

Pricing with RBC Phase2



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Where to Start?

Understand Existing Block RBC Work

- RBC Calculated in aggregate
- Sensitivities on existing block
- Interaction with other products

Hedging program:

- Integration with projections
- Would it change with new business?

If not Compared Already . . .

Assumptions

- Lapse Rates (Dynamic?)
- Election Rates (Dynamic?)
- Age/Sex Distributions

Modeling Cells Used

- Same for pricing?
- More Detail needed?

Good News/Bad News

Good News! . . . Minimal C2Phase2 RBC

- Old Reinsurance deals
- Just started writing risky benefits
- Mature Qualified Plan line

Bad News! . . . It's not a static result

- New Sales mix can swing results
- Reinsurance will lapse away

Ideal Pricing Model

- Stochastic on Stochastic
 - Projecting existing block with new business
 - Recalculating RBC along each scenario
 - Possible, but could become too onerous when trying to generate regular profits by Distributor/Product/Benefit/etc
 - Likely different people pricing different products that all interact with each other
- Need another method

The Alternative Method

Other Applications

Developed as an alternative to full modeling, for small companies or small blocks

- Only for Death Benefits
- Does not take into account most diversification benefits

Calibration Tool for Model Points

- Return of Premium/ Roll Up \$for\$/ProRata
- Step-Up(Max Anniversary)/Estate(% of gain)
- AccountValue/GuarenteeValue
- Age, Duration, Fund Expenses

Alternative Method

Allocation Tool:

- Use to allocate company RBC back to individual products (X% of alternative method)

Create your own:

- Develop your own alternative method factors for your products/features GMWB/AB/IBs
- Apply as % of “non-diversified” RBC to Stochastic Pricing runs based on ITM% for a given scenario period
- Limit need for stochastic on stochastic for “daily pricing”

Alternative Method

Justification of modeling:

- Show value of modeling work Comparison of Single product runs vs Full Projection Model
- We saved \$100 million in RBC! Isn't that worth a new computer/bonus/student/etc?

Managing

- Show where diversification value is gained from, less surprises in next years full RBC run

Alternative Method Examples

Simple way to see & show dynamics

- RBC w/ Reinsurance (Age65, 25% ITM, Diversified Equity)
 - 0% Reinsured RBC = 4.21%
 - 25% Reinsured RBC = 2.63%
 - 50% Reinsured RBC = 1.06%
 - 75% Reinsured RBC = 0%
- Projection of % Reinsured

Alternative Method Examples

RBC w/ Qualified Plan Business

- 20% Qual Plan = 3.27%
- 40% Qual Plan = 2.34%
- 60% Qual Plan = 1.40%

Reinsurance & Qualified Plan Business

- 100% GMDB = 4.21%
- 20% Qual Plan/20% Reinsured/60% GMDB = 2.01%
- 30% Qual Plan/30% Reinsured/30% GMDB = 0.92%

There is no typical impact!

Product Changes Due to Increased Capital

Increased Fees:

- Increased charges and more flexible charges
- Charge fee on guarantee amount not account value
- Fees change for inforce contracts on “resets”

Limits on Benefits:

- Limits on older age benefits (12% RBC for Age 80 25% ITM)
- Watered down base death benefits (< return of premium)
- Caps on Rollups/Step-Ups

Complicated Benefits:

- “What exactly I’m I buying?”

Product Changes Due to Increased Capital

Fund Management:

- Asset allocation models required or encouraged
(easier to pick one model than from 50+ funds)
- Max allocation percentages per fund and/or asset class
- Treat multiple contracts for the same person as one contract
- Do you need a more diverse mix of fund companies
- Drop/phase out funds that do not correlate well to indices
(style shifting funds)

Product Changes Due to Increased Capital

Using marketing to change risk profile:

- Focus more on Living benefits, attract more to younger people?
- Will those attracted to “protected” products exhibit more stable lapse rates – less dynamic?
- What type of people do cancelable benefits appeal to?

Often results unknown for several years

Could help or hurt risk profile.

Balance of Risks

Mix of death benefits types:

- Return of Prem, Step, Reset, Roll, Earning Enhancement
- High correlation on most, but some offsets

Living Benefits mix:

- GMWB,GMAB, GMIB

Spreading market exposures over time

Mix of elective and non-elective benefits

Hang onto that old reinsured business

Balance of Risks

Qualified Plan Business

- Low Issue ages
- Less aggressive fund mixes
 - & often more so at older ages
- Large stable fixed allocation
- Basic death benefits
- Dollar Cost averaging
- Mature block will still be “RBC” profitable in the worst scenarios

Excess RBC Capacity

- Sell Capacity via a reinsurance arrangement - Possible for a company with a high allocation of Qualified plan business & maybe a runoff Single premium business.
- New increased value for small benign blocks of reinsured and/or qualified business
- Companies “giving away” excess Capacity in pricing methodology

Outstanding Impacts

- New York Standard Scenario
 - Onerous on benign business
 - ½% on reserves floor RBC
- VA Reserve Changes
 - Impact on Tax Reserves

Other Challenges

- Coordination
 - Pricing for Multiple products, Corporate, Reserving, Fund Group & Hedging group
 - Who does what?
- Resources/Software
 - Do we have what we need?
 - Can we even get what we need?

Questions?

