More Structured Reinsurance

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THIRD POINT RE

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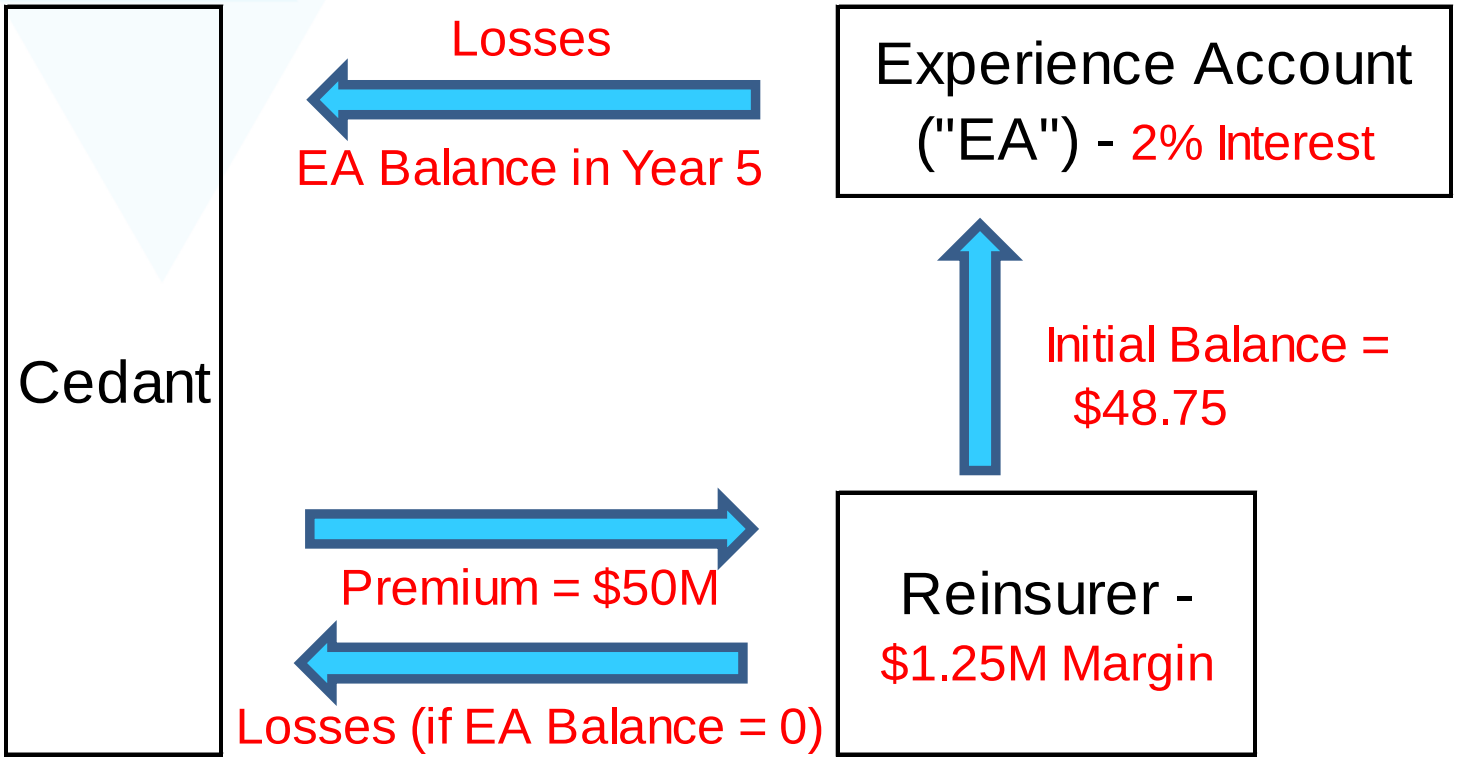
AGENDA

- Expected Reinsurer Deficit
- Other Accounting Considerations
- Bridging Gaps & Meeting Client Needs

FUNDS TRANSFERRED EXAMPLE

FAIRLY OVERSIMPLIFIED AND UNREALISTIC…BUT DEMONSTRATIVE NONETHELESS



EXPECTED REINSURER DEFICIT ("ERD")

- Common metric used in risk transfer analysis on reinsurance contracts
- ERD considers *all* cash flows between the reinsurer and the cedant
- ERD can be viewed as the probability of a net present value (NPV) underwriting loss for the reinsurer multiplied by the NPV of the average severity of the reinsurer underwriting losses[1].

1. Freihaut, Derek and Paul Vendetti, "Common Pitfalls and Practical Considerations in Risk Transfer Analysis", Casualty Actuarial Society E-Forum, Spring 2009.

ERD CALCULATION REFRESHER[2]

Probability (p)	NPV Net gain/(loss) - (1,000s)
96%	10,000
2%	(38,077)
1%	(134,231)
1%	(230,385)

ERD = pT/P

p = probability of a net loss = 4%

T = average severity of net loss = [2 x 38,077 + 134,231 + 230,385] / 4 = 110,193

P = premium = 10,000

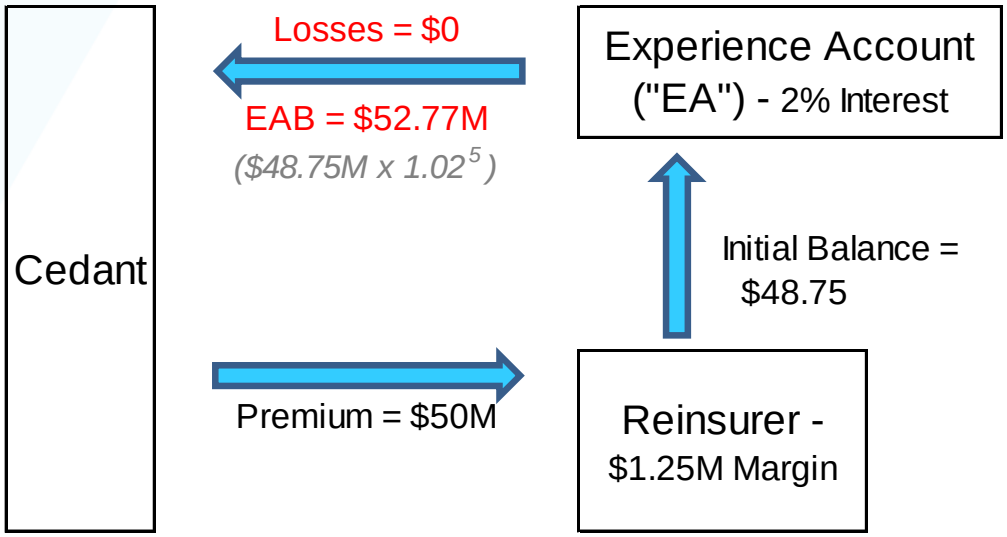
ERD = 4% x 110,193 / 10,000 = 44.1%

2. Ruhm, David and Paul J. Brehm, "Risk Transfer Testing of Reinsurance Contracts: A Summary of the Report by the CAS Research Working Party on Risk Transfer Testing", Variance 2007 Volume 1 Issue 1.

ERD EXAMPLE

WHEN $0 CLAIMS BECOMES AN "ERD LOSS"

- Scenario: Loss = $0, Risk Free Rate = 1%



- "ERD Loss" = $50M - $50.21M = ($0.21M)

($52.77M / 1.01^5)

ERD EXAMPLE

- Does it make sense to have both $0 claims and >$0 claims result in an ERD loss?

- Prudent Approach: Ignore interest credit for ERD calculation

- Gain/(Loss) = $50M - $47.57M = $2.43M

($50M / 1.01^5)

vs. ($0.21M) if interest credit is included

OTHER ACCOUNTING CONSIDERATIONS

PREMIUM RECOGNITION AND RETURN PREMIUM

- Scenario: Pr(Loss = $0) = 85%, E(Loss) = $2.5M
  - *i.e., there's an 85% chance 97.5% of the premium will be returned*

- Is it necessary to accrue for a return premium at inception?

- No difference in final economics, but need to *be mindful of the optics*

$50M Deal @ 5% LR  ***$1.25M Deal @ 200% LR***

- No bright line rule on maximum Profit Commission ratios or likelihood of paying the PC

OTHER ACCOUNTING CONSIDERATIONS

EMBEDDED DERIVATIVE

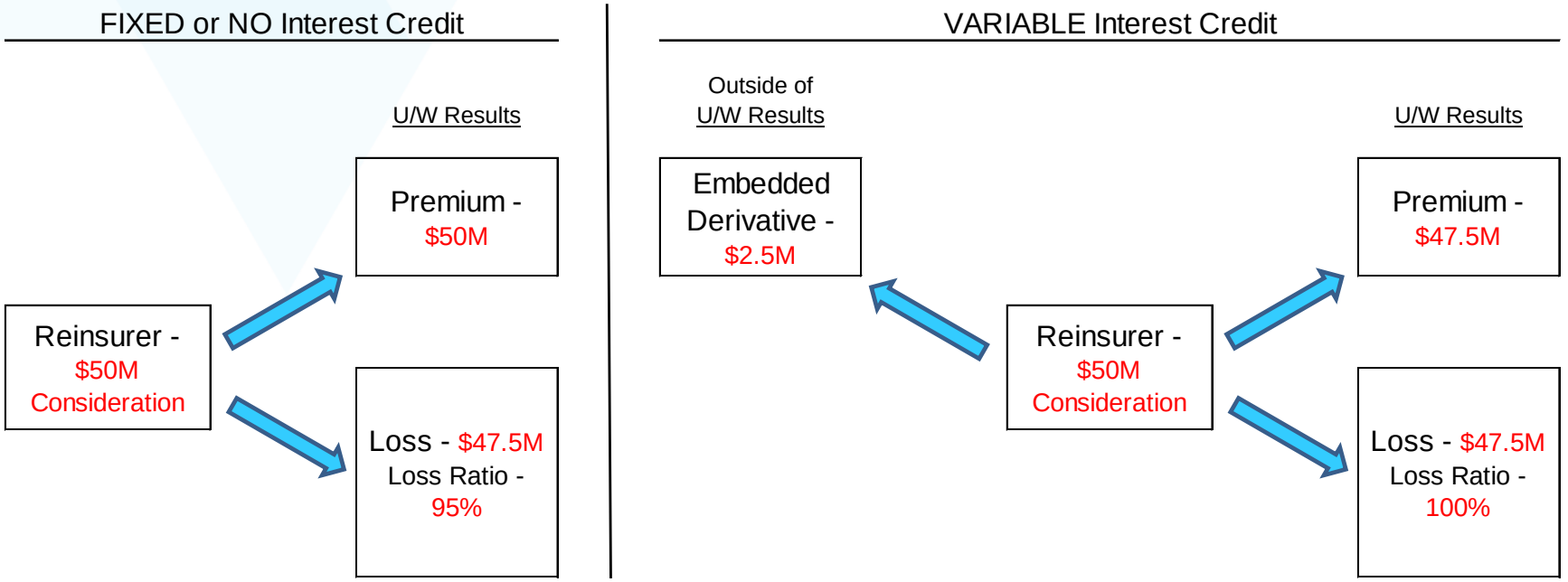
- Scenario: Variable Interest Credit = LIBOR + 1%
  E(Loss) = $47.5M
  Embedded Derivative = $2.5M

- From an accounting standpoint, selling both:
  - an insurance product and
  - a derivative product

- Value of the derivative product must be determined and accounted for outside of underwriting results based on:
  - expected variable return
  - Pr(pay the interest credit), i.e. Pr(positive EA balance)

OTHER ACCOUNTING CONSIDERATIONS

EMBEDDED DERIVATIVE



- Again, no difference in final economics, but need to *be mindful of the optics*

AVOIDING ISSUES

WITH ACCOUNTING AND RISK TRANSFER

- Involve finance team ***before*** binding

- Involve both internal and external auditors

- Aim for consensus amongst ***all*** parties at ***all*** levels
  - to (hopefully) avoid accounting restatements down the road

BRIDGING GAPS…

…WHILE STILL MEETING CLIENT NEEDS

- Cedant seeking 50% Quota Share on NY and CA liability books

	NY	CA	Total
Gross Premium	$50M	$50M	$100M
Cedant Loss Pick	55%	55%	**55%**
Reinsurer Loss Pick	65%	55%	**60%**

5 point difference in loss pick

- Cedant wants 35% Commission

BRIDGING GAPS…

…WHILE STILL MEETING CLIENT NEEDS

	Cedant	Reinsurer
Gross Premium	$100M	$100M
Loss Pick	55%	60%
Commission	35%	35%
Margin	**10%**	**5%**

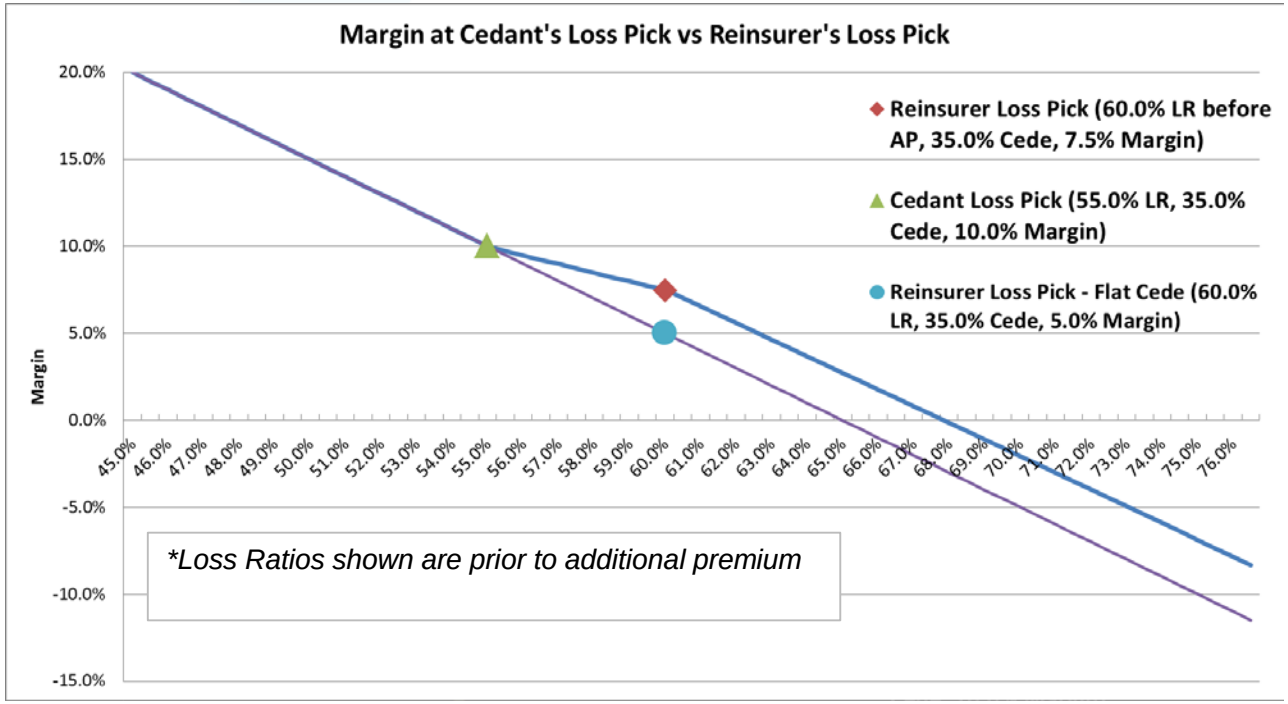
- Reinsurer needs at least a 7.5% Margin at loss pick

- Multiple ways to get there…

EXAMPLE 1 – ADDITIONAL PREMIUMS

MAINTAIN UPSIDE, 2.5 POINTS DOWNSIDE PROTECTION

- Offer a 35% Flat Commission with:
  - Additional Premium = 87% of loss between 55% and 60%
  - $100M Premium ⟹ $104.3M Premium at 60% Loss Ratio

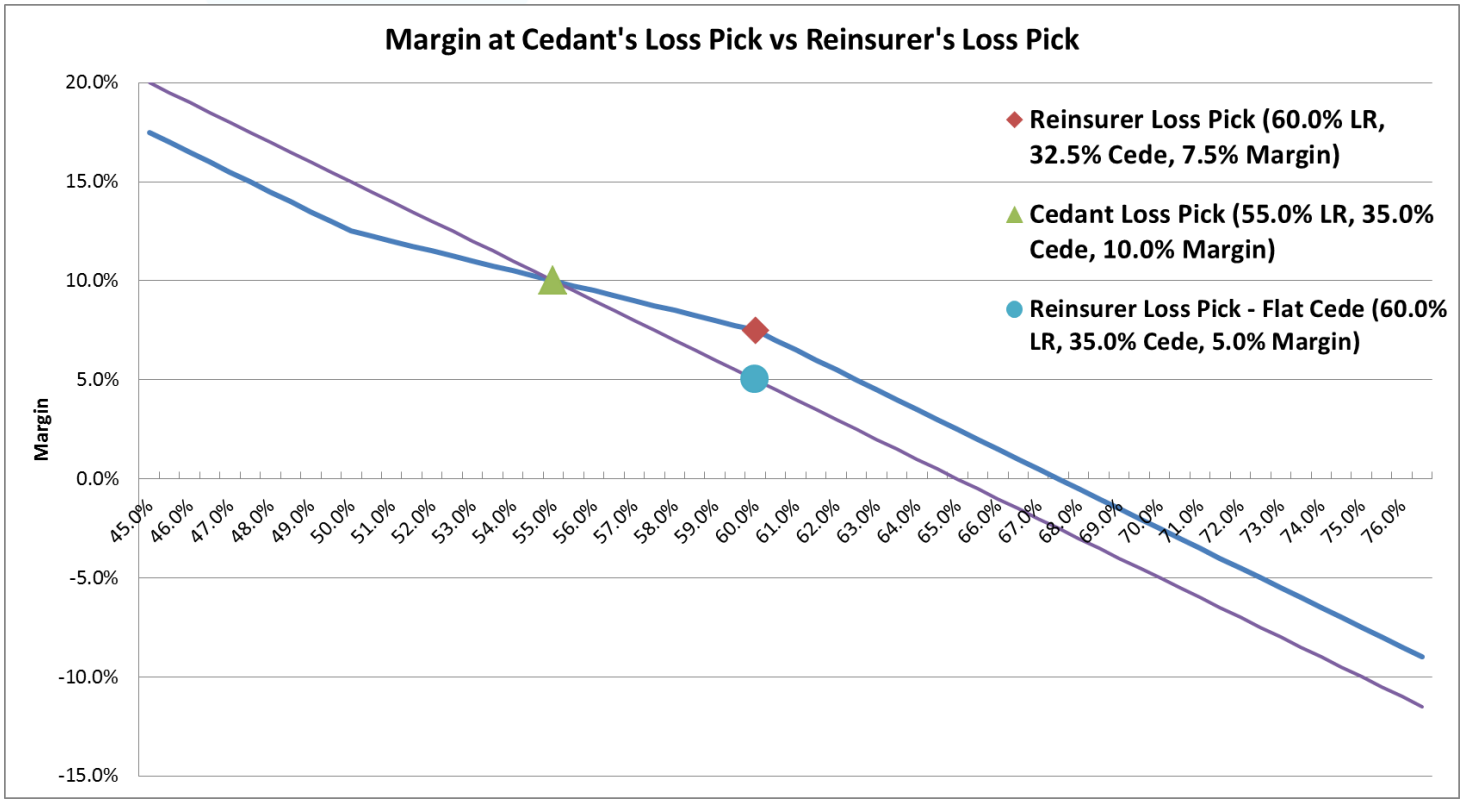


Premium	$104.3M
Loss	$60M
Loss Ratio after AP	57.5%
Commission Ratio	35%
Margin	7.5%

EXAMPLE 2 – SLIDING SCALE COMMISSION

GIVE UP 2.5 POINTS OF UPSIDE, GAIN DOWNSIDE PROTECTION

- Offer a .5/1 Sliding Scale Commission with 35% Provisional Commission

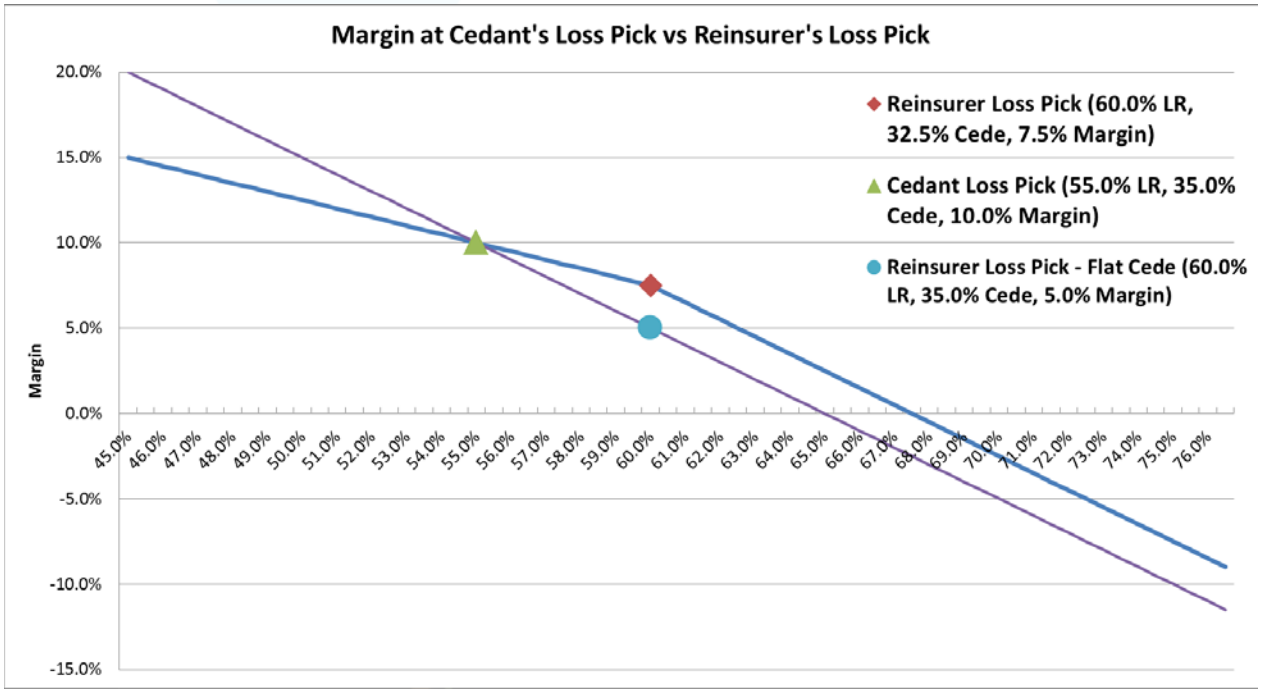


Commission Ratio	Loss Ratio
32.5%	60.0%
35.0%	55.0%
37.5%	50.0%

EXAMPLE 3 – PROFIT COMMISSION

GIVE UP 5 POINTS OF UPSIDE, GAIN DOWNSIDE PROTECTION

- Offer a 32.5% Flat Commission with:
  - Profit Commission = 50% of Profit after 7.5% Reinsurer's Expense



	Cedant	Reinsurer
Gross Premium	$100M	$100M
Loss Pick	55.0%	60.0%
Provisional Commission	32.5%	32.5%
Profit Commission	2.5%	0.0%
Margin	**10.0%**	**7.5%**

EXAMPLE 4 – OTHER OPTIONS

	NY	CA	Total	IL	Total w/IL
Gross Premium	$50M	$50M	$100M	$20M	$150M
Cedant Loss Pick	55%	55%	**55%**	45%	**53.3%**
Reinsurer Loss Pick	65%	55%	**60%**	45%	**57.5%**

Not part of original submission

- All of the following produce 57.5% LR, 7.5% Margin:
  - Cap Loss Ratios: Capping NY LR at 60%
  - Vary QS Percentage: 25% QS for NY, 75% QS for CA
  - Add in Better Lines of Business: Include $20M of IL Business

SUMMARY

- Consider and discuss risk transfer and accounting impacts with auditors and other relevant parties
- Structural features can be useful ways to bridge gaps between cedant and reinsurer loss estimates
- Need to balance willingness to forgo upside with downside protection