



**SINGAPORE ACTUARIAL  
CONFERENCE 2023**

# Equity Based Guarantees

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1135 – 1220 hours

28 September 2023



# Roadmap

- Current economic landscape
- Overview of products/risk-management strategies
- Next wave

# CURRENT ECONOMIC LANDSCAPE

# Current Economic Landscape

10 year US Treasury yield over the last 12 months



# Current Economic Landscape

10 year US Treasury yield over the last 20 years



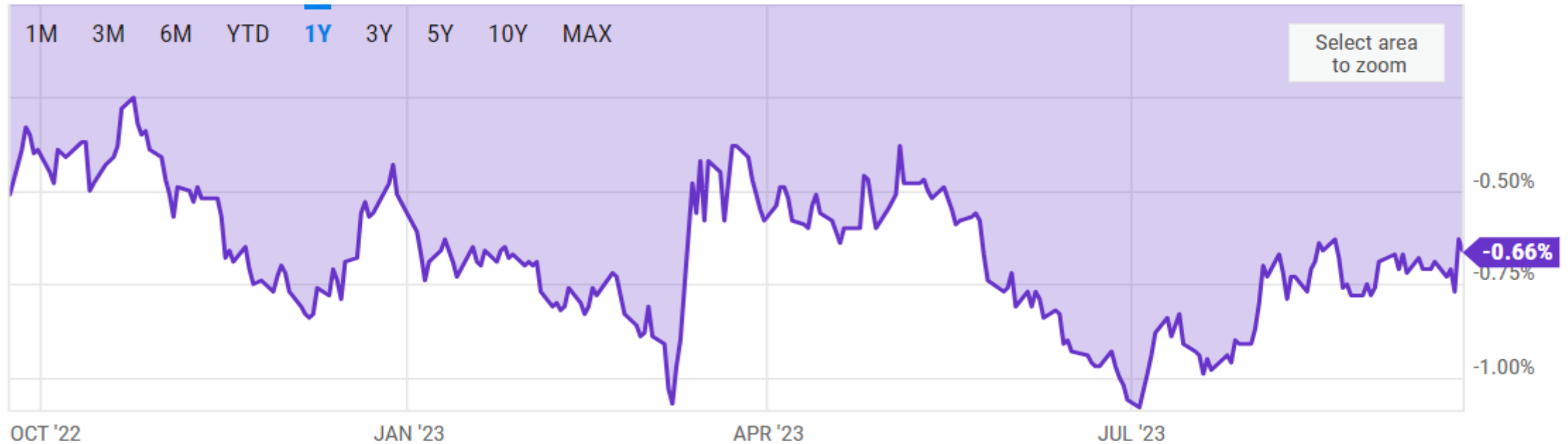
# Current Economic Landscape

10 year – 2 year US Treasury spread over the last 1 year

**Overview** Interactive Chart

Level Chart

[VIEW FULL CHART](#)



# Current Economic Landscape

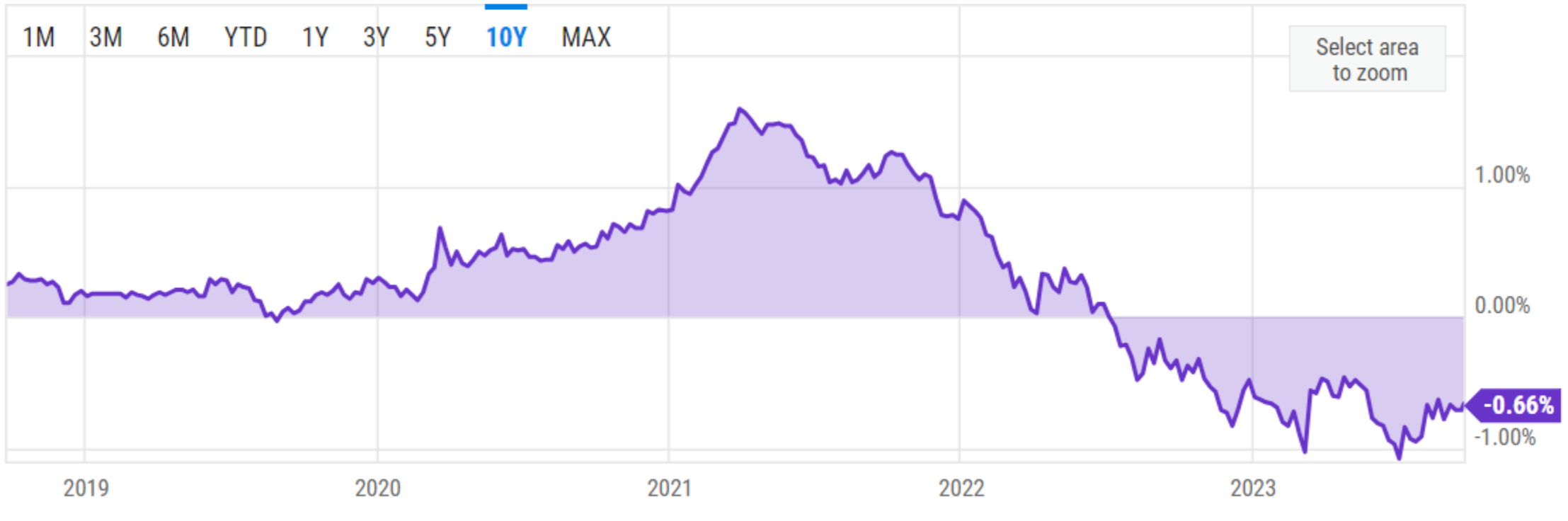
## 10 year – 2 year US Treasury spread over the last 10 years

Overview

Interactive Chart

Level Chart

[VIEW FULL CHART](#)



## Current Economic Landscape

- Soft Landing or Hard Landing or No Landing?
- High rates for longer
- Possible spill-over of Ukraine war (and consequences)
- China slowdown
- Recession in Europe
- Lingering Covid-related issues
- Etc.



# OVERVIEW OF PRODUCTS/RISK-MANAGEMENT STRATEGIES

# Overview

- Fixed Annuities
- Equity Index Annuities
- RILA
- Variable Annuities
- Competing Products
  - Fixed Deposits
  - Bonds
  - Trading in markets
  - Waiting in the sidelines

## Fixed Annuities

- Simple interest rate play
- Driven by high rates (the higher the better)
- Risk management strategy revolves around using bonds to support the liabilities. Occasionally use derivatives to customize risks,

# Fixed Indexed Annuities

- Accumulation phase:
  - Principal guarantee
  - Choice of
    - crediting period (1/2/5/7 years)
    - crediting strategy (P2P, Monthly Averaging, Cumulative returns)
    - underlying (S&P 500, Nasdaq etc.)
- Decumulation (or annuitization) phase
  - No different from any decumulation strategy
- Risk Management Strategy:
  - During accumulation phase writers mostly focus buying/selling covered calls
  - Option budgets drive the cap/floor/participation/spread rates
  - Options usually not dynamically replicated
  - Writers typically don't hedge decumulation phase

# Registered Index Linked Annuities (RILAs)

- Accumulation phase:
  - Principal guarantee
  - Choice of
    - crediting period (1/2/5/7 years)
    - crediting strategy (P2P, Monthly Averaging, Cumulative returns)
    - underlying (S&P 500, Nasdaq etc.)
- Rarely decumulation (or annuitization) phase
  - No different from any decumulation strategy
- Risk Management Strategy:
  - During accumulation phase writers mostly focus buying/selling covered calls
  - Option budgets drive the cap/floor/participation/spread rates
  - Options usually not dynamically replicated
  - Writers typically don't hedge decumulation phase

## Variable Annuities

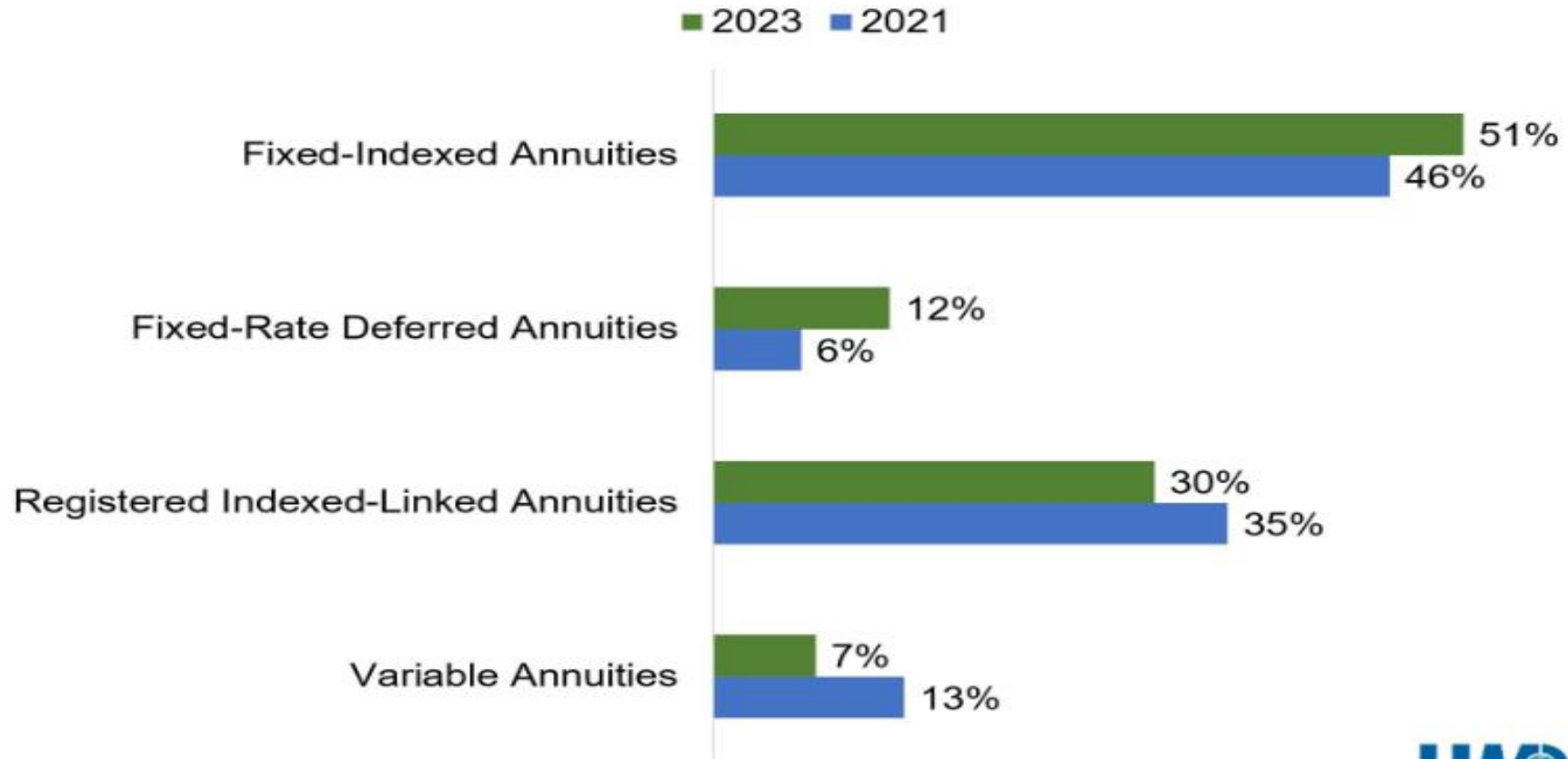
- No concept of accumulation unless it is an accumulation benefit rider
- Only way to get money out is to
  - Surrender
  - Annuitize
- Risk Management Strategy:
  - Focused on the annuitization
  - Dynamic hedging (interest rate futures, index futures, options)
  - Relatively expensive to run a hedging program
  - Problems are more complex to deal with compared to FIA/RILA

## LIMRA Report on 2023 Sales

- LIMRA interviewed more than 2000 investors from 48 – 80 with at least \$1000,00 to invest to opine on the purchase of annuities
- FIA was top choice.
- Fixed Rate and RILA also popular
- VA the least popular
- Top 3 reasons for holding annuities:
  - Protect value as opposed to maximizing gains
  - Don't want investment value to decrease
  - Safest option

# LIMRA Report on 2023 Sales

## Investors' Annuity Product Selection in 2021 and 2023



Source: Annuity Product Selection Redux (2023), LIMRA





# NEXT WAVE

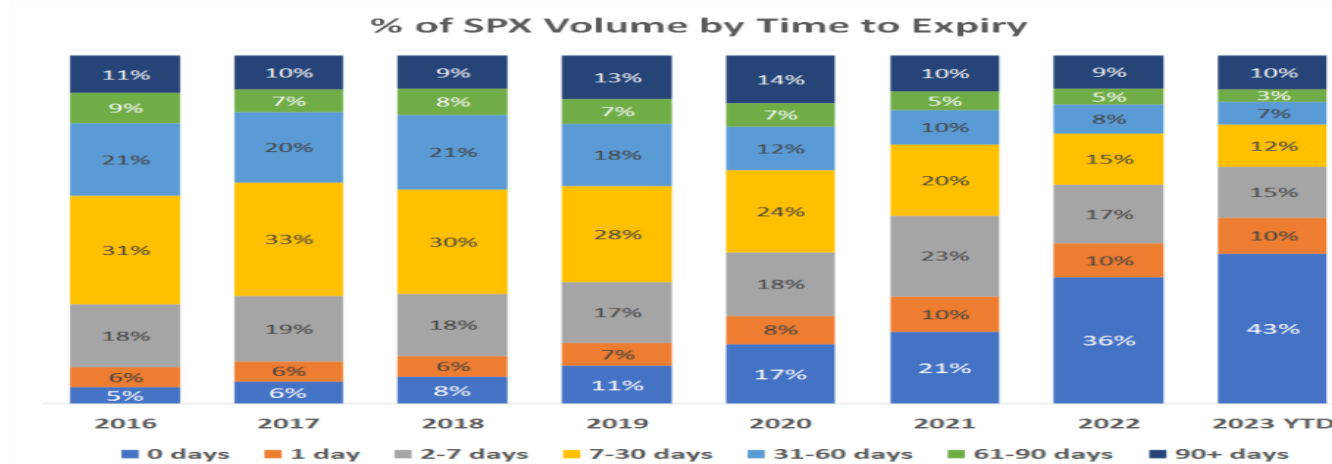
# Some Developments To Enhance Product Viability

- In Variable Annuities:
  - Embed risk-management strategies in fund underlying the product
  - Embed “view” in hedging to reduce costs
  - Only use long term metrics to report and monitor risks
  - Better handle on PH behaviour
  - Using PE (whenever possible) to enhance returns so as to pay for risks underlying products
- In general account products
  - Use of PE to generate higher returns so as to support more favourable features (to compete with high interest rates)

# Some Developments To Kill Product Viability

- Market Volatility/Economic Uncertainty -> Cash
- High short-term rates
- Easy access to online trading
- ODTE
  - Options with 0 days to expiry
  - No risk-management application
  - Purely speculative

Exhibit 1: Zero-Day Options Have Become More Popular



Source: Cboe



# Thank You

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