

**general
insurance
seminar**

Tides of Change

12-13 November 2012
Sofitel Sydney Wentworth



Reinsurance Optimisation

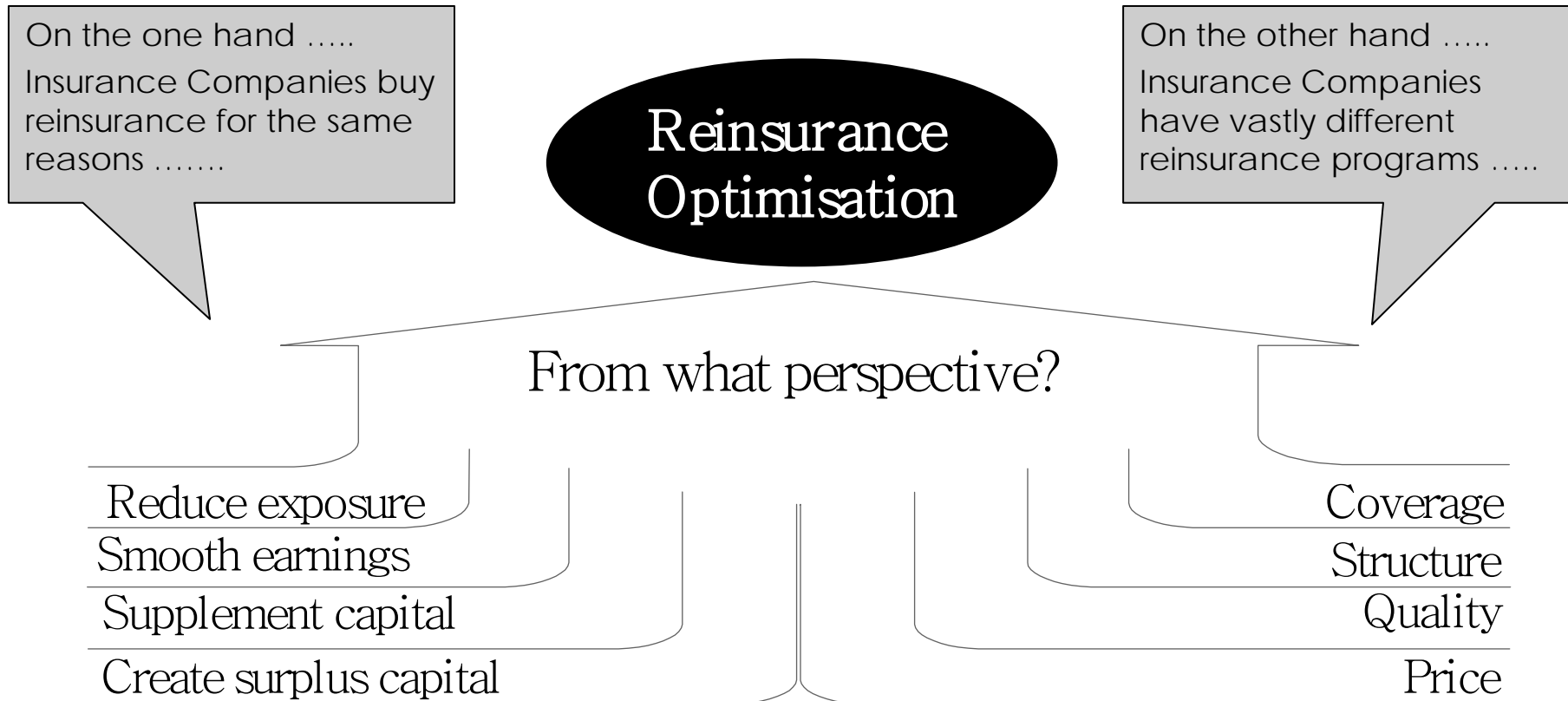
GIPC Reinsurance Working Party
Steven Girvan, Will Gardner

GIPC Reinsurance Working Party – Steven Girvan, Will Gardner, Karl Marshall, Alison Drill, James Basman, Ty Birkett, Corinne Glasby, Evelyn Chow, Kyung Won and Stephen Lum

*This presentation has been prepared for the Actuaries Institute 2012 General Insurance Seminar.
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What does Reinsurance Optimisation look like?



Factors that define the Reinsurance Environment

Insurance and reinsurance markets

- 1 Reinsurance market cycle
- 2 Reinsurance pricing
- 3 Soft v hard market
- 4 Reinsurance product
- 5 Innovation
- 6 Global supply

Prudential and legislative requirements

- 1 Capital charges
- 2 Prudential compliance
- 3 Legislative compliance

Economic forces

- 1 Economic cycles
- 2 Claims cycles

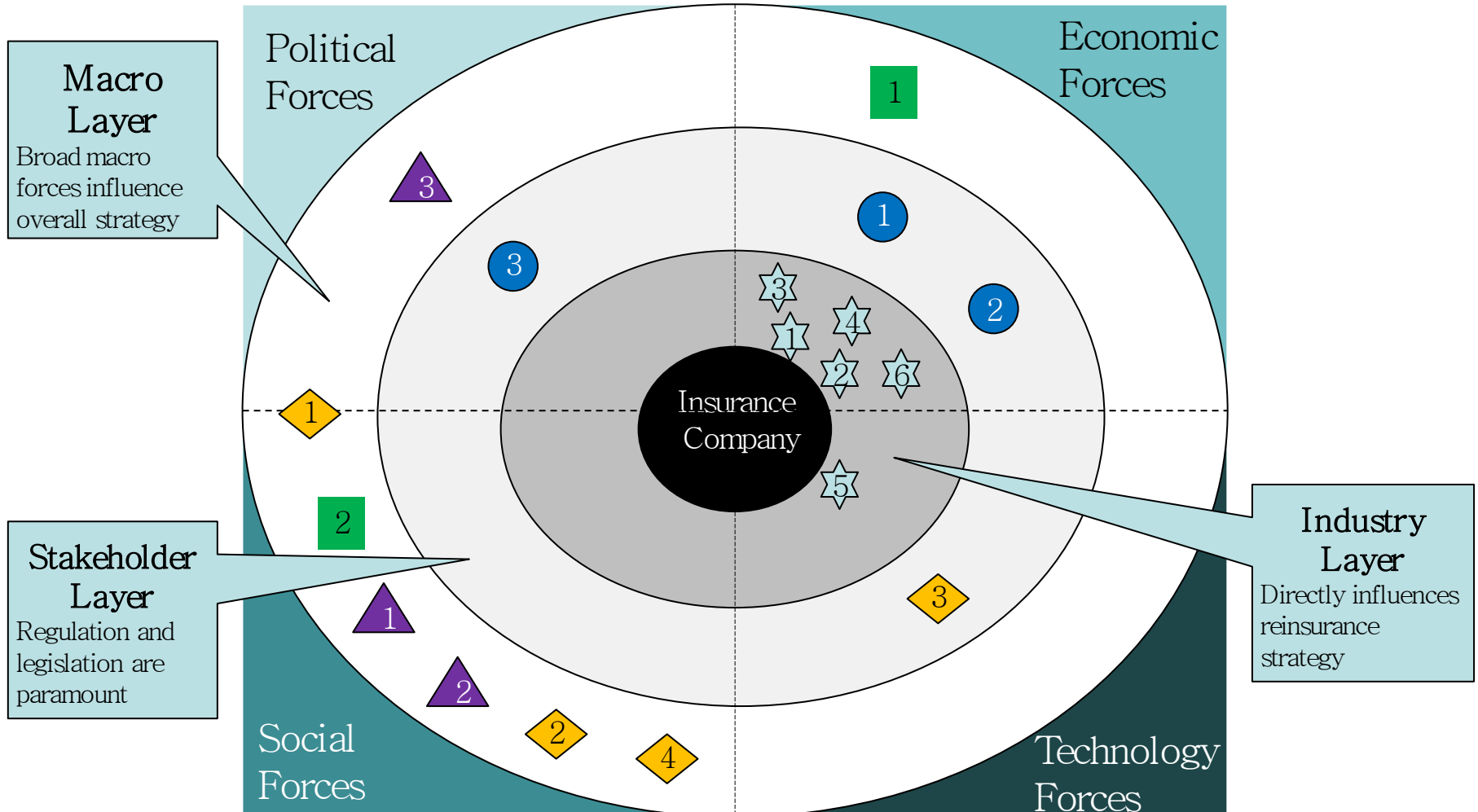
Social and community

- 1 Superimposed inflation
- 2 Utility of insurance
- 3 Legislative changes

Climate

- 1 Weather patterns
- 2 Urbanisation
- 3 Catastrophe modelling
- 4 Environmental degradation

External Environment – Onion & PEST





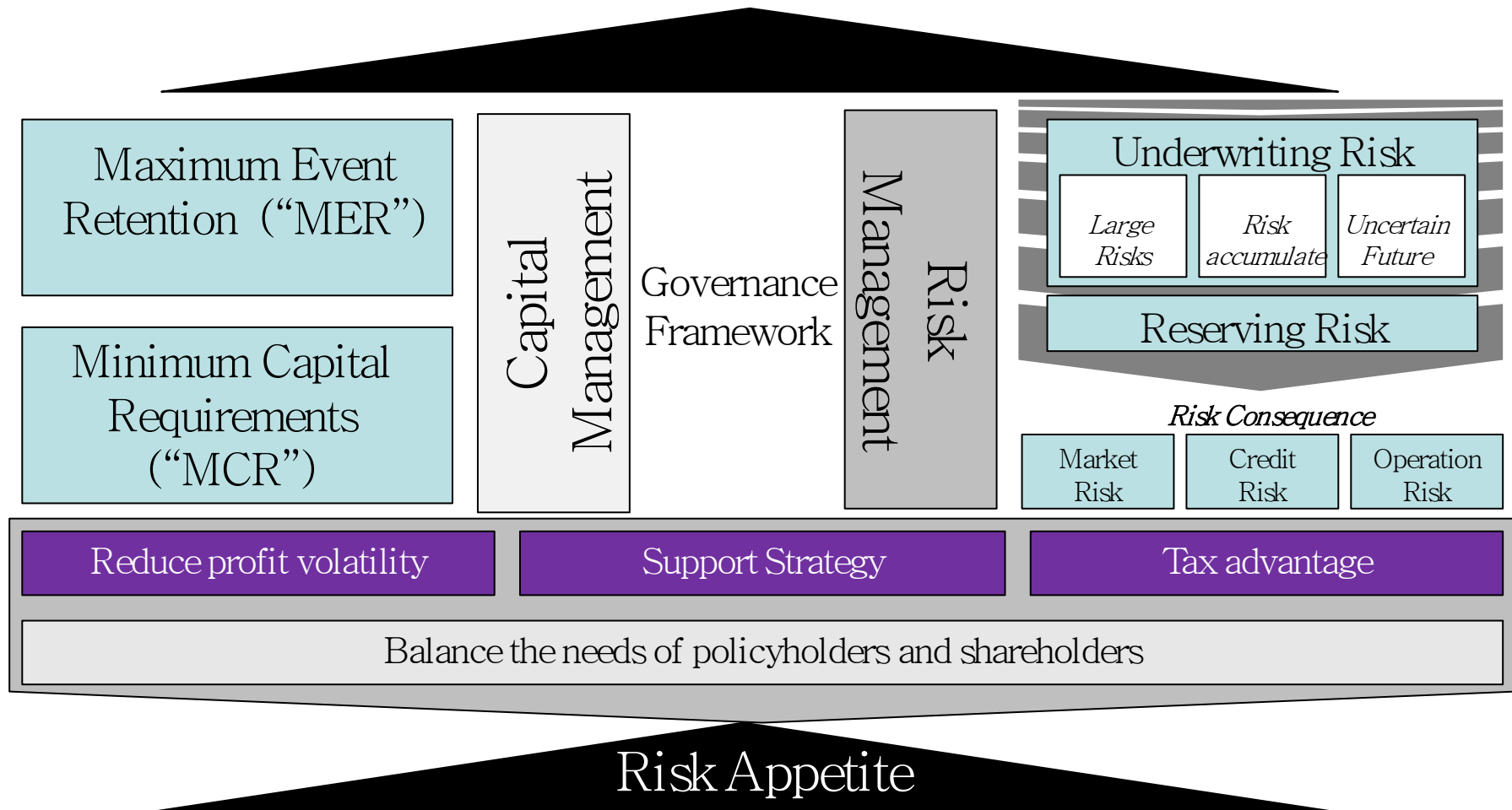
A Prudential view of Reinsurance

Policyholders

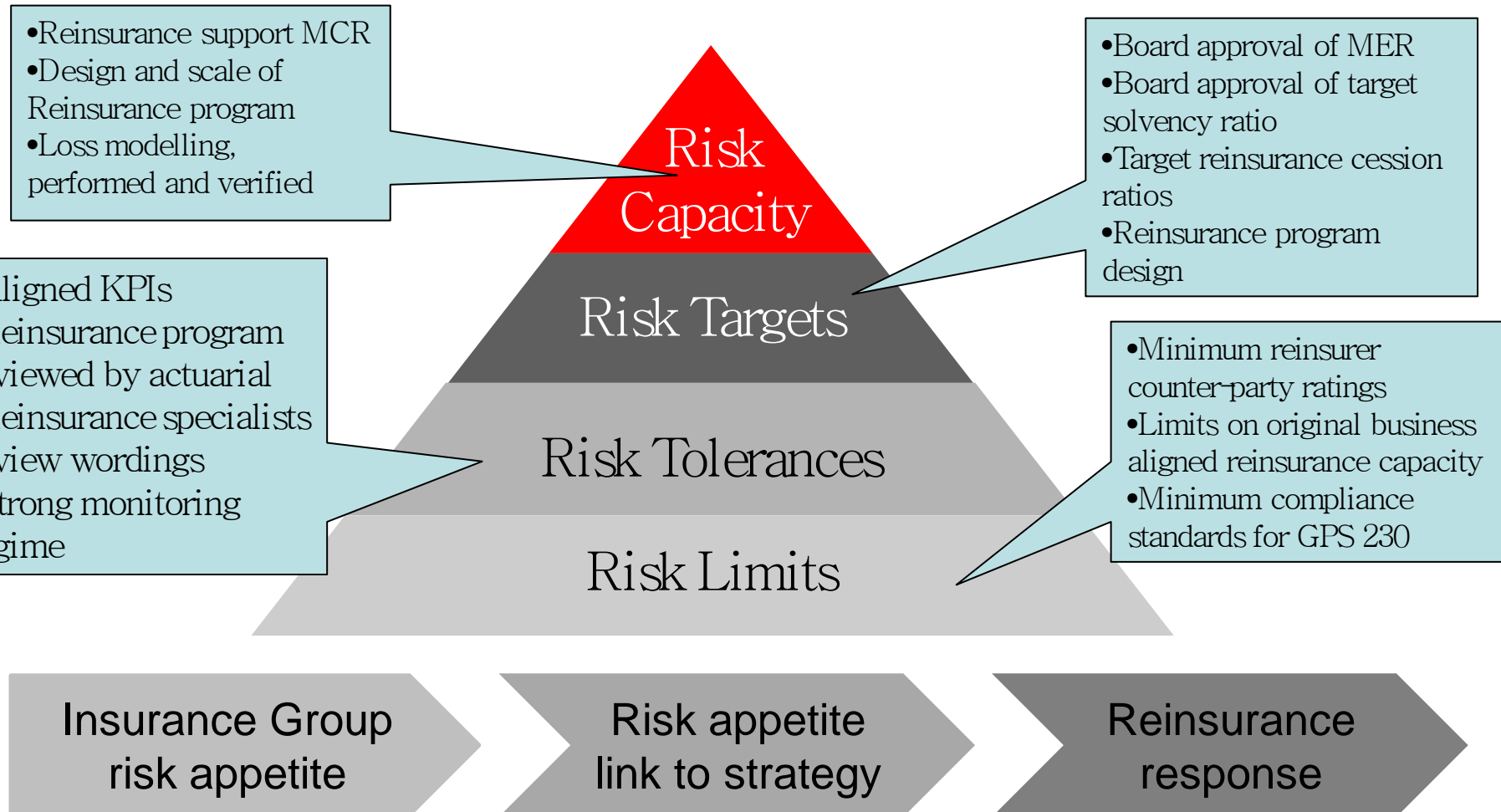


A Prudential view of Reinsurance

Policyholders

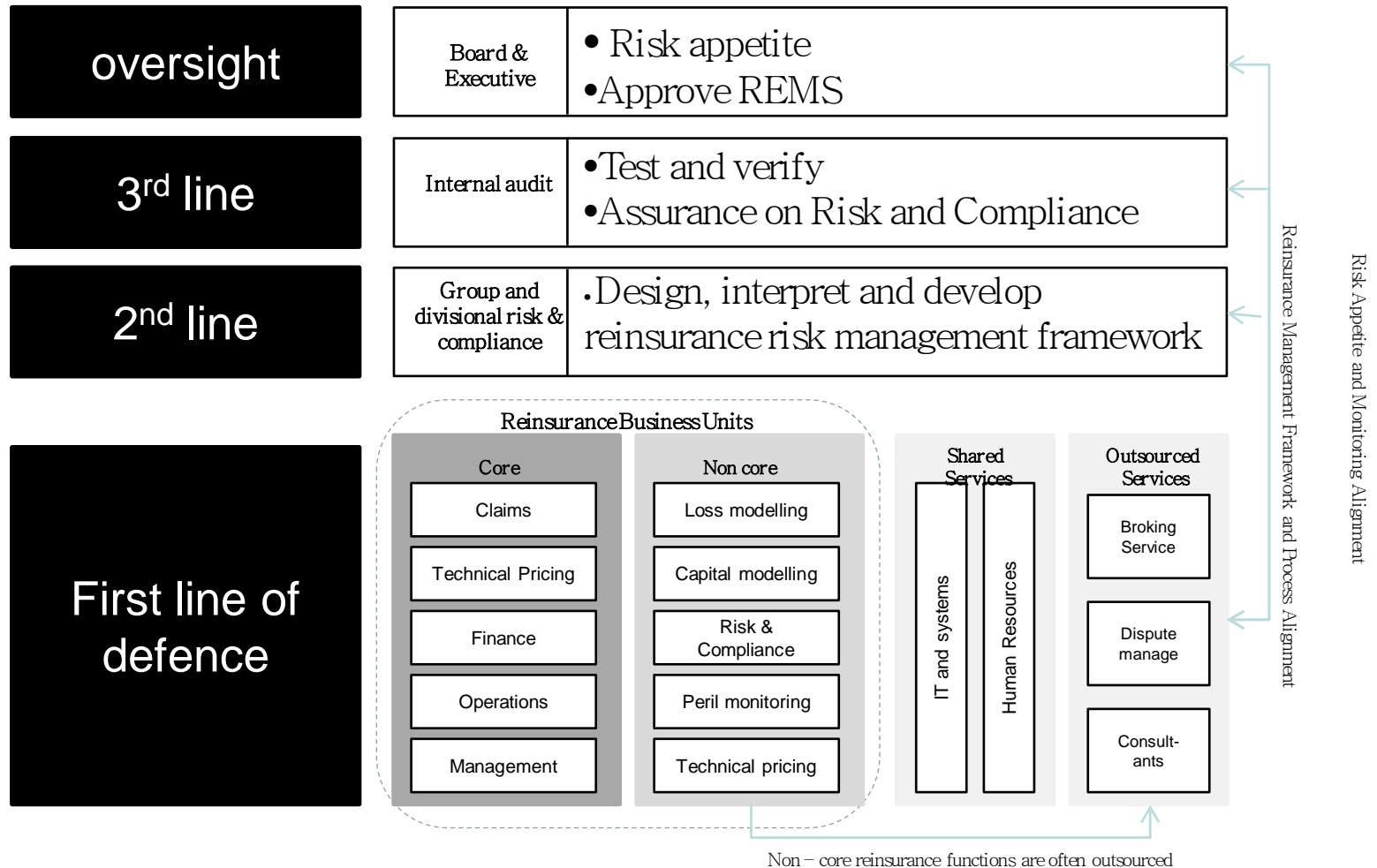


Aligning Risk Appetite and Reinsurance





Three Lines of Defence Framework

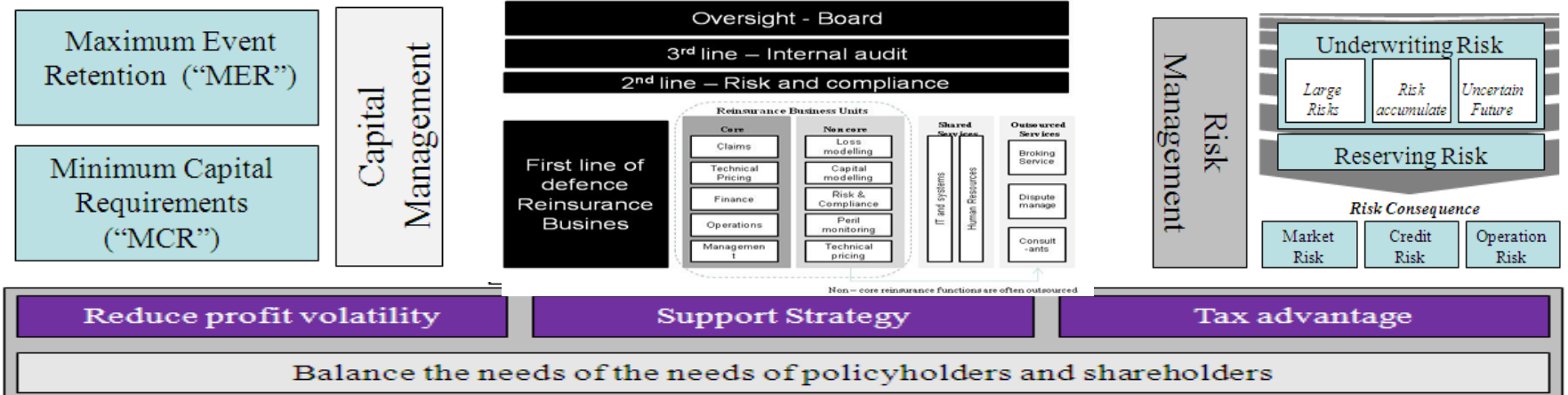


Reinsurance Management Framework and Process Alignment
 Risk Appetite and Monitoring Alignment



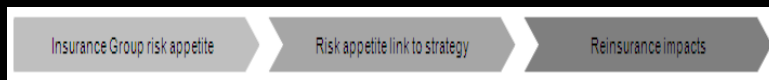
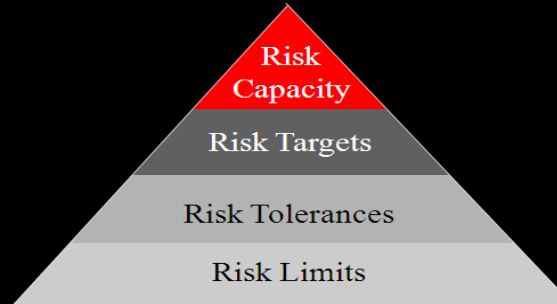
Reinsurance Framework – Internal perspective

Policyholders



Reinsurance Levers

MCR	Review
MER	Cession ratios
Design	KPIs
Modelling	Counter-party
Solvency	Compliance



REMS

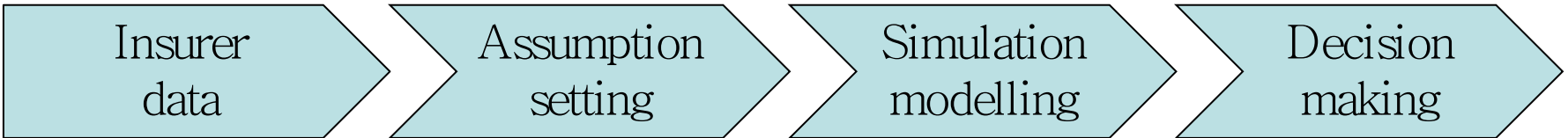
Best Practice	Gap Analysis
	Alignment
	Review
	Use Test



Reinsurance Analysis and Process

Quantitative

<p>Gross analysis</p> <p>Must understand nature and cost of losses being considered for reinsurance</p>	<p>Pricing analysis</p> <p>Expected ceded losses Expense loading Profit or cost of capital</p>	<p>Impact analysis</p> <p>Structure optimisation Analysis of efficiency Capital implications Regulatory implications</p>	<p>Benchmarking</p> <p>Structure, including limit and retention Price Ceded cost of capital</p>
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<p>Placement process</p> <p>Art as much as science Negotiation important Incorporation of quantitative analysis critical</p>	<p>Security</p> <p>Regulatory implications Risk appetite considerations Rating agencies Downgrade clauses</p>	<p>Documentation</p> <p>Contract wordings REMS and RAS Board reporting Technical analysis reports</p>	<p>Benchmarking</p> <p>Against peers Against previous year(s) Against expectations</p>
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Qualitative



Multiple stakeholders

APRA

- Regulatory framework

Actuaries

- Key role in quantitative elements

Business

- Key role across quantitative and qualitative elements

RI manager

- Key role in qualitative elements

Board

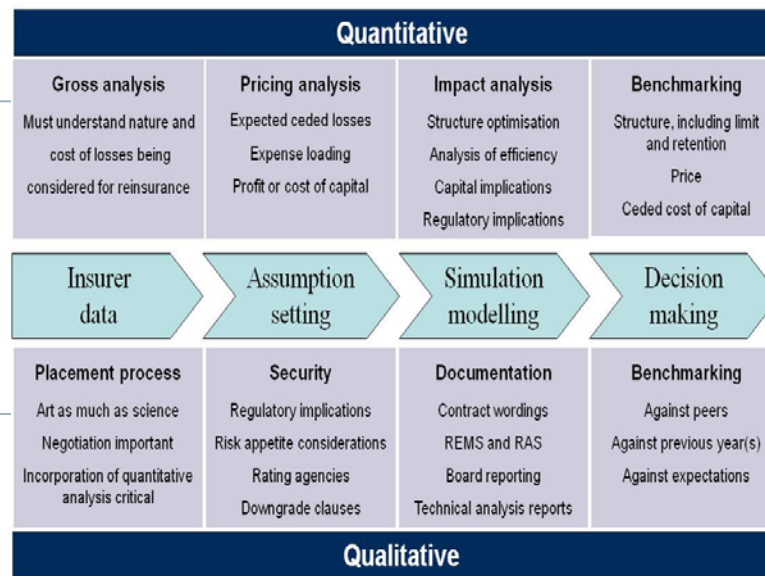
- Must understand both quantitative and qualitative elements

RI broker

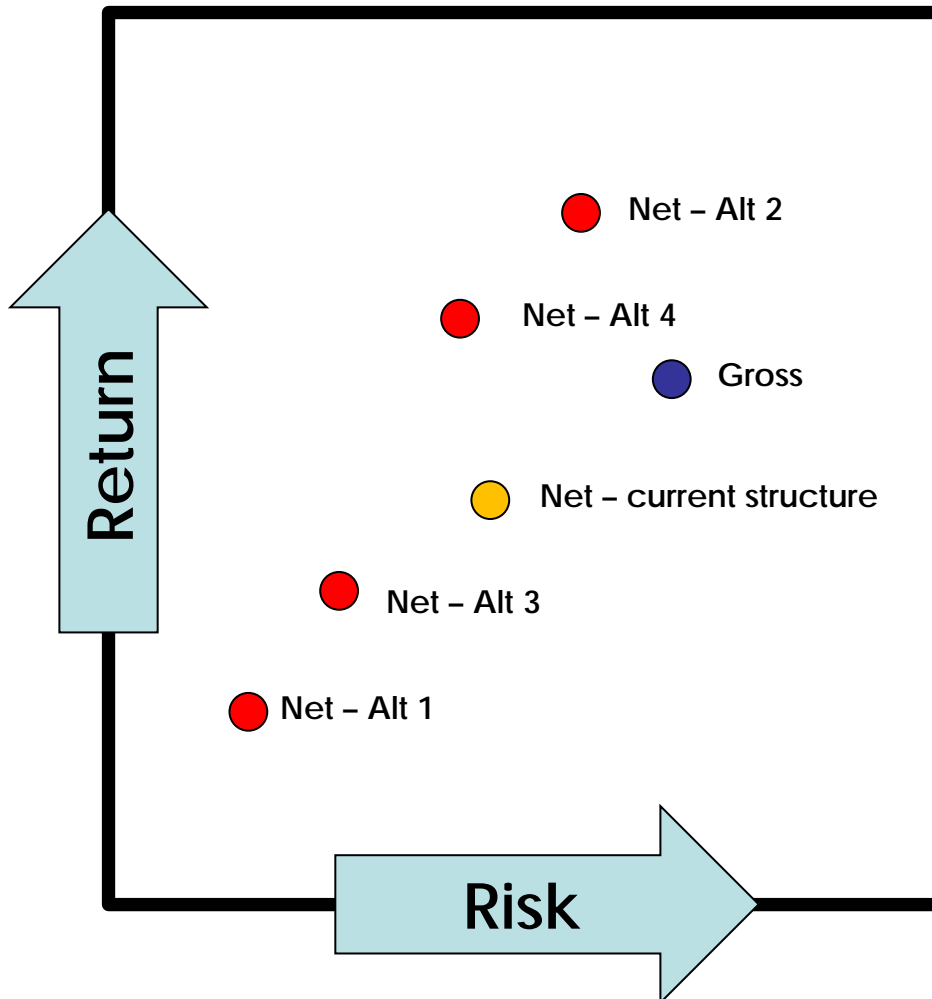
- Key support role across quantitative and qualitative elements

Reinsurers

- Providers of capacity



Optimisation 1: Capital Efficiency



Risk / Return defined

- Change in risk normally measured as change in capital, i.e.

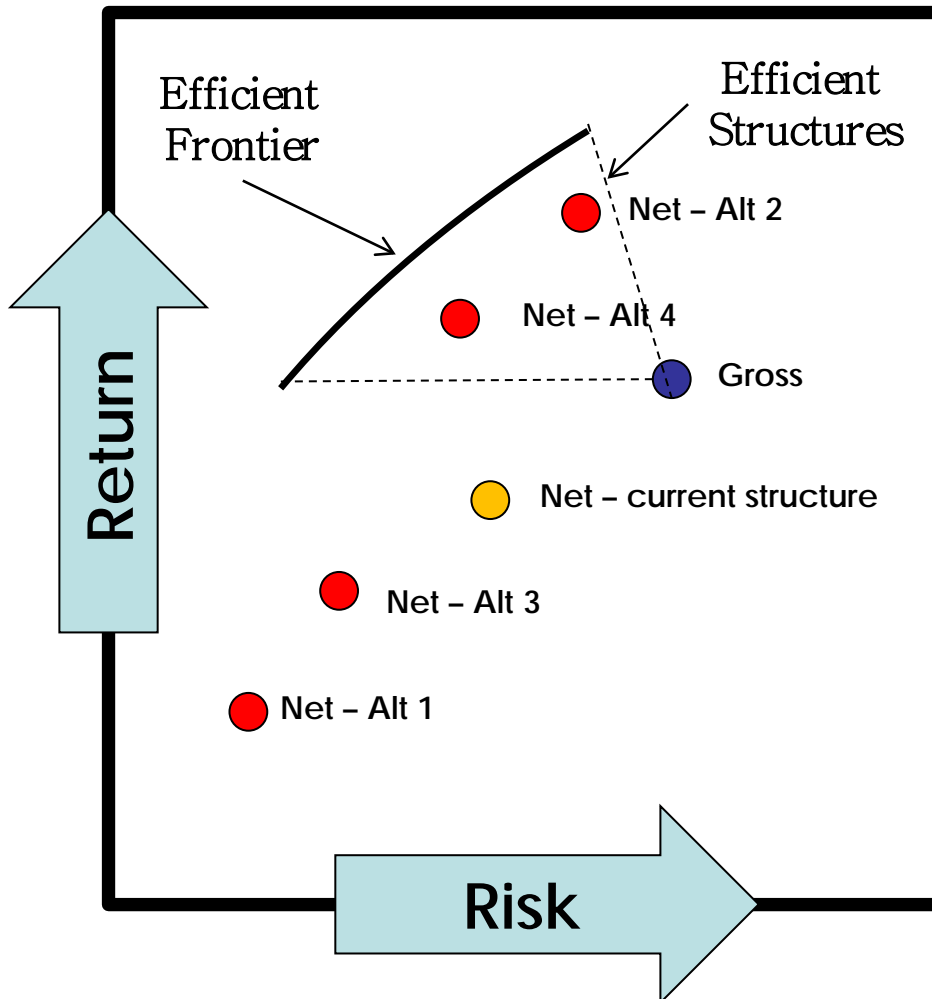
Capital required before reinsurance

Less

Capital required after reinsurance

- Return normally measured as profit divided by change in capital

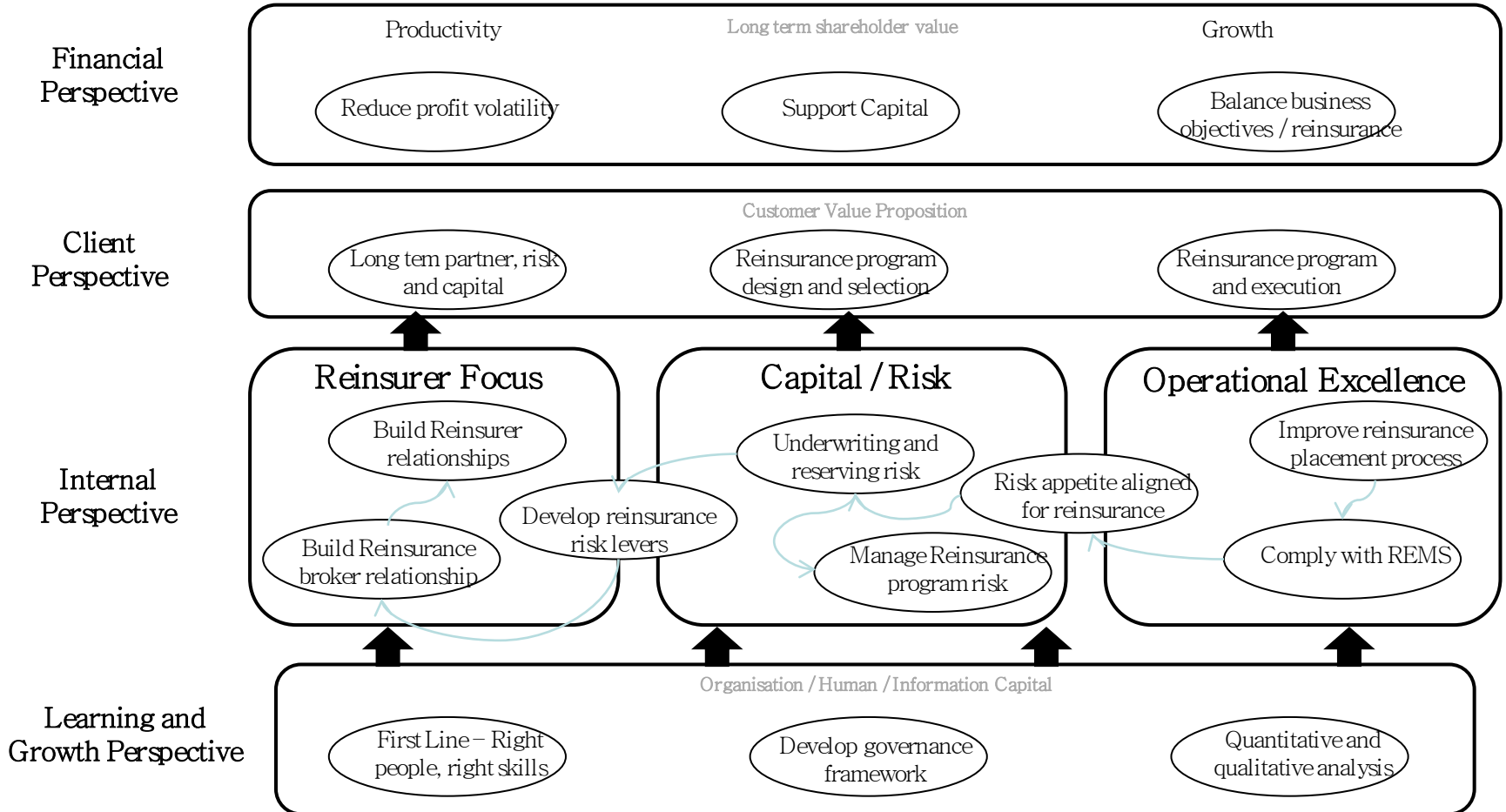
Optimisation 1: Capital Efficiency



Ceded Return on Capital

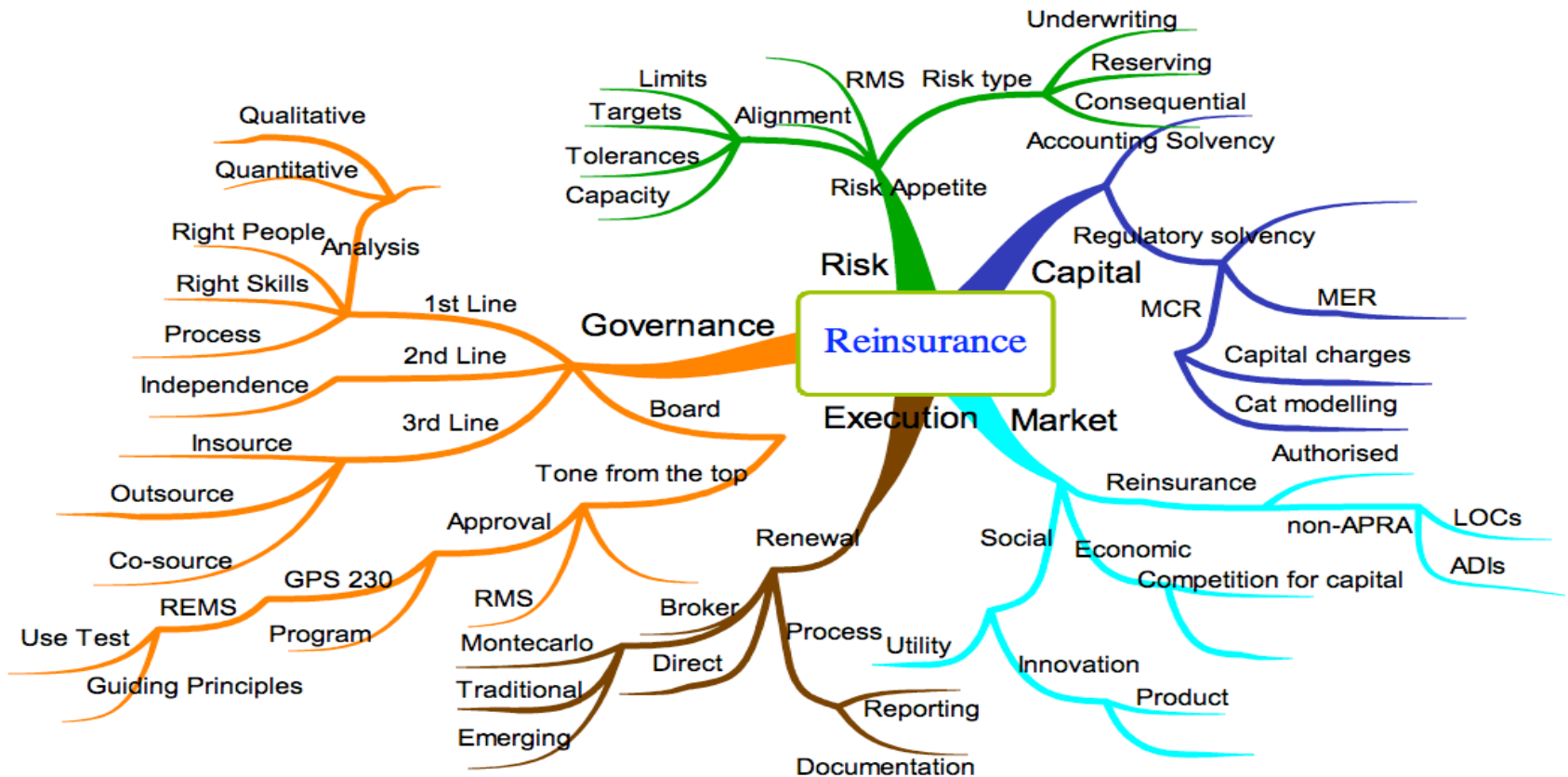
- Calculated as
$$\frac{\text{Ceded Profit Margin}}{\text{Change in Capital}}$$
- Compared to the insurer's own internal Return on Capital
- If lower, then the reinsurance is accretive to the overall Return on Capital
- Or, the proposed structure is efficient

Optimisation 2: Reinsurance Strategy Map





Optimisation 3: Reinsurance Mind Map





Thank you

Any Questions?