ACTUARIAL PARTNERS

building value together

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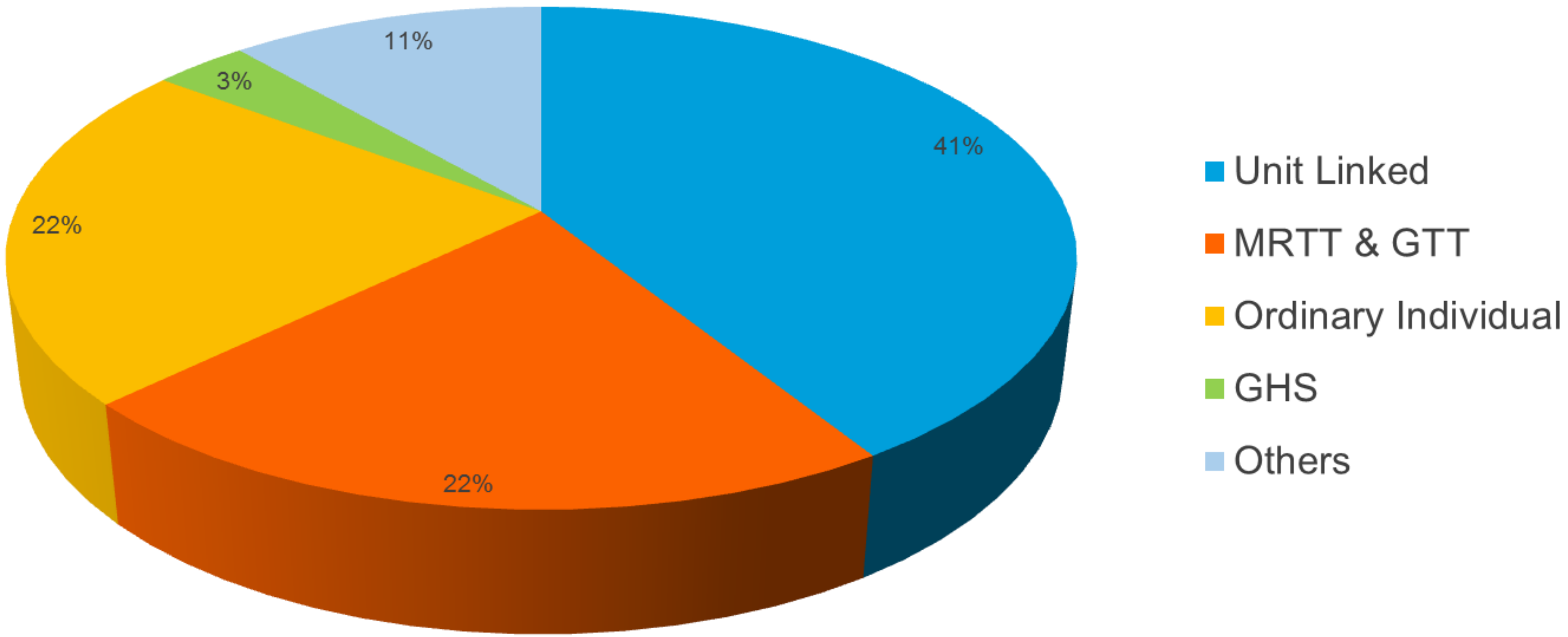
# Family takaful: Product Development and ITCL issues

Hassan Scott Odierno, FSA
Kuala Lumpur


Capital does not grow on trees!

# Current Malaysia Family Market
## Split by Product




Annual Contribution Equivalent Jan – June 2012

# MRTT Long Term Risk Fund

We can cross subsidize in a long term risk fund, but with a drip product there are less capital charges

# MRTT Long Term Risk Fund Example

| Asset Class | Investment Return | Market plus Credit Risk Charges |
|---|---|---|
| Equity | 8% | 20% |
| GII | 3.6% | 0% |
| Corp AAA | 4.3% | 1.6% |
| Corp AA | 5.0% | 2.8% |
| Corp A | 8.5% | 4.0% |
| Property (inv) | 6% | 16% |
| Cash / Deposits | 3% | 0% |
| Others | 3% | 2% |

- Bond returns from BNM website, average duration 10 years
- Corporate bond mix 42% AAA, 47% AA and 11% A from RAM
- Market plus credit charge grossed up to 180% in calculations (ITCL)
- Actual operator asset mix from recent annual report

# Investment Returns versus Charges

| Operator | Exp. Inv. Return | Grossed up market and credit charges for RM100m |
|---|---|---|
| STM | 5.0% | RM9.1 million |
| Etiqa | 4.8% | RM6.0 million |
| PruBSN | 4.2% | RM2.2 million |
| HLMT | 4.2% | RM3.4 million |
| Ikhlas | 4.0% | RM5.9 million |
| CATB | 4.0% | RM2.8 million |

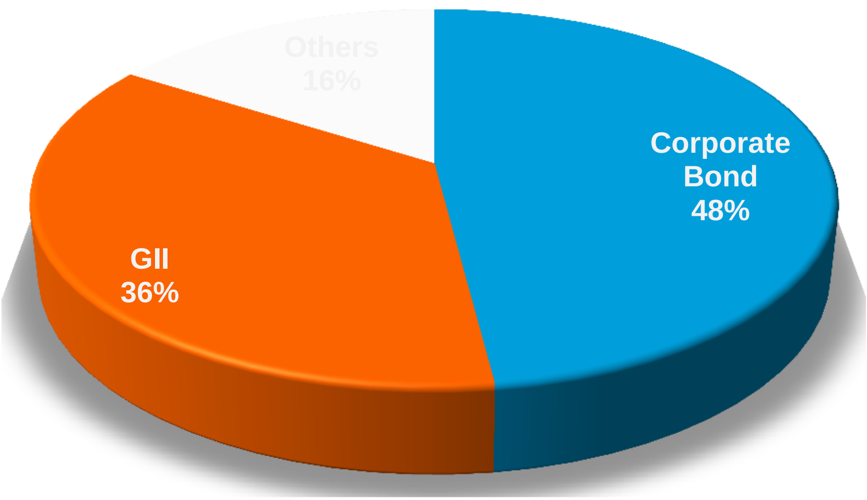
# MRTT Questions

**Allocate capital where you really need it!**

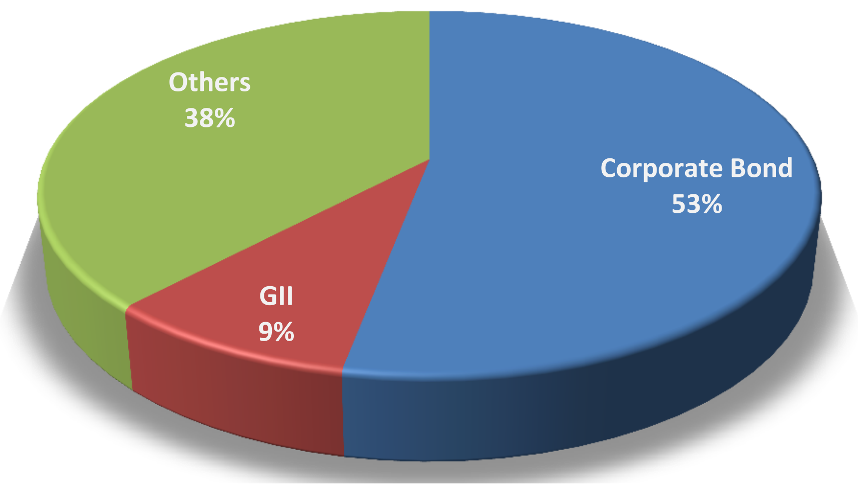
# Comparing Strategies

- STM and Etiqa expect higher returns but they require more capital
- PruBSN and HLMT have similar expected returns though PruBSN has less capital required.

**PruBSN**




**HLMT**



# Ideal Strategy

- An ALM study would need to be done to determine the ideal mix of assets for a given return requirement.
- If a return of 4.2%p.a. is marketable a strategy such as used by PruBSN, may be reasonable, whereas if a higher return of say 4.8%p.a. is needed a strategy such as used by Etiqa may be best

| Asset Class | PruBSN | Etiqa |
|---|---|---|
| Equity | 0% | 9% |
| GII | 36% | 16% |
| Corporate Bonds | 48% | 59% |
| Cash / Deposits | 12% | 12% |
| Others | 4% | 3% |

# Use of Retakaful

Under NPV retakaful was needed to reduce strains. Now it depends on how conservative you make your assumptions

# Conservatism in assumptions

## Choose whether to

- **Incur liability capital charges**
- **Rely on retakaful**
- **Price tabarru' more conservatively than best estimate**

# Mismatching

Thinking outside the box we can design and sell products to suit available assets

# Use of Subfunds

We can increase fairness by using subfunds but this can be a costly use of capital

# Location of Surrender Values

Surrender values are used where a participant 'overpays' in early years. In takaful we have both the risk fund and operators fund to consider.

# Surrender Value Capital Charge (SVCC)

Surrender value capital charges hint that the surrender value should be partly paid from the operators fund


Annuities and guarantees are hot topics in takaful but look before you leap!

# Internal Target Capital Level (ITCL) Process

Identify, mitigate or stress test risks from the bottom up

# Clarity of Process

ITCL quantifies risks but is only useful if the Board and management clearly understand the process

# Risk mitigation

Risk mitigation strategies include ensuring written processes are in place for such tasks as product development, reserving and RBCT calculation

# MRTT Drip Plans

For drip products investment return of PA is not included in the risks being stressed in the appendix to the guideline. Thus this should be factored into ITCL

# What is plausible?

The board should define ‘plausible’, 90% confidence level, 99.5%...

# Putting it all together

TOF defines fairness, GPV removes the implicit conservatism from NPV and RBCT quantifies the ability of the operator to withstand its risks

# Questions

hassan.odierno@actuarialpartners.com