SEAC – Interest rates

Observed Impacts from the Recent Interest Rate Environment Decline

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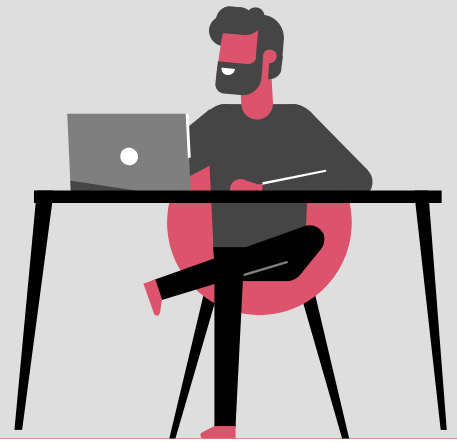
Agenda

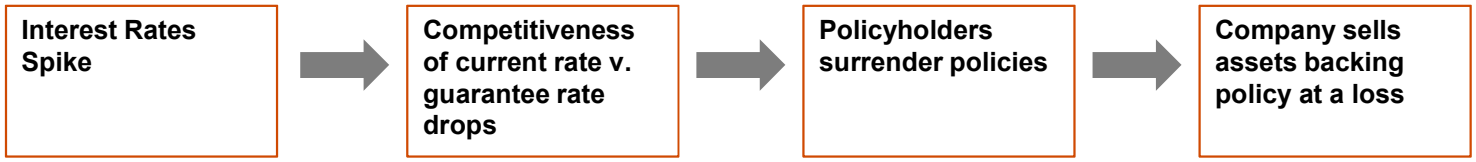
- General overview of interest rate impact in life insurance
- Impact of COVID-19 – Interest rate decline
- Brief LDTI Overview
- LDTI interest rate considerations
- LDTI reinsurance case study



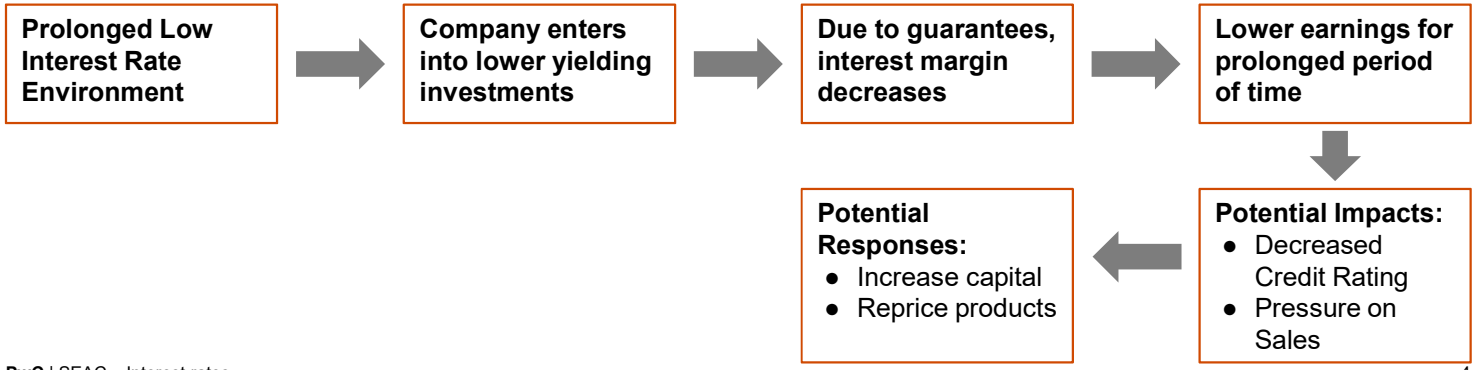
Interest rate overview

Interest rate risk

Disintermediation Risk: risk that interest rates spike and policyholders surrender policies to seek higher available rates



Spread Compression Risk: risk that interest rates remain low for a long period of time, leading to a decrease in earnings and potential decrease in credit rating or claims paying rating



Interest rate risk (continued)

Other Concerns and Risks in a Low Interest Rate Environment

- Decrease in competitiveness of accumulation products. This leads to pressure on new business premium which in turn may result in changes to product design and/or make up of the company's product portfolio
- Decrease in interest margin puts pressure on other product margins including mortality and expense
- Decrease in expected yields can increase hedging challenges
- Decrease in interest rates result in policies entering shadow phase earlier and an increase in SOP reserves

Industry response

Market Value Adjustments

- Developed to address **disintermediation risk**
- If interest rates rise, the MVA essentially increases the surrender charge, thus disincentivizing withdrawal/surrender
- If interest rates drop, the MVA decreases the surrender charge
- Here, policyholder is less likely to surrender in a time where the company would realize a loss upon sale of underlying assets
- Likewise, policyholder is more likely to surrender in a time where the company would realize a gain upon sale of underlying assets

Less Generous Product Designs

- Interest rate guarantees and GMxBs can greatly expose insurers to interest rate risk
- Insurers have drifted towards increasing the number of non-guaranteed elements in contracts or decreasing the number or levels of guarantees
- Guarantees themselves have become less generous

Regulatory Response: AG 38 8E

- AG38 8E addressed the potential for insufficient reserves on ULSG products
- New requirements forced companies to either:
  1. Increase reserves compared to 8C or
  2. Decrease attractiveness of secondary guarantees
- Prior to 8E, insurers were projecting SG premiums > lowest valuation premiums to decrease reserve

Impact of COVID-19 – Interest rate decline

Overview

- The COVID-19 pandemic which hit the US in 2020 Q1 brought unprecedented and challenging demographic and economic conditions and extraordinary uncertainty to future projections
  - potentially increased mortality and morbidity
  - loss of income and consumer purchasing power
  - severe declines in interest rates and increased equity market volatility
- Focus on the severe decline in interest rates, these circumstances have led to unique considerations:
- Looking forward, these low interest rates will drive different impacts under Long Duration Targeted Improvements

Some area impacted:
Loss Recognition Testing*
DAC Recoverability**
Cash Flow Testing
Product Pricing/Offering

**Loss Recognition Testing will no longer be needed for FAS60 products as the Liability for Future Policyholder Benefits is capped at 100%*
***DAC Recoverability is no longer an issue as DAC is amortized on a straight-line basis as opposed to over profits*

DAC/VOBA and loss recognition

Considerations and Risks due to recent events:

DAC

- Risk that sales for 1Q20 and later quarters fail loss recoverability test
- Negative AGPs results in increased DAC (and Shadow DAC) thus placing pressure on future profit emergence (but moderates current period losses)
- Increased likelihood that additional cohorts move to an alternative amortization basis (due to negative EGPs)

Loss Recognition

- Increased likelihood for a loss recognition event to occur in Q1
- Potential for shadow loss recognition adjustments

Cash flow & asset adequacy testing

Considerations and Risks due to recent events:

CFT

- As Asset Adequacy Testing would have been performed as of 12/31/19, prior to extreme interest rate decline, additional analysis and disclosure may have been required
- Per ASOP 22 Section 3.4.8, the actuary is required to consider all material events that are likely to affect the actuary's analysis up to the date the opinion is signed and disclose those events in the opinion
- Per ASOP 41 Section 3.4.6, if the actuary learns of changes to data or other information (on or before the information date) after some findings have been communicated, but before the report is completed, the actuary should communicate those changes, and their implications, to any intended user to whom the actuary has communicated findings
- Depending on when the opinion is signed v. when the decrease in rates occurred, COVID-19 impacts may qualify as a Type 2 event
  - Type 2: Material event occurred after year-end but prior to signing of opinion
    - Appropriate response: include comments in opinion; no update to analysis needed
  - Type 1: Material event occurred prior to year-end, but subsequent to signing, additional information become available
    - Appropriate response: update analysis

Pricing and product considerations

Considerations and Risks due to recent events:

Product Offering

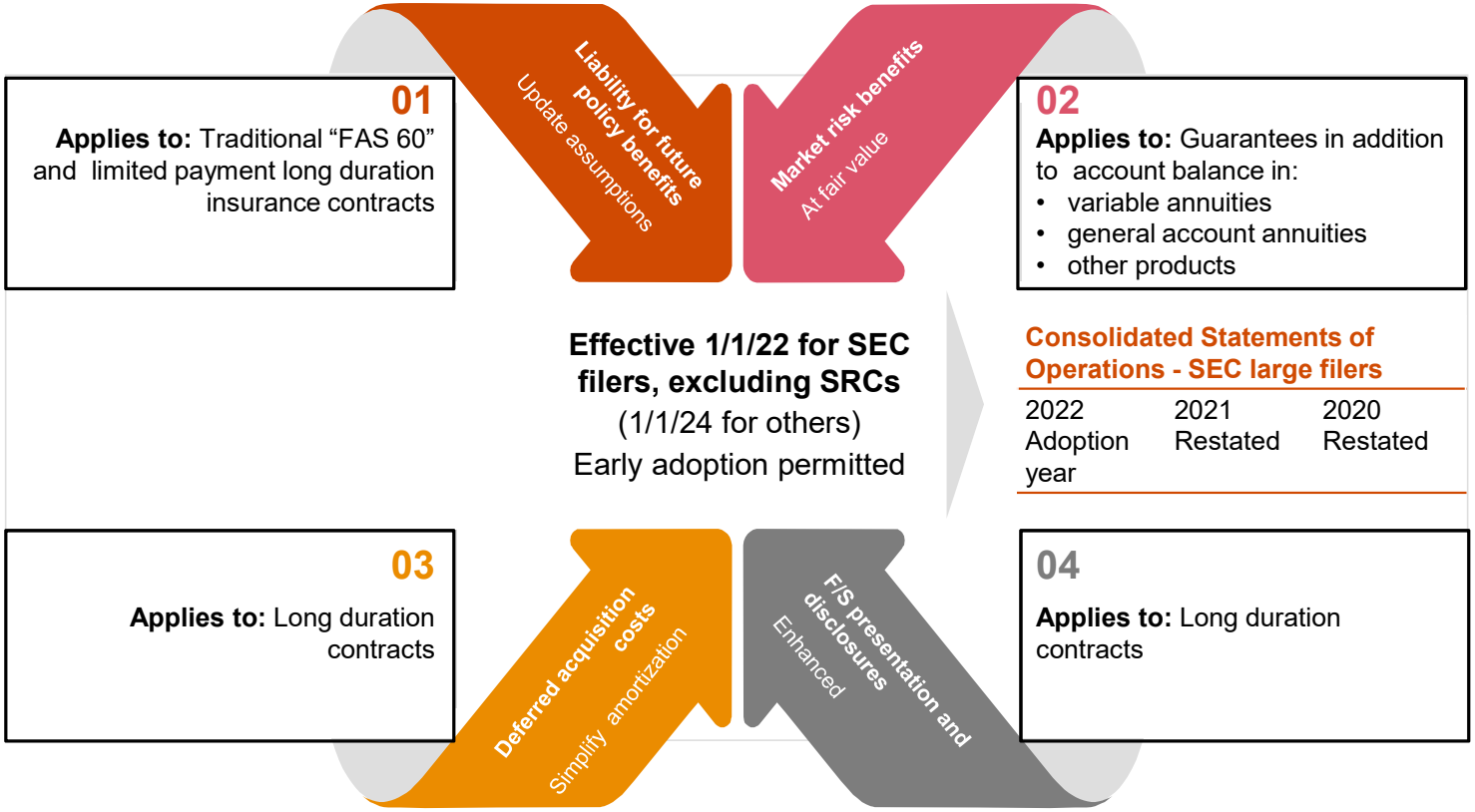
- Some large companies have shifted focus from certain product groups and target markets in this time of low interest, high volatility and uncertain mortality risk
- Ex: Suspending sale 30 year term life insurance
- Ex: Limiting applications in certain circumstances

Regulator-Imposed Premium-Deferrals

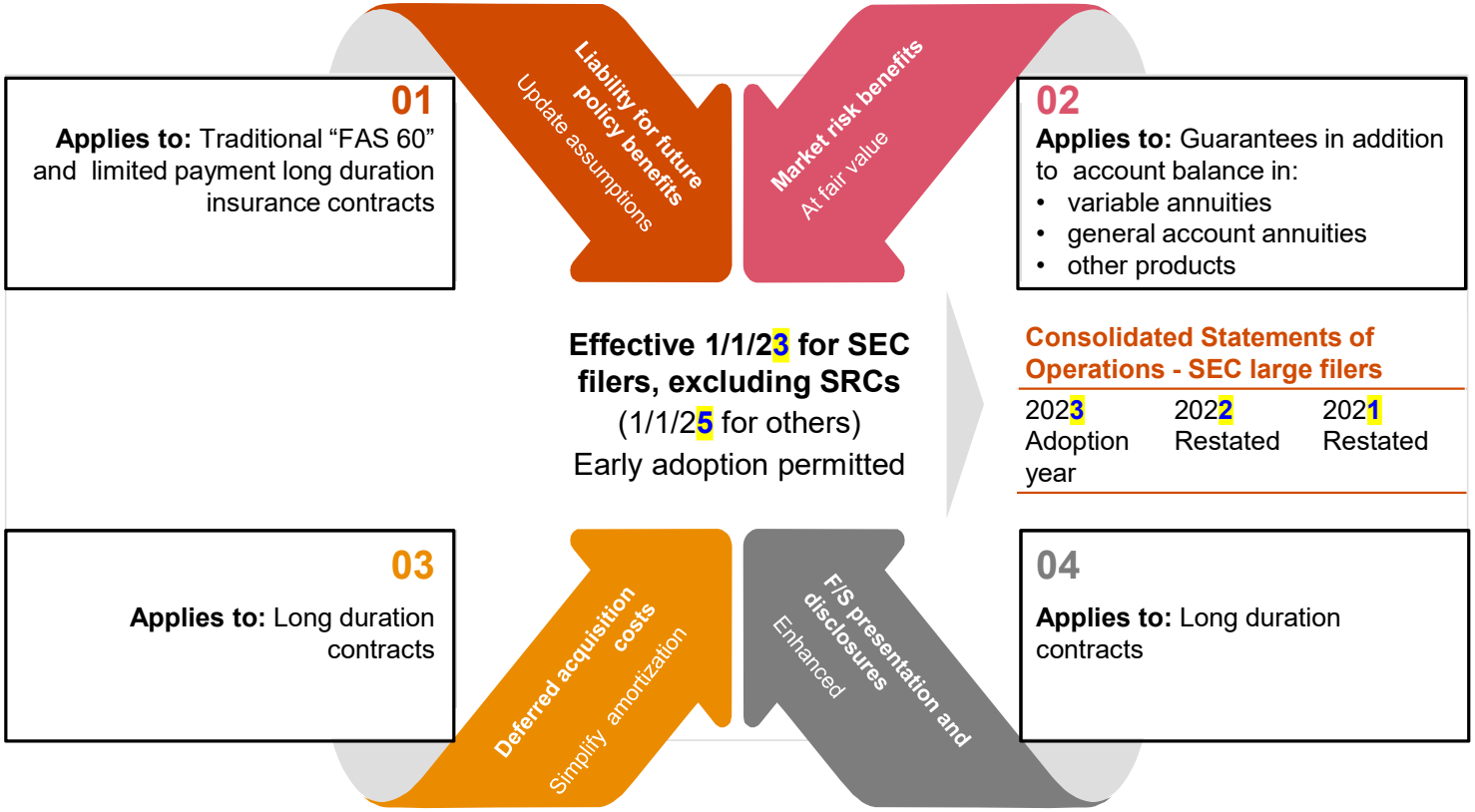
- Some regulators, such as NY DFS, are imposing requirements that insurers allow impacted consumers to defer premium payments for 90 days, to provide relief to consumers.
- Possible implications include how this may impact inforce policy status, reserving, target premiums on flexible policies, to start.
- Companies are still determining these impacts at this point

Brief LDTI Overview

FASB LDTI Overview of changes



FASB LDTI Overview of changes - **Updated Dates as of 6/10/20**



LDTI Interest rate considerations

Discount rate

"upper-medium grade fixed income yield"

Objective:

- Standardize the rate across insurers
- Reflect characteristics of liability (including duration), rather than investment yields
- Better visibility to interest rate risk of entity

Moody's Long-Terms rating Definitions

Moody's long-terms obligation ratings are opinions of the relative credit risk of fixed-income obligations with an original maturity of one year or more.
They address the possibility that a financial obligation will not be honored as promised. Such ratings reflect both the likelihood of default and any financial loss suffered in the event of default.

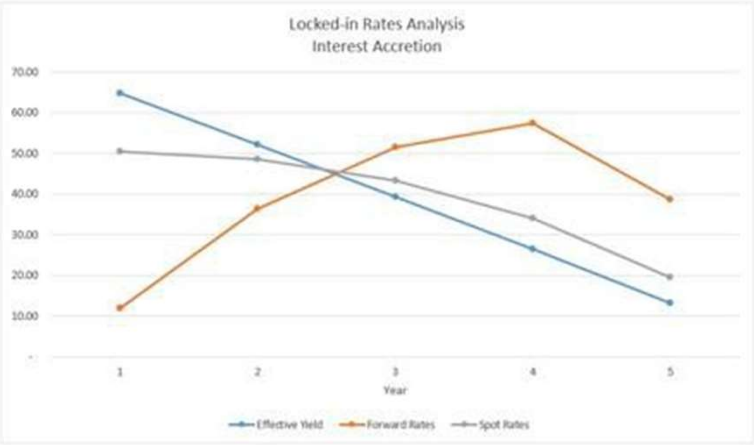
Aaa	Obligations rated Aaa are judged to be of highest quality, with minimal risk.
Aa	Obligations rated Aa are judged to be high quality and are subject to very low credit risk.
A	Obligations rated A are considered upper-medium-grade and are subject to low credit risk.

Application:

- Maximize use of relevant observable market prices/minimize use of unobservable inputs
- For points on yield curve with limited or no observable market data (market dislocations, points beyond yield curve), use estimates consistent with fair value guidance (e.g., for Level 3 measurements)
- Use of curve versus weighted-average rate not specified
- Terminology is based on Moody's rating for a single A rated security
- We interpret this to be the single A corporate rate (similar to pension accounting discount rate concept where AA corporate rate is used)

Discount rate – Interest accretion methods

- How is the interest accretion locked–in?
  - Using effective yield
  - Using forward rates
  - Using spot rates
- Interest accretion expense recognition pattern may be different depending on method selected
- Objective – Aligning interest accretion on assets and liabilities



Discount rate – Updating discount rate through OCI

Example

Assume the locked-in (original issue date) discount rate is 3% and the revised rate is 3.2%. The balance sheet remeasurement adjustment for the liability for future policy benefits would be as follows:

Present value of updated future benefits and related claim expenses @ 3%	$1050
Less: Present value of updated future net premiums @ 3%	(900)
Liability for future policy benefits @ 3%	$150 (A)
Present value of updated future benefits and related claim expenses @ 3.2%	$1,000
Less: Present value of updated future net premiums @ 3.2%	(870)
Liability for future policy benefits @ 3.2%	$130 (B)
Difference (A) - (B)	$20

Assuming the prior period AOCI adjustment is reversed, the adjustment for the end of the period would be:

Dr. Liability for future policy benefits	$20
Cr. AOCI	$ 20

- Liability remeasured through AOCI using current discount rate (similar to AFS securities accounting)
- Must update at each reporting date
- Updated discount rate is applied to:
  - future benefits and related claim expenses and
  - future net premiums to derive the balance sheet liability for future policy benefits
- Change is recognized immediately in Other Comprehensive Income (OCI)
- No recalculation of net premium ratio using current discount rate (use locked in rate)

Case study – Inforce reinsurance transactions

Overview of potential reinsurance complications

- Currently, an inforce reinsurance deal that was 100% coinsurance essentially removed the business from the income statement and balance sheet
  - Cash flows: direct premiums and benefits offset by ceded premiums and benefits
  - Reserve changes: Direct and ceded reserve are same, as they use same cash flows and discount rate
- Under LDTI, this same transaction may* result in a ceded reserve that moves differently than the direct reserve
  - This is driven by a difference in interest rates
  - Ceded reserve net premium ratio is based on current single-A rate at time of transaction
  - Direct reserve net premium ratio is based on locked-in rate from issue
- Different NPRs lead to more volatile earnings, especially in scenarios of extreme experience deviation and assumption changes

*This topic is still under discussions within the Insurance Experts Panel

Example of Extreme Experience Deviation

Scenario

- Old inforce business has a high locked-in discount rate
- 100% coinsurance deal is effective at a later date (and after transition)
- A few years later, actual benefits are twice the expected amount for the period

Results

- Cashflows: no impact
  - Direct and ceded cash flows 100% offset each other
- Reserves: net negative impact
  - Direct reserve decreases due to retrospective unlocking
  - Ceded reserve decreases for the same reason but by a larger amount because of a lower discount rate
  - Bad guy of ceded reserve decrease > Good Guy of direct reserve decrease → Net Negative Impact

Thank you

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