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What Is A Dollar Worth?

by Mark R. Troutman

This is the second in a series of articles on financial reinsurance transactions. In my first article, I compared financial reinsurance to other forms of capital and provided a broad list of types of uses of financial reinsurance and their impacts. The purpose of this article is to give several specific examples of financial reinsurance transactions and to give some ideas on how a representative of a ceding company or a professional reinsurer could make contact with others in various venues to get in the mainstream of financial reinsurance activities.

Let's start with a bread-and-butter example of the most common use of financial reinsurance historically — surplus relief transactions. A surplus relief transaction is basic arbitrage between statutory and GAAP accounting. Statutory accounting takes a conservative approach to the income statement and balance sheet by fully expensing certain startup costs to acquire business such as first year commissions. Not recognizing certain assets such as furniture and fixtures and agents debits balances as admitted assets also reduces surplus. Under GAAP, certain costs should be capitalized and then amortized over the usable lifetime of the assets. In a statutory environment, when a company writes new business, it suffers surplus strain because commissions and other expenses and claims and reserve increases are actually greater than the first year premium charged. Therefore, the more business the direct company writes, the more they lose in the first year on a statutory basis. Hence, new business growth, which is supposed to be a sign of good health (if priced appropriately), can leave those who monitor such balance sheets with an indication of declining financial strength. In addition, the company must deal with the increased risk-based capital (RBC) needed for the new sales.

Therefore, surplus relief reinsurers must come to the rescue. Surplus relief can be a cost-effective means of financing new business strain associated with profitable growth. It will be cost-effective if the combination of risks assumed and capital provided are at an attractive cost of capital. What follows is an example of how a block of business might perform without reinsurance. I will then present two opportunities to mitigate the impact of "surplus strain." The first example is a conventional 80% quota share reinsurance treaty. The second, a surplus relief example, demonstrates that a ceding company may attempt to get the best of both worlds through a financial reinsurance transaction. If the business performs well, the ceding company will repay the ceding commissions net of the small expense and profit charge to the reinsurer and then recapture their block of business and obtain the future profits. If the business performs poorly, the ceding company will keep the ceding commission the financial reinsurer gave them and continue to cede the losses to the insurer through the reinsurance treaty mechanics without paying a fee.

Not all blocks of business are amenable to surplus relief transactions. Because of the upside / downside scenario I've just described, "Heads, the ceding company wins. Tails, the financial reinsurer loses," the reinsurer needs to view it as a banking transaction in a reinsurance wrapper or a pawn shop transaction in a reinsurance wrapper. A reinsurer approaches the block of business much like a banker who will not extend a loan unless he feels he has good collateral. Note that GAAP typically treats a surplus relief deal as deposit accounting. To determine the value of the collateral, a financial reinsurer will take the original financial projections of the ceding company and review the policy forms and other pricing and underwriting guidelines on the block of business to be reinsured. It will then perform sensitivity

analysis on the actuarial assumptions used in the block of business. For example, how will the profits emerge if mortality is 125% of expected, net investment income is only 6% vs. 7.5% and lapses occur at twice their expected level over some or all durations? If the business still produces statutory profits, the reinsurer has an asset which can be used to collateralize a surplus relief transaction. If not, the ceding company may have to pursue a conventional reinsurance approach whereby the reinsurer will end up with a more balanced upside and downside potential. The profit earned by the Reinsurer is commensurate with the risk it assumes.

The early 1990s saw a tightening up and cleaning up of the financial reinsurance market as certain companies entered into reinsurance transactions for which an actuary on top of his or her game would have realized that the ceding company was taking more credit for the surplus relief or for the reserves ceded than they actually should have taken risks when compared to the risks transferred. The history and details of those regulations are beyond the scope of this particular article. However, if required, David Letterman and I will follow up with another article that gives a top ten list of reasons why reserve credit was being taken when it shouldn't have been taken in the wild, wild west days of financial reinsurance. Surplus relief became viewed suspiciously by some and as a sign of financial weakness. Is perception reality?

The surplus relief market changed dramatically over the last decade. As regulations changed the nature of the risk transfer requirements, the demand for surplus relief declined as did the supply. New forms of capital such as surplus notes sometimes provided a more cost-effective source of capital — to mutual

companies in particular. Other companies demutualized and obtained their statutory equity through stock offerings. Conventional reinsurance has taken over a more significant role as financial reinsurance declined while still providing significant surplus and RBC relief. This is because product assumptions have became very competitive producing lower future statutory margins and hence less collateral for Financial Reinsurers. Also, the mortality assumptions of the professional reinsurers are such that many direct writers effectively become distribution companies and cede a large percentage of their business on a quota-share basis to the professional reinsurers, locking in a ceding commission in the process. But when one door closes, another door opens. Regulation XXX has created another category of potentially redundant statutory reserves. Reinsurance solutions surfaced quickly and are continuing to evolve to address Letter of Credit pricing and capacity constraints.

Anyway, back to the examples. Before you look at those numbers, anyone who has been to Las Vegas needs to ponder whether Siegfried and Roy actually made the elephant disappear and reappear somewhere else or whether it was just a brilliant financial reinsurance transaction.

The following surplus relief illustration is from the view of the Ceding Company. Please note that fees and taxes have been ignored.

"How Do You Spell Relief" – Example #1

Before Reinsurance						
Year	1	2	3	4	5	6
Premiums	1,000	600	500	400	350	300
- Claims & Surrenders	0	75	100	120	130	130
- Commissions & Expenses	700	150	100	50	40	30
- Increase in Reserves Gain	600	200	150	100	70	50
= Gain	-300	175	150	130	110	90
Balance Sheet:						
Assets	300	675	975	1205	1385	1525
Liabilities	600	800	950	1050	1120	1170
Capital & Surplus	-300	-125	25	155	265	355

* Note how the business generates 300 of strain, but ultimately products 355 of gain.

After Conventional Reinsurance (80% Q.S.)

Year	1	2	3	4	5	6
Premiums	200	120	100	80	70	60
+ Claims & Surrenders (reinsurance)	0	60	80	96	104	104
+ Commissions & Expenses (reinsurance)	560	120	80	40	32	24
= Total Revenues	760	300	260	216	206	188
- Claims & Surrenders	0	75	100	120	130	130
- Commissions & Expenses	700	150	100	50	40	30
- Increase in Reserves	120	40	30	20	14	10
= Gain	-60	35	30	26	22	18
Balance Sheet:						
Assets	60	135	195	241	277	305
Liabilities	120	160	190	210	224	234
Capital & Surplus	-60	-25	5	31	53	71

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Note how the initial strain and the ultimate gains are reduced by 80%. Risk-Based Capital required will be reduced by less than 80% because the C4 risk stays with the direct writer. In addition, the Ceding Company will incur a small reinsurance recoverable charge.

The following example assumes that the Reinsurer pays the Ceding Company an initial allowance of $240m which it hopes to recover over the next three to five years through the emergence of the actual statutory earnings from the underlying block. It could take up to ten years or more if the block suffers adverse deviation in mortality, lapse or interest assumptions.

After Financial Reinsurance (80% Q.S.)

Year	1	2	3	4	5	6
Beginning Surplus Relief		240	100			
Gain on Ceded Share		140	120	104	88	72
Surplus Relief Remaining	240	100	0			
Experience Refund		0	20	104	88	72
Gain on Retained Share	-60	35	30	26	22	18
Gain after Reinsurance	-60	35	50	130	110	90
Balance Sheet:						
Assets	60	135	215	365	489	589
Liabilities	120	160	190	210	224	234
Capital & Surplus	-60	-25	25	155	265	355

Note how the strain is reduced by 80%, but the cummulative gain after six years still equals 355!

The expense and profit charge is ignored here so you can see how the mechanics tie-out between the conventional and financial reinsurance options. A live example might have cost the ceding company $5-10 of profits for the surplus relief over the life of the deal. Potential U.S. DAC and FET taxes have also been ignored for simplicity.

A financial reinsurer is paid for the risk assumption. A financial reinsurer would typically charge 1-3% per year of the amount of pre-tax surplus provided at the end of the year and / or a fee based on the risk-based capital or tax impacts, if any. The fees vary based on the business terms and the credit risk of the company and the profitability expectations of the business.

For detailed discussions on reinsurance treaty formats, I refer you to the Tiller book on reinsurance ***(Life, Health & Annuity Reinsurance, 2nd Edition by Tiller and Tiller, Chapter 5).*** There are a variety of reinsurance treaty formats, each with a different impact on the balance sheet. Many are designed to minimize the cash flow between the parties to the actual surplus relief fee (to avoid issues of collectability and cost of borrowing). The most common financial reinsurance treaty structures are coinsurance with funds withheld ("Cox F/W"), combination coinsurance / modified coinsurance ("Cox / Modco") or modified coinsurance ("Modco"). Compare this to quota share coinsurance or YRT formats for most conventional life reinsurance.

For example, using coinsurance, the ceding company cedes a reserve and pays an initial premium such that the assets typically equal the reserves transferred. The reinsurer pays a ceding commission (initial allowance) to provide a statutory profit to generate the surplus relief. The initial ceding commission is then repaid from future statutory profits as they emerge. Using coinsurance with funds withheld, the initial premium reduces the reserves and a liability (payable to reinsurer) is set up equal to the initial premium minus the ceding commission. Using modified coinsurance, the ceding company retains the reserves and the reinsurer pays the ceding commission in cash to provide surplus relief. Using modified coinsurance with funds withheld, the ceding commission is set up as a receivable by the reinsured. This format has fallen out of favor given model act accounting "Q&A's". My all-time favorite is combination coinsurance / modified coinsurance, whereby the coinsurance reserve portion initially equals the ceding commission (pre-tax surplus relief) and the remaining reserves are modified coinsurance reserves. The Coinsurance reserves approach 0% and the modco reserves approach 100% as the surplus relief is repaid.

In summary, a surplus relief transaction typically increases statutory surplus and reduces premium and reserves in the first year — depending on the structure. Cash is decreased by the amount of the reinsurer's fees plus any current tax effect. The ceding company will incur decreased statutory net income in subsequent years as the surplus is repaid. Surplus relief just changes the timing of the statutory earnings.

In the good old days, surplus relief was not only used to increase the surplus in the statutory balance sheet, but also to increase statutory income. This became more difficult to do under the new model which required that the surplus effect from ceding inforce block of business be reported directly through surplus, and not run through the income statement. Rumor has it that regulators didn't want Ceding Companies to cede inforce blocks of business in order to generate statutory income which could be used to dividend out equity and reduce financial strength. Statutory dividend rules often limit dividends to the lesser of: (a) 10% of the prior year surplus or (b) the prior year's statutory earnings.

Example No. 2 is a conduit or facilitation deal which is my all-time favorite. We facilitated a buyer and a seller accomplishing their objectives through a reinsurance treaty where they preferred not to, or for some reason couldn't, deal with one another directly.

Example No. 3 is an investment transaction. As with example No. 2, the reinsurer was looking to provide support for a company attempting to buy a block of business from another company. The surplus note or private placement was linked to a reinsurance treaty.

Example No. 4 is a simple agents debits balances deal which is attempting to eliminate some of the strain on the statutory balance sheet which does not admit agents debits balances as assets, thereby causing a direct hit to the surplus account.

"Conduit (M&A Financing)" — Example #2

<u>Here's the deal</u>

1. Seller wants to sell a block of single premium whole life policies with $200 million of reserves. Asking price $4 million.

2. Buyer has only $3 million of cash to buy the block and appears a financial risk given only $2 million of capital and surplus and limited insurance licenses. Further, assumption reinsurance is obviously not acceptable to policyholders.

<u>Solution</u>

1. Call in the cavalry (your friendly financial reinsurer) with the following deal structure:
   - A. Two consecutive cash coinsurance treaties. One from seller to conduit and one from conduit to buyer.
   - B. Assets placed in trust by buyer for security of conduit.
   - C. Buyer manages assets within trust restrictions imposed by conduit.
   - D. Conduit provides domestic licenses and high grade security so seller can sleep at night (now conduit has insomnia risk).
   - E. Seller still administers business and sets crediting rates in conjunction with buyer.
   - F. As a special favor, conduit provides $1 million of surplus relief to buyer to complete the financing.
   - G. Conduit earns fees for surplus relief deal structure facilitation and credit risk.
   - H. Buyer gets the business and begins acquisition plan via insurance and reinsurance transactions.
   - I. Everyone lives happily ever after.

Wall Street results without Wall Street salaries and attitudes. This deal was my favorite because I enjoyed structuring the terms with the various parties. In fact, the deal was modified several times over the years to deal with changing circumstances and needs. By the end, I had two more conduit companies involved (three total) to address other issues associated with differences in the book value and market value of the assets.

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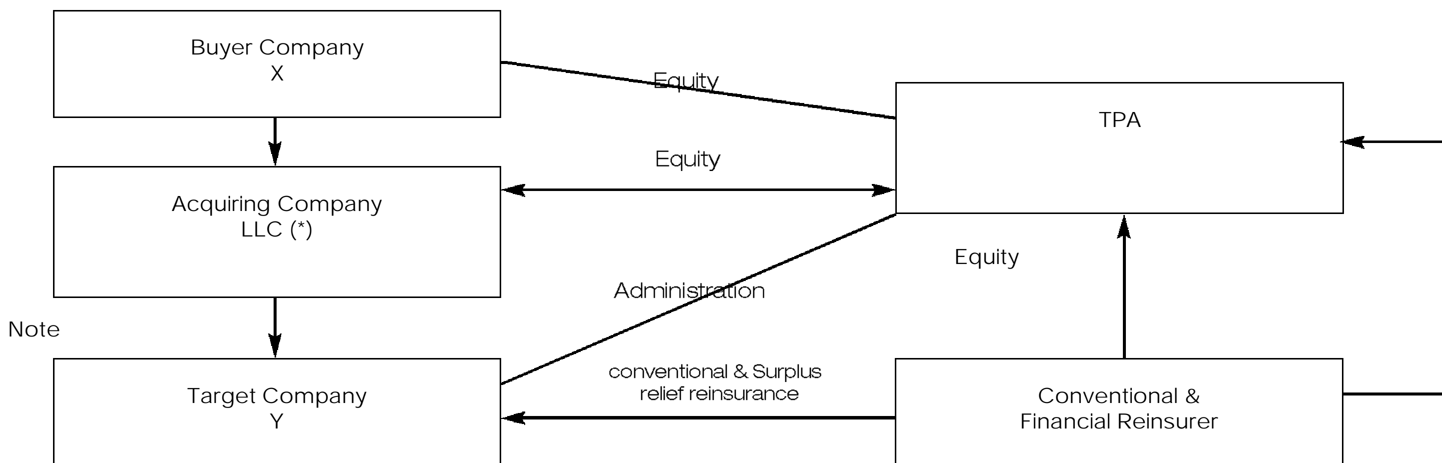
"Make A Note Of This" — Example #3



This deal never went through because the seller didn't sell, but it looked good on paper! As I remember it, the financial reinsurer and company X were creating a joint venture to reinsure company Y. They were to set up a TPA and an LLC to acquire and administer the business and fund them through a combination of debt and equity to be repaid from future profits.

(*) A limited liability corporation (LLC) is a relatively new but common corporate structure designed to combine the limited personnel liability aspects of a C-corporation with the absence of double taxation akin to a partnership form. As such, it is frequently used in merger and acquisition activity as a special purpose vehicle.

"Agents Debit Balance Deal" — Example #4

Beginning Balance Sheets (statutory balance sheet doesn't recognize $20 of agents debit balances (ADB) as statutory assets.)

GAAP	
$100 cash	$90 reserves
$20 ADB	$30 surplus

STAT	
$100 cash	$90 reserves
	$10 surplus

A combination coinsurance / modified coinsurance reinsurance transaction cedes premium to reinsurer such that it obtains first rights to $10 of the $20 of ADB (note how it collateralizes itself for security on the collectability of all $20). If the deal is done on a "Cox/Modco" basis, the initial premium is equal to the coinsurance reserve. Non-admitted assets and reserves both decrease by $10 and the transaction is income statement neutral.

New Balance Sheets

GAAP

$100 cash	$90 reserves
$20 ADB	$30 surplus

STAT

$100 cash	$80 reserves
	$20 surplus

The GAAP balance sheet often doesn't change in a financial reinsurance deal (net of fees) because the reinsurance treaty is treated as "deposit accounting" or because the surplus strain didn't exist on a GAAP basis. This is a risk-based capital deal because the statutory surplus numerator is increased by the ADB transaction.

One of the neatest RBC financial reinsurance deals is a take-off from a surplus relief transaction. It's structured like a surplus relief deal but the reinsurer does not advance a ceding commission based on the collateral (expected profits) which increases the numerator in an RBC calculation (actual capital divided by required capital). Instead, it takes as part of the initial premium (to support a reserve transfer) an asset with a high RBC requirement and thereby reduces the denominator (e.g. a junk bond or an affiliated investment). Do not try this at home.

Each one of these is a legitimate reinsurance transaction without smoke and mirrors. I hope you enjoyed the examples, but remember, a true magician never tells how the trick is done (until the purchase is made)!

"Close Encounters Of The Third Kind" (*)

* a.k.a. "how to make actual physical contact with an alien reinsurer"

Now that you've got some brilliant ideas or actually just a methodology for listening to a client attentively before you figure out if you have any brilliant ideas, how do you get into the mainstream of financial reinsurance activity?
I suggest the following:

1. Conventional Personnel – Meet with the conventional life/health reinsurance people in your organization and see where opportunities might exist with their clients that should be targeted. Let the ceding company decide if they want conventional or non-conventional solutions or combinations thereof once advised of the various issues, pros and cons by the experts.

2. Brokers/Intermediaries – Yes, they need to make a living too. Solicit business from them and obtain the rules by which they play. These include the major letter houses as well as niche brokers. Although most reinsurers try to go in direct, brokers do control an important segment of the market and you need to be able to work with them. Much more of the international market is broker driven than in the U.S.

3. Professional Reinsurers – There may be opportunities for retrocession of programs too large for one competitor/cedant to do alone. Do you sit and wait by the phone or do you go out and make the contacts so they'll be even more likely to call you when the situation develops?

4. Financial Statements – Find avenues to obtain public financial statements and triage them for problems/opportunities. You obviously have to do that homework anyway to make sure you understand the company in the first place. Look up the reinsurance transactions that the company is engaging in as well and see who are the players.

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5. Rating Agencies – Analyze rating agency ratings reports for problems / opportunities for your toolbox .

6. Cocktail and Dinner Circuit – Become an active participant in local actuarial societies of various countries, workshops, international conventions, seminars, etc. Network there. Of critical importance is to show up for the major meetings such as Rendezvous, Reavie, Baden Baden. These are the European equivalents of Society of Actuaries meetings where deals are discussed. A lot of activity plus a lovely beach usually.

7. Consultants – Since companies often use accounting firms and actuarial consultants to analyze and help solve problems or opportunities, you'd be well advised to meeting with these organizations so they understand your potential ability to be a solution for their clients' problems. These would also be the individuals who help you understand the client's balance sheet. Make calls on these major houses.

8. Travel – Ah yes, cold calling ceding companies can also be a last resort. It is perhaps the hardest and most unproductive as it may have a hit ratio associated with a direct mail campaign.

9. Banks – Banks are becoming an alternative market for securitization transactions. They can also be your partner as well as your enemy. You'd be well advised to visit major banks branches in various financial centers such as New York, London, Switzerland, Ft. Wayne.

10. Writer – You might even consider writing articles in publications such as the *Reinsurance Section Newsletter.*

Anyway, the point is that you have to channel your efforts through multiple channels to be successful. Have fun channel surfing!

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