



The New World of Financial Reinsurance

SOA Annual Meeting
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Our Distinguished Panel (and me)

- Jeff Poulin (Canada Life Re): Life Financial Reinsurance
- Jeff Burt (Hannover Life Re): The Marketplace for Financial Reinsurance
- Laura “Jeff” Bazer (Moody’s): Life Reinsurance from a Rating Agency Perspective
- Questions and Answers

Life Financial Reinsurance

October 15, 2007

Jeff Poulin



What is Financial Reinsurance?

- **It is Reinsurance where the Cedent's primary goal is financial rather than true risk sharing**
- **It usually reduces the difference between overly conservative rules and 'fair value' rules**
- **Statutory strain reduction (statutory reserves can be excessive)**
- **Risk Based Capital reduction**
- **Keeping rating agencies ratios in order**
- **Financing an acquisition or growth in new business**
- **Tax efficiencies**

- **It does not mean that the reinsurance contract does not transfer risk**
- **It can have any type of structure e.g. Coinsurance, YRT, Stop Loss**

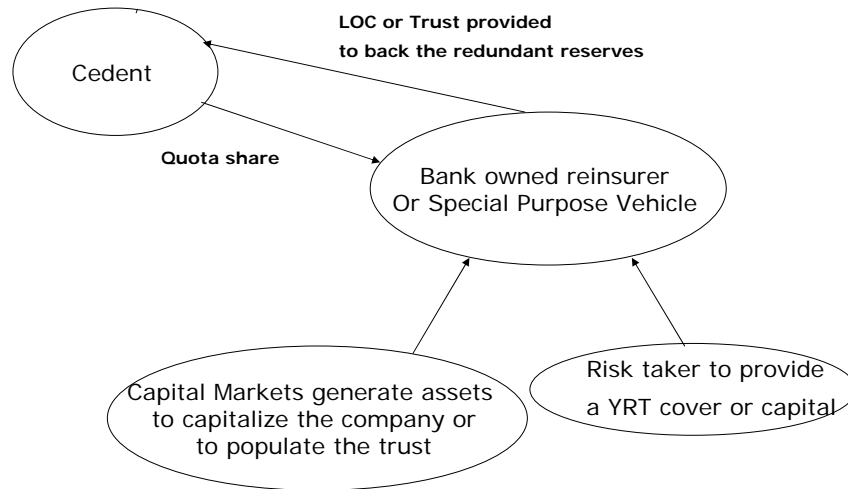
US Rules

- **NAIC Reserve credit / risk transfer rules are clear for life reinsurance:**
 - Need to transfer the major risks associated with the product (mortality, morbidity, investments, etc..)
 - Need to transfer the direct/allocated expenses of the product
 - Reinsurer cannot cancel and get paid back past losses
 - Letters of credit or assets in trust need to be established by non-licensed companies
- **GAAP rules are not as well defined for life reinsurance**
 - 10% chance of losing 10% of the premium is not really applicable to a life/health products.
 - It is hard to achieve financial reinsurance for life products on a GAAP basis
 - 2 Accountants will provide 2 different opinions

Example XXX

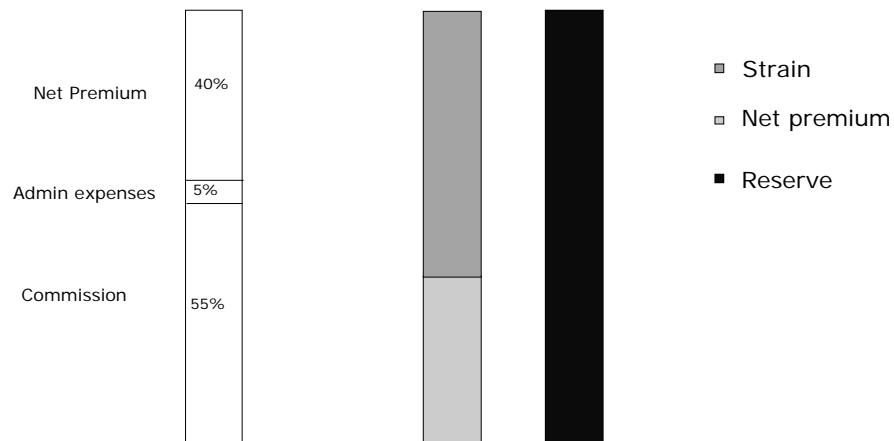
- XXX reserve on life business
- Valuation mortality is three times the expected mortality
- Lapsation is not allowed under statutory reserving
- This results in reserves that are 4 to 5 times greater than their GAAP equivalent
- Insurers do not want to 'finance' this additional redundant reserve
 - In the past few years, large amounts of XXX reserves have been reinsured for 'financial reasons'
 - Banks have been the main players because the amounts financed have been very large
 - They offer either letters of credit or assets in trust which have been generated by the capital markets
 - Banks are taking some risk but have been unloading as much as possible with upfront stop loss agreements, capital funding, stop loss or YRT agreement in the back end
 - The important point is that the quota share agreement complies with the risk transfer and reserve credit rules
- The chart that follows can become much more complicated if the cedent wants to keep the tax benefits of the XXX reserve and if a guarantor is involved for the investors

Example XXX –complicated structure



Example Credit A&H block

- Single Premium product with high commission(55%) and an unearned premium reserve on day one
- GAAP reserve would be equal to the Net Premium



Example Credit A&H

- Quota share to an offshore company which provides an LOC for the difference between the Statutory reserve and the GAAP reserve helps the cedent with the strain

Before Reinsurance	Inception	Year 1	Year 2
		ITD	ITD
Premium	100	100	100
Expenses	60	60	60
Claims	0	15	30
Reserves	100	50	0
Net Income	-60	-25	10

- Assume a 2 year product for simplicity
- Reinsurance costs were ignored

With reinsurance	Inception	Year 1	Year 2
Premium	100	100	100
ceded	-100	-100	-100
Expenses	60	60	60
ceded	-60	-60	-60
Claims	0	15	30
ceded	0	-15	-30
Reserves	100	50	0
ceded	-100	-50	0
Experience refund	0	5	10
Net income	0	5	10

Example RBC relief on health business

- **A large portfolio of health insurance would have a large C2 RBC component based on net premium**
- **A quota share to an offshore reinsurer with a lower capital requirement would reduce the RBC required**
- **The reinsurer can possibly pay an experience refund over its required profit and the cedent would increase its return overall**
- **Alternatively, the reinsurer can pay an upfront additional allowance to the cedent and keep all of the excess profit**
- **The reinsurer will require that the cedent retains a significant share of the block to make sure they have an incentive to manage the block properly**
- **The reinsurer may also require a minimum number of years for the reinsurance to be in place to allow for participation in all parts of the health cycle**

50% Quota share/ Reinsurer Experience Refund
excess profit above 2% of premium

	Before Reinsurance	After Reinsurance	
	Cedent	Cedent	Reinsurer
Premium	1000	500	500
Claims	700	350	350
Expenses	250	125	125
Experience Refund	0	-15	15
Net Profit	50	40	10
RBC (12%) X 200% factor	240	120	
Return	21%	33%	

Advantages/ Disadvantages of Financial Reinsurance

Advantages:

- Brings the Statutory reserve closer to a GAAP reserve
- Reduces the Risk based capital associated with the product reinsured
- Increases returns for the Cedent
- Lower cost than raising capital or borrowing
- Risk is transferred

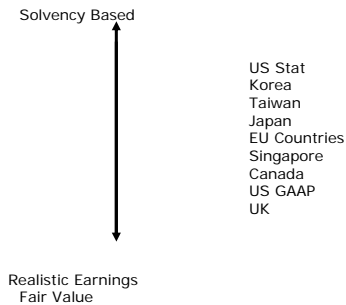
Disadvantages:

- Tax losses may end up offshore and the company does not benefit from them
- There is a cost (the reinsurer keeps some of the profit)
- Some regulators are nervous despite the clarity of their own rules
- Rating Agencies' view vary by deal

□

Accounting Framework

- Financial effects of reinsurance depend on the primary intent of the accounting standard:



Spitzer effects?

- Life Financial reinsurance still exists although it slowed down for a few years
- Securitization often looks like Financial Reinsurance and it is doing very well
- Accountants are still debating how to properly define risk transfer GAAP rules (should they be the ones doing this or should this be done by actuaries?)
- Reserve Credit rules and Risk transfer rules are well defined for Statutory Accounting
- Rating agencies have different views on Financial Reinsurance
- Most of the Spitzer effect has been on the P&C side where the primary goals of Fin. Re have been to relieve GAAP statements

somewhat
different

The Marketplace for Financial Reinsurance

Jeff Burt
VP-Marketing

SOA Annual Meeting
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hannover life re^o

FINANCIAL REINSURANCE LANDSCAPE



1) Financial Relief

- Relieve New Business Strain
- Release Capital = Monetize a block
 - Scale unachieved
 - Redeploy capital in higher yielding lines



2) Balance Sheet Leverage

- Improve managing ratios and free capital
 - Redundant reserves on XXX and AXXX
 - Reduce required capital
- Accelerate Tax/Stat differences
- Improve financing costs

SURPLUS RELIEF VS NEW BUSINESS FINANCING

	New Business Financing	Surplus Relief
Business Covered	New Issues	Typically Inforce
Primary Goal	Reduce Current Year Strain	Free Up Surplus
Ceding Commission	Possibly	Yes
Cash / Non-cash Transfer	Generally Cash	Generally Non-cash
Statutory Risk Transfer Treatment	Same Guidelines Apply	
GAAP Risk Transfer Treatment	Same Guidelines Apply	
Typical Structure	Co / FWCO / ModCo	
Duration of Agreement	Indefinite	
Anticipated Recapture	Possibly	Likely

SURPLUS RELIEF

“Perceptions” of Surplus Relief

- Many believe “Surplus Relief” denotes transactions without *ANY* risk transfer. However, these types of transactions were addressed by the model regulation on risk transfer.
- While by no means risk free today, “surplus relief” transactions can have a component of over-collateralization allowing the transaction to perform closer to debt than to equity.
- More recently, RBC motivated transactions have begun to be included in this label. While not increasing the level of surplus, they can free required capital making it available to support either new business or other inforce requirements.

“POST-SPITZER” CHANGES

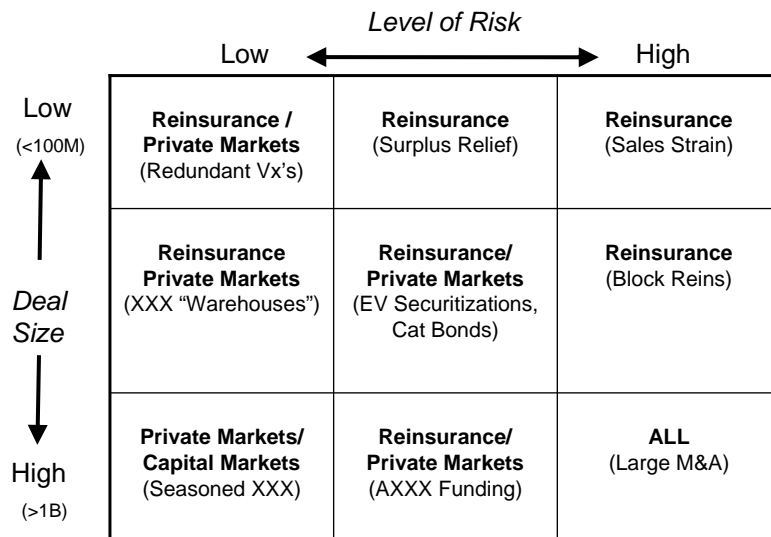
New Trends

- Increased voluntary disclosure
 - State regulators, rating agencies, auditors
- Written confirmation of consistent accounting between parties
- Additional scrutiny on reinsurance reserve credit

New “Needs”

- Education of the marketplace as to nature of these transactions
- Inexperienced parties being asked to “review for compliance”
- Clarity around differences between finite v. financial reinsurance

“FINANCIAL REINSURANCE” MARKETPLACE



CAPITAL MARKET ACTIVITY

Current Products

→ **XXX / AXXX focus primarily**

- Capital market comfort level
- Truly "excess" reserves

→ **Cat-bonds**

- First step into "risk" securitizations

→ **Reinsurance Solutions**

- Expansion by investment banks and PE firms into reinsurance space
- Increased outlets to deploy capital

FINANCIALLY MOTIVATED TRANSACTION ACTIVITY

2006 / 2007 Transactions	Number	Size
Public XXX / AXXX Securitization	2 (6 in '06)	\$200M to 1.8B
Private XXX/AXXX Securitization ¹	~ 15	> \$100M
Mortality Cat Bonds	1 (6 to date)	\$150M+
Embedded Value Securitizations	2 (about 2 per yr)	>\$100M
Financial Reinsurance Transactions ²	19 (27 in '06)	\$1-200+M

¹ Believed to be approximately 3 times the public number

² As seen by Hannover Life Re YTD in 2007

*somewhat
different*

Thank you for your attention!

hannover **life re**^o

Life Reinsurance from a Rating Agency Perspective

Laura Bazer

VP-Senior Credit Officer

**Society of Actuaries Annual Meeting
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Moody's Investors Service

Presentation Outline

- **Moody's views on life reinsurance**
- **Financial Re**
- **Alternatives to reinsurance: securitizations, "alternative" transactions**
- **Financial re vs. alternatives: commonalities/differences**

Moody's Views on Life Reinsurance

Life Re is:

- Key to the smooth functioning and growth of the direct life insurance industry
- But, it is a higher risk business than ordinary life insurance.
- Reasons:
 - Concentration risk
 - Volatile earnings
 - Limited capital

Moody's Views on Reinsurance

Issues, cont'd

- Limited reinsurance capacity (given growth of AXXX, XXX reserves)
- Dependence on bank LOCs for offshore business
- Administrative issues:
 - No industry treaty and data standards
 - Reporting lags

Still a handshake business, to a large extent, although slowly changing

Financial Reinsurance: Pros and Cons

■ *Pros:*

- Surplus relief for new business growth
- Earnings smoothing effect

■ *Cons:*

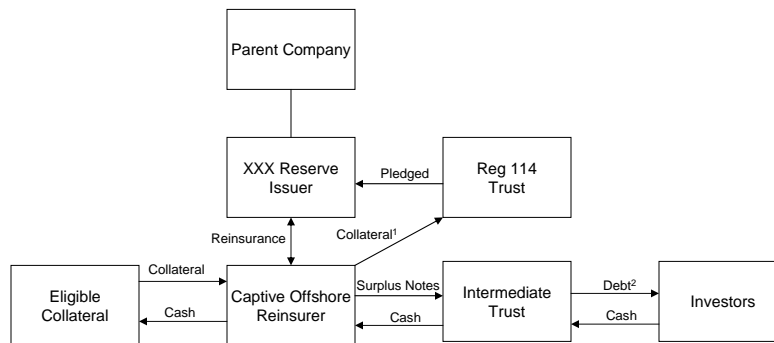
- True risk transfer/debt?
- Regulatory issues (recent "Wells" notices, etc.)
- Erodes future earnings and statutory capital

- *Moody's view: we monitor financial re structures, materiality, and usage closely*

Alternatives to Reinsurance

- The capital markets, via full securitizations
- In the US, this is driven by:
 - Expectations of \$100bn-\$200bn industry XXX and AXXX reserves over the next 5-7 years
 - Limited reinsurance capacity/bank LOCs
- Available alternative solutions:
 - Insurance-linked transactions
 - “Other” solutions
 - Internal structures, with/without public/private debt issuance

Insurance-Linked Transaction for XXX Reserves



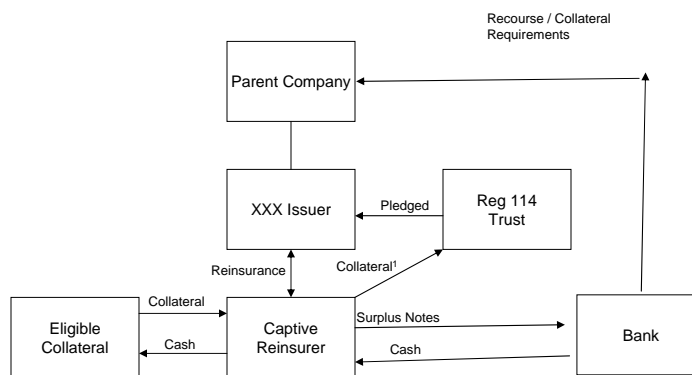
¹Reg 114 Trust collateral is invested in high quality assets with ALM tied to the debt issued by Intermediate Trust.

²Debt is non-recourse to XXX Reserve Issuer and mirrors the terms of the surplus notes issued by Captive Offshore Reinsurer. Debt may be wrapped by a financial guarantor.

Rated Insurance-Linked Transactions

Beneficiary	Transaction	Issuance Date	Issuance Amount
Protective	Golden Gate II	July 2007	\$575 MM
Aegon	LIICA Holdings, LLC	April 2007	\$550 MM
Genworth	River Lake IV	April 2007	\$540 MM
Forethought	Forethought II	December 2006	\$134 MM
Unum Provident	Tailwind	November 2006	\$130 MM
Genworth	Rivermont	October 2006	\$315 MM
Genworth	River Lake (4 th Issuance)	September 2006	\$300 MM
Legal and General	First British American II	August 2006	\$450 MM
RGA	Timberlake	June 2006	\$850 MM
Scottish Re	Ballantyne Re	May 2006	\$1,750 MM
Genworth	River Lake III (1 st Issuance)	January 2006	\$750 MM
Scottish Re	Orkney II	December 2005	\$455 MM
Genworth	River Lake II (2 nd Issuance)	October 2005	\$300 MM
Genworth	River Lake (3 rd Issuance)	June 2005	\$200 MM
Scottish Re	Orkney	February 2005	\$850 MM
Genworth	River Lake II (1 st Issuance)	December 2004	\$300 MM
Legal and General	First British American	November 2004	\$550 MM
Genworth	River Lake (2 nd Issuance)	December 2003	\$300 MM
Genworth	River Lake (1 st Issuance)	July 2003	\$300 MM

Private Alternative XXX Reserve Funding Solution



¹Reg 114 Trust collateral is invested in high quality assets with ALM tied to the debt issued by Intermediate Trust.

Moody's Analysis

- Operating vs. financial leverage treatment?
 - **Must achieve Aa3 equivalent level of expected losses/draws on financial support, or lower, to receive full operating leverage treatment**
 - **For an insurance-linked transactions: non recourse to the company**
- Moody's analysis for capital markets transactions:
 - annual projection of (re)insurance cash flows, income statement and balance sheet;
 - integration of debt service cash flows; parameterization of key assumption drivers

Moody's Analysis

- 10,000 scenarios are run; debt defaults and severity of loss given default are compiled to produce an expected loss distribution
- Expected loss is mapped to a corresponding rating level
- Map expected loss to a corresponding rating level
 - Notching of mapped rating for uncertainty
 - Modeling error
 - Regulatory uncertainty

Mapping of Expected Losses to a Rating

Year	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3
1	0.0000%	0.0003%	0.0007%	0.0017%	0.0032%	0.0060%	0.0214%	0.0495%	0.0935%	0.2310%
2	0.0001%	0.0017%	0.0044%	0.0105%	0.0204%	0.0385%	0.0825%	0.1540%	0.2585%	0.5775%
3	0.0004%	0.0055%	0.0143%	0.0325%	0.0644%	0.1221%	0.1980%	0.3080%	0.4565%	0.9405%
4	0.0010%	0.0116%	0.0259%	0.0556%	0.1040%	0.1898%	0.2970%	0.4565%	0.6600%	1.3090%
5	0.0016%	0.0171%	0.0374%	0.0781%	0.1436%	0.2569%	0.4015%	0.6050%	0.8690%	1.6775%
6	0.0022%	0.0231%	0.0490%	0.1007%	0.1815%	0.3207%	0.5005%	0.7535%	1.0835%	2.0350%
7	0.0029%	0.0297%	0.0611%	0.1249%	0.2233%	0.3905%	0.6105%	0.9185%	1.3255%	2.3815%
8	0.0036%	0.0369%	0.0743%	0.1496%	0.2640%	0.4560%	0.7150%	1.0835%	1.5675%	2.7335%
9	0.0045%	0.0451%	0.0902%	0.1799%	0.3152%	0.5401%	0.8360%	1.2485%	1.7820%	3.0635%
10	0.0055%	0.0550%	0.1100%	0.2200%	0.3850%	0.6600%	0.9900%	1.4300%	1.9800%	3.3550%

Full Securitization vs. Financial Re

Commonalities:

- Facilitation of continuing product growth
- Reduction of earnings and surplus strain
- Reduction of dependence on bank LOCs
- Monetization of future profits

Securitization vs. Financial Re

■ *Differences:*

- Securitization takes risk off a company's books (if structured/modeled to meet Moody's standards), and provided that the underlying shadow rating of the insurance-linked debt is not higher than the rating-equivalent losses of the direct business.
- Limited recourse to the cedant
- Often additionally wrapped by a monoline
- Long-term solution
- But: could be costlier for small size deal/smaller company

"Other" Solutions vs. Financial Re

■ *Differences:*

- Private debt solutions often involve recourse to parent company
- Reserve true-up requirements often present; the resultant liquidity risk could be linked to holding company ratings/financial condition
- Does not transfer risk out of the group

Securitization vs. Financial Re

■ *Differences: Financial re*

- Cedant has credit exposure to the reinsurer (depending on whether the financial re is cash funded or reserve based)
- Contracts are typically of short tenor
- Minimal risk transference vs. insurance-linked transactions
- Limits on usage

Conclusions

■ *Primary reasons for securitization and "alternative" solutions?*

- *Reduction of redundant reserve strain from AXXX and XXX products*
- *Need for a supply solutions of varied solutions sufficient to meet demand*
 - *Secondarily: operating leverage treatment*

■ *Financial reinsurance not appropriate*

Questions