building value together

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Implication of RBCT for the General Takaful Industry

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Contents

Risk Based Capital Takaful Framework

Old vs New General Takaful Valuation Bases

	Old Valuation Basis	New Valuation Basis
Guidelines	Guidelines on Mathematical Estimation of IBNR Claims Provision (effective 31 December 1993)	Risk-Based Capital Framework for Takaful Operators (effective 1 January 2014)
General Takaful Liabilities	• Outstanding Claims Liability (i.e. inclusive of IBNR and IBNER claims)	• Outstanding Claims Liability (i.e. inclusive of IBNR and IBNER claims)
		• Contribution Liability*
		• Expense Liability* (i.e. claims-related expense in respect of Claims and Contribution Liabilities and on-going certificate expense of Contribution Liability)
Probability of Adequacy	With prudence margin	75^{th} percentile (i.e. best estimate + PRAD)

* Less onerous than the draft version

Old vs New General Takaful Solvency or Capital Charge Basis

	Old	New Solvency Basis	
Guidelines	none	Risk-Based Capital Framework for Takaful Operators (effective 1 January 2014)	
General Takaful (GCC)		• 20%-30% of 75th percentile Outstanding Claims Liability (CL)	: Only GT
		• 30%-45% of 75th percentile Unexpired Risk Reserve (PL)	: Only GT
Shareholders Expense (ECC)		• 20% of Best Estimate Provision for Unexpired Expense Risk (UER)	: Only SH
Credit Risk (CRCC)		• 0%-12% of Value	: Both GT and SH
Market Risk (MRCC)		• 16%-35% of Equity Value • 8%-16% for Property • Currency, Profit Rate, Other risks	: Both GT and SH
Operational Risk (ORCC)		• 1% of Total Assets	: Only SH

Takaful vs Conventional Valuation Bases

	General Takaful Valuation	General Insurance Valuation
General Takaful / Insurance Liabilities	• Outstanding Claims Liability (i.e. inclusive of IBNR and IBNER claims)	• Outstanding Claims Liability (i.e. inclusive of IBNR and IBNER claims) plus claims-related expense
	• Contribution Liability	• Premium Liability plus claims-related expense + on-going policy expense
	• Expense Liability (i.e. claims-related expense in respect of Claims and Contribution Liabilities and on-going certificate expense of Contribution Liability)	
Probability of Adequacy	75^{th} percentile (i.e. best estimate + PRAD)	75^{th} percentile (i.e. best estimate + PRAD)

Takaful vs Conventional Solvency Bases

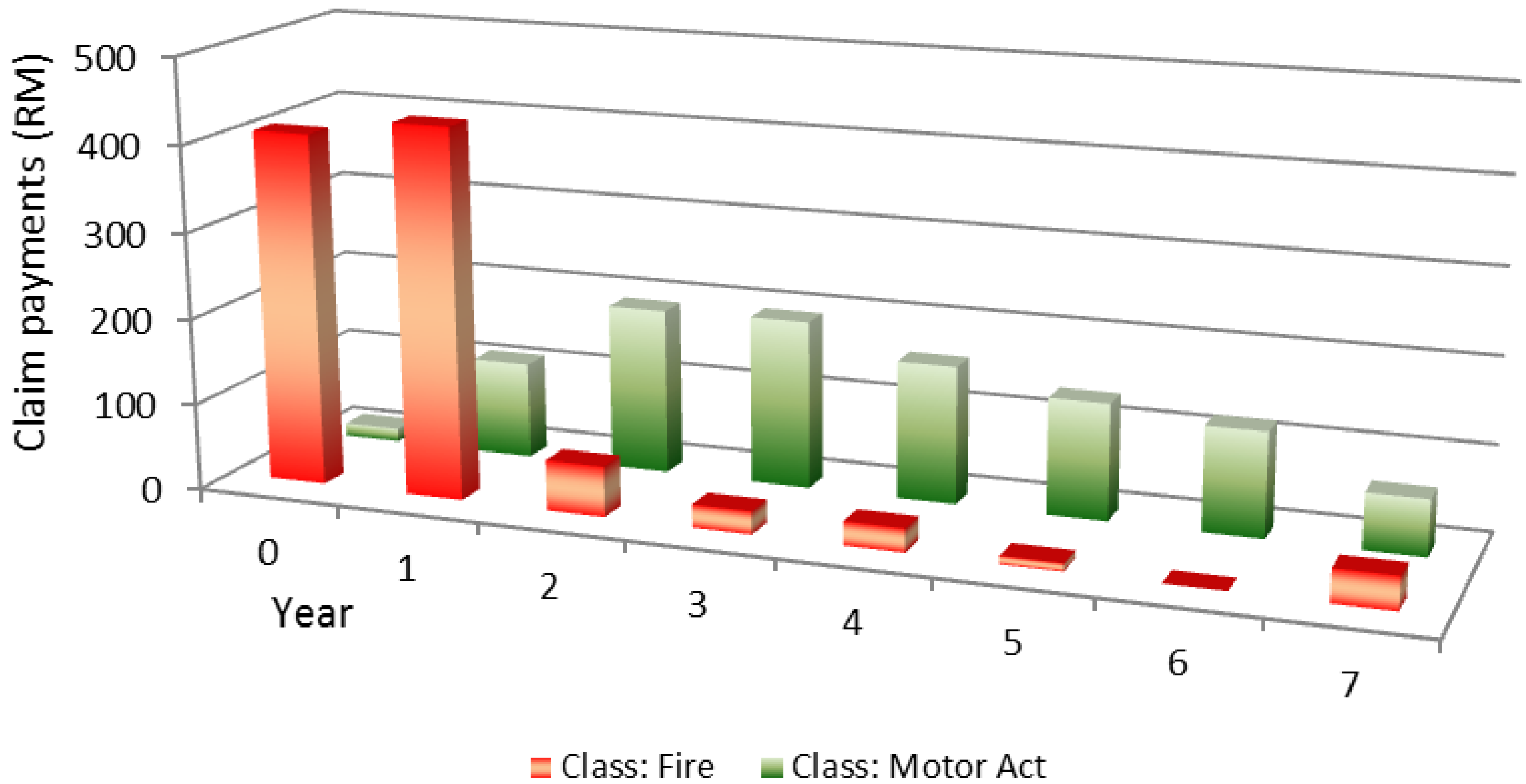
	General Takaful Valuation	General Insurance Valuation
General Takaful / Insurance Liabilities	• Risk capital charge (GCC for PL) applied to 75th percentile URR • Same risk capital charges as for conventional • Credit given for excess of UCR over 75th percentile URR	• Risk capital charge applied to 75th percentile URR, regardless of level of UPR

	• Risk capital charge (ECC) calculated as
	  • 120% of Best Estimate UER
	  • less 75th percentile UER
	• Credit given for excess of UWF over 75th percentile UER	

Capital Required by Class of Business

Claims Payment Delay

- Long tailed classes tie up more capital for longer
- Consider numerical example: short tailed Fire vs long tailed Motor Act, both with expected claims of unit RM1,000



Additional Reserves and Charges

- Asset Capital Charges consist of Credit Risk (CRCC) and Market Risk (MRCC) Capital Charges

PRAD
Provision for Risk of Adverse Deviation
dollar for dollar

GCC
General Takaful Capital Charges
180% CAR multiple

ECC
Shareholders Expense Capital Charges
180% CAR multiple

CRCC
Credit Risk Capital Charges
180% CAR multiple

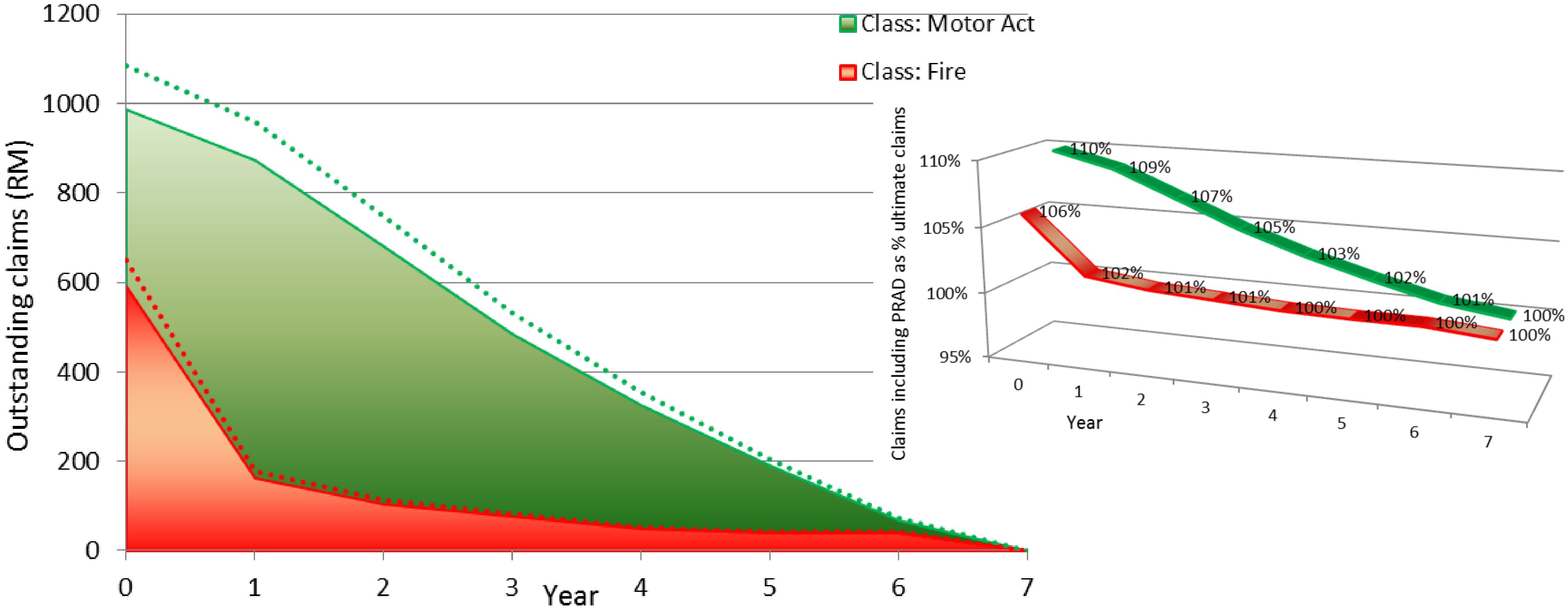
MRCC
Market Risk Capital Charges
180% CAR multiple

ORCC
Occupational Risk Capital Charges
180% CAR multiple

- Putting numbers to PRAD and GCC…

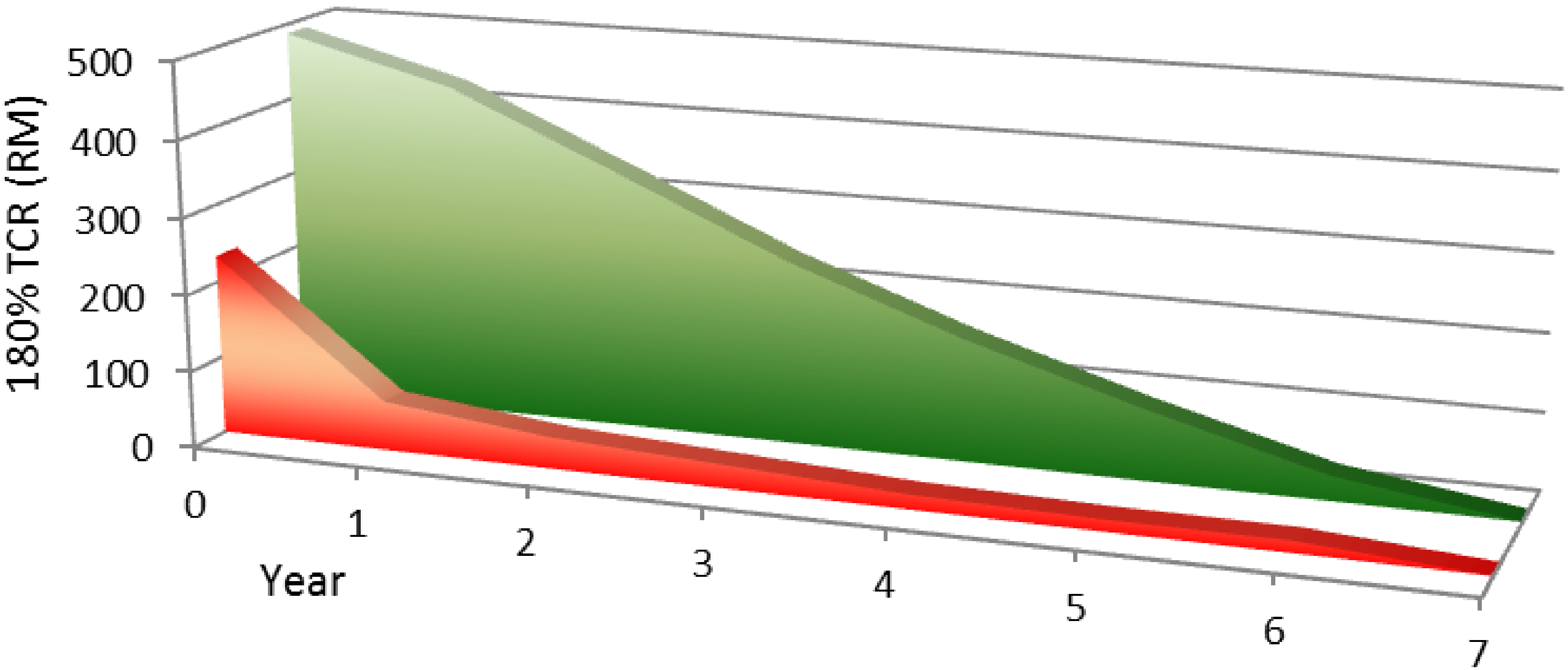
Outstanding Claims Provisions With and Without PRAD

- Delay is no different from historically (based on industry link ratios from BNM Annual Insurance Statistics 2011)
- Reserving is stronger under RBC, with PRAD say at 10% of outstanding claims at the year end
- But ultimate outgo is still like historic, just delay in recognition of profit



General Takaful Capital Charge (GCC)

- Little difference between solid area (BE) and dotted line (incl PRAD)?
- Loss of earnings on extra PRAD not very significant?
- Consider additional TIED CAPITAL at CAR of 180% on top of PRAD



- TCR's capital charges for Fire are 20% of 75th percentile liabilities while Motor incurs 25%

Capital Required by Class of Business

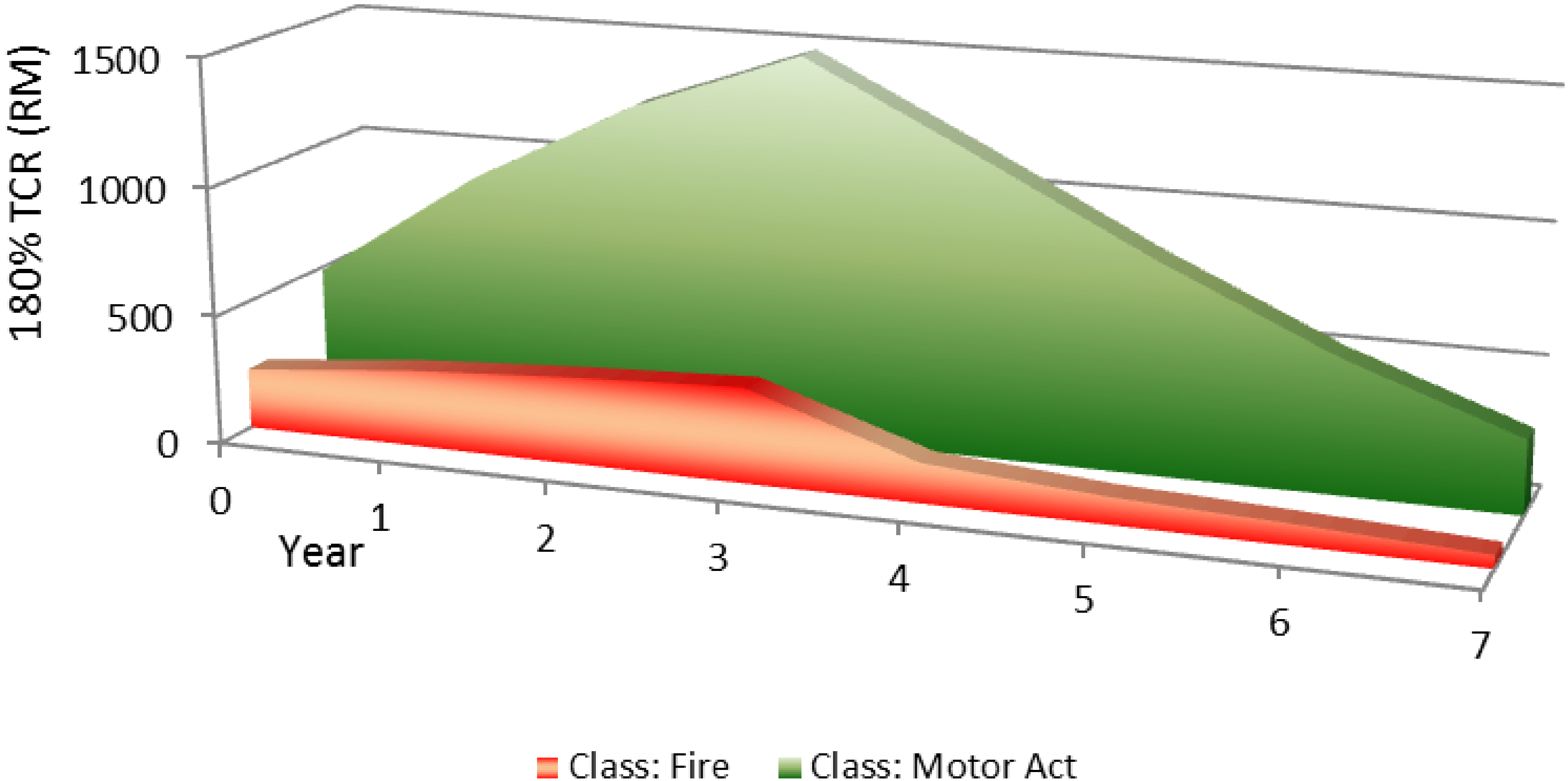
- Resembles outstanding claims in shape but is a totally new feature

SIGNIFICANT CAPITAL REQUIRED where previously solvency requirement was zero

- Whereas a short tailed class needs capital for only one year, a long tailed class needs double the capital and held for effectively 3-4 years
- After one year, the capital for a short tailed class can be used for new business
- For a long tailed class, not only can capital not be re-used as quickly, more capital is needed in subsequent years, leading to layering of tied capital
- Loss of earnings on tied capital should be priced into the contribution rate

Layering of New Business

- Consider only general takaful liability capital charges (GCC) for 4 years' worth of new business



Asset Capital Risk Charges

- Some takaful providers did not mind writing long tailed classes of business as they can earn investment income on the reserves
- With the advent of credit and market risk capital charges, there will be a cost to investing in more risky higher yielding assets
- This cost could neutralize any investment income gains
- The investment strategy has to consider whether the higher investment returns are commensurate with the asset risk capital charges attached to these riskier asset types
- Why should the operator take this risk (cost of qard in initial years) when it only gets a partial share of any gain

Impact of the New Framework on Takaful Operators

Impact of the New Valuation Basis on TO
Risk Fund

Requirement for Contribution Liabilities

- If there is a **deficiency in the UCR**, the Company has to provide for it as an additional provision on top of its UCR
- This implies that future losses have to be capitalized from day one

Requirement for all General Takaful liabilities to be provided at the 75th probability of adequacy

- 1st year of implementation: There will be an **increase** in **liabilities provision**, hence **reduction in surplus** for that year
- HOWEVER, as it is a reserving strain (i.e. 75th), it will be a **once-off impact**, similar to what has been experienced by the conventional insurers when RBC was implemented in 2009

Impact of the New Valuation Basis on TO
Shareholders' Fund

Requirement for Unearned Wakalah Fee

This means a **deferred recognition** of **wakalah fee income** to the shareholders **–** hence **deferred recognition** of the **surplus**

If there is a **deficiency in the UWF**, the shareholder has to provide for it as an additional provision on top of its UWF. This implies that future losses have to be capitalized from day one

Impact of the Capital Requirement on TO
Risk Fund

Requirement for Capital Charge (GCC, CRCC and MRCC)

- Choose to retain profit in a **Solvency Margin / Contingency Fund*** within the risk fund, from an opening base of zero
- This would **defer surplus distribution** and even necessitate **qard** initially or assignation of shareholders fund's assets to risk fund for solvency purposes

* Accumulation of retained profit resulting in TCA exceeding 130% of TCR in the risk fund will depress the CAR%

Impact of the Capital Requirement on TO
Shareholders Fund

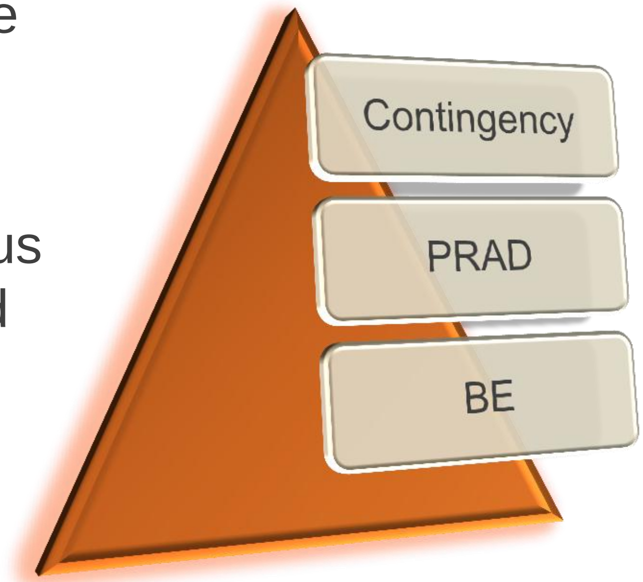
Requirement for Capital Charge (ECC, ORCC, CRCC and MRCC)

- Quantification of the use of capital and relative efficiency of specific products or investment decisions
- Use of excess capital to enhance Capital Adequacy Ratio

Solvency Margin, formerly Contingency Fund

Contingency Fund

- Build contingency reserves in the risk fund as the first line of defense to absorb losses
- Reduce the need for qard required to weather volatility from cycles
- Holds back surplus distribution to participants and Takaful Operator
- Accumulated year after year until critical size in relationship to current contribution volume
- Aside from providing buffer against adverse experience, the Contingency Fund also provides ‘capital’ for **solvency** purposes
- Initially and when there is insufficient surplus in the risk fund, a qard may still be required



Implications of Solvency Margin or Contingency Fund

Impact to participants

- Less surplus distribution
- Possible inequity between generations; participants after Contingency Fund reaches critical size will enjoy more surplus distribution
- Higher asset risk charges in the risk fund

Impact to Takaful Operator

- Less surplus sharing
- Reduces the need for qard and likelihood to write off qard
- Smoothens results from year to year, fewer peaks and troughs

Solvency Margin, to retain or not to retain

Option 1

- Build up solvency capital in the risk pool
- Up to 130% of TCR can be recognised for CAR calculations
- Pre-RBC, this would have been called the Contingency Fund

Option 2

- Distribute available profits
- Let shareholders fund take care of solvency

BUT

- Distribution of profits only if the pricing included this component, otherwise not equitable
- Whatever profit emerging may just be from volatility

Pricing

Pricing

- Tariff not suitable for Takaful
  - Cross-subsidy
  - Inequitable between classes
- Tariff not suitable for RBC basis
  - Inflexible, not able to price for cost of capital or PRAD
  - Inequitable between generations while reserves are being built up
- TO has a duty to underwrite responsibly for the long term sustainability of the fund
- TOF specifies TO's investment accountability, silent on underwriting
- Pricing to include loss of earnings on capital used for solvency purposes
- Pricing to include surplus distribution?

MMIP

MMIP

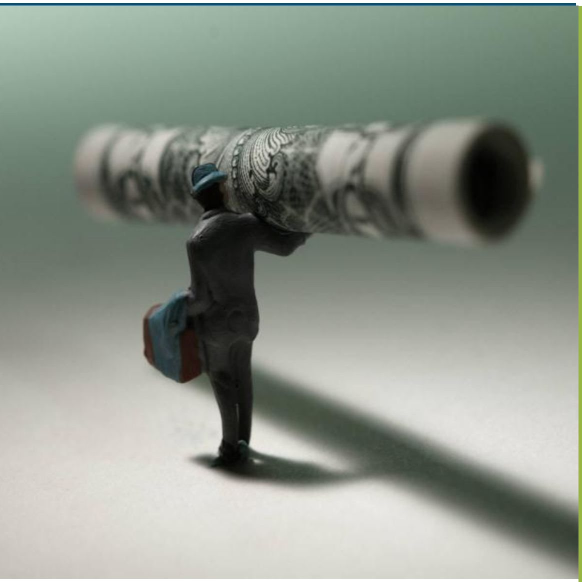
- Takaful players to join pool, together with conventional insurers
- Pool is still expected to be loss-making even after recent tariff hikes, due to the unusual risks underwritten e.g. buses
- What is the future of MMIP when de-tariffing comes into effect in 2016
- Can’t seem to agree on the basis of sharing
  - Currently, general insurers are sharing on equal basis
  - Under the new set-up, proposals have been made to share based on each company’s Motor share or based on each company’s proportion of Motor business being ‘channeled’ into MMIP
- Separation of fund from direct risks – see BNM reporting format
- Perpetual irrecoverable qard – risk transfer, not risk sharing

RBC Forms Set by BNM

RBC Forms Set by BNM

- Family allows 10 sub-funds for each of local and overseas
  – 7 for Protection
  – 3 for Annuity
- General Takaful only has

- No sub-funds unless perhaps as an intermediate step before inputting into forms – BNM DOES NOT ALLOW MORE THAN ONE GT FUND?
- No constraint on diversification benefit across classes
- Surplus sharing



Appendix - UCR and UWF

Unearned Contribution Reserve

Contribution Liability (PL)

- Contribution Liability is the higher of the adjusted **Unearned Contribution Reserves (UCR)** or the **Unexpired Risk Reserve (URR)** including **PRAD** at the 75th percentile after allowance for diversification benefit.

PL = Max(Adjusted UCR, URR + FPRAD) at a Total Fund level
Where Adjusted UCR is net of the Wakalah Fee; URR = UCR x Selected ULR

- If the adjusted UCR is higher, reserving is at higher than 75th percentile.
- BNM now allows the excess above 75th percentile as a credit in the capital charge calculation

Contribution Liability Capital Charge (GCC for PL)*
= (URR + FPRAD) x risk charge of 30% to 45%
Less excess of UCR over 75th percentile i.e. less (UCR – (URR + FPRAD)) if UCR > URR + FPRAD

* Cannot be negative

Unearned Wakalah Fee (UWF)
Expense Liability in the Shareholders' Fund

- Generally, there are three elements of management expenses:

Management Expenses
Marketing/Upfront expense
Claims-related expense
Contribution-related expense: • Once-off expense incurred at the certificate issuance • On-going expense incurred during the certificate period

- Our expense provisions only take into account the *claims-related expense* in the Outstanding Claims Liability and Contribution Liability, and the *contribution-related on-going certificate expense* of the Contribution Liability.

- These expense provisions should be provided for in the Shareholders' Fund to be in line with the income recognition of the Wakalah Fee in the Shareholder's Fund.

Unearned Wakalah Fee (UWF)
Expense Liability in the Shareholders' Fund

Expenses	Definition
Outstanding Claims Liability – Claims-related	• The claims-related expense provision is in respect of the best estimate of the outstanding claims liability on an on-going basis. • This allows for internal claims expenses including staff costs and administrative expenses related to settling claims.
Contribution Liability – Claims-related	• This claims-related expense provision is in respect of the best estimate of the URR on an on-going basis. • This allows for staff costs and administrative expenses expected to be incurred in settling claims on the unexpired portion of the risk.
Contribution Liability – On-going Certificate Expense	• This on-going certificate expense provision is in respect of the gross UCR (gross of all retakaful and Wakalah Fee) on a marginal cost basis. • This allows for contribution-related expenses including staff costs and administrative expenses **not** related to settling claims.

Unexpired Expense Risk (UER) = sum of the above expense provisions

Unearned Wakalah Fee (UWF)
Expense Liability in the Shareholders' Fund

Expense Liability = Max(UWF, UER + PRAD) at a Total Fund level
For the **Unearned Wakalah Fee (UWF),** distribution expenses incurred up-front may be excluded from the calculation of **UWF**. So UWF will be in respect of the **management expenses only** and does not include commissions.
The **Unexpired Expense Reserves (UER)** is the sum of all the expense provisions in respect of the outstanding claims and contribution liabilities under the best estimate basis, as discussed in the preceding section, plus **PRAD** at 75% probability of adequacy.

- If the UWF is higher, reserving is at higher than 75th percentile.
- BNM now allows the excess above 75th percentile as a credit in the capital charge calculation
- 99.5th percentile is recommended to be 120% of UER

Shareholders Expense Capital Charge (ECC)*
= UER x 120% Less higher of UWF or (UER + FPRAD)

* Cannot be negative

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