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2019 ANNUAL MEETING & EXHIBIT

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Session 086: Strategic Uses of Reinsurance

2019 ANNUAL MEETING & EXHIBIT

Strategic Uses of Reinsurance

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- Do not discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- Do not speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
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Agenda

- Introductions
- Overview of risk solutions offered by reinsurers, including the risk and rewards of each
- Strategic uses of reinsurance, including examples
- Future developments in reinsurance

Overview of Risk Solutions Offered by Reinsurers

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Common reasons for purchasing reinsurance

- Capacity relief/surplus relief
- Catastrophe protection
- Stabilization
- Market withdrawal
- Market entrance
- Expertise/experience

Pro Rata and Excess of Loss Reinsurance

Pro rata (proportional reinsurance)

- Reinsurance in which a constant percentage of each policy is reinsured
- Percentage determined at issue
- Percentage can change with changes in net amount at risk

Excess of Loss (non-proportional reinsurance)

- Reinsurance that indemnifies a ceding company against the amount of loss in excess of a specified retention
- Typically applies to a block of policies

Pro Rata versus Excess of Loss

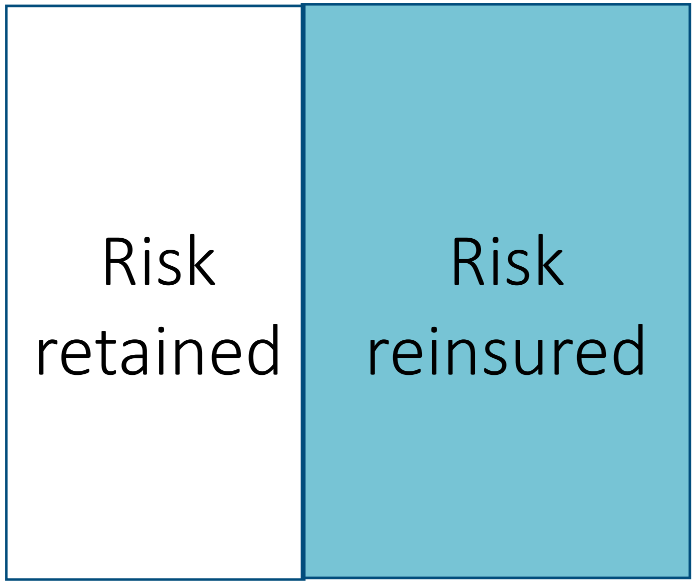
Pro Rata	Excess of Loss
Advantages	
Easy to administer	Good protection against frequency or severity potential
Provides some protection against frequency/severity potential	Allows a greater net premium retention
Protection of net retention on first-dollar basis	More economical in terms of reinsurance premium and cost of administration
Permits recovery on smaller losses	
Disadvantages	
Direct company is still impacted by higher than expected claims	No statutory reserve credit

Determining amount reinsured for proportional reinsurance

Quota share

Reinsurer takes constant percentage of every policy

60% quota share



Excess

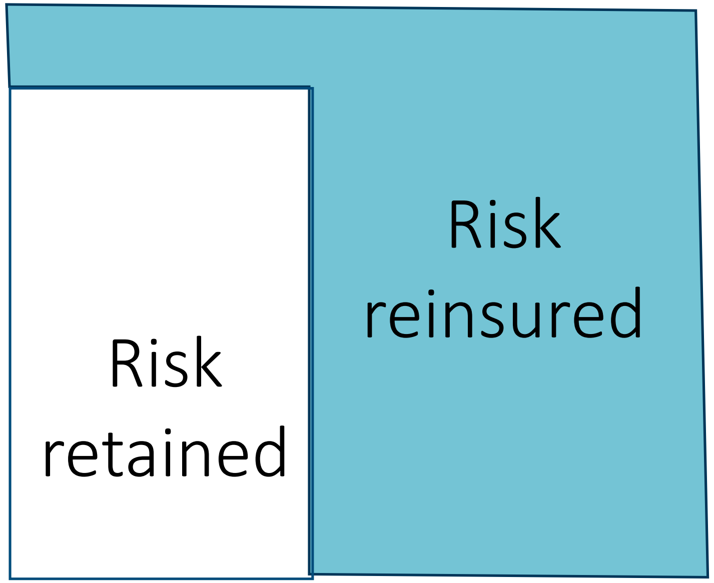
Reinsurer takes all risk over excess limit

$1MM excess limit

Combination

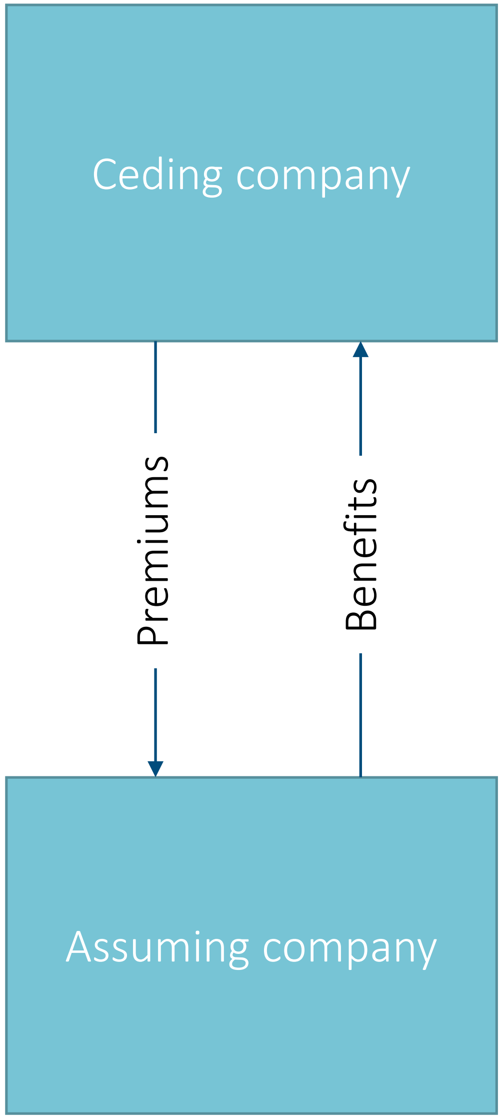
Constant percentage until company reaches their excess limit

60% quota share with $500K excess limit



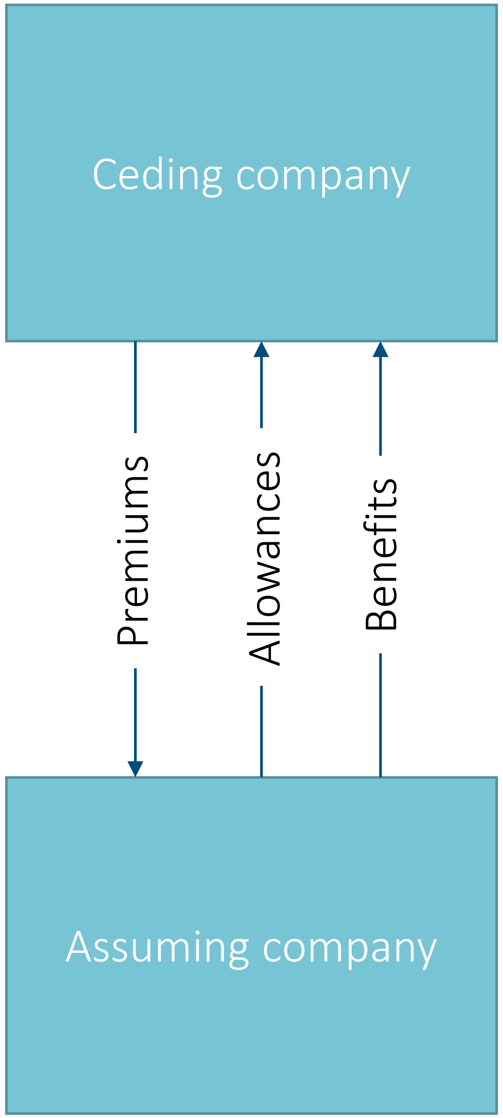
Proportional - YRT

- Proportional transfer of risk (usually mortality)
- Reinsurer charges ceding company yearly premium
- Reinsurer pays its share of any incurred benefits
- Reinsurer typically sets up a ½ C_x reserve



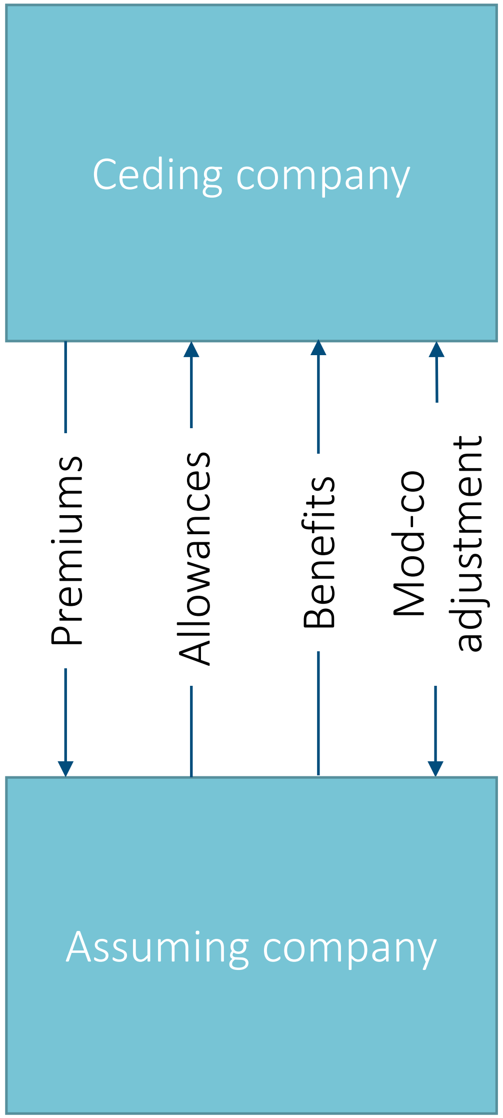
Proportional - Coinsurance

- Proportional transfer of all risks
  - Death/Surrender other
- Reinsurer gets its share of gross premium
  - Usually pays a 1st year and renewal allowances
- Reinsurer sets up its own reserve
- Reinsurer pays its share of all benefits
- Slight inefficient from a capital prospective
  - Ceding company sets up RBC for credit risk



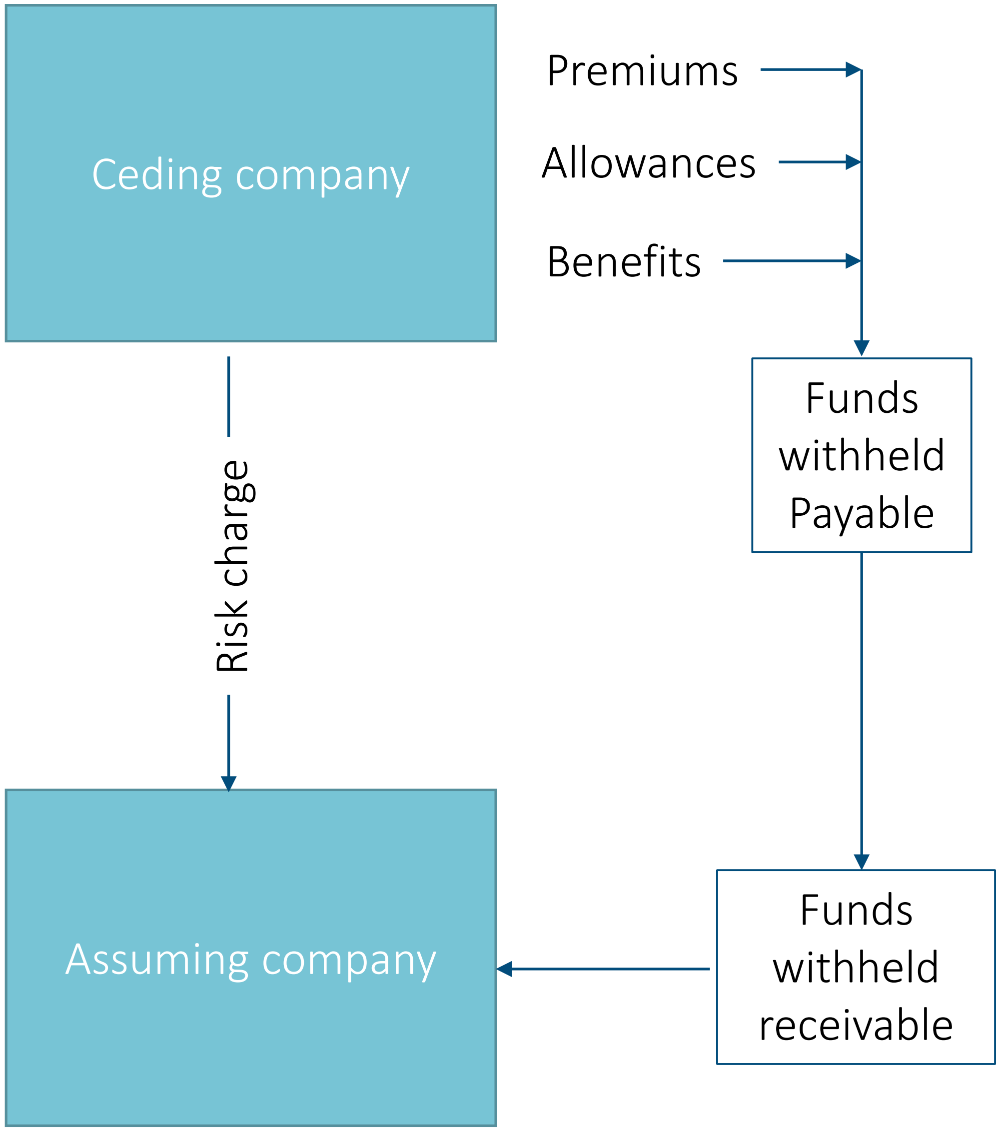
Proportional – Modified Coinsurance

- Similar to coinsurance, but ceding company keeps reserves on its book
- Reinsurer gets proportional share of premiums and pays its share of benefits
- Also pays the "mod-co" adjustment
  - Increase in reserves less investment income earned by assets backing reserves
- Since ceding company keeps the assets, there is no RBC credit risk charge



Proportional – Funds Withheld Coinsurance

- Proportional transfer of all risks
  - Death/Surrender other
- Reinsurer gets credit for its share of gross premium, but cash stays at ceding company
- Reinsurer sets up its own reserve
- Reinsurer is charged its share of all benefits, but no cash changes hands
- Net result of all transactions is to increase a payable at the ceding company and a receivable at the assuming company



Non Proportional
Stop loss/excess of loss

- These arrangements provide for financial protection to the ceding entity for aggregate losses rather than providing indemnification on an individual policy basis

- Catastrophic and stop loss reinsurance are written on an annual basis to protect the ceding entity from excessive aggregate losses

- Usually, the coverage does not extend over the life of the underlying policy nor is there any requirement on the ceding entity to renew the arrangement

Non-traditional financial solutions

- Credit linked notes
- Swaps
  - Longevity
  - Mortality
  - Total return
  - Credit default
- Derivatives

Strategic Uses of Reinsurance Examples

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Disinvestment of blocks

- **Objective:** Insurance company needs capital for investments or to support new business
- **Actions:** Insurance company cedes a block of in force business to a reinsurer
- **Result:** Reinsurance pays a ceding commission to direct company equal to the value of the ceded business

Examples

Day 0 Summary of Operations – Ceding Company ($MM)	
Premiums	(1,200)
Capital gains	200
Ceding commission	100
Change in reserve	1,000
Pre tax stat income	**100**
Tax	-15
After tax income	**115**

Assumptions:

- $1BN reserve ceded
- Market value assets equals 120% of book value
- $158MM IMR ceded
- $100MM ceding commission
- Life business

Improve Capital Usage
via financial reinsurance

- **Objective:** Insurance company has low returns on target capital. Seeks to improve.

- **Actions:** Insurance company enters into a funds withheld coinsurance transaction to reduce the statutory surplus strain

- **Result:** Insurance company achieves desired returns on target capital

Financial Reinsurance Example

Case Study: Inforce Insurance Block

- Inforce block of insurance
- With high required regulatory capital above economic capital
- Goal is lower RBC capital for cedant
- Treaty structure is funds withheld coinsurance
- All numbers are pre-tax with no expenses
- Cedant exercises right to recapture after 5 years

Financial Reinsurance of Inforce Block

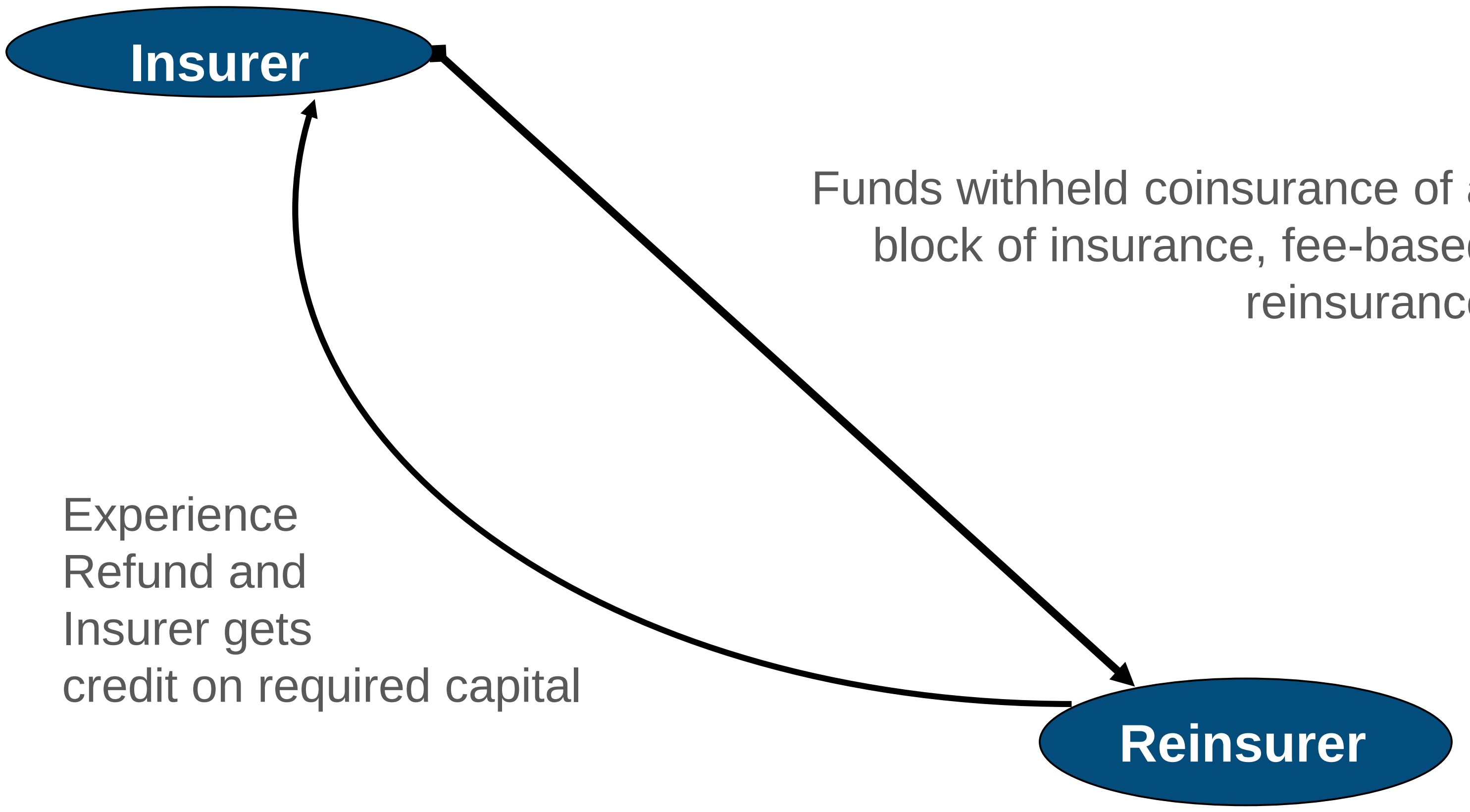
Before Reinsurance

Year	Statutory Reserve	Target Capital^	Benefits	Invest Income	Book Profit*
0	100,000	15,000			
1	88,500	13,300	15,200	4,600	900
2	78,000	11,700	13,700	4,100	900
3	68,500	10,300	12,200	3,600	900
4	60,000	9,000	10,900	3,200	800
5	52,000	7,800	10,000	2,800	800

* Book Profit = Invest Income – Benefits – Change in Statutory Reserve (ignores target capital)
^ Target capital is a multiple of RBC

Financial Reinsurance of Inforce Block

Illustrating the relationship



Financial Reinsurance of Inforce Block

After Reinsurance at a 60% quota share

Year	Statutory Reserve	Target Capital	Benefits	Invest Income	Book Profit*	Reins Fee	Exper Refund
0	40,000	6,900					
1	35,400	6,200	6,080	1,840	360	160	380
2	31,200	5,400	5,480	1,640	360	150	390
3	27,400	4,800	4,880	1,440	360	130	410
4	24,000	4,200	4,360	1,280	320	110	370
5	20,800	3,600	4,000	1,120	320	100	380

* Book Profit = Invest Income – Benefits – Change in Statutory Reserve (ignores target capital)

^ Target capital is a multiple of RBC

Key Points for Financial Reinsurance

Case Study: Inforce Insurance Block

- **Reinsurer has assumed the risk on its quota share** of the business
- In return for its share of the reserve and funds withheld interest, the reinsurer agrees to pay its share of all future claims
- Reinsurer's capital replaces part of ceding company's capital
  - May use modified coinsurance, too, if RBC relief only
  - May lower funds withheld to get reserve and RBC relief
- **C4 does not transfer.**
  - May have additional C1 counterparty capital
- Under expected circumstances, profits less fees will be returned to ceding company via the **experience refund mechanism**

Achieve Planned Sales Growth
via capital support and underwriting support

- **Objective:** Insurance company seeks to grow but constrained by surplus strain and technology

- **Actions:** Insurance company partners with reinsurer for simplified issue underwriting capabilities and reinsurance support for high surplus strain business

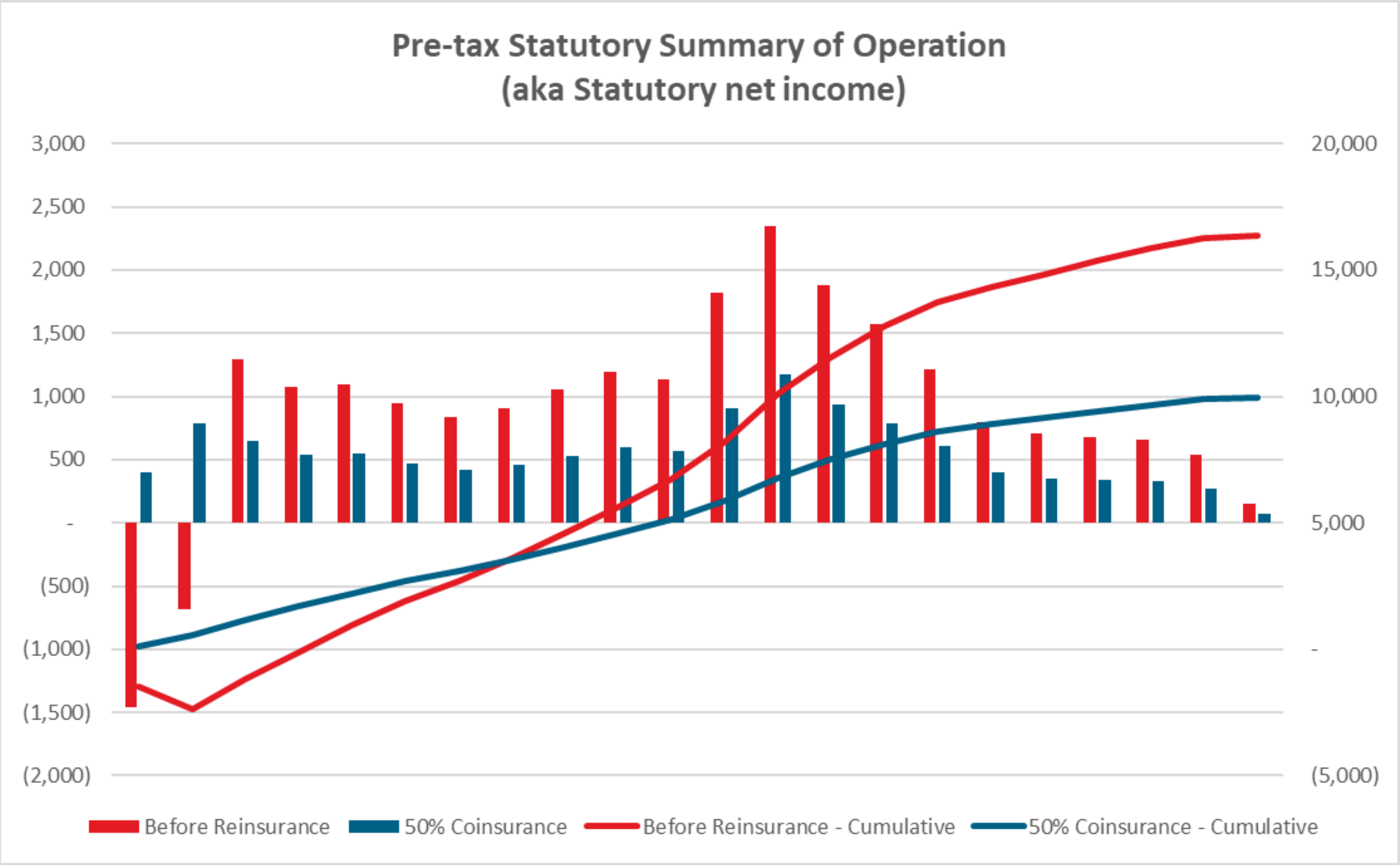
- **Result:** Insurance company achieves desired returns and with improved placement rate

Sales Growth Example

via capital support and underwriting support

- 2 years of new business on block of profitable insurance business
- Company constrained by lack of resources
- Contracts with reinsurer to
  - 50% coinsurance of block of business
  - Reinsurer pays cedant a ceding commission
  - Provide underwriting support through technology and people solutions

Sales Growth Example
Results



- Before Reinsurance
  - High statutory surplus strain
  - Profitable business thereafter
  - Lower IRR
- After Reinsurance
  - Statutory capital reduced to more than half
  - Lower profits
  - Higher IRR

Sales Growth Example

Services support…

- Facultative underwriting
- Training of underwriters and claims teams
- Underwriting manual support
- Simplified issue underwriting systems
- Advanced data analytics
- Partner in the business

Manage Claims Volatility

via YRT, swaps, and non-proportional reinsurance

- **Objective:** Insurance company has seen high claims volatility negatively impacting income and surplus

- **Actions:** Insurance company partners with reinsurer for risk sharing solutions

- **Result:** Insurance company achieves desired levels of claims volatility while balancing costs

Manage Claims Volatility Example

- Expected
  - Pricing shows earnings every year!
- Actual
  - Results will vary from Pricing
  - Consider strategies for managing the volatility

Manage Claims Volatility
Consider…

- What do you want to protect?
  - Earnings volatility
  - Surplus volatility
  - Staffing volatility
  - Something else

- At what level?
  - Every year
  - Above a tolerance

- Balance financial and servicing impacts on business

Tools to Manage Claims Volatility
Knowing what risks you want manage…

- YRT
  - Traditional approach
  - Rates guaranteed?
- Swaps
  - Becoming more common
  - Trade an unpredictable claims cost for a predictable (albeit higher) claims costs
- Non proportional
  - Enter into a stop loss or excess of loss transaction to manage claims above an attachment point
- Servicing
  - Claims management
  - Servicing capabilities

Additional Considerations when Working with a Reinsurer

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Meeting Regulatory Requirements

Regulatory considerations for when using a Reinsurer

- **Getting Reinsurance Credit:** Generally, need a licensed or accredited or certified reinsurer, reserve credit trust, letter of credit, or funds withheld. Need risk transfer.

- **Collateral:** May seek additional collateral for security not reserve credit, depending on exposure to Reinsurer

- **Required Regulatory Filings:** May need to notify your regulator. 8K with SEC, if material. Within holding company and for material transactions, reinsurers may need a Form D filing. Proforma for the transaction. Give regulator 60 days.

Considerations in selecting reinsurance partners

Contract Duration

Support

Now

Ongoing

Future

Data capabilities

Underwriting

Product offering

Product advice

Diversification

Systems Support

Credit Ratings

Experience

Reputation

Structure flexibility

Rates

Capacity

Facultative advice

Certainty of execution

Adaptability

Claim adjudication assistance

Innovation support

Partner or Competitor

Traditional or Specialty

Longevity / Sustainability

Risk appetite

Claim Paying ability

Treaty wording

Future Developments Impacting Reinsurance

Regulatory; Accounting; Other

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Future Developments - Regulatory

- NAIC
  - Changes to credit for reinsurance model law and regulations
    - Covered Agreements
    - Qualified jurisdictions and passporting
    - Regulatory transactions
  - Insurance business transfer legislation
  - YRT reinsurance under PBR – impact of interim vs final solution?
  - Group Capital calculations – potential impact on related party transactions
  - Data privacy trends impacting reinsurance – CA, NY

Future Developments – Accounting (and a PBR plug)

- Long Duration Targeted Improvements "LDTI" & International Financial Reporting Standard 17 "IFRS17"
- LDTI – implementation 1/1/2022 (large filers) and 1/1/2024 (all others):
  - Fair Value model with more 'understandable' results and higher level of ongoing disclosure
- IFRS17 – implementation 1/1/2022
  - Issues with implementation for reinsurance remain open but are converging to a reasonable position
  - Contractual Service Margin liabilities offset any gains at contract inception
- Potential impact on reinsurance – New markets for reinsurance customized solutions
  - Additional information required to support LDTI and IFRS (and PBR) disclosures (both directions)
  - Establishing tracking cohorts will require substantive systems changes
  - LDTI and IFRS17 both generate additional income and surplus volatility
    - → reinsurance has been a tool to assist where volatility exists
- Ultimately, Cash remains King! – While earnings impact timing will change, reinsurance transactions will continue to be utilized to manage capital and earnings sensitivity

Future Developments – Other

- Big data
  - Direct and reinsurance companies all playing in their sandboxes
  - Coming up with new innovative ways to select risks
- Move from insurance to wellness
  - Trend to ongoing interaction
  - Wearable medical devices
- New risks and New consumer views
  - Vaping, Opioid, Marijuana legalization
- New solutions – medical advancements and predictive technology driving improved outcomes for policyholders
- Reinsurers partnering with tech firms
- Reinsurers partnering with direct writing companies

Questions?