

# Life & Annuity Reinsurance Landscape in Bermuda

Southeastern Actuaries Conference Fall 2023 Meeting

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# Reliances and Limitations

- These slides have been prepared to provide an overview of existing Bermuda Economic Balance Sheet regulatory requirements, as well as enhancements from the BMA's Feb 2023 and July 2023 Consultation Paper
- These slides are not a substitute for existing regulations or the Consultation Paper, please read the Consultation Paper in its entirety regarding matters on Targeted Regulatory Regime Enhancements.
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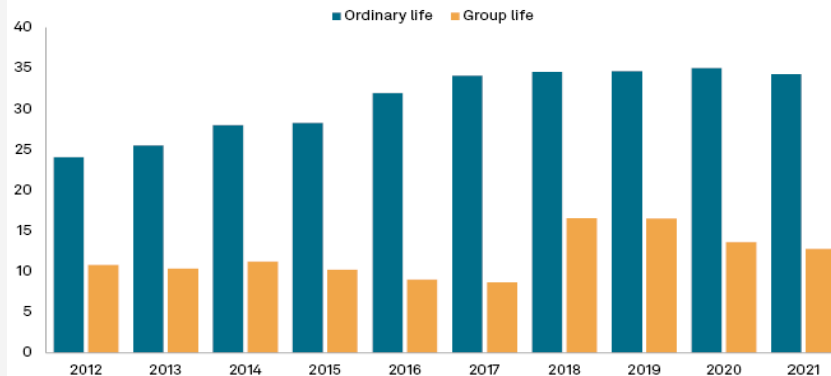
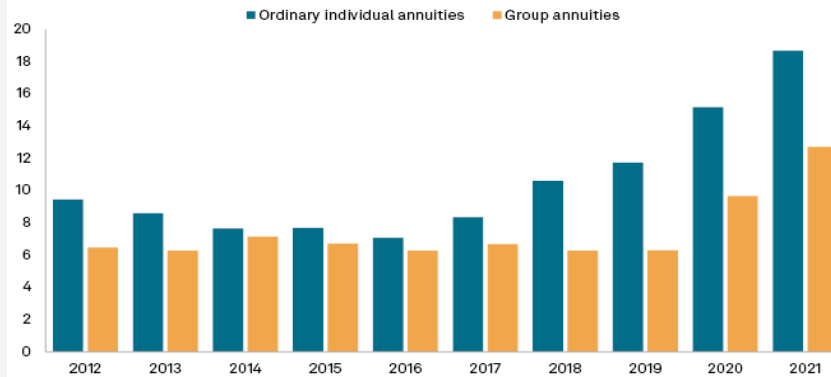


# Reinsurance Trends for Life and Annuity Products

# Reinsurance Trends

Life and Annuity reinsurance markets continue to grow, specifically legacy fixed annuity blocks

Share of gross aggregate annuity contract reserves ceded to reinsurers has spiked (%)



Data compiled Aug. 1, 2022.  
Results reflect disclosures on Exhibit 5 - Aggregate Reserve for Life Contracts of annual statements filed with the National Association of Insurance Commissioners for the years displayed.  
Source: S&P Global Market Intelligence  
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## Overview

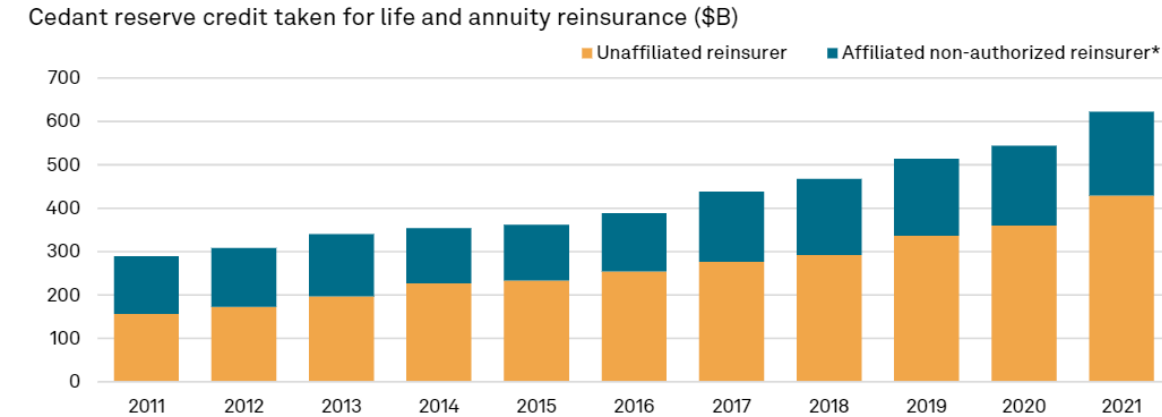
- In 2022 the percent of ceded to gross life and annuity reserves grew to an all time high of **28.8%**, up from 27.0% in 2021<sup>1</sup>.
- The 'blue bars' for annuities reflect a number of mega deals:
  - 2021: Allianz reinsuring ~35B of fixed annuities to Talcott/Resolution
  - 2020: Athene reinsuring ~25B of fixed annuities from Jackson National
  - 2018: Talcott reinsuring ~9B of fixed annuities to Global Atlantic
- The focus through 2021 was on force legacy blocks, due to low interest rates
- 'Flow' annuity deals are becoming more prevalent
- Enter new reinsurers who have:
  - Enhanced asset management capabilities (*with access to unique asset platforms/categories*)
  - Are domiciled in alternate non-US jurisdictions better aligned with their competitive advantages

<sup>1</sup> Source: *Affiliated, private equity-backed reinsurers fuel life and annuity cession surge*; S&P Global Markets Intelligence, May 15, 2023

# Use of Offshore Reinsurers

Often a Cedant does not reinsure directly to an offshore reinsurer

Cedant reserve credit taken for life and annuity reinsurance (\$B)



Data compiled July 1, 2022.  
Results reflect disclosures on Schedule S, Part 3, Section 1 of annual statements filed with the National Association of Insurance Commissioners for the years displayed. Includes general and separate accounts  
\* Reflects aggregation of general and separate accounts reserves ceded to certified, unauthorized and reciprocal-jurisdiction reinsurers as classified by state insurance regulators.  
Source: S&P Global Market Intelligence  
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## Overview

- Unaffiliated offshore reinsurance is often structured as
  - Onshore cedant reinsures to an onshore assuming entity
  - Onshore assuming entity has offshore affiliated reinsurer(s)
- While it is never clear from public filings how much of the 'onshore' ceded block goes 'offshore', we have experience on various transactions where deal pricing and analysis is rooted from an 'offshore' perspective
- The graph to the left is a further confirmation of the heightened reinsurance activity, especially to 3<sup>rd</sup> party/unaffiliates assuming entities.
- We further know that most of the most the recent active reinsurers (Resolution, Talcott, Brookfield, etc.) have material offshore entities in various jurisdictions but primarily domiciled in Bermuda and/or Cayman Islands.

# Use of Offshore Reinsurers

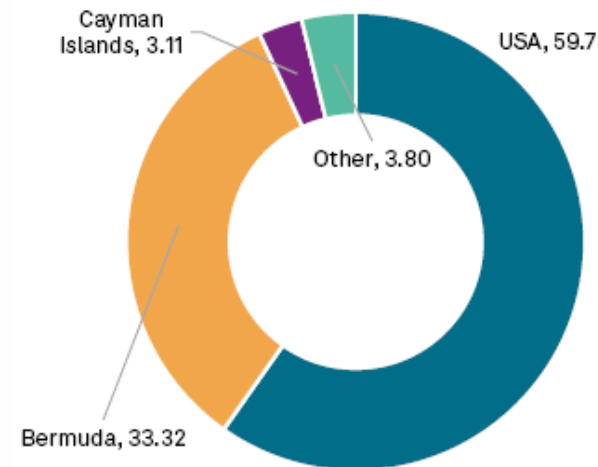
Bermuda continues to be a popular option for US Life & Annuity reinsurance, accounting for 47.4% of ceded reserves effective in 2022.

## Overview

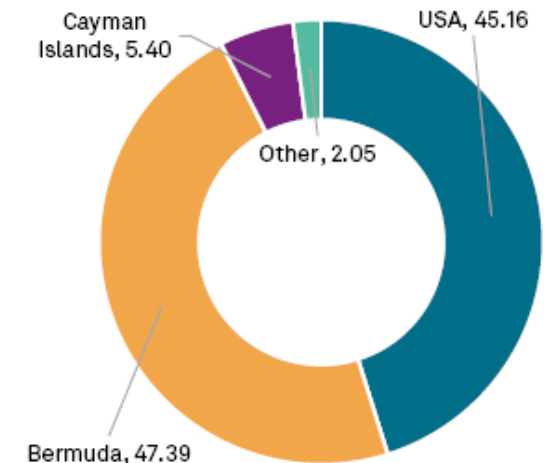
- In 2022, **nine** new Class E licenses approved by the BMA, and **three** new ones in 2023
- About **a third** of US Life & Annuity in-force ceded reserves are reinsured to Bermuda as of YE 2022. Of the reinsurance relationships established in 2022, **Bermuda accounted for 47.4%**<sup>1</sup>.
- Notable recent transactions in Bermuda:
  - Martello Re Ltd. – Class E reinsurer backed by MassMutual and Centerbridge, assumed \$14b of annuity reserves in 2022
  - Lotus Reinsurance Co. Ltd – Class E reinsurer established by Prudential in 2021. Assumed \$24.4b of affiliated reserves, primarily from variable life block.
- Well established players on the island:
  - Global Atlantic
  - Athene
  - Talcott
  - Fortitude

## Growth in affiliated, unaffiliated reinsurance elevates Bermuda's prominence in assuming US life and annuity liabilities

Reinsurer domicile share of all in-force relationships (%)



Reinsurer domicile share of all relationships effective in 2022 (%)



Data compiled April 18, 2023.  
 Results reflect the aggregation of cedant-reported reinsurer domiciles on Schedule S, Part 3, Section 1 of 2022 annual statements.  
 Source: S&P Global Market Intelligence.  
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<sup>1</sup> Source: *Affiliated, private equity-backed reinsurers fuel life and annuity cession surge*; S&P Global Markets Intelligence, May 15, 2023

# Why Bermuda?

Bermuda's long history as a well-respected center for reinsurance and expansive network of resources have been key to its continued success

- Long history as a reinsurance center
- Well-established and clear process to establish an insurer
- Regulator easily accessible
- Large support network for starting up and running insurance businesses
  - Legal expertise
  - Management firms
  - Accounting firms
  - Actuarial expertise
- Bermuda regulatory environment is well respected internationally
- The Commercial insurer regime has gained a level of mutual recognition with the EU and US
  - **Solvency II Equivalence** – Allows EU insurers with Bermuda affiliates to use BMA regulations and required capital without recalculation under SII
  - **Qualified Jurisdiction and Reciprocal Jurisdiction status with NAIC** – Potential reduction in (Qualified) or no (Reciprocal) collateral in order to receive full reserve credit with new credit for reinsurance law
- Market consistent reporting framework may be better tailored for certain business profiles



# Bermuda's Reporting Framework

# Bermuda Regulatory Environment

Three Pillar approach to solvency

## Financial Reporting & Capital Requirements

- Statutory Financial Statements (SFS)
- Economic Balance Sheet (EBS)
- Bermuda Solvency Capital Requirements (BSCR)



## Risk Management

- Commercial Insurer's Solvency Self-Assessment (CISSA)
- Risk Governance



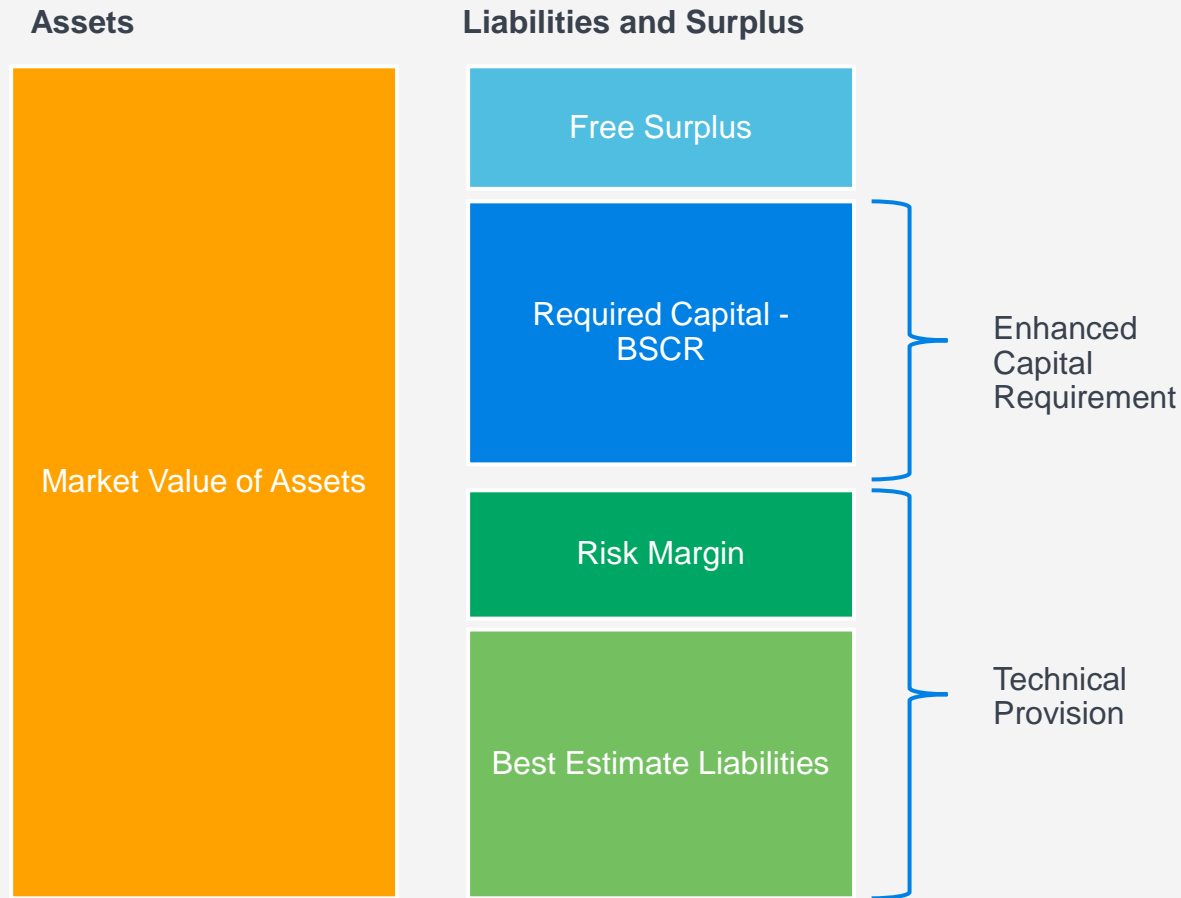
## Disclosure

- Financial Conditions Report (FCR)
- GAAP Statements



# Economic Balance Sheet

The Economic Balance Sheet (EBS) provides measurement of assets and liabilities on a market consistent basis, which more accurately reflects an insurer's solvency position.



Valuation of assets and liabilities on an economic basis helps to eliminate accounting mismatches

The liabilities on the EBS are made up of the following components:

- **Technical Provision (TP)** – The TP is comprised of the Best Estimate Liabilities (BEL), which are discounted probability weighted average future cash flows, and the Risk Margin (RM), which reflects the uncertainty of the BEL under a Cost-of-Capital approach
- **Enhanced Capital Requirement (ECR)** – The ECR is the capital Bermuda requirement, calculated as maximum of the Minimum Solvency Margin (MSM), a prescribed minimum surplus amount, and the BCSR.
- **Free Surplus** – The leftover “free assets” that are not backing the TP and ECR

# Best Estimate Liability

The Technical Provision is Bermuda's term for reserves, and is calculated as the sum of a Best Estimate Liability (BEL) plus a Risk Margin (RM)

**Best Estimate Liability (BEL) – The minimum asset amount required to settle the insurance obligation over the policy, using probability weighted average of future cash-flows. Two methods are available to calculate BEL, the Standard Approach and the Scenario Based Approach. The use of the Scenario Based Approach requires approval from the BMA.**

## Standard Approach:

- Discount liability cashflows at prescribed rates
- Discount rate adjustments are made to the risk-free rates in order to (partially) reflect the illiquidity premium in certain assets -- as well as an allowance for the prevention of pro-cyclical investment behavior by mitigating the effect of exaggerations on bond spreads
- The BMA supply risk-free and adjusted spot rates for a number of major currencies
- Overall a more conservative approach

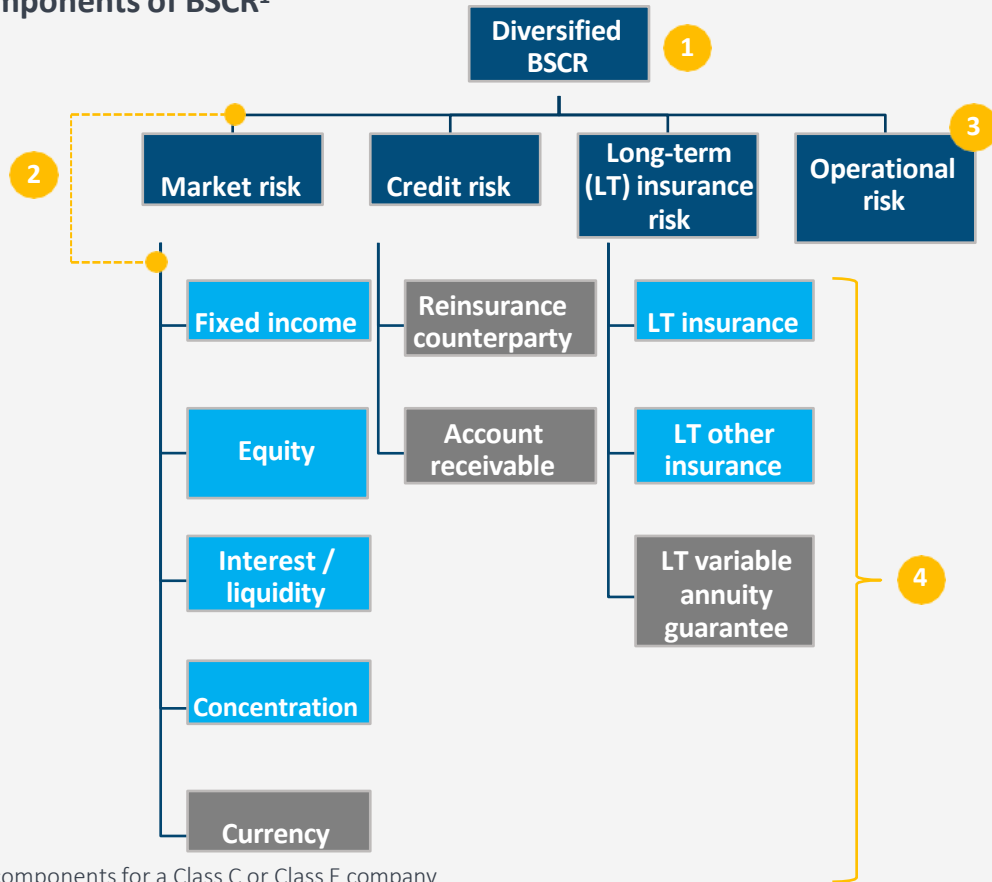
## Scenario Based Approach:

- Similar to US Cash Flow Testing, the scenario-based approach (SBA) requires insurers to project asset and liability cashflows from first principles, using best estimate assumptions, over 8 prescribed interest rate scenarios.
- For each scenario, you must solve for the starting market value of asset amount that produces zero surplus at the end of the projection.
- The reported BEL is the maximum starting asset amount across each of the 8 scenarios.
- Portfolios that are well matched from a cashflow perspective will benefit from using the SBA approach

# Bermuda's Required Capital

Bermuda Solvency Capital Requirement (BSCR) framework combines factor based and first principals modeling

## Components of BSCR<sup>1</sup>



<sup>1</sup> BSCR components for a Class C or Class E company

- 1 **Diversified BSCR** calculation is similar to US RBC formula in that it reflects diversification across risk categories:

2019 Regime:

$$\sqrt{CorrBBSCR_{i,j} * C_i * C_j + C_{Operational} + C_{RegulatoryAdj} + C_{OtherAdj} + C_{AdjTp}}$$

- 2 Individual risks are aggregated (e.g., fixed income and equity risks to market risk) using multiple layers of **prescribed correlation matrices**
- 3 **Operational risk** is calculated on diversified BSCR and doesn't participate in the diversification
- 4 **Capital factors** used for BSCR calculation were calibrated to represent a TVaR 99%

Source: Liu, Sayre et al; Aug 2023 SOA Life Meeting

# Recent Bermuda Regulatory Updates

# Overview of Recent Regulatory Updates

The consultation papers aim to bolster insurer's risk management capabilities and enhance reserves and capital requirements...

The BMA had released a consultation paper for the proposed enhancements to the regulatory regime and fees for commercial insurers on February 24<sup>th</sup>, 2023 (CP1). A follow-up paper was published on July 28<sup>th</sup>, 2023 (CP2) which further clarified certain aspects of CP1 and amended other aspects based on industry feedback on CP1.

## Key Implications include:

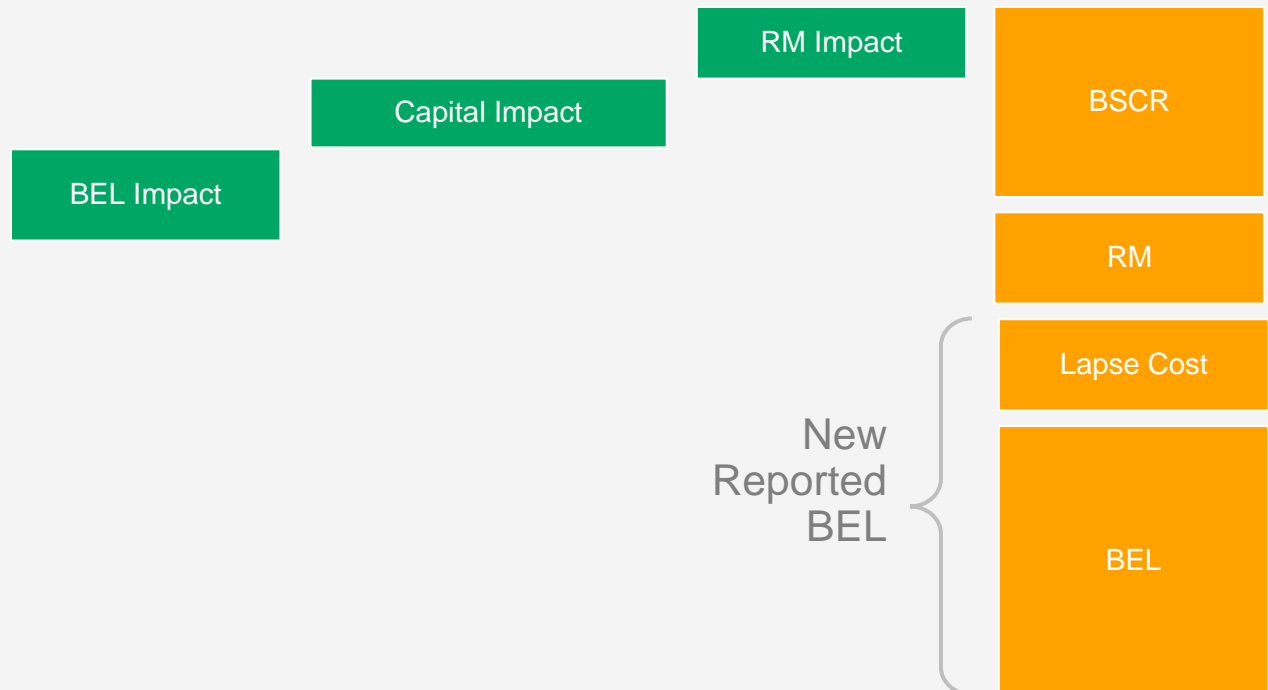
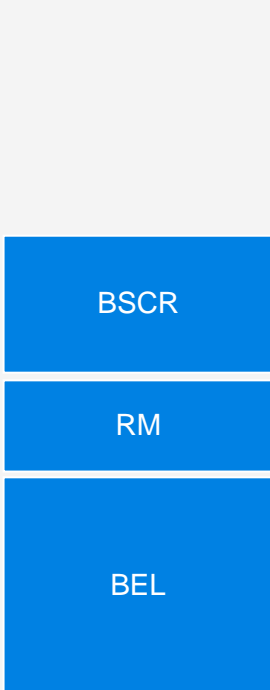
- 1) More rigorous **Scenario-Based Approach ("SBA")** application process
- 2) Significant changes to **reserve** calculations – restrictions and limits on assets, inclusion of margins in Best Estimate Liabilities
- 3) Need for enhanced modeling, **risk management**, and governance practices – particularly around liquidity risk and model risk management
- 4) Changes to **capital** requirements – Introduction of shock-based lapse and expense capital charges
- 5) Increased supervisory **fees** – varies by entity as well as for subsequent reinsured blocks

# Summary of Reserve and Capital Requirements

Limits, restrictions, and margins placed on BEL and BSCR calculations

## Illustrative Impact of Consultation Paper Changes

### Existing EBS



### New EBS

#### Best Estimate Liabilities (BEL)

- Introduction of Lapse Cost (“LapC”)
- Restrictions on assets that can be sold or purchased
- Asset ring fencing
- Downgrade cost margins

#### Bermuda Solvency Capital Requirement (BSCR)

- Introduction of shock-based Lapse and Expense Capital
- Removal of “Other Insurance Risk” Capital

#### Risk Margin

- Downstream impact from BEL and BSCR changes
- Fixed transition factor as at valuation date



# Overall Implications

Targeted enhancements impact all aspects of operations; insurers must adapt existing modeling, governance, and risk management practices to accommodate the new regulatory environment

## Investment Management and Strategic Asset Allocation

The CP introduces considerations on both sides of the balance sheet – restrictions on assets allowed and new reserve/capital requirements change the risk-return analysis

## Regulatory Reporting

Targeted enhancements include various reporting requirements, specifically in the area of Scenario-Based Approach applications. Companies with Existing SBA programs will not need to reapply for new business unless there are material changes to the model

## Modeling

Actuarial modeling need to be adapted to reflect explicit asset sales and purchases modeling, modeling of asset optionality, and nested projections for shock-based calculations

## Liquidity Management

Insurers will have to put in place qualitative and quantitative measures to manage liquidity – this includes liquidity metrics, governance framework, and stress testing requirements

## Compliance and Model Risk Management

Governance for model risk will need to be set up across all levels of the organization, from Board level to individual modelers. Specific elements of MRM programs are also outlined by the BMA

# Market Recap

# Bermuda Market Recap

- Expand to more complex life products (ULSG)
- Continued interest from PRT, new business flow, annuity and Asian markets
- Profile of new entrants shifting from Private Equities to more traditional insurance carriers
- Side car structures becoming more and more popular
- CP changes to be implemented in 2024

# Q&A



# Thank you

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