SINGAPORE ACTUARIAL SOCIETY

SINGAPORE ACTUARIAL CONFERENCE 2023

# Participating Business in Asia – Recent trends and developments

Alex Bryant - Milliman

26 September 2023

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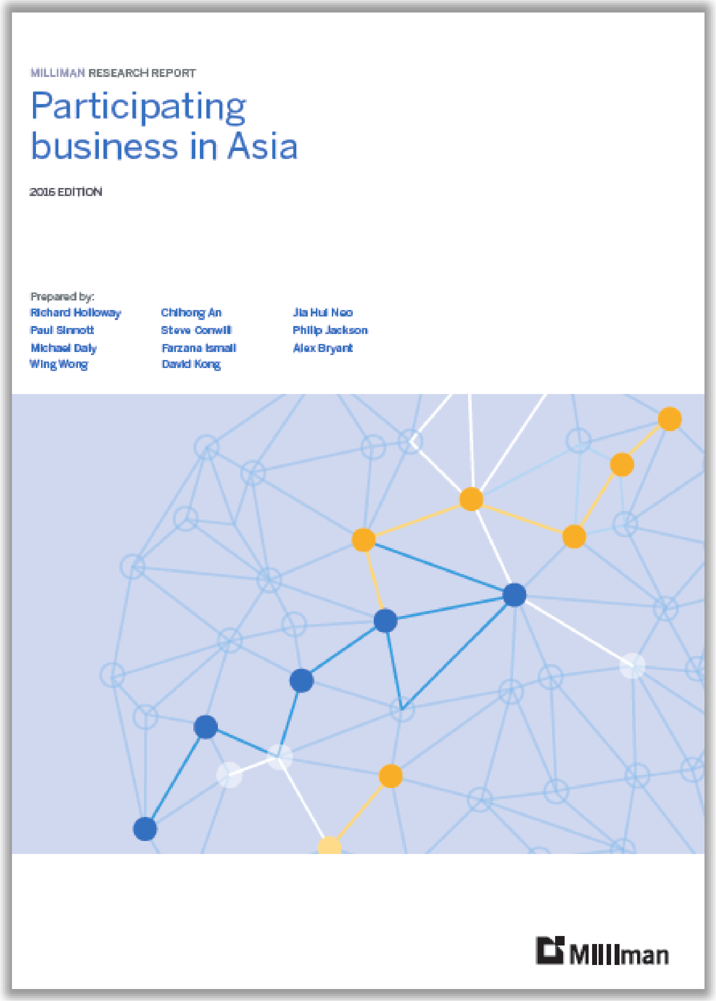
## Singapore Actuarial Conference 2023

Alex Bryant

26 SEPTEMBER 2023

# Background



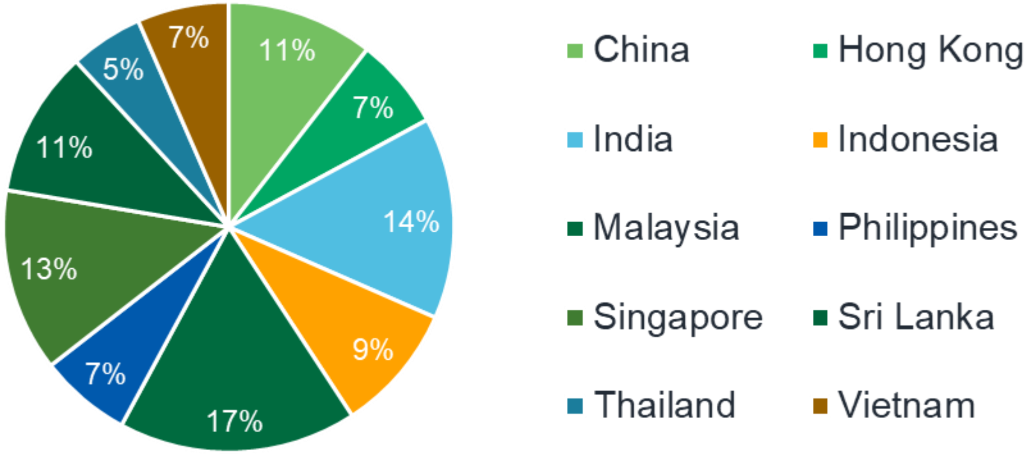

Milliman is working on producing a research report on Participating business in Asia (the previous version was issued in 2016), which covers:

- **A regional view** – how countries compare with each other and identifying common themes;
- **A brief analysis of par by country** – highlight major issues, changes and regulations
- **A detailed report of par by country** – based on industry statistics, survey from industry and experience of our consultants.

As part of the research, a survey has been conducted to understand the actual practice of life insurers in different Asian markets, a break down of the respondents by market is as below:

**76**

Survey respondents



# Agenda

## General outlook for par and high-level regulatory differences between markets

- Materiality of par
- Outlook
- In-force management challenges
- Threats to new business
- Illustration rates
- Fund segregation
- Profit sharing ratios

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## Bonus management

- Use of asset shares
- Metrics used
- Granularity of analysis
- Recent bonus experience

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## Rising interest rates

- Effect on investment returns
- Effect on bonus supportability

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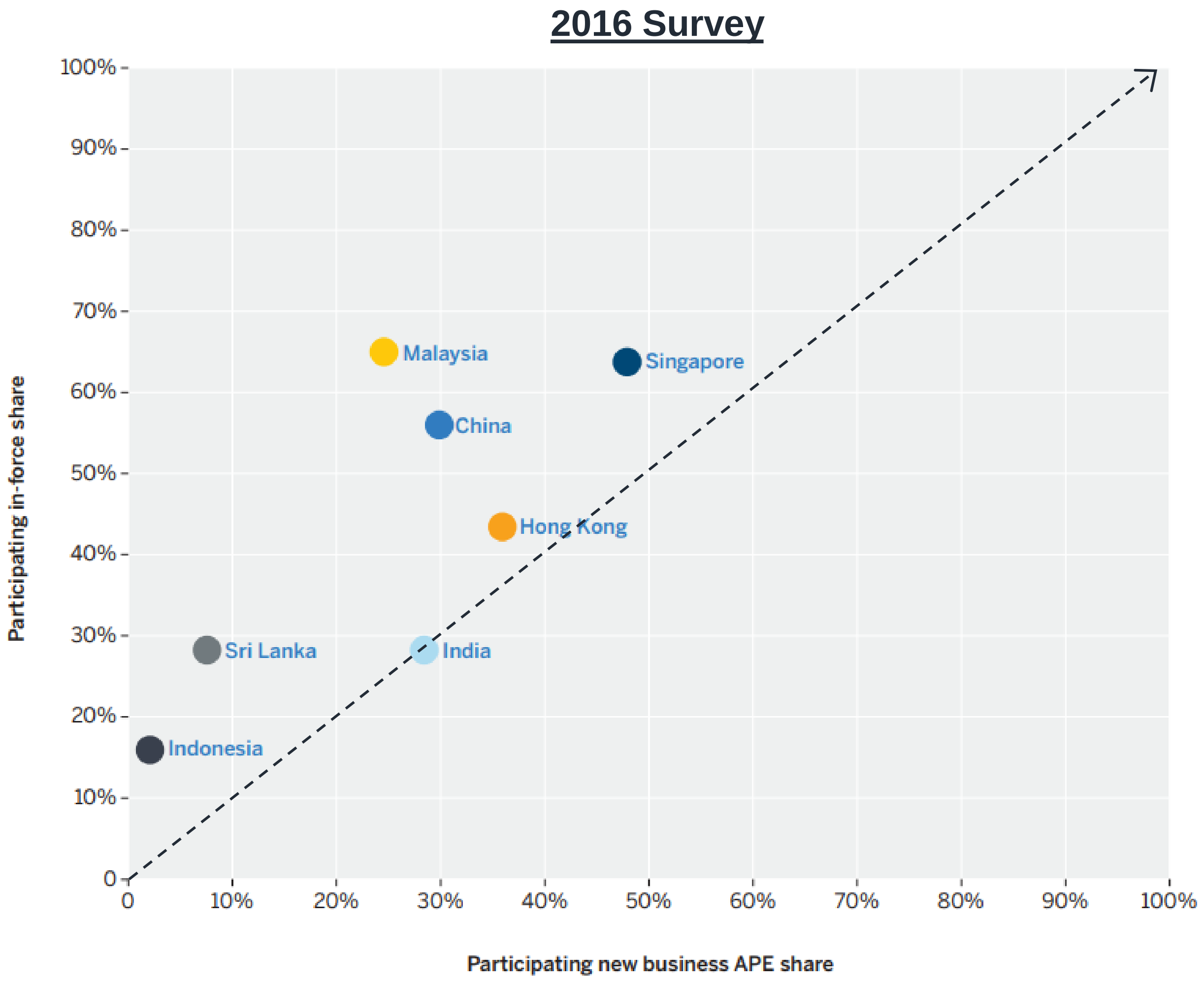
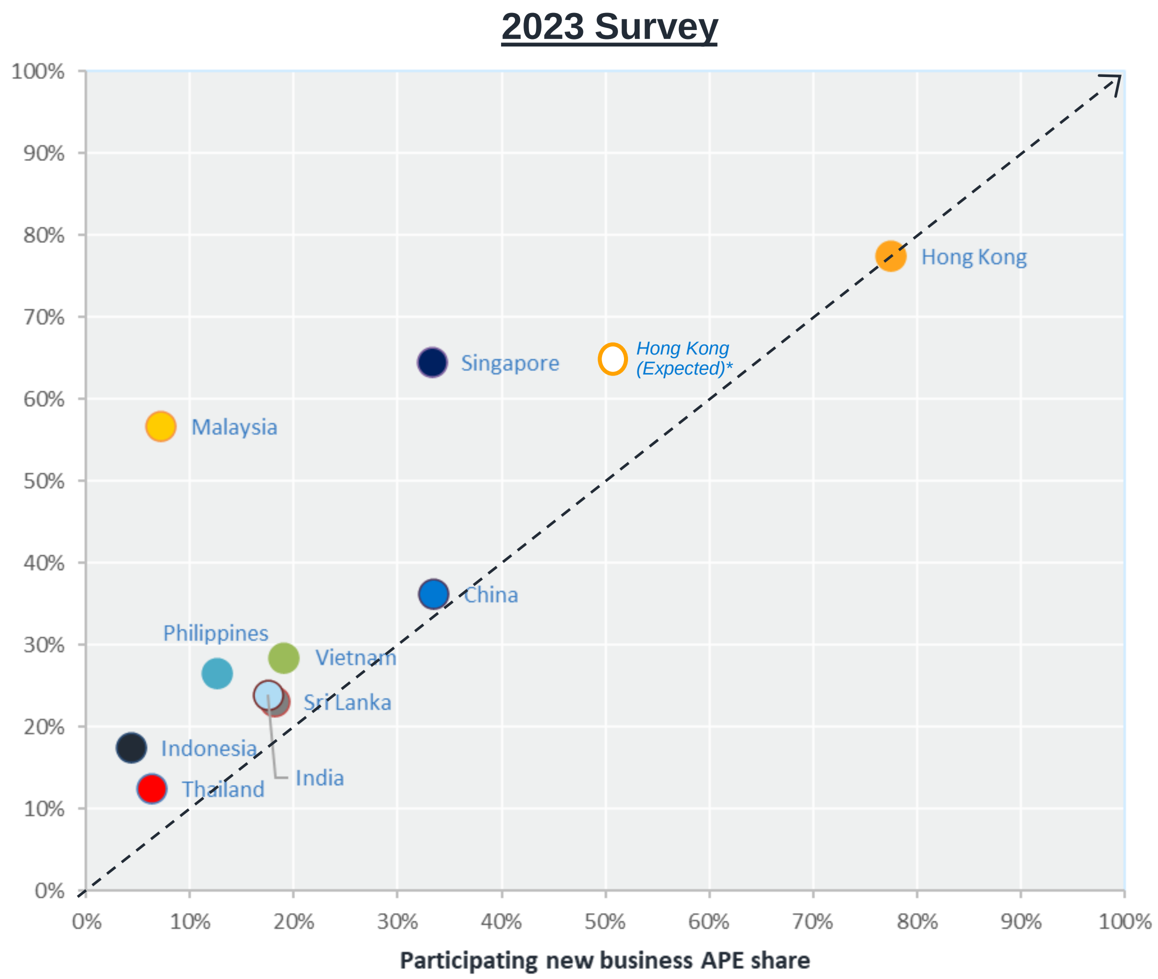
# Materiality of participating products in Asia

Survey respondents' profile and how these have changed over time




Note*: The responses from Hong Kong seem to have been distorted by larger insurers, we expect Hong Kong to be at a position closer to the point we refer to as "Hong Kong (Expected)" in the chart above.

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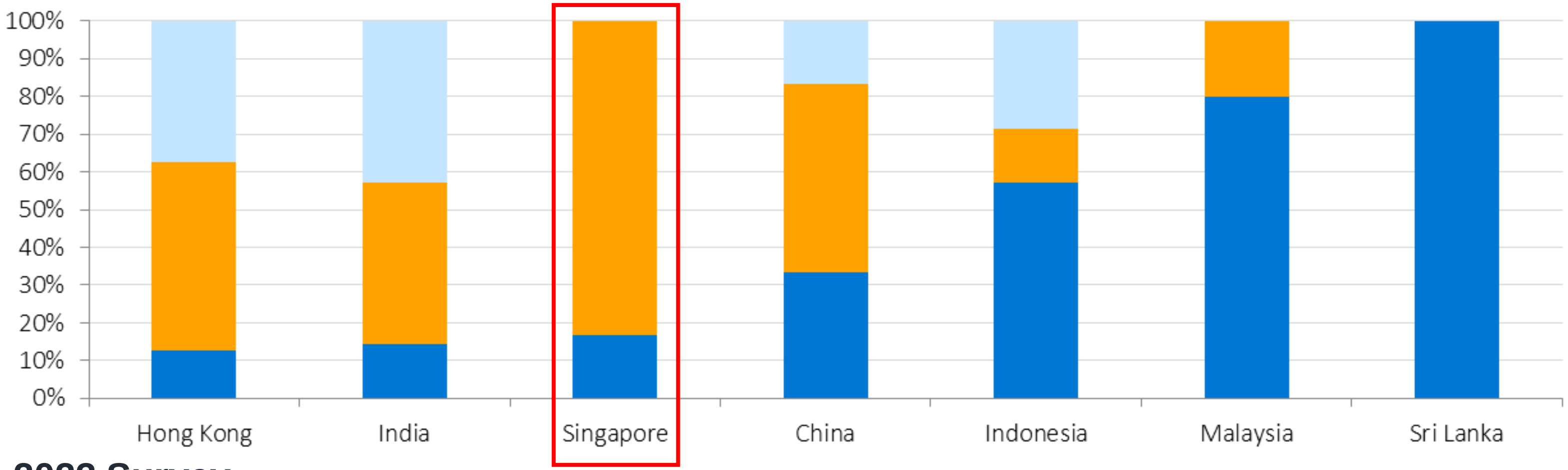
# Outlook for participating business

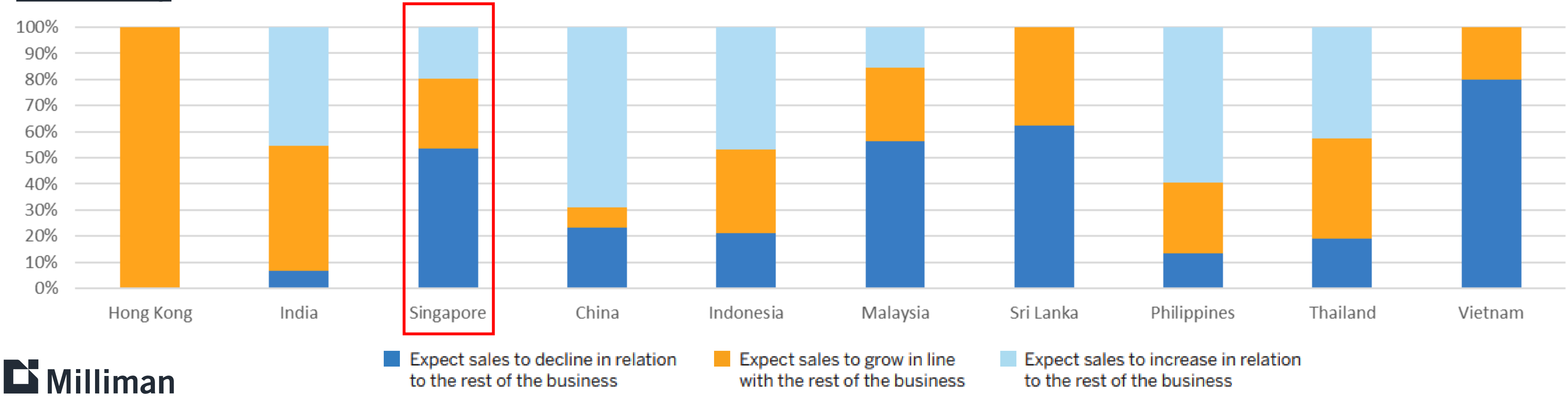
Survey respondents' view

### What is the outlook for participating business at your company?

**2016 Survey**



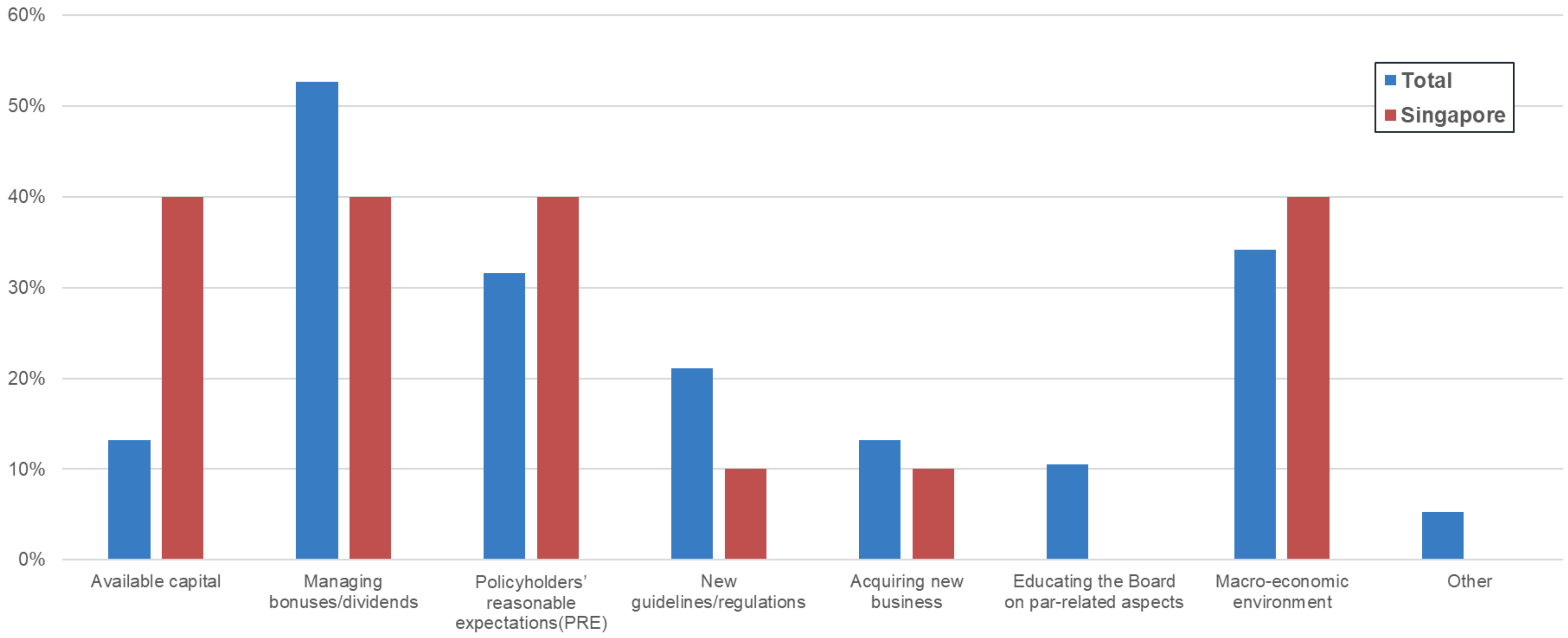

**2023 Survey**




- Growth outlook for Singapore and Hong Kong is not as positive as it was in 2016
- For other markets, outlook is possibly more positive, but generally from a less positive position in 2016

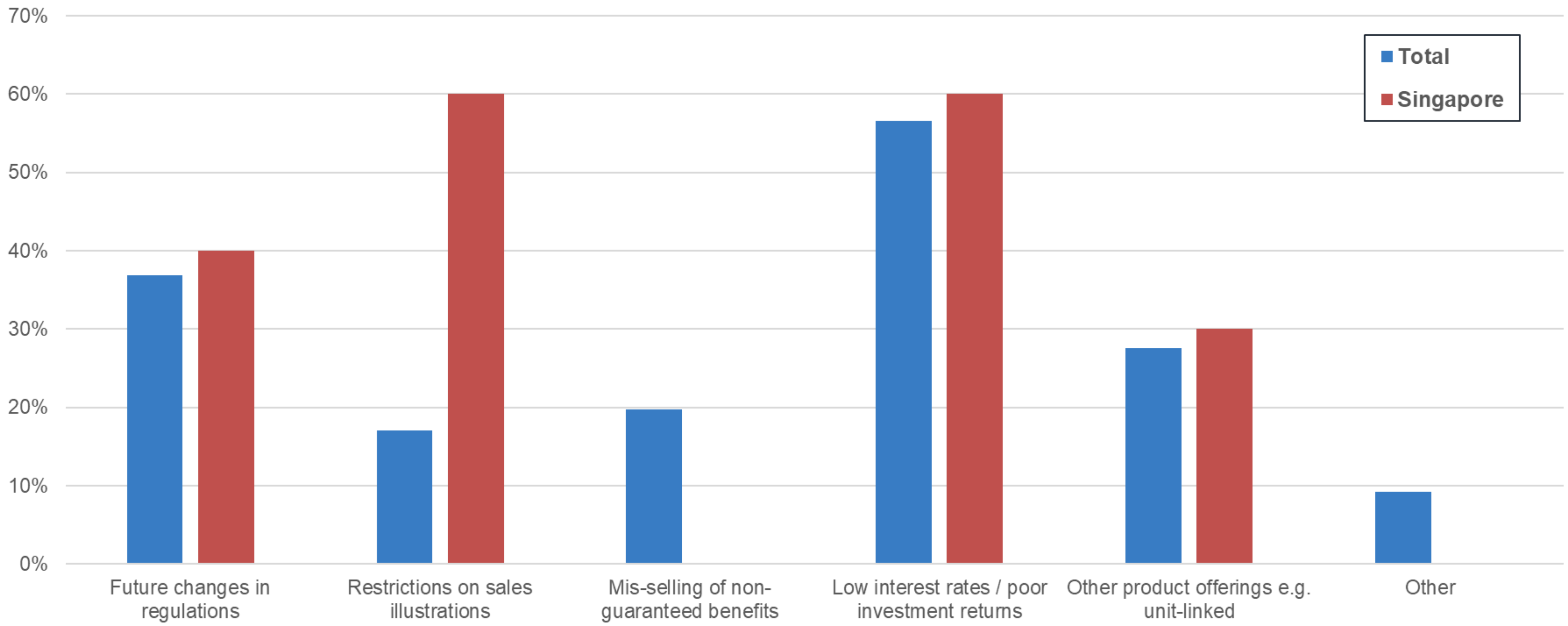
# Challenges of managing existing participating business

## What do you think are the biggest challenges for your company in managing its existing par business going forward?



# Threats to participating business offering

## What do you see as the biggest threats to your company's successful participating product offering?

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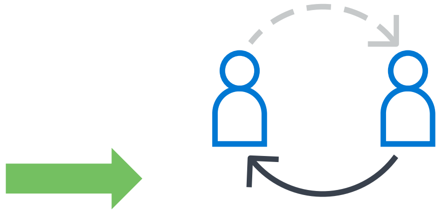
# Illustration requirement

How participating products are illustrated at the point of sale

| Markets | Minimum requirement for illustrating benefit level |
|---|---|
| Singapore | At **prescribed** rate – 3% and 4.25% |
| India | At **prescribed** rates – 4% and 8% |
| Malaysia | At **prescribed** rate – 2% and 5% |
| Hong Kong | Insurers' best estimate assumption, plus optimistic and pessimistic scenarios |
| China | At two scenarios, with interest margin assumed no higher than<br>1) 0% and 2) 4.5% minus pricing interest rate;<br>where pricing interest rate is capped at 3.5% |
| Indonesia | No additional prescribed approach for participating business |
| Sri Lanka | No additional prescribed approach for participating business |
| Thailand | Insurers are required to illustrate 3 different non-guaranteed benefit scenarios |



**Implications on sales story and product appeal**

# Extent to which par business is regulated

Level of detail of rules and guidelines

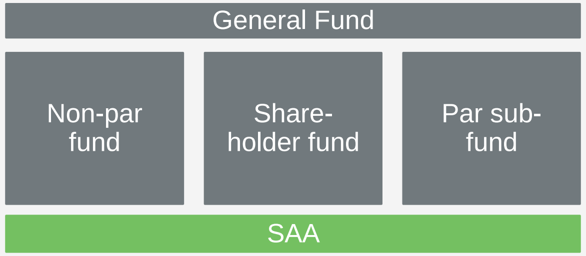
| Markets | Extensive | Limited | Minimum |
|---|---|---|---|
| Singapore | ■ | | |
| India | ■ | | |
| Malaysia | ■ | | |
| Hong Kong | | ■ | |
| China | ■ | | |
| Indonesia | | | ■ |
| Sri Lanka | | | ■ |
| Philippines | | ■ | |
| Vietnam | | ■ | |
| Thailand | | ■ | |

- Malaysia has just released new par fund regulations in July 2023, which further enhances their par fund management regulations to be more prescriptive on areas such as requirements on the review of asset shares, determination of working capital and use of estate, management of small / shrinking par funds and submission and implementation of bonus revision proposals.
- The revised regulations were built on the previous policy document issued in 2016, which already contain detailed requirements on different aspects of par fund management.

- Hong Kong issued the first guideline back in 2016, but the guideline is principal based and less comprehensive than other markets (e.g. Malaysia).
- For example, there is no requirement on participating fund segregation, sharing ratio, etc.
- A consultation on a set of strengthened participating business management guideline is taking place.

# Participating fund segregation

| Markets | Par fund required to be segregated? |
|---|---|
| **Singapore** | Yes |
| **India** | Yes |
| **Malaysia** | Yes |
| **Hong Kong** | Moving to "Yes" |
| **China** | Yes |
| **Indonesia** | No requirement |
| **Sri Lanka** | Yes |
| **Philippines** | No requirement |
| **Vietnam** | Yes |
| **Thailand** | No requirement |

<table>
<tr><th>Type of fund structure</th><th>Fund description</th></tr>
<tr><td>Sub-fund with notionally separated pool of assets and liabilities in which the strategic asset allocation ("SAA") of the sub-fund is consistent with the general fund.</td><td>
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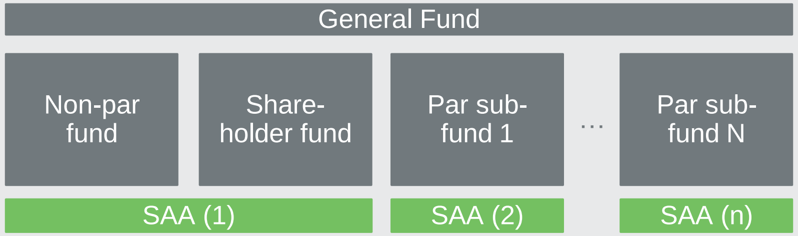
<tr><td>Sub-fund with physically separated pool of assets and liabilities in which the SAA of the sub-fund is different from the general fund.</td><td>
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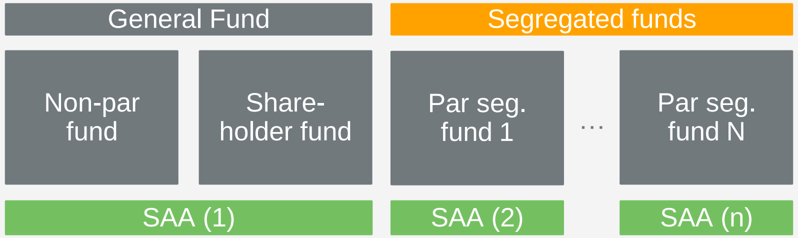
<tr><td>Segregated fund in which assets are totally separated from the general fund and strict controls apply to the movement of capital into and out of the fund.</td><td>
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# Profit sharing ratios

| Markets | Regulatory requirement on shareholder transfers |
|---|---|
| Singapore | 90:10 profit-sharing |
| India | 90:10 profit-sharing |
| Malaysia | 90:10 profit-sharing |
| Hong Kong | No regulatory limit and ungated |
| China | Policyholder’s share no less than 70% |
| Indonesia | No regulatory limit and ungated |
| Sri Lanka | 90:10 profit-sharing |
| Vietnam | 70:30 profit sharing |
| Thailand | No regulatory limit and ungated |

**Hong Kong**

- Various approaches exist – for example a gated approach used by a UK-based company.
- Other than that, it is more common for companies to define the sharing ratio under their participating business policy. Usually this is defined as a fixed ratio, but there are also some companies that define a possible range of sharing ratio and have varying sharing ratio across different cohorts of participating products.

**Vietnam**

- Additional regulations prescribe how much of the surplus arising each year must be distributed.

# Bonus management

# Bonus setting approach

Use of asset shares to guide payout

| Markets | Regulatory requirement exist? | Actual practice used by survey respondents |
|---|---|---|
| Singapore | Asset share is recommended | All of the respondents use asset share |
| India | Asset share is recommended | Most of the respondents use asset share |
| Malaysia | Yes | All of the respondents use asset share |
| Hong Kong | Asset share is recommended | Most of the respondents use asset share |
| China | No | Less than half of the respondents use asset share |
| Indonesia | No | Less than half of the respondents use asset share |
| Sri Lanka | No | Less than half of the respondents use asset share |
| Vietnam | No | Less than half of the respondents use asset share |
| Thailand | No | Less than half of the respondents use asset share |

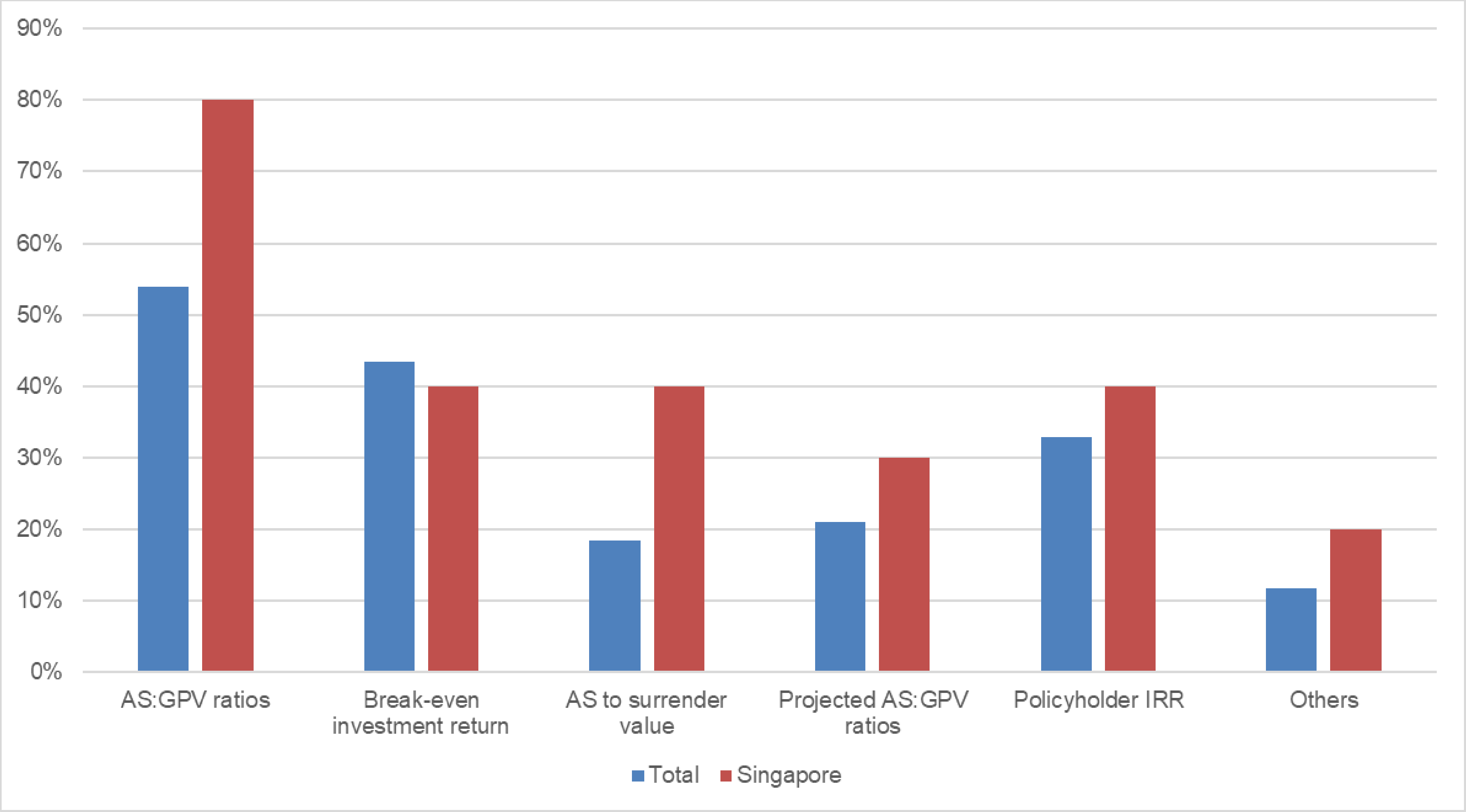
According to the survey responses, when determining bonus, key approaches other than looking at valuation date asset shares and bonus reserve valuation ("BRV") include:

- Actual investment return relative to the target rate needed to support future bonus;
- Internal rate of return ("IRR") for policyholders;
- Projected asset share to BRV ratio;
- Asset share to surrender value ratio;
- Maturity benefits to asset share (for terminal bonus);
- Competitors' action.

# Bonus management

## Metrics considered

### What metrics does your company consider when reviewing bonus rates?

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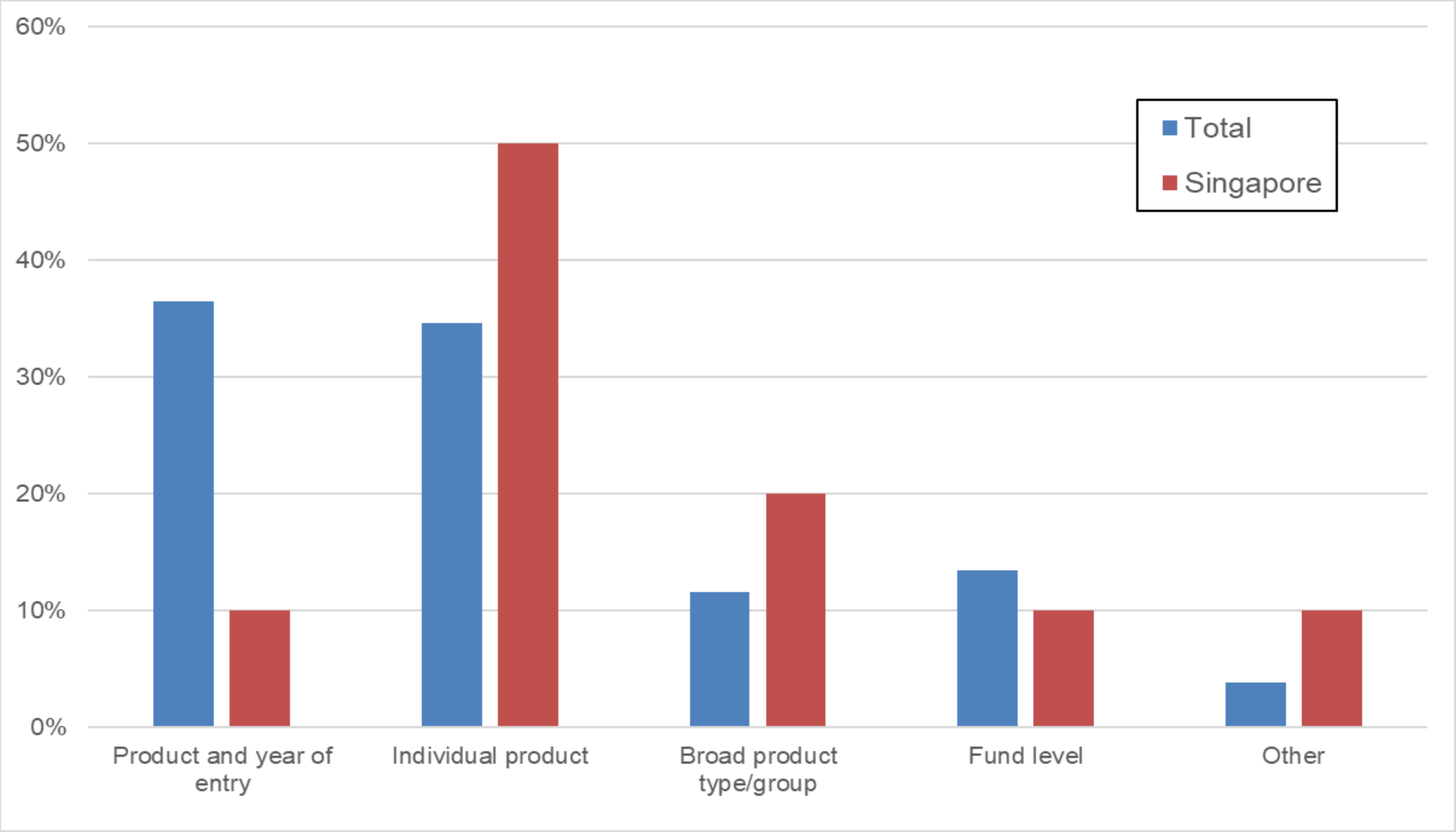
# Bonus management

## Granularity

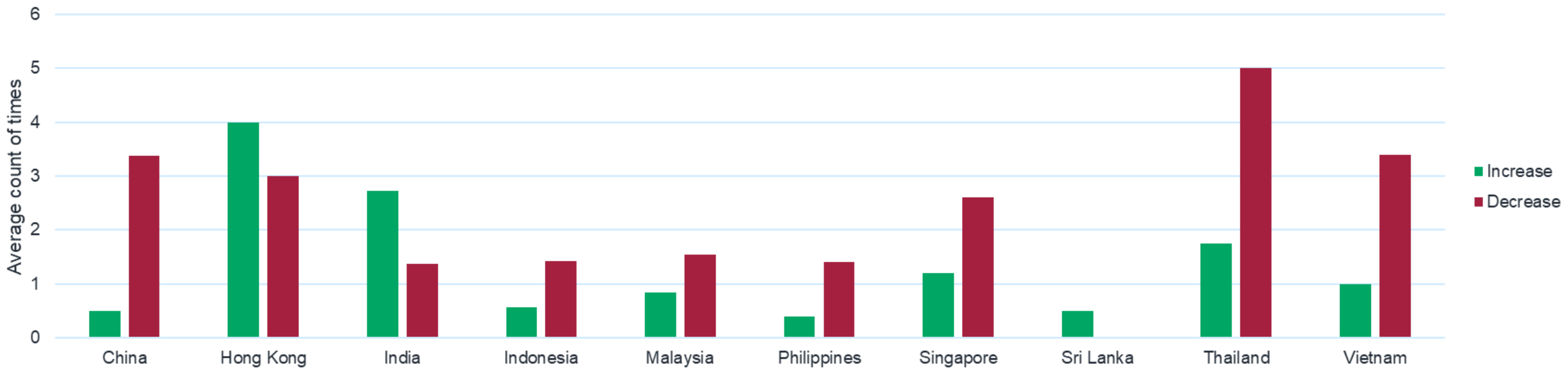
**At what level of granularity are asset shares considered to adjust pay-outs?**



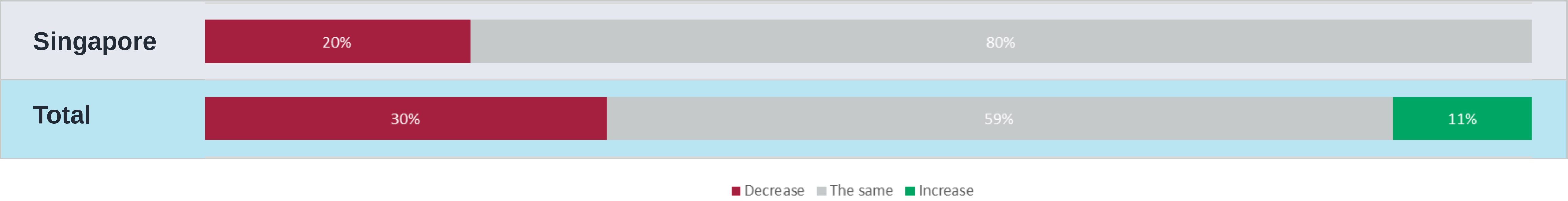
# Recent bonus experience

Actual historical dividend cut in recent years – based on survey responses only

**In the last 10 years, how many times has your company increased / decreased bonus/dividend rates for any of its par products?**




**During COVID-19 (2020-2022) and the volatile economy that accompanied and followed it, what has been the general direction of the dividend / bonus rates for your company?**

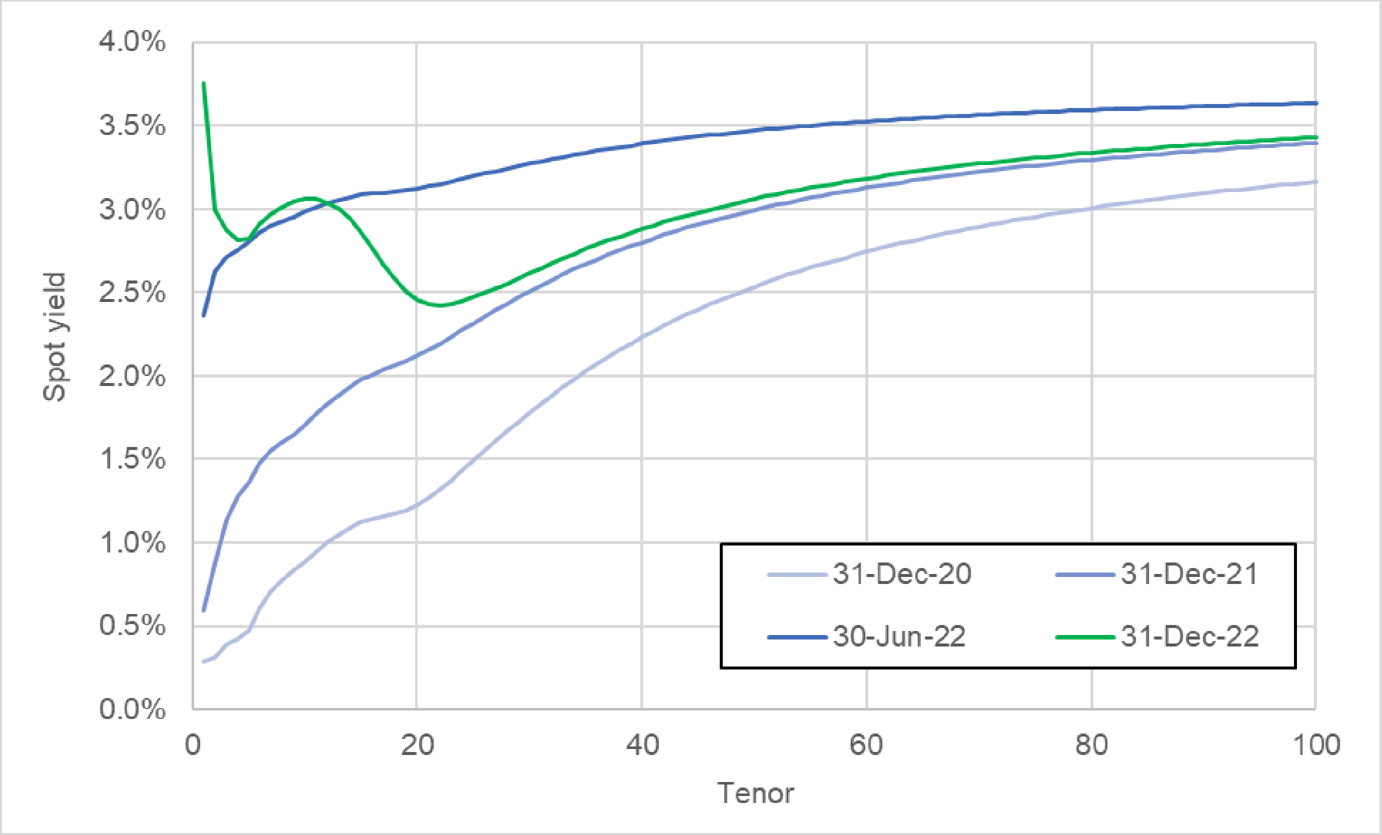


# Rising interest rates

# Rising interest rates

## Singapore yield curve movements

### SGD risk-free yield curve 2020-2022




Notes: As derived using RBC2 requirements with no allowance for matching adjustment or illiquidity premium

**Yields have risen significantly from the lows observed in 2020**

**Yield curve has become "inverted", with yields at the shorter end of the curve higher than the longer end**

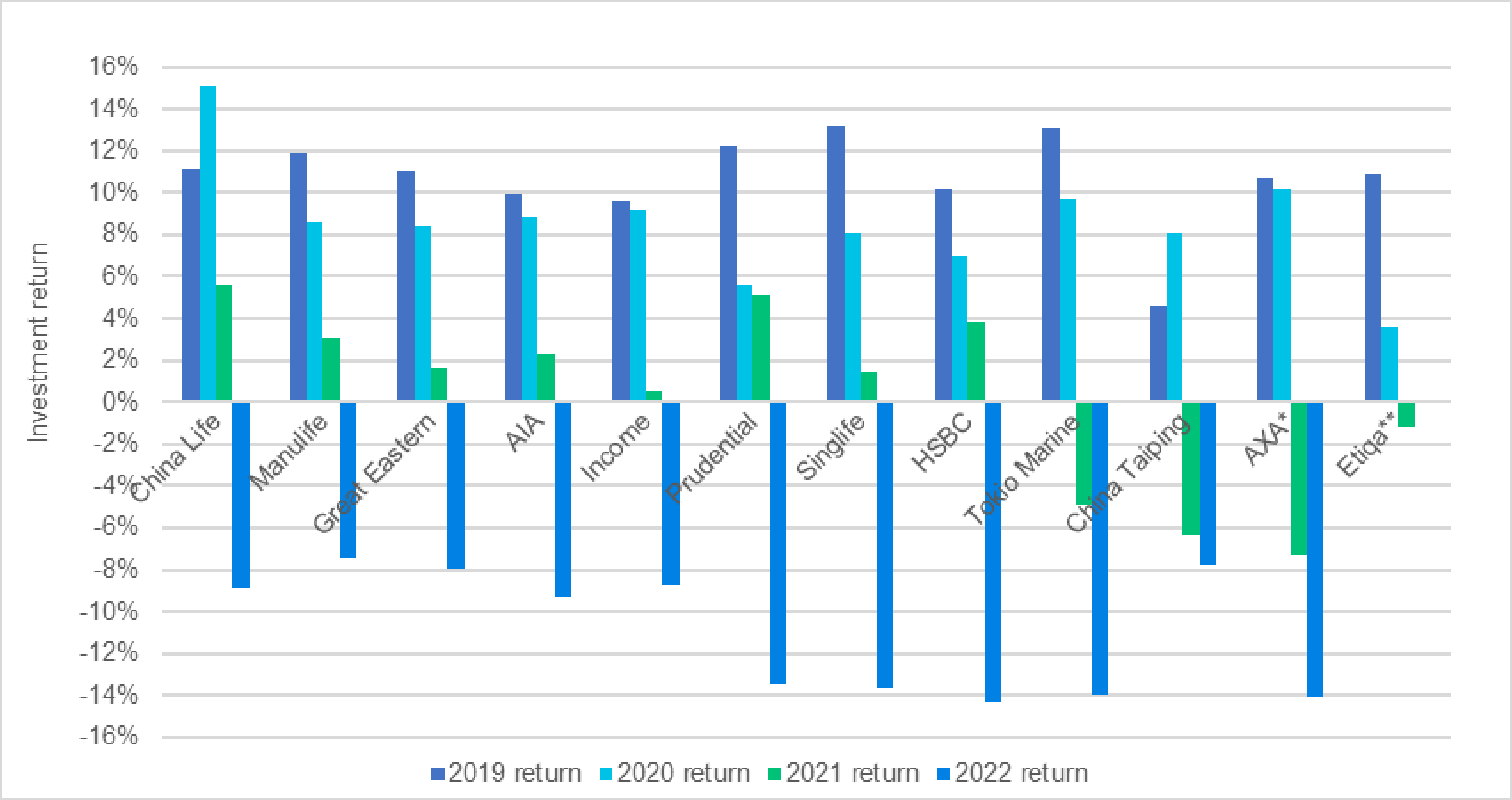
**Fixed interest assets held in par funds tend to have tenors less than 20 years**

**Par fund liabilities typically have longer durations**

# Recent investment return experience for Singapore par funds

Information from annual par fund updates

## Par fund annual investment return by company (2019-2022)




Notes: *AXA merged with HSBC Life in 2022; ** Information for Etiqa in 2022 is not available

Source: Individual company annual par fund updates

**Very negative returns in 2022 for all funds**

**As interest rates rise, bond prices fall**

**Longer the duration of the bonds the bigger the fall will be**

**Yields also rose in 2021, but equities performed better to offset some of the falls from fixed interest**

**RBC2 encourages longer duration assets to better match liability duration (to reduce interest rate risk requirement)**

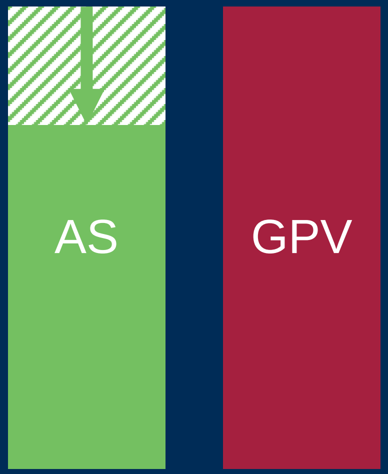
# Effect on bonus supportability

## Rising interest rates not such an issue after all?

**Rising interest rates cause fixed interest assets to fall in value**

**Asset shares fall in value**

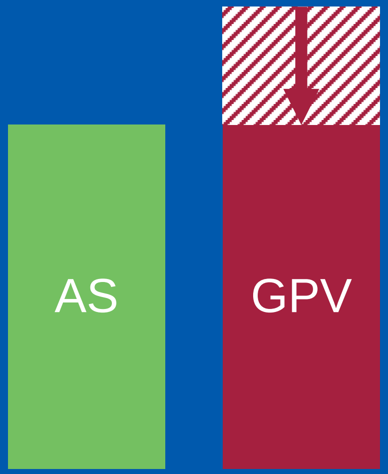
**Pressure on bonus supportability**




**Higher interest rates mean fixed interest assets will earn more in the future**

**PV of liabilities falls in value**

**Pressure on bonus supportability relieved**




**More complicated in reality**

**Depends on relative duration of assets and liabilities**

**Also, the amounts by which asset yields and the liability discount rate move may not be the same**

**Longer duration liabilities should be more sensitive, so an equal rise in interest rates would give bigger fall to GPV than AS**

**However, the GPV discount rate tends to include long-term outlooks for investment returns, so can already be assuming higher returns than could be achieved from current yields**

**So when asset yields rise, the liability discount rate doesn't rise by as much, as it was already allowing for the effect of expected higher future yields on reinvestments**

# Effect on bonus supportability

## Granularity of bonus supportability analysis versus granularity of investment strategy

Simplified example with two products with different durations, backed by a single investment pool.  Asset duration set to target total liability duration.

| | Duration (years) | | GPV | AS | AS:GPV |
|---|---|---|---|---|---|
| | Liabilities | Assets | | | |
| Product A | 15 | 10 | 10 | 10 | 100% |
| Product B | 5 | 10 | 10 | 10 | 100% |
| **Total** | **10** | **10** | **20** | **20** | **100%** |

Interest rates rise 1%

| | Duration (years) | | GPV | AS | AS:GPV |
|---|---|---|---|---|---|
| | Liabilities | Assets | | | |
| Product A | 15 | 10 | 8.5 | 9 | 106% |
| Product B | 5 | 10 | 9.5 | 9 | 95% |
| **Total** | **10** | **10** | **18** | **18** | **100%** |

**As investment strategy is set at a total level, perfect matching of the assets and liabilities means that in total the interest rate movement has no impact on AS:GPV**

**But, at product level the shorter duration product now has an AS:GPV ratio less than 100%**

**In isolation, Product B's AS is not able to support its expected future expenses**

**If bonus decisions are assessed at product level, then would lead to cutting bonuses for Product B and increasing for Product A.**

**Is this fair?**

# Bonus supportability management challenges

Possible approaches to deal with granularity issues

**Use Product A to subsidise Product B**

- ✓ Simple (now)
- × Are other cross-subsidies fair?
- × What happens if fund-level ratio is not supportable?
- × More judgement required

**Formally segregate the assets into different pools**

- ✓ Clear link between assets and liabilities
- ✓ Investment strategy appropriate for each liability group
- × Operationally less efficient to manage and could increase expenses
- × How many pools? Same issue would apply within each pool albeit to lesser extent

**Notionally split the return on fixed interest assets to back different product groups**

- ✓ Still manage investments as single portfolio, so avoids inefficiencies
- ✓ Return allocated to each product group better reflects the assets held to support
- × Operationally (very) complicated to implement
- × May not be clear how to split the assets to each product group

**Use book-values (“BV”) for managing bonuses**

- Calculate BV of asset shares (use BV for fixed interest MV for others)
- Derive GPV discount rate using book yields
- ✓ Assets and liabilities no longer affected by interest rate movements
- ✓ Relatively simple to implement
- ✓ In-built smoothing
- × Potential risk from MV losses on mass-lapse
- × Inconsistency with solvency balance sheet

# Questions / comments?

# Thank you

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