


Actuarial Club of the Southwest

Managing and Mitigating Risk With Reinsurance

John Nigh FSA, MAAA

June 19, 2008



© 2008 Towers Perrin

Forms of capital

- Capital Contribution** ■ Parent requires acceptable returns
- Internal Funds** ■ Retained earnings from business written on the books
- Capital Markets** ■ Stock companies only; can become dilutive
- Debt** ■ Increases leverage
■ Tight regulatory scrutiny
■ May cause mismatch of assets and liabilities
- Surplus Notes** ■ Regulated, limited market
- Reinsurance** ■ Ways to leverage current liabilities

S:\EGS\2008\ACTUARIAL CLUB SW\147392TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

1

Reinsurance applications to manage capital

- Provide acquisition and divestiture support
- Improve capital
 - New business surplus strain
 - RBC relief
 - Divestiture of unfavored assets
 - Commission financing
- Improve statutory IRR and GAAP ROE
- “Smooth” STAT earnings
- Enable capital transfers and income shifting

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

2

Benefits of reinsurance to manage capital

- Obtain relief from redundant statutory requirements
- Establish capital requirements closer to true level of risk equity
- Finance difference between statutory requirements and net GAAP reserves at lower cost of capital
- Achieve more favorable ROE and IRR
- Increase investment flexibility and enhance yield
- Free up cash (liquidity) for acquisitions and/or lower cost of capital
- Get RBC relief from investing in high RBC assets
- Gain flexibility in statutory earnings evolution

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

3

Benefits of reinsurance in M&A

- Seller can divest less desired products before going to market
- Added due diligence talent becomes involved
- Buyer can outsource (offload) less desired products to better align business gained with buyer's objectives
- Buyer can improve comfort with certain risks, e.g., mortality via YRT
- Buyer can improve view of asset-liability matching
- Buyer can gain needed capital or statutory earnings
- Buyer and investors have added confidence from reinsurer's view of the business

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

4

Why use reinsurance

- Benefits asset/liability classes and income
- Debt-like cost ... equity-like benefits
- Potential better tax outcome than debt or equity
- Easy to put in place
- Flexible
- Avoid undesirable premature asset sales
- Payments are tied to actual outcomes, not debt schedules

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

5

Reinsurance structures

	Ceding Company		Reinsurer	
	Advantages	Disadvantages	Advantages	Disadvantages
Coinsurance	<ul style="list-style-type: none"> Eliminates all liabilities Improves surplus Biggest RBC impact Capital improvement Easier regulatory and rating agency review 	<ul style="list-style-type: none"> Gives up business (profits and assets) Higher cost Less control Flexibility Credit risk exposure 	<ul style="list-style-type: none"> Permanent transaction Higher return Transfers assets and liabilities 	<ul style="list-style-type: none"> Ties up capital May be more complex Administration dependent on partner Need strong rating
Co/Modco	<ul style="list-style-type: none"> Minimal cash transfer Retain ownership of assets Increase surplus Improve IRR and ROE Lower cost Flexibility Administration 	<ul style="list-style-type: none"> Temporary Scrutiny by regulators and rating agencies May create taxable income Derivative accounting 	<ul style="list-style-type: none"> Minimal cash transfer Simple administration Flexibility Low risk May create taxable deductions 	<ul style="list-style-type: none"> Temporary Scrutiny by regulators and rating agencies Usually low return Derivative accounting
Modco	<ul style="list-style-type: none"> Surplus enhancement in cash Retain control of assets Increases surplus Easier regulatory and rating agency review than Co/Modco Flexibility 	<ul style="list-style-type: none"> Higher cost Less RBC relief than other structures May create taxable income Temporary Derivative accounting 	<ul style="list-style-type: none"> Higher return than Co/Modco Low RBC requirements Easier regulatory and rating agency review than Co/Modco Flexibility May create taxable deductions 	<ul style="list-style-type: none"> Higher risk Prepayment risk Usually temporary Derivative accounting Credit exposure

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILLMANAGING RISK.ppt

© 2008 Towers Perrin

6

Hypothetical reinsure block of business

Risk-based Capital Relief

<p>Current Block</p> <p>Liabilities 2,000 C&S and AVR 100</p>	<table border="1"> <thead> <tr><th colspan="2">RBC Calculation</th></tr> <tr><th>Category</th><th>Amount</th></tr> </thead> <tbody> <tr><td>C-1</td><td>21</td></tr> <tr><td>C-2</td><td>3</td></tr> <tr><td>C-3</td><td>19</td></tr> <tr><td>C-4</td><td>4</td></tr> <tr><td>RBC</td><td>44</td></tr> </tbody> </table> <p>Company Action Level</p> <p>RBC% 227%</p> <p>Free Capital If 200% RBC Is Targeted 12</p>	RBC Calculation		Category	Amount	C-1	21	C-2	3	C-3	19	C-4	4	RBC	44
RBC Calculation															
Category	Amount														
C-1	21														
C-2	3														
C-3	19														
C-4	4														
RBC	44														
<p>Coinsure a Portion of the Block</p> <p>Coinsurance percentage 50%</p> <p>Liabilities 1,000 C&S and AVR 120 Ceding commission after tax 20*</p>	<table border="1"> <thead> <tr><th colspan="2">RBC Calculation</th></tr> <tr><th>Category</th><th>Amount</th></tr> </thead> <tbody> <tr><td>C-1</td><td>16</td></tr> <tr><td>C-2</td><td>2</td></tr> <tr><td>C-3</td><td>10</td></tr> <tr><td>C-4</td><td>4</td></tr> <tr><td>RBC</td><td>30</td></tr> </tbody> </table> <p>Company Action Level</p> <p>RBC% 400%</p> <p>Free Capital If 200% RBC Is Targeted 60</p> <p>If No Ceding Commission Is Paid</p> <p>RBC% 333%</p> <p>Free Capital If 200% RBC Is Targeted 40</p>	RBC Calculation		Category	Amount	C-1	16	C-2	2	C-3	10	C-4	4	RBC	30
RBC Calculation															
Category	Amount														
C-1	16														
C-2	2														
C-3	10														
C-4	4														
RBC	30														

*Does not take into account capital gains/losses of market value transfer.

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILLMANAGING RISK.ppt

© 2008 Towers Perrin

7

Hypothetical acquisition (000s)

Initial Statutory Reserves 495,520
 Ceding Commission 118,925
 RBC 14,866

Year	Traditional Acquisition				Reinsurance Partnership			
	Distributable Profits	Stat IRR (%)	GAAP Income	GAAP ROE (%)	Distributable Profits	Stat IRR (%)	GAAP Income	GAAP ROE (%)
0	(102,077)	—	0	—	(3,469)	—	0	—
1	14,728	—	8,663	8.8	(513)	—	1,104	25.8
5	13,124	—	7,752	10.1	(207)	—	2,442	18.8
10	10,460	4.4	6,377	11.9	5,852	1.1	5,889	21.3
15	7,938	8.3	5,052	16.1	5,111	17.8	3,510	19.9
20	5,874	9.5	3,527	16.3	3,780	19.9	2,439	22.7

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

8

Asset transfer

Hypothetical RBC Relief/Yield Enhancement Reinsurance of Annuity Block Quota Share 50%

Premium 500,000
 Initial Reserves 526,701
 RBC 21,068

Year	Before Reinsurance		Retained Portion		Reinsurance Cash Flows		After Reinsurance	
	Distr Cash	Distr Profits	Distr Cash	Distr Profits	Exper Refunds	Interest Bonus	Distr Cash	Distr Profits
0	0	(40,455)	0	(22,861)	0	0	0	(22,861)
1	0	5,877	0	2,985	0	401	401	3,385
5	0	5,824	0	2,978	0	379	379	3,357
10	3,989	5,515	1,995	2,847	1,938	324	4,257	5,109
15	3,395	4,842	1,697	2,526	1,655	245	3,597	4,425
20	2,561	11,204	1,281	5,704	1,254	159	2,693	7,117
IRR		12.76%		11.18%				16.34%

S:\EGS\2008\ACTUARIAL CLUB SW\147392\TILL\MANAGING RISK.ppt

© 2008 Towers Perrin

9

