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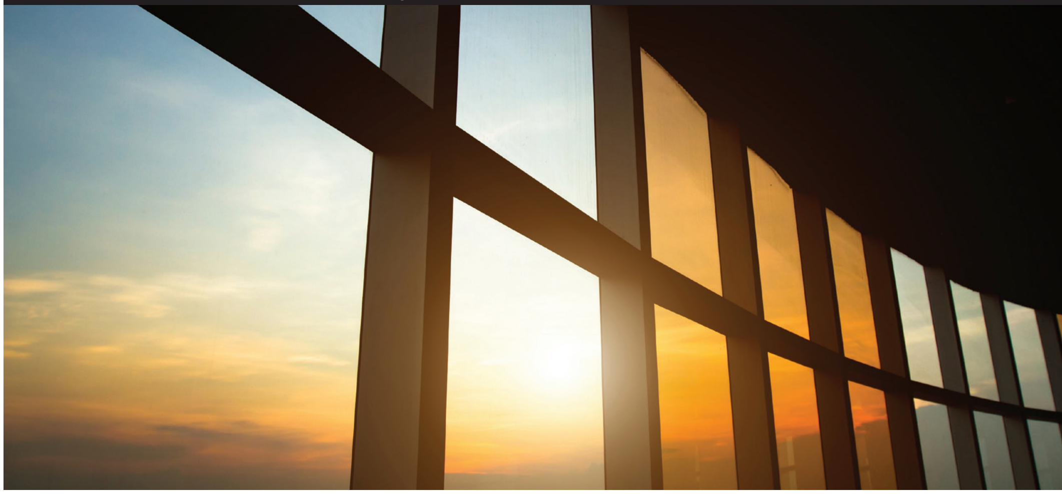

Non-Traditional Product Options For Reinsurance Protection

By Mark Troutman

If conventional reinsurance is viewed as a "vanilla" product offering, what other flavors are available? The following article describes several product permutations offered to reinsurance reinsureds interested in restructuring the risk/reward trade-off of conventional reinsurance coverage. No one product is superior to the others. Each has its advantages and disadvantages. Once a coverage is chosen, the actual claims experience will determine the proportion of losses shared by the reinsured and reinsurer.

Experience refund – this is the most common (and simplest) approach for sharing profits between the reinsurer and the reinsured health plan. If the claim experience is favorable, the reinsured shares in a portion of the favorable experience through a partial refund of premium.

CONTINUED ON PAGE 5

Experience refunds are offered to reinsureds for competitive reasons and for increased retention (often, reinsureds do not receive the experience refund unless they renew their reinsurance treaty). Key components of a refund formula are the expenses deducted and the trigger when profit sharing begins, minimum premium requirements (small accounts don't usually receive refunds), the percent refund shared and whether or not a deficit from a prior period is being carried forward. The cost of refunds was calculated at 4 percent over the Summit Re portfolio. The benefits may include a higher renewal rate (i.e., more reinsureds retained rather than terminated).

An experience refund has the advantage of the reinsured sharing the favorable experience, but not assuming additional risk for unfavorable experience. That is why the reinsurer imposes a minimum loss ratio requirement before sharing profits and only pays back a portion of the profits. If the reinsurer returned all profits, yet absorbed all losses, it would be a losing proposition or it must add a much higher risk and profit charge. If the experience is unfavorable, the reinsurer is still at risk for all claims above the target premium rate, unlike in several of the following product features.

Aggregating excess – this is also known as an aggregating specific deductible, or ASD. The reinsured assumes a given aggregate dollar amount for all individual claims before reinsurance covers subsequent individual claims.

For example, if the health plan has a $400,000 specific stop loss deductible, an additional aggregating excess corridor of $1 million may be imposed. This $1 million threshold must be exceeded for any or all individual claims in excess of the $400,000 specific deductible before any individual specific claim has coverage reimbursed by reinsurance.

It has the advantage of lowering the reinsured's premium given the additional liability the reinsured assumes and, in addition, the premium is reduced for the expected claims because the reinsurer charges less risk and profit margin for this portion of the program given that the reinsured assumes this risk. The aggregating excess corridor is negotiated between the reinsured and the reinsurer. The higher the corridor, the larger the premium reduction. If only a modest corridor is imposed, total reinsurer risk and profit charges would not be materially affected since it would be highly likely that the aggregate claim corridor would be exceeded. Although 50 percent and 75 percent ASD are more common, a 100 percent ASD option is possible but would command a higher risk premium by the reinsurer given that it still absorbs all losses, but returns all gains to the reinsured.

The aggregating specific deductible concept where a reinsured still has protection for losses above 100 percent of expected claims but receives a refund for claims under 100 percent of expected was modeled. To balance this out, the reinsurer charges a premium to all groups. In this historical pricing analysis, it was 19 percent of premium. Stated another way, the reinsurer would have to raise fixed costs 19 percent to compensate for the fact that it would be giving away favorable experience and still be liable to cover all unfavorable experience.

Enclosed is a summarized distribution of historical loss ratios (claims/premium) for 10 years of Summit Re experience (See chart on page 6). It allows one to see the relative range of experience results over a large portfolio.

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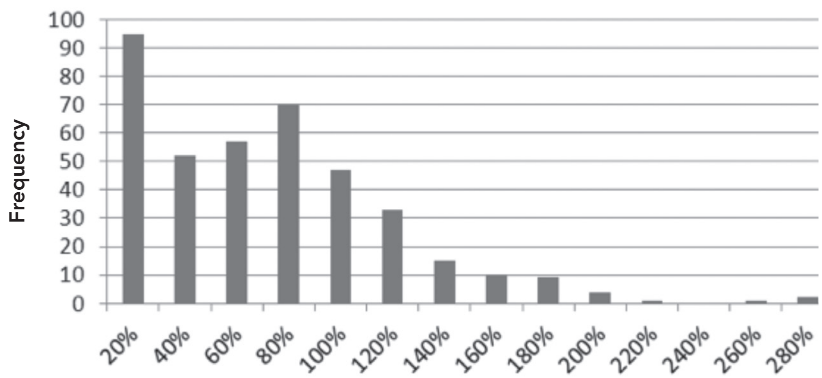


Using the historical data, a distribution of losses was created from the entire portfolio over 10 years of experience. If business is underpriced, there is an obvious skew to the right. If profitable, the distribution is skewed to the left. The cases with gains must make up for the cases with losses. There is a fair distribution of profits and losses depicted in this historical distribution. This distribution was used to model each product permutation.

Layered aggregating specific – this is a more complicated permutation of the previous concept wherein any given claim may have portions applied to both the aggregating specific dollar corridor as well as paid in excess of the individual specific deductible. This has the advantage of having a reinsured potentially receive partial reimbursement for a large claim even before the aggregate dollar corridor is exceeded. A very large claim would have portions reimbursed immediately regardless of whether there were amounts remaining in the aggregating specific claim fund.

Aggregating specific approaches are common in situations where the reinsured is interested in assuming more risk, but prefers a lower specific deductible. The logical alternative would otherwise be to simply increase the specific individual deductible.

Swing rate – this product feature offers the reinsured a target premium rate which can then be adjusted up or down (typically ± 25 percent) depending upon the actual claim experience for the health plan for the given year. For example, if experience is good, the final rate is adjusted downward 25 percent. If claim experience is poor, the health plan assumes up to an additional 25 percent increase in premium. A plan typically pays a provisional (interim) amount equal to 90 percent of the traditional premium rate.

A swing rate is used where the reinsured's perception of new or emerging catastrophic claim experience is significantly below the reinsurer's evaluation of the experience. In essence, they are willing to bet on favorable experience.

A swing rate would also be used on newer blocks of business with little experience, which would also imply smaller size. In this instance, one sets the swing rate to give the plan the opportunity for an "experience refund" in exchange for upside protection to the reinsurer.

The swing rate will retrospectively range between the minimum and maximum rates as calculated by actual paid claims divided by the target loss ratio. The timeframe for the calculation would be as if an experience refund calculation were taking place.

It is an arrangement that allows the two parties to modify the conventional risk arrangement so that the plan still has coverage in excess of a certain additional premium corridor as well as for very favorable experience. However, these adjustments are done retrospectively, so it's difficult to see where one stands at any point.

The loss distribution data was used to model what the gains and losses would be if the entire portfolio was based on swing rates. The minimum corridor was 75 percent of the expected claims and the maximum corridor was 125 percent of the expected claims. In swing rate coverage, the reinsured takes the risk or gets the reward for the middle 50 percent of claims. The reinsurer wins when the actual claims are below 75 percent of the expected claims and loses when the actual claims are more than 125 percent above the expected claims.

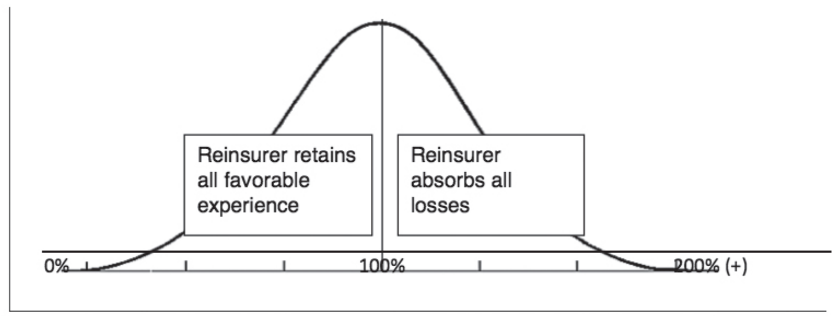
If the entire loss distribution portfolio was based on swing rates, losses and gains would be cut in half. The total profitability of the reinsurer was reduced slightly in this case. This product reduces profits when loss ratios are good, but protects the reinsurer when loss ratios are bad.

Split funding – this is essentially a premium financing option whereby the reinsured only pays a small portion of the premium initially to cover expenses and then pays additional amounts as claims are paid. Given the short-tail nature of the medical business and low current interest rate levels, this arrangement doesn't produce any material impact on the reinsured. It also does not affect the risk versus reward profile between the parties with respect to the claim liabilities assumed.

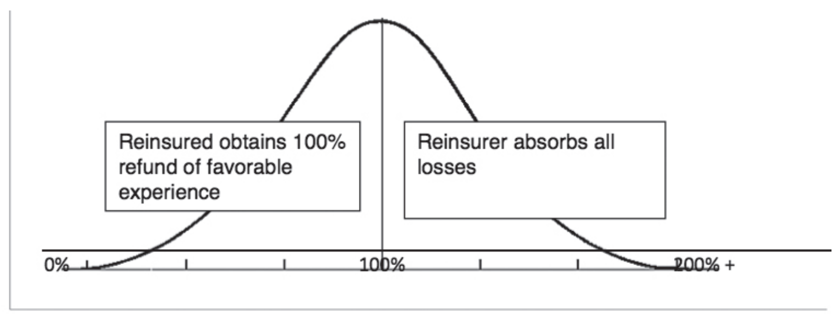
Lasers – lasers are a premium reduction option in that they exclude from reinsurance coverage a given individual (a known claimant) or imposes a higher deductible on the individual with potential chronic large claims. The advantage to the reinsured is that the reinsurer doesn't have to add expense and profit margin on a known claim. The disadvantage is that the reinsured self-insures an additional liability for a known claimant.

The charts to the right describe which entity, reinsurer or reinsured, is responsible for the gains or losses in three main product options (conventional, 100 percent ASD, swing rate).

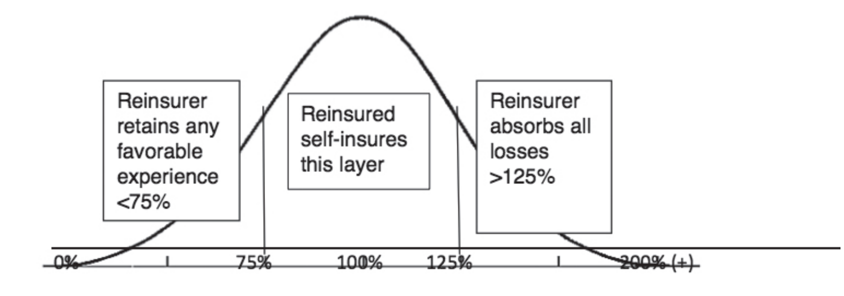
A. Conventional (no experience refund)



B. 100% ASD



C. Swing Rate



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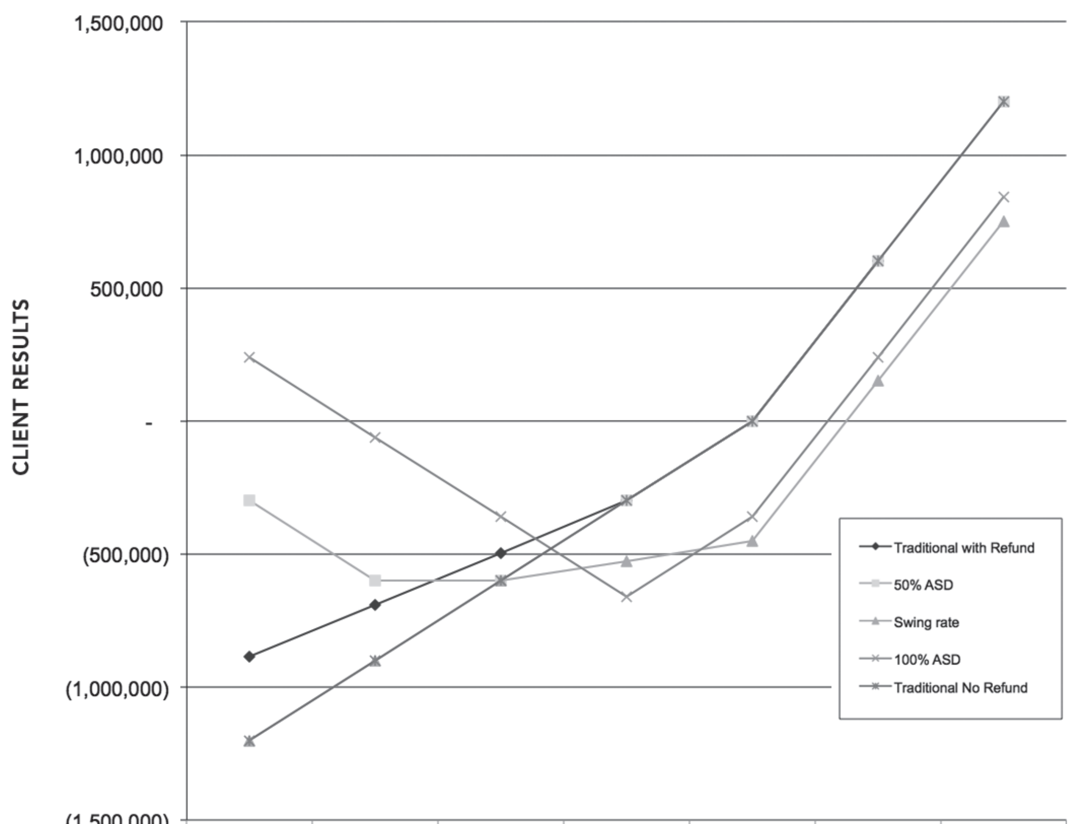
The following describes the net financial results to the reinsured under a variety of loss ratio scenarios for a variety of products discussed in this article. It demonstrates that no one product is superior to the others given a variety of potential claim outcomes.

A negative number indicates the reinsured has paid more in premium and retained more in claims than it has received in claim reimbursements from the reinsurer. A positive number indicates the reinsured has received more in claims from the reinsurer than it has paid through premiums and been liable for claims it has retained.

Although taking risk is always a gamble, it is a safer bet that one of these options will meet the risk tolerance profile of both the reinsurer and reinsured. ■



	0%	25%	50%	75%	100%	150%	200%
Traditional with Refund	(885,000)	(690,000)	(495,000)	(300,000)	-	600,000	
50% ASD	(300,000)	(600,000)	(600,000)	(300,000)	-	600,000	1,200,000
Swing rate	(1,200,000)	(900,000)	(600,000)	(525,000)	(450,000)	150,000	750,000
100% ASD	240,000	(60,000)	(360,000)	(660,000)	(360,000)	240,000	840,000
Traditional No Refund	(1,200,000)	(900,000)	(600,000)	(300,000)	-	600,000	1,200,000

Loss Ratios

Non-Traditional Product Summary

Coverage feature	Description	Advantage	Disadvantage	Comments
Experience refund.	Reinsurer refunds some premium for favorable loss ratio results.	Reinsured receives partial premium refund for favorable experience.	Reinsured may have to renew treaty to receive refund. Reinsured may need to meet a minimum premium threshold (e.g., $1 million)	Various target loss ratios and refund percent are offered based on size and risk profile.
Traditional aggregating excess/aggregating specific deductible.	Reinsured assumes an aggregate risk amount for all specific claims eligible for reinsurance.	Reduced premium.	Increased risk corridor in working layer, and potential gap in coverage early in the year.	This is a complex product with volatile results. The fixed cost is higher due to the risks.
Layered aggregating specific deductible.	Reinsured assumes an additional aggregate risk amount for all or a portion of certain specific claims eligible for reinsurance.	Reduced premium and some specific claims can be reimbursed even before the aggregating specific total is met.	Increased risk corridor in working layer.	This is a slightly more complicated version of traditional aggregating specific coverage.
Swing rate premium.	Reinsured and reinsurer agree to a target rate plus a corridor (e.g., ± 25 percent swing corridor).	Potential for reduced retrospective premium rate for favorable experience.	Potential for increased retrospective premium rate for unfavorable experience.	You don't always know where you stand at any point in time.
Split funding premium.	Premium financing mechanism. Pay expenses up front and claims costs as they come in, up to some limit.	Small increase in cash flow.	None.	There is no real change in reinsurance liabilities.
Laser claimant(s).	Reinsurer imposes a higher deductible or excludes from coverage certain known chronic claimants.	Reduced reinsurer expense and profit margins.	Reinsured self-funds lasered risk.	The alternative is higher premium.

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