Commutations

A Cedant's Perspective on Risk Load

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Common Reasons for Commutations From a Cedant's Perspective

- Uncertain of financial stability of reinsurer
- Cash flow incentives
- To free themselves from reinsurers with whom they no longer have a good relationship
- To settle disputes regarding ceded business
- Commuting both inwards and outwards business
- To reduce administrative costs of reporting information to reinsurers
- To reduce Schedule F penalties

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Drawbacks for Commutations From a Cedant's Perspective

- Increases uncertainty of the unpaid claim liabilities and associated volatility
- Surplus implications
  - Reassume undiscounted liabilities, but usually only receive cash for the discounted value of the liabilities (with possibility of an additional risk load)
- Additional capital is required or allocated to the additional liabilities

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Common Reasons for Commutations From a Reinsurer's Perspective

- To eliminate the uncertainty of the unpaid claim liabilities and associated volatility
- To reduce the administrative expenses associated with the claim liabilities
- To avoid having to deliver "bad news" about adverse development to upper management or shareholders
- To free themselves of insureds with whom they no longer have a good relationship
- To allow upper management to focus their attention to on-going operations
- To free up capital that is associated with the liabilities

Measuring the Effect of Capital Needs Due to a Commutation

- One way to measure the effect is to look at risk based capital (RBC) requirements under alternative scenarios
- Depending on the companies involved, the capital needs may differ for the cedant and reinsurer
- Results would vary based on:
  - Type of Company (Life versus P/C)
  - Distribution of assets
  - Distribution of reserves
  - Loss development by line of business
  - Premium
  - Expense ratio
  - The lines of business being commuted

Effects on Capital - Hypothetical Example 1 From a Cedant's Perspective

- P&C Insurance Company – primarily a WC writer
  - Assets: $115 million
  - Liabilities: $90 million
  - Surplus: $25 million
- Apply RBC formula
  - Before and after commutation and increase of additional liabilities

RBC Indication – Prior to Commutation of Reinsurance and Retain Additional Losses

	RBC Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	100,000,000	0.002	195,000
R2	Asset Risk - Equity	15,000,000	0.049	730,000
R3	Asset Risk - Credit	49,000,000	0.049	2,410,000
R4	Underwriting Risk - Reserves	90,000,000	0.119	10,696,500
R5	Underwriting Risk - Premium	42,000,000	0.128	5,367,264
Total RBC After Covariance				12,231,176

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Observations

- In this example, the Company's surplus is $25 million
- Higher than RBC indication of $12.2 million
- The ACL – authorized control level is $6.1 million
- A P/C company's RBC requirement is largely driven by its underwriting component, especially Reserve Risk (R4 in the example above)
- Increasing the amount of unpaid claim liabilities would increase the indicated RBC requirement

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Effects on Capital – Hypothetical Example 1

- Assume $25 million of WC exposures are commuted back to the primary company
- For simplicity – assume $20 million of cash is received and the liabilities increase by $25 million, however, ceded reinsurance (i.e., reinsurance recoverables) also decrease by $25 million
- Surplus decreases by $5 million
  - Assets: $135 million
  - Liabilities: $115 million
  - Surplus: $20 million
- Apply RBC formula

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RBC Indication – After $25 Million Commutation – Liabilities Increased

RBC	Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	120,000,000	0.002	255,000
R2	Asset Risk - Equity	15,000,000	0.049	730,000
R3	Asset Risk - Credit	25,000,000	0.047	1,170,000
R4	Underwriting Risk - Reserves	115,000,000	0.103	11,792,750
R5	Underwriting Risk - Premium	42,000,000	0.128	5,367,264
Total RBC After Covariance				13,032,394

Observations

- In this example, the Company's surplus decreased to $20 million
- Higher than RBC indication of $13.0 million
- RBC indication changed by $801,000 or 3.2% of commuted reserves
- The primary company was already getting an RBC charge for the ceded reserves. When the reserves were commuted, the net reserves increased, but the ceded reserves decreased.
- Overall impact may not be significant to the Company utilizing the above assumptions
  - What happens if the assumptions are different

Effects on Capital – Hypothetical Example 2 From a Cedent's Perspective

- P&C Insurance Company – primarily a WC write
  - Assets: $115 million
  - Liabilities: $90 million
  - Surplus: $25 million
- Apply RBC formula
  - Before and after commutation and increase of additional liabilities

RBC Indication – Prior to Commutation of Reinsurance and Retain Additional Losses

	RBC Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	100,000,000	0.002	195,000
R2	Asset Risk - Equity	15,000,000	0.049	730,000
R3	Asset Risk - Credit	49,000,000	0.049	2,410,000
R4	Underwriting Risk - Reserves	90,000,000	0.119	10,696,500
R5	Underwriting Risk - Premium	42,000,000	0.128	5,367,264
Total RBC After Covariance				12,231,176

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Observations

- In this example, the Company's surplus is $25 million
- Higher than RBC indication of $12.2 million
- The ACL – authorized control level is $6.1 million
  - Same results of first example

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Effects on Capital – Hypothetical Example 2

- Assume $25 million of WC exposures are commuted back to the primary company
- However, due to the time value of money and financial strength of reinsurer – assume:
  - Only $15 million of cash is received
  - The liabilities increase by $25 million
  - The reinsurance recoverables decrease by $25 million
  - Surplus decreases by $10 million
    - Assets: $130 million
    - Liabilities: $115 million
    - Surplus: $15 million
- Apply RBC formula

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RBC Indication – After $25 Million WC Commutation – Liabilities Increased

RBC	Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	115,000,000	0.002	240,000
R2	Asset Risk - Equity	15,000,000	0.049	730,000
R3	Asset Risk - Credit	25,000,000	0.047	1,170,000
R4	Underwriting Risk - Reserves	115,000,000	0.103	11,792,750
R5	Underwriting Risk - Premium	42,000,000	0.128	5,367,264
Total RBC After Covariance				13,032,109

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Observations

- In this example, the Company's surplus is $15 million
- The revised RBC indication of $13.0 million
- RBC indication changed by $801,000 or 3.2% commuted reserves
- Impact of the commutation may be significant to the Company given the decrease in surplus and the Company's surplus to the indicated RBC surplus

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Effects on Capital – Hypothetical Example 3 From a Reinsurer's Perspective

- P&C Insurance Company
  - Assets: $750 million
  - Liabilities: $650 million
  - Surplus: $100 million
- Apply RBC formula

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RBC Indication – Prior to Commutation

	RBC Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	650,000,000	0.002	1,050,000
R2	Asset Risk - Equity	100,000,000	0.071	7,140,000
R3	Asset Risk - Credit	48,000,000	0.043	2,040,000
R4	Underwriting Risk - Reserves	650,000,000	0.151	98,329,785
R5	Underwriting Risk - Premium	100,000,000	0.128	12,793,382
Total RBC After Covariance				99,441,747

Observations

- In this example, the Company's surplus is $100 million
- Slightly higher than RBC indication of $99.4 million
- The ACL – authorized control level is $49.7 million
- A P/C company's RBC requirement is largely driven by its underwriting component, especially Reserve Risk (R4 in the example above)
- Reducing the amount of unpaid claim liabilities should reduce the indicated RBC requirement
- Reduce liabilities by commuting some long tail exposures (WC)

Effects on Capital – Hypothetical Example 3 From a Reinsurer's Perspective

- Assume $25 million of WC exposures are commuted
- Assume $20 million is paid to the insured and reserves are reduced by $25 million
- Surplus increases by $5 million
  - Assets: $730 million
  - Liabilities: $625 million
  - Surplus: $105 million
- Apply RBC formula

RBC Indication – After $25 million WC Commutation

RBC	Category	Amount	Overall Capital Factor	RBC Requirement
R1	Asset Risk - Fixed Income	630,000,000	0.002	990,000
R2	Asset Risk - Equity	100,000,000	0.071	7,140,000
R3	Asset Risk - Credit	46,000,000	0.043	1,980,000
R4	Underwriting Risk - Reserves	625,000,000	0.153	95,535,148
R5	Underwriting Risk - Premium	100,000,000	0.128	12,793,382
Total RBC After Covariance				96,677,377

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Observations

- RBC indication changed by $2.8 million or 11% of commuted reserves
  - RBC Indication is $96.7 million compared to surplus of $105 million
- Even though both company's commuted $25 million of reserves
  - The impact on the cedant's RBC indication was 3.2% of reserves or $801,000
  - The impact for the reinsurer's RBC indication was 11% of the commuted reserves or $2.8 million

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Conclusion

- Commuting outwards or inwards reinsurance will affect the capital requirement
- The magnitude will vary by the specifics of the company and type of reinsurance being commuted
- Before completing a commutation, one can quantify the likely impact to surplus and required surplus
- I am not advocating the impact should be directly factored into the commutation price, but the effect on surplus should be considered before any commutation

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Other Considerations

- Accompanying Oral Discussion
  - This document is not complete without the accompanying oral discussion and explanation of the underlying projections, results and variability
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