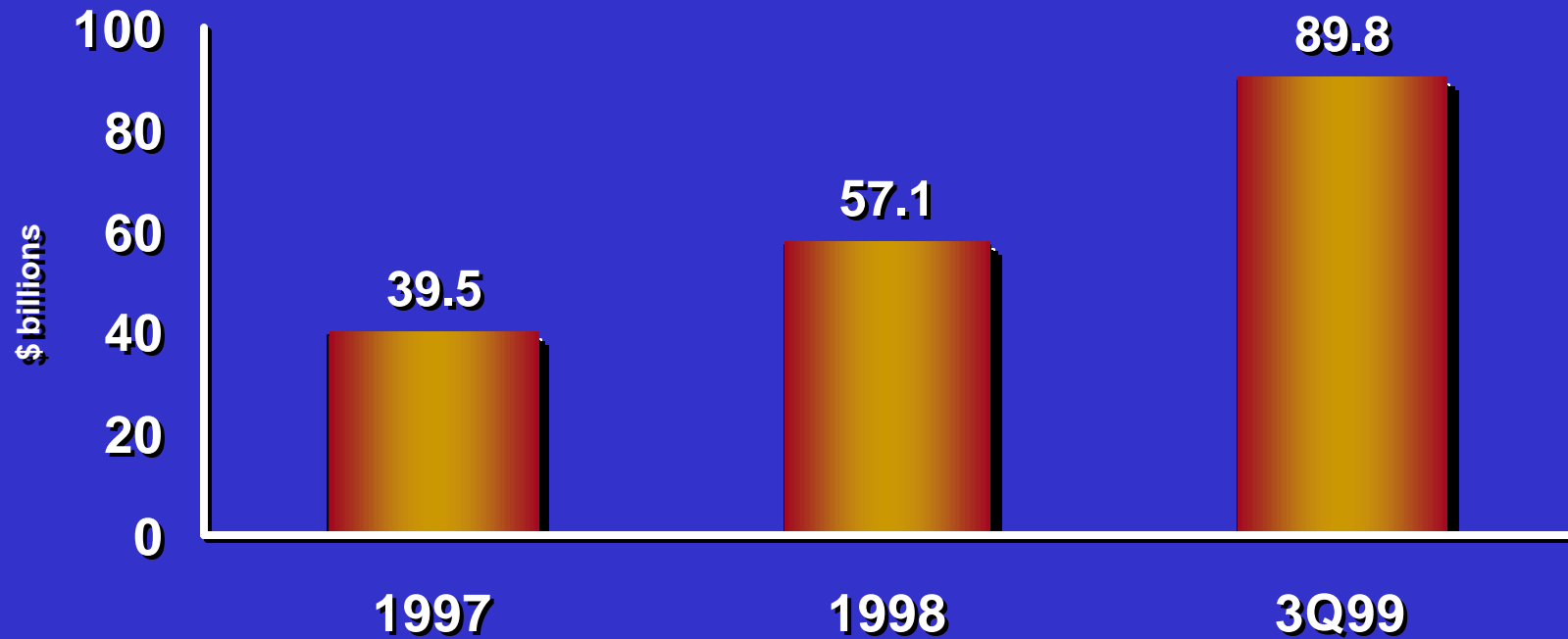
- **Quota Share Reinsurance Generates Three to Four Times the Premium Generated by Excess Reinsurance!**
- **New Opportunities For Fee Income From Providing Outsourced Underwriting Also Exist**

# Typical New Model Case

- **Lincoln Mortality System – Product Design**
- **20-year Level-term Product**
- **Multiple Preferred Classes**
- **50% Quota Share Reinsurance**

# The New Model A Deeper Partnership

## Total Recurring Paid New Business from LMS Clients



# More Growth

## Expand Mortality Management Platform

- **International Business**
- **New e-business Opportunities**

# **International Markets**

## **Exporting Mortality Management through the Lincoln Mortality System**

- **Mexico**
- **Japan**
- **Developing Reinsurance In China**

# **E-business – E-products for E-customers**

- **Use of Lincoln Mortality System to develop Simplified, Web Term Products**
- **Web-Enabled Front End of Lincoln Mortality System to Enhance Access by Clients**