

Milliman Breakfast Briefing

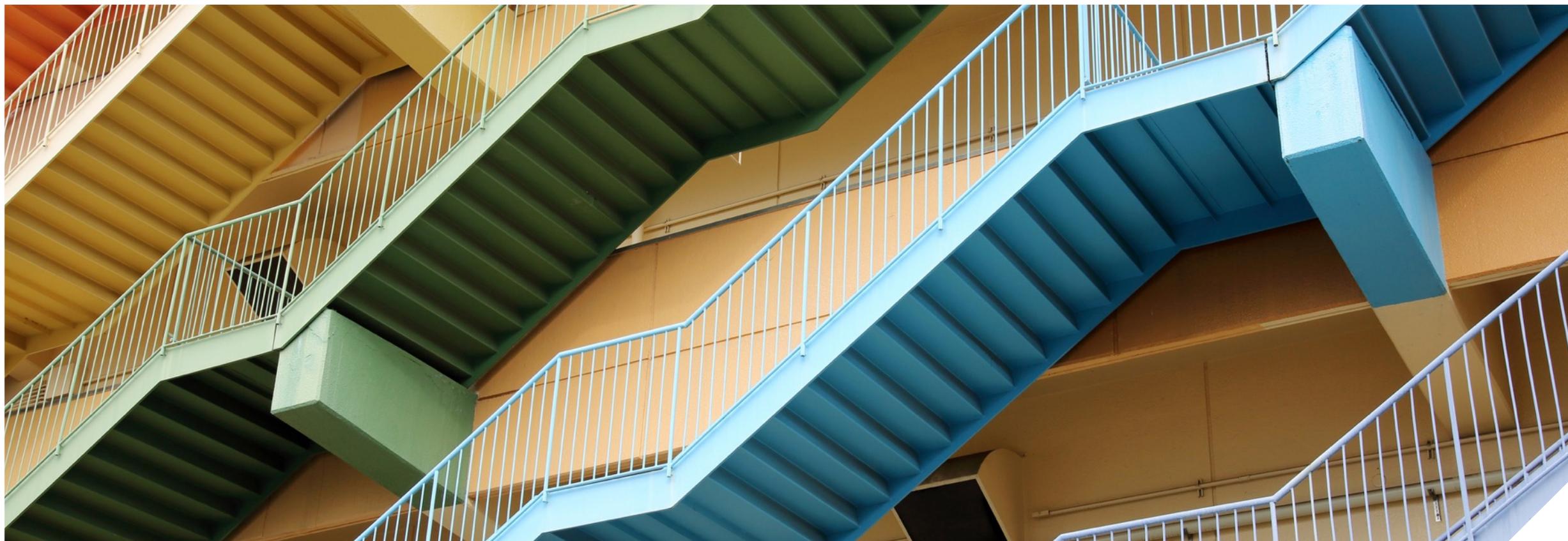
19th September 2019



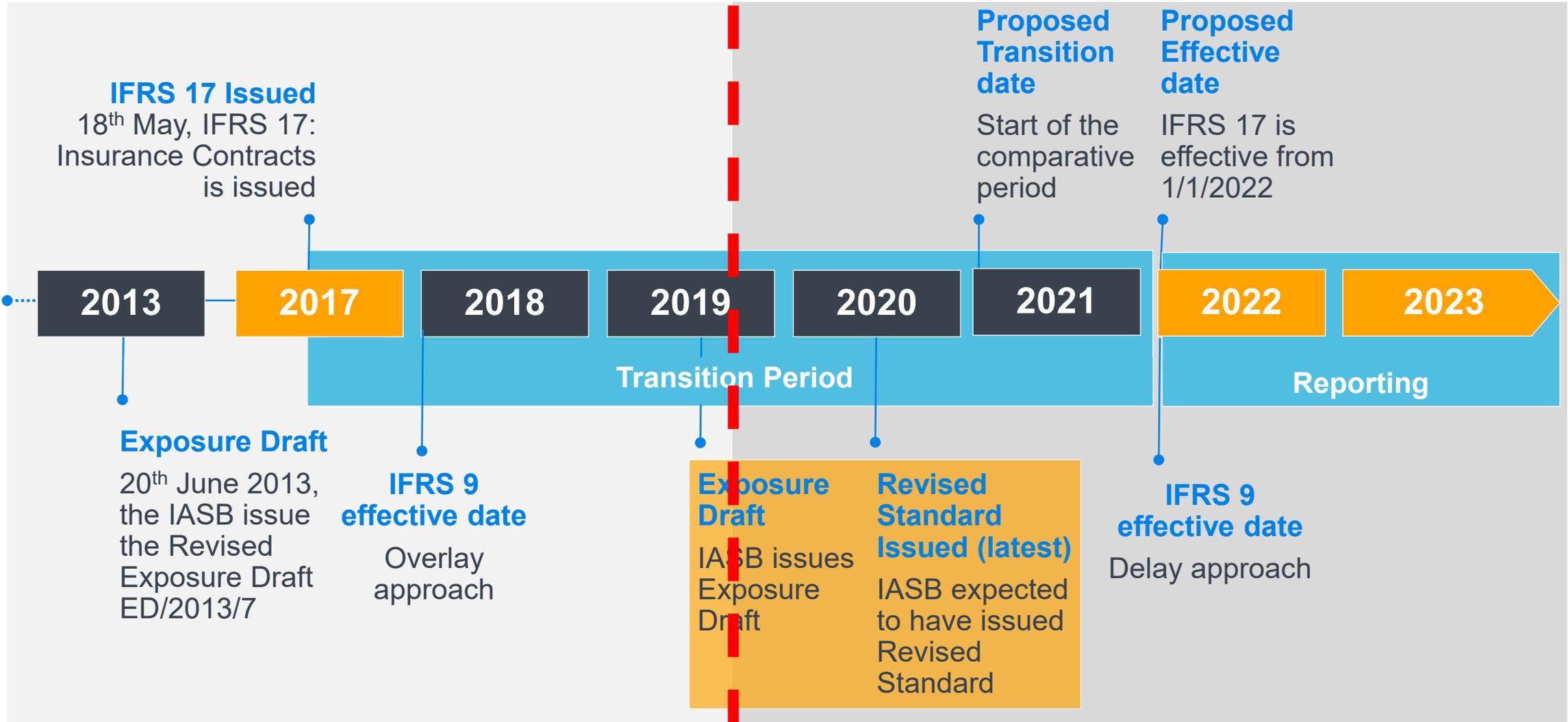
A Case Study on IFRS 17

Joseph Sloan

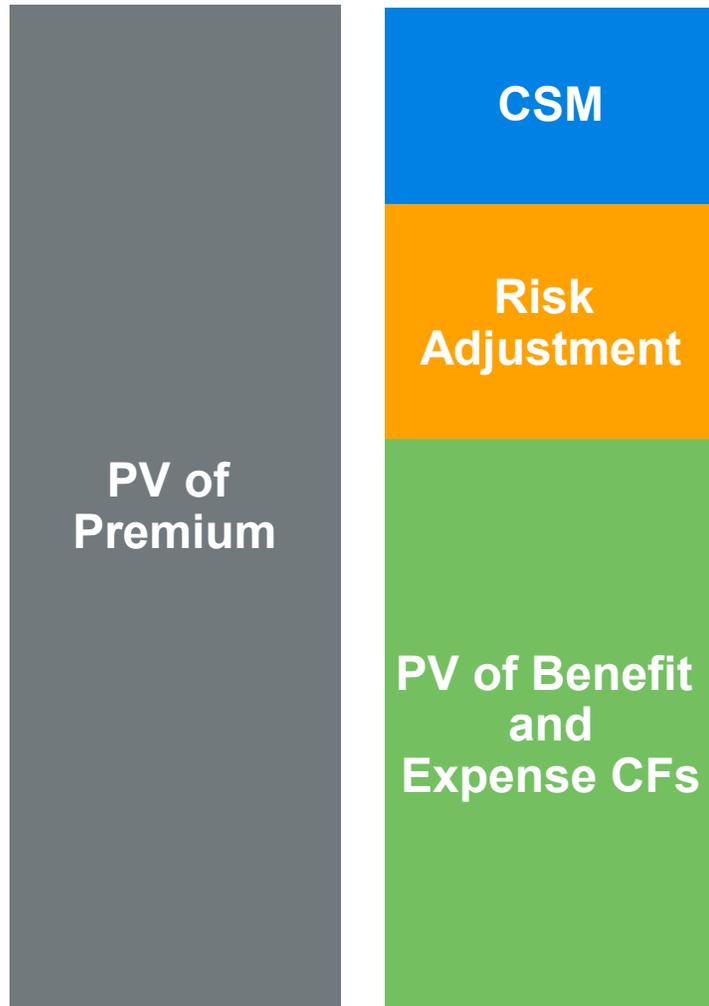
19 SEPTEMBER 2019



IFRS 17 Timeline



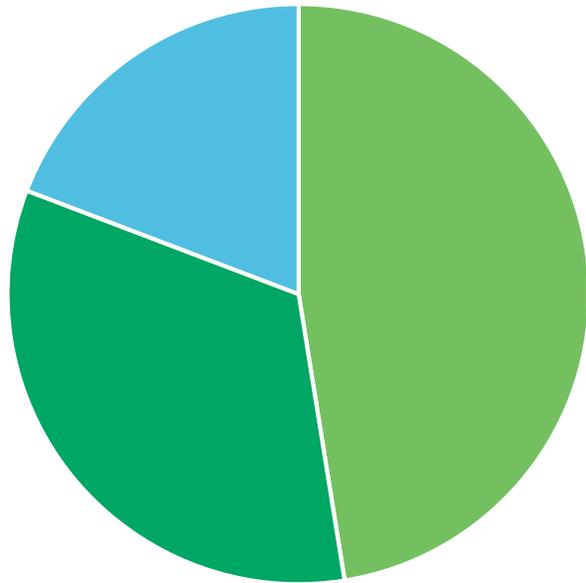
General Model - Risk Adjustment



- Reflects the compensation the entity requires for bearing the uncertainty in the fulfillment cashflows arising from non-financial risk
- Similar concept as Solvency II risk margin but method and confidence level are not specified
- Two possible approaches for most standard formula European insurers:
 - Cost of capital
 - Quantile approach
- **A higher Risk Adjustment will mean a lower CSM and vice versa**

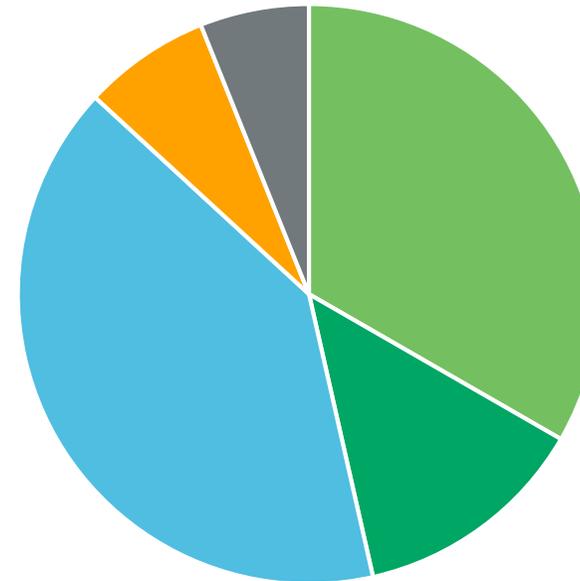
Risk Adjustment – 2018 Global Survey

RA Calculation Method



- Cost of Capital
- VAR/Confidence Level
- Other

RA Confidence Level



- 90-99%
- 80-90%
- 70-80%
- 60-70%
- Other

Risk Adjustment – Case Study

- Company X is a Life insurer that writes Term Assurance business
- They are using the General Measurement Model (aka BBA)
- They have performed some sample calculations to get an initial view of the Risk Adjustment
- **VAR Approach at 80% confidence level over a 1-year time horizon**

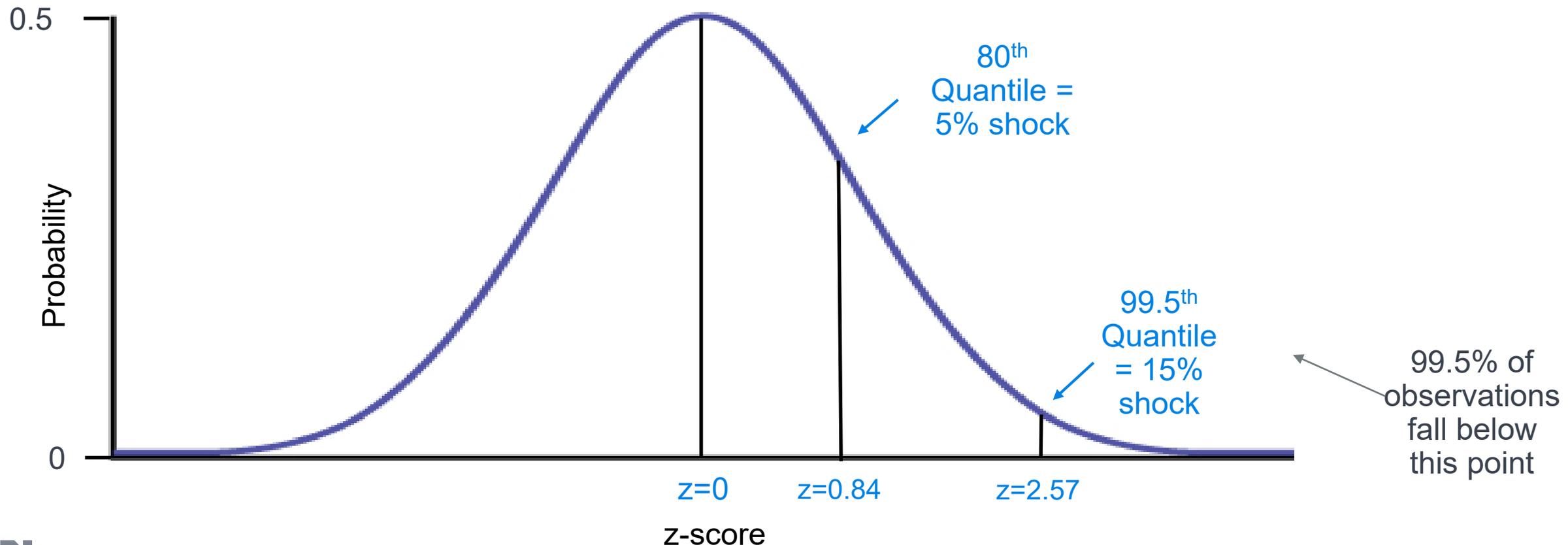
Approach Adopted

1. Used the Solvency II BEL and SCR results as a proxy
2. Removed market risk and operational risk
3. Adjusted the percentile from 99.5th (Solvency II) to 80th using a standard normal adjustment
4. Re-calculated the SCR shocks for the lower confidence level
5. Aggregate up using the relevant Standard Formula correlation matrices (allows for diversification between risks)

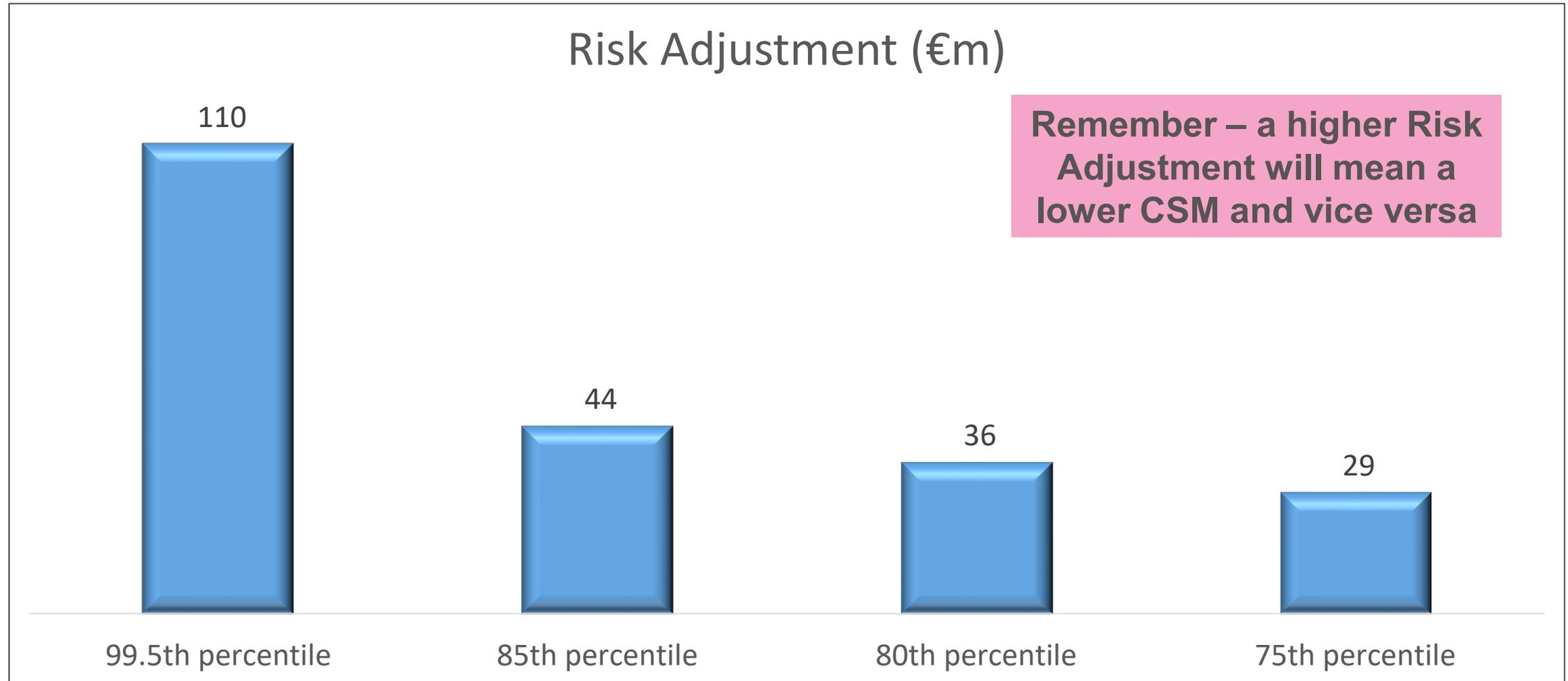
VAR Approach at a 80% Confidence Level

- One approach: Adjusted SII SCR shocks assuming a standard normal distribution

Standard Normal Distribution $\sim N(0,1)$

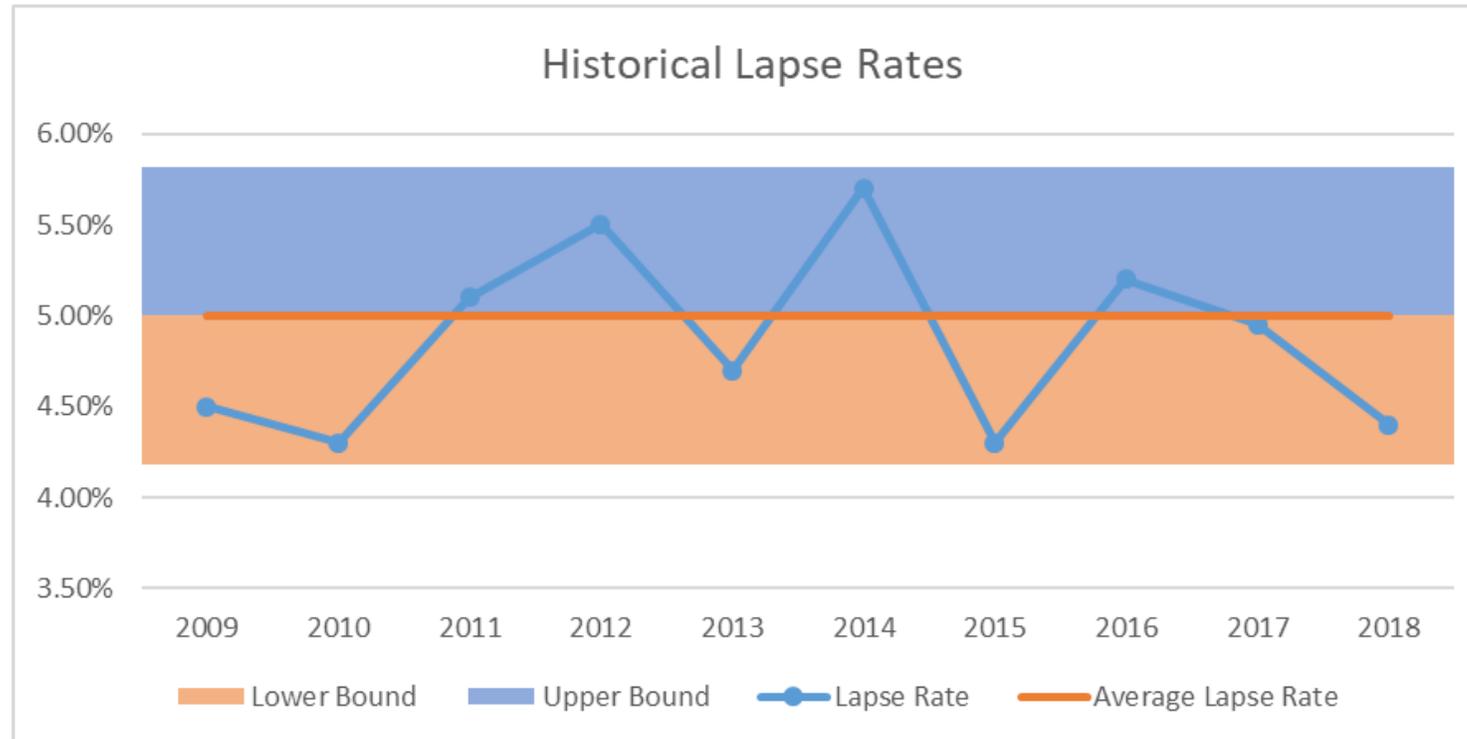


Confidence Level - Examples



Risk Adjustment – which risks to include?

- Some companies are investigating if **catastrophe risk** should be included at a lower confidence level
- We investigated if there is a need for this company to hold **mass lapse risk** at 80th percentile
- Used historical lapse data for at least 10 years
- Assessed whether historical experience shows a mass lapse event at this confidence level



Risk Adjustment – Other Key Considerations

- **Level of Aggregation**

- RA should be determined at the entity level – how to allocate the diversification benefit to Groups?
- Proportional Approach
- Marginal Approach

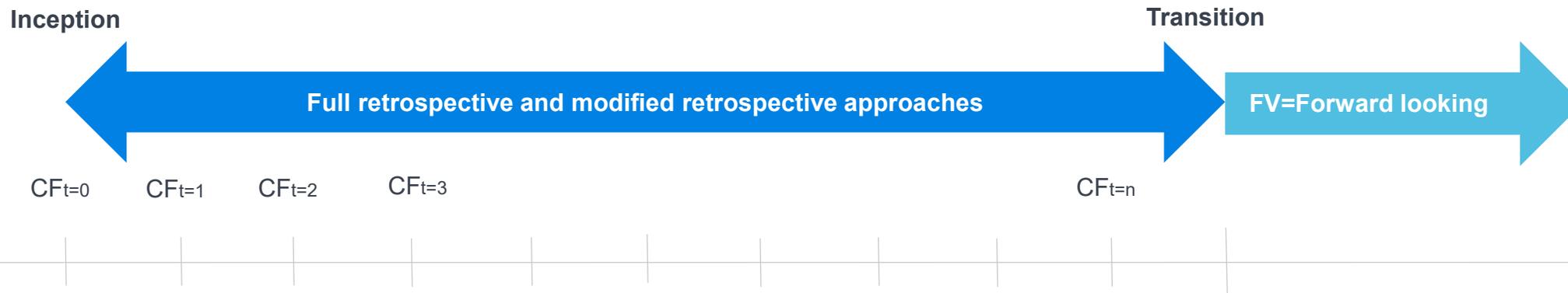
- **Frequency of calculation**

- **Reinsurance**

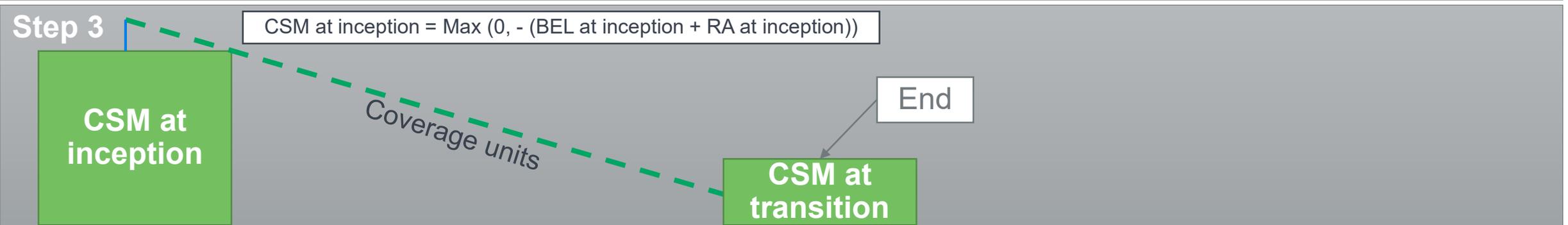
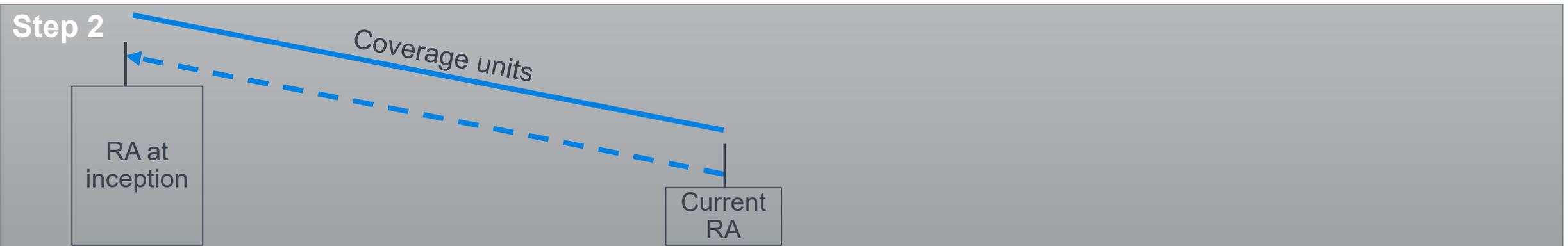
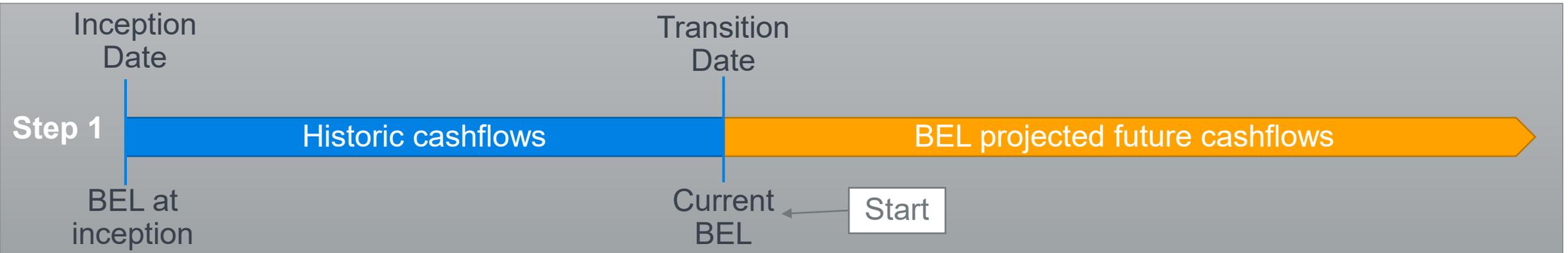
- Both gross business and ceded risk adjustments are required

Transition – three approaches

Full retrospective approach	Modified retrospective approach	Fair value approach
<ul style="list-style-type: none"> Required where not 'impracticable' Requires day 1 data and assumptions and full history to date of transition If impracticable, choose between modified retrospective and fair value approach 	<ul style="list-style-type: none"> Retrospective with simplifications to address data gaps Simplifications can be applied on a piecemeal basis 	<ul style="list-style-type: none"> Comparison of fulfilment value to IFRS 13 fair value Could result in limited CSM and hence future profits Determination of fair value of insurance contract is unclear



Modified Retrospective Approach - Process

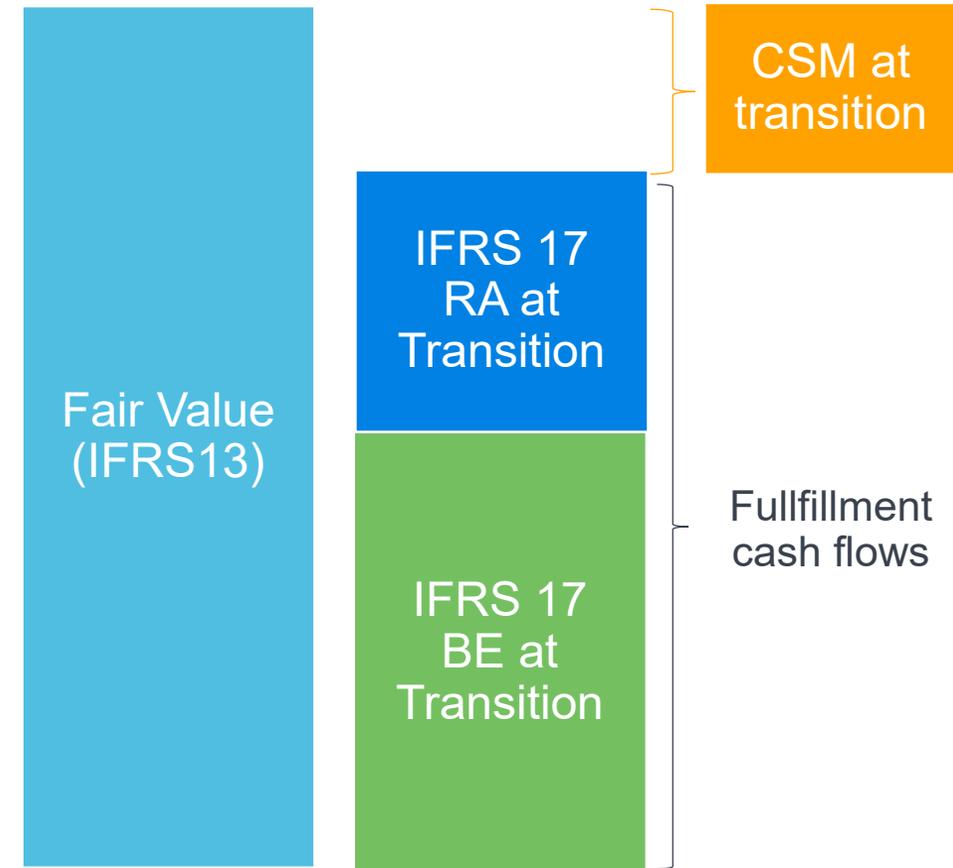


Lessons learned from MRA application

- Large data exercise to collate data:
 - Historical policy data
 - Actual accounting data
- The CSM can vary dramatically depending on :
 - The allocation of historic cashflows / BEL / RA to cohorts
 - The coverage units selected
- Dependency on other methodologies e.g. RA, discount rates
- Inflexibility and complexity of MRA
- Time and resources for the MRA vs Fair Value approach

Fair Value Approach

- Involves applying a 'fair value approach' in which the entity should:
 - Define the CSM at transition date as the difference between the fair value at exit (IFRS 13) and the fulfillment cash flows (IFRS 17) at that date
- FVA is entirely prospective
- Most companies leveraging off Embedded Value or Solvency II calculations



Fair Value Approach - Challenges

- Main challenge is how to measure the Fair Value of liabilities under IFRS 13
- Adjusting Embedded Value / Solvency II – possible adjustments required:

Non-
performance
risk

Contract
boundaries

Discount
rates

Risk
adjustment

- EFRAG paper (May 2019)
 - One participant's view was that CSM should only capture small proportion of MCEV VIF (10-30%)

Practical Considerations for Transition

- The initial impact on retained profits at the transition date will need to be explained to and understood by all stakeholders
 - Higher CSM means lower retained earnings and vice versa
 - Companies may want a higher CSM to smooth future profits
- Applying the retrospective approaches clearly requires a large amount of historical data
- Demonstrating the impracticalities of applying the Full Retrospective approach
- Calculation of Fair Value CSM requires adjustments and judgement
- Most companies likely to use a blended approach

Closing Thoughts....





Solvency II 2020 Review

The story so far...

Aisling Barrett

19 SEPTEMBER 2019

Directive

By 1 January 2021, the Commission shall review:

LTG measures and
equity risk
measures

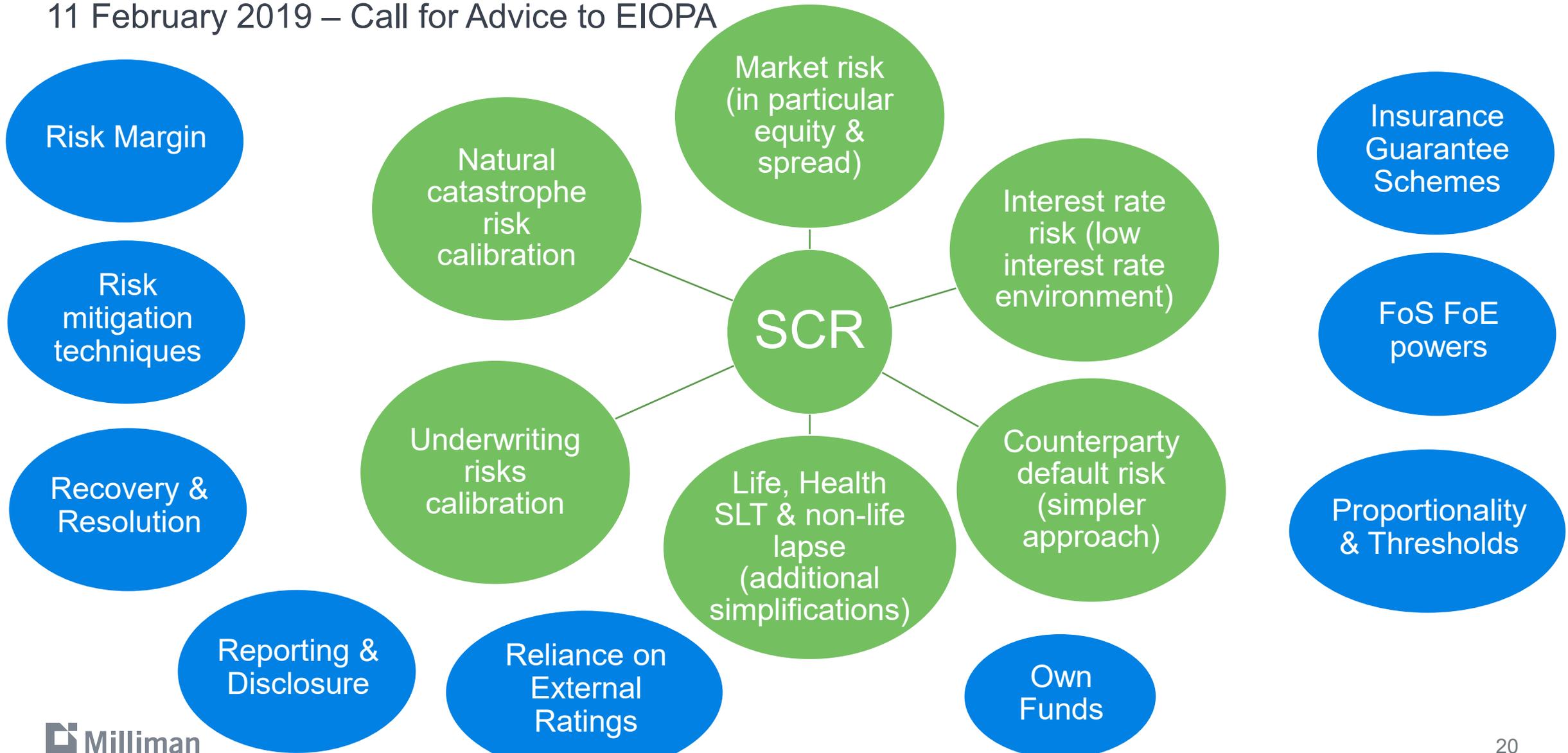
Methods,
assumptions &
parameters used in
calculating standard
formula SCR

Calculation of the
MCR

Group supervision &
capital management

The Commission (1)

11 February 2019 – Call for Advice to EIOPA



The Commission (2)

11 February 2019 – Call for Advice to EIOPA

Macro Prudential Issues – How to improve:

- ORSA
- Systemic risk management plan
- Liquidity
- Prudent person principle

Best Estimate – report on divergent practices:

- ESGs
- Contract Boundaries
- Future management actions
- Expenses, investment costs, options & guarantees

Timeline



Timeline

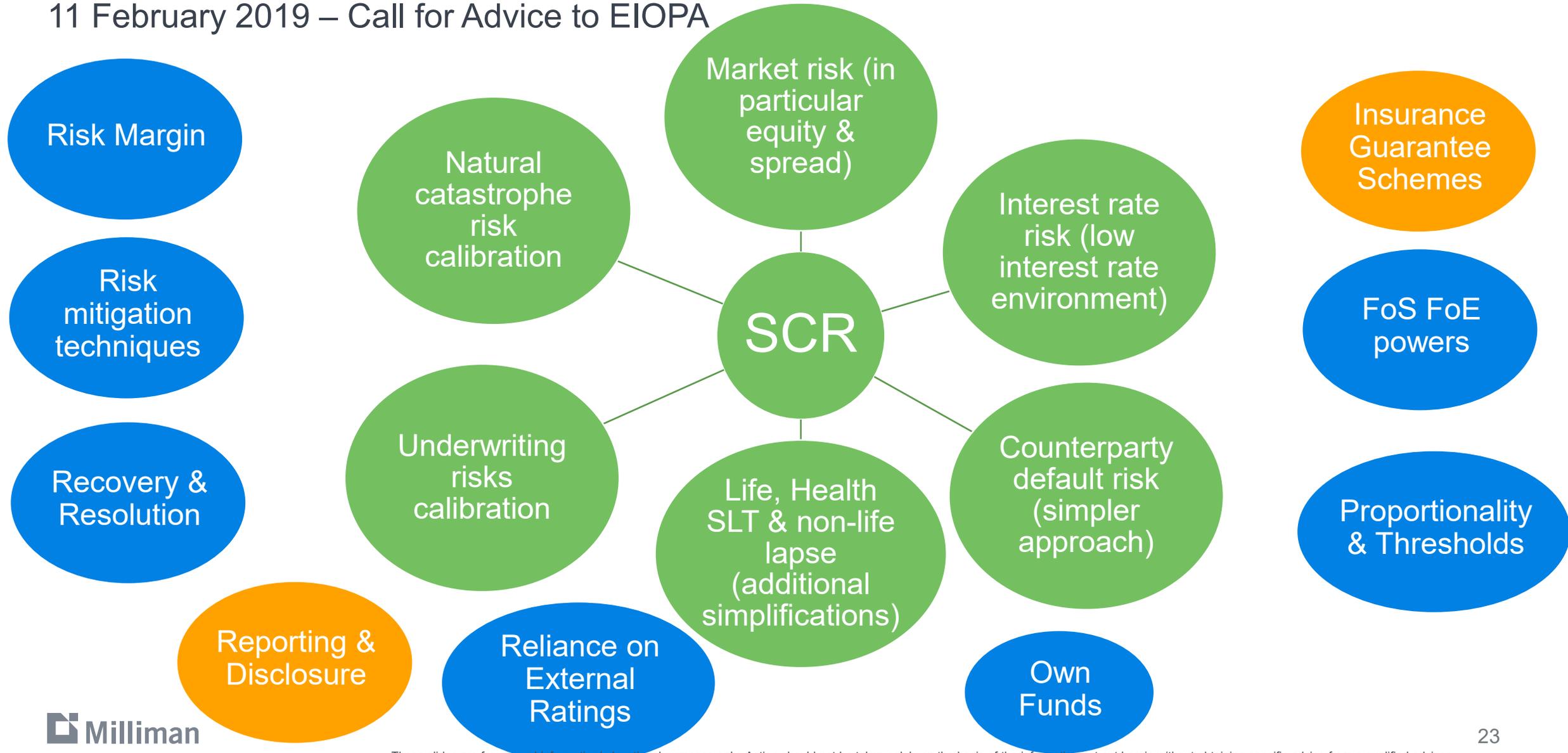
April 2018	EIOPA receives Call for Information on asset-liability management from the European Commission
Nov 2018	Publication of LTG report 2018
Feb 2019	EIOPA receives Call for Advice on the 2020 review from the European Commission
Mid-July to mid-Oct 2019	Public consultation on draft advice on reporting and disclosure 2019
Nov 2019 to Jan 2020	Public consultation on draft Opinion (covering all advice other than on reporting and disclosure)
Nov to Dec 2019	Information request to undertakings for holistic impact assessment
Dec 2019	Publication of LTG report 2019 EIOPA response to Call for Information on asset-liability management
June 2020	Publication of Opinion on 2020 review
December 2020	Publication of LTG report 2020



Experts are currently assessing the need for further information requests in 2019.

The Commission

11 February 2019 – Call for Advice to EIOPA



EIOPA Consultation Papers

Reporting & Disclosure

- General Issues on Supervisory Reporting and Public Disclosure (55 pages)
- QRTs (131 pages + Annexes)
- SFCR (60 pages)
- Financial Stability Reporting (9 pages)

To be reviewed later in 2019:

- Group QRTs
- RSR
- Technical aspects of the reporting and disclosure process
- Data quality aspects
- Issues linked to other areas of the Solvency II 2020 review, including long-term guarantees templates.

Insurance Guarantee Schemes

- Harmonisation of National Insurance Guarantee Schemes (67 pages)

**Deadline:
18 October 2019**

EIOPA Proposals

Insurance Guarantee Schemes, General Issues & Financial Stability Reporting

Insurance Guarantee Schemes

- Every member state should have an IGS
- Minimum set of harmonised features
- Home country principle

General Issues

- Split QRTs into core and non-core
- Change annual reporting deadline to be as for 2018 (16 weeks instead of reducing to 14 weeks)

Financial Stability Reporting

- Some fields added & some deleted

EIOPA Proposals

QRTs (1)

- Some deleted, replaced, merged or new format; addition and removal of fields
- New QRTs on underwriting of cyber risk and on non-life product information
- Asset QRTs:
 - Deletion of S.06.01 (Summary of assets); Addition of fields to S.06.02 (List of assets)
 - S.06.03 (Collective investment undertakings - look-through approach)
 - Only for assets where insurer does not have full look-through information nor does not have an influence on investment strategy of the CIU
 - Change in thresholds: Ratio of collective investments to total investments from 30% to 50% (for quarterly reporting); Country level identification threshold from 90% to 80%
 - New QRT S.06.04 (Collective investment undertakings - look-through approach)
 - Where insurer has full look-through information or where it has an influence on investment strategy of the CIU
 - Much more detailed information than S.06.03, such as issuer name, sector, group, country

EIOPA Proposals

QRTs (2)

- New QRTs for internal model SCR
- Existing variation analysis templates:
 - S.29.01 (Excess of Assets over Liabilities)
 - S.29.02 (Excess of Assets over Liabilities - explained by investments and financial liabilities)
 - S.29.03 (Excess of Assets over Liabilities - explained by technical provisions)
 - S.29.04 (Detailed analysis per period - Technical flows versus Technical provisions)
- New variation analysis templates:
 - S.29.05 (Variation of the best estimate in life insurance)
 - S.29.06 (Analysis of changes of best estimate for non-life business)

EIOPA Proposals

SFCR (1)

- Split into policyholder and non-policyholder section (more technical information)
- Policyholder section:
 - Only required if external policyholders (so captives and reinsurers excluded)
 - Statement on consideration of environmental, social and governance factors in investment policy
 - Outsourcing policy including jurisdiction of service providers where this affects policyholders
- Non-policyholder section:
 - Some content moved to RSR
 - No requirement to translate
 - EIOPA proposes publishing further guidelines to strengthen principles outlined
- Minimum requirement for external audit of balance sheet only

EIOPA Proposals

SFCR (2) – Information gaps identified

- Variation of Own Funds
- Sensitivities of SCR and Own Funds
 - Economic Assumptions:
 - Equity markets (+/-25%)
 - Interest rates (+/-50bps)
 - Credit spreads of government bonds (+/-50bps)
 - Credit spreads of corporate bonds (+/-50bps)
 - Real estate values (+/-25%)
 - Non-economic Assumptions:
 - Expenses (+10%)
 - Gross loss ratio (+10%)
 - Lapse rates (+10%)

Timeline



Timeline

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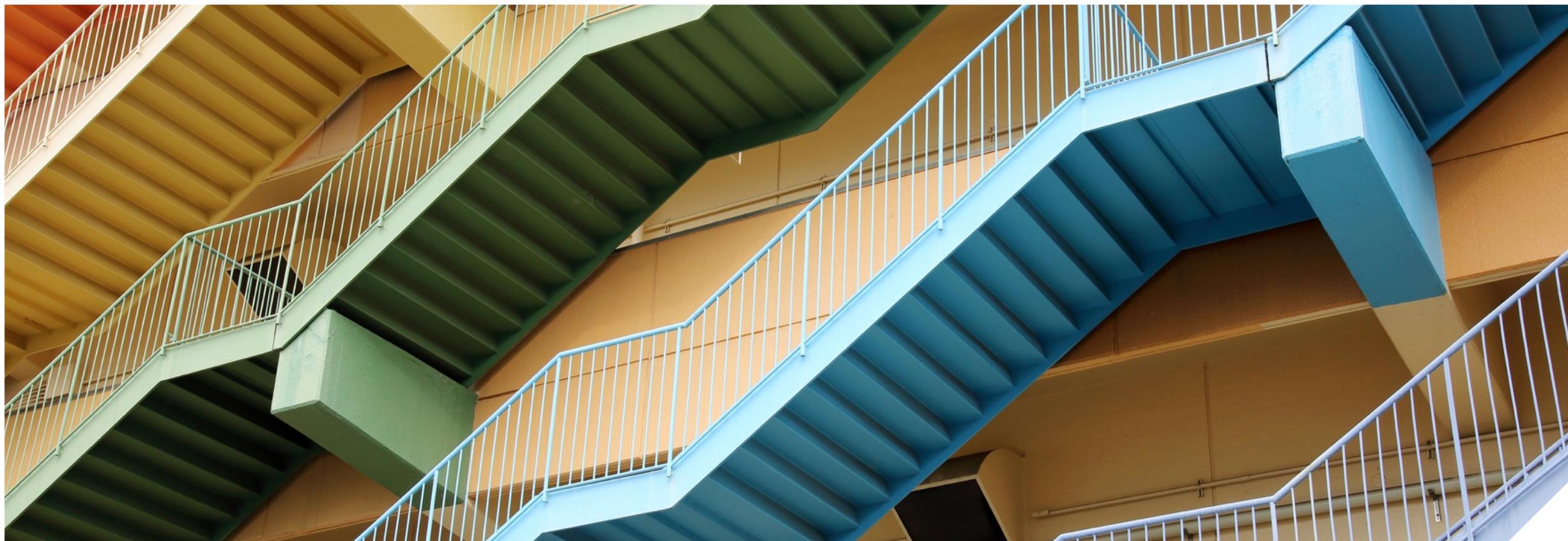
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How low can you go?

Insurer challenges in a low interest rate environment

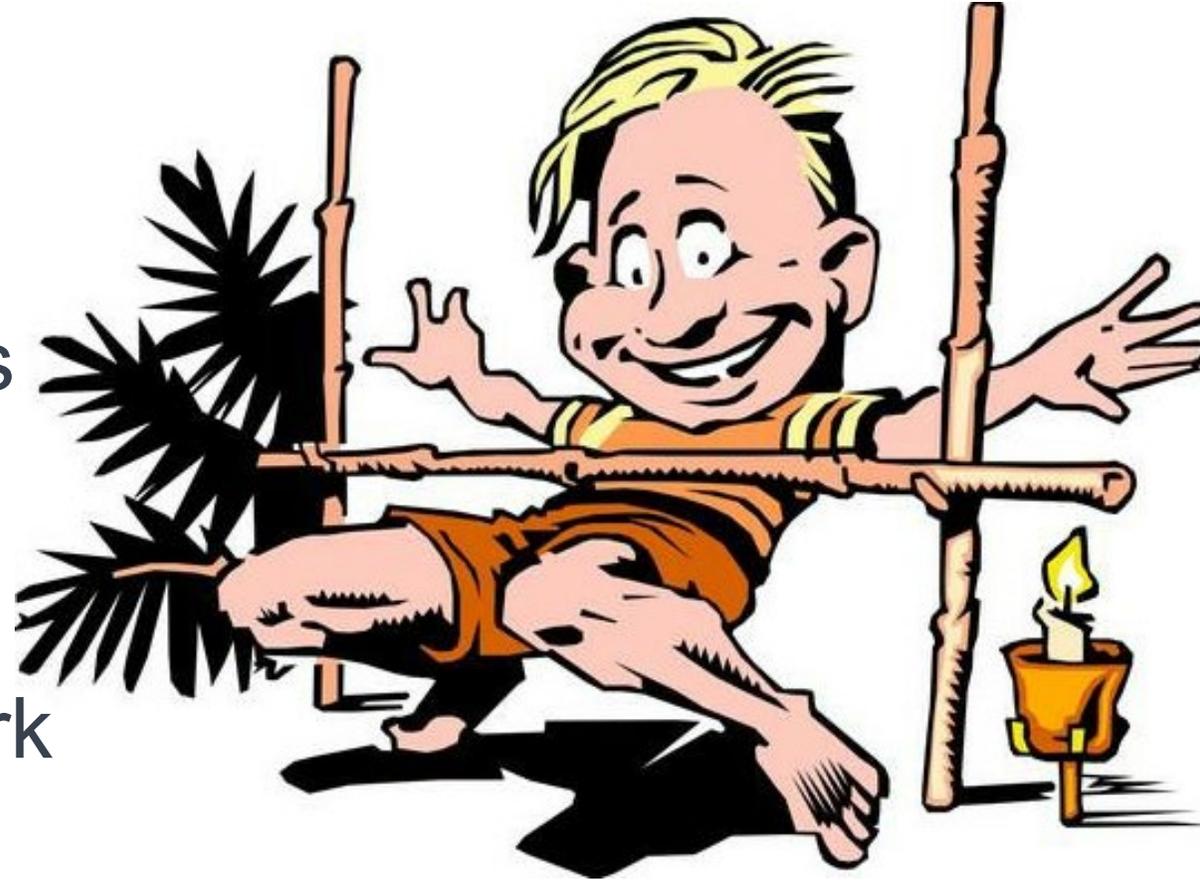
Eamon Comerford

19 SEPTEMBER 2019

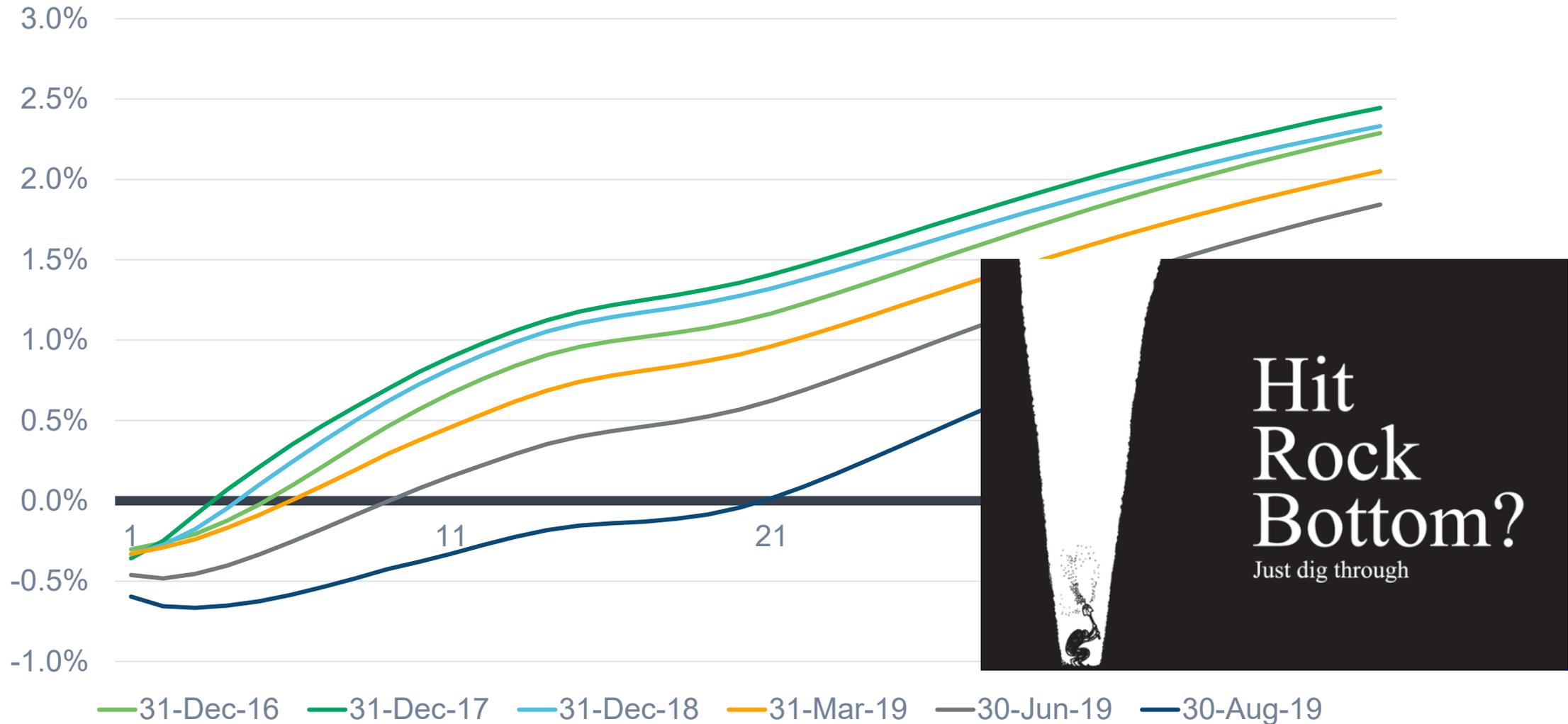


Agenda

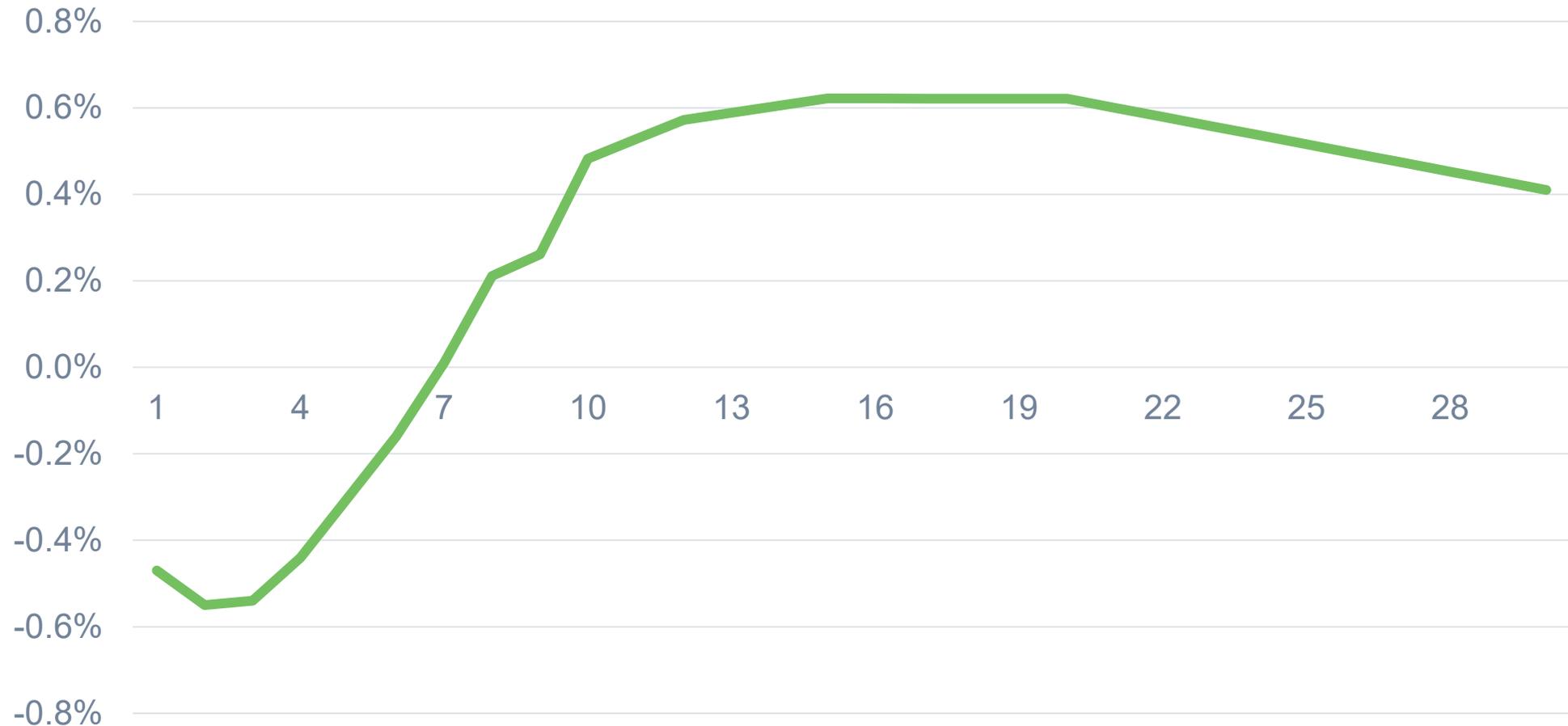
- Progression of interest rates
- Monetary policy developments
- Impact on insurers
- Solvency monitoring framework



EIOPA RFR spot rates (no V.A.) - EUR



EUR Swap rates 10-Sep-2019 (Forward)



=> Market risk-free rates are c. 40-60bps for 20-30 year durations

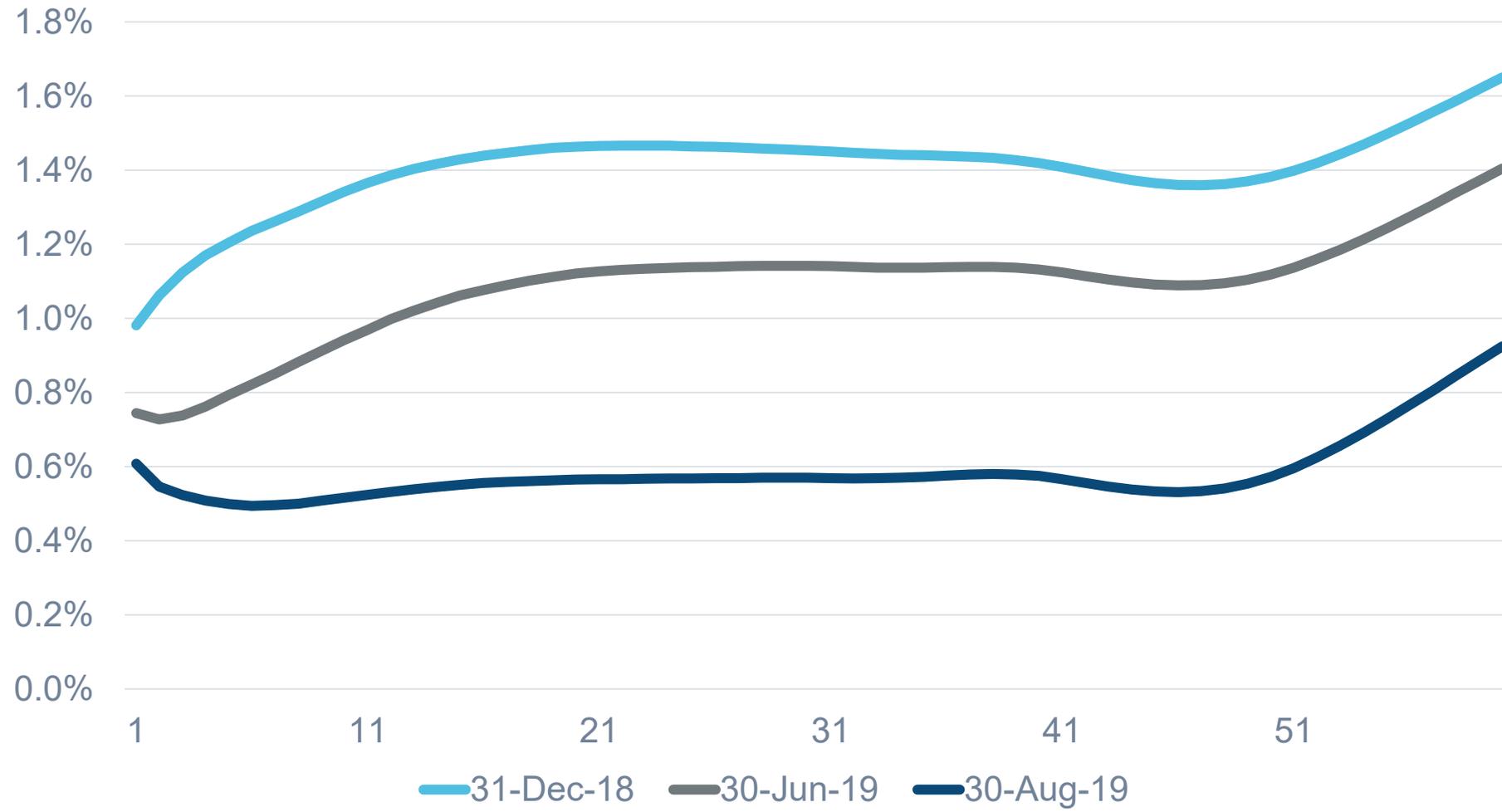
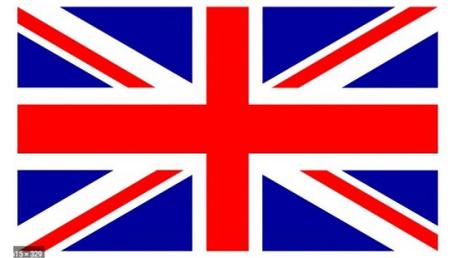
Impact of LLP and UFR (EUR)

EIOPA RFR forward rates - EUR

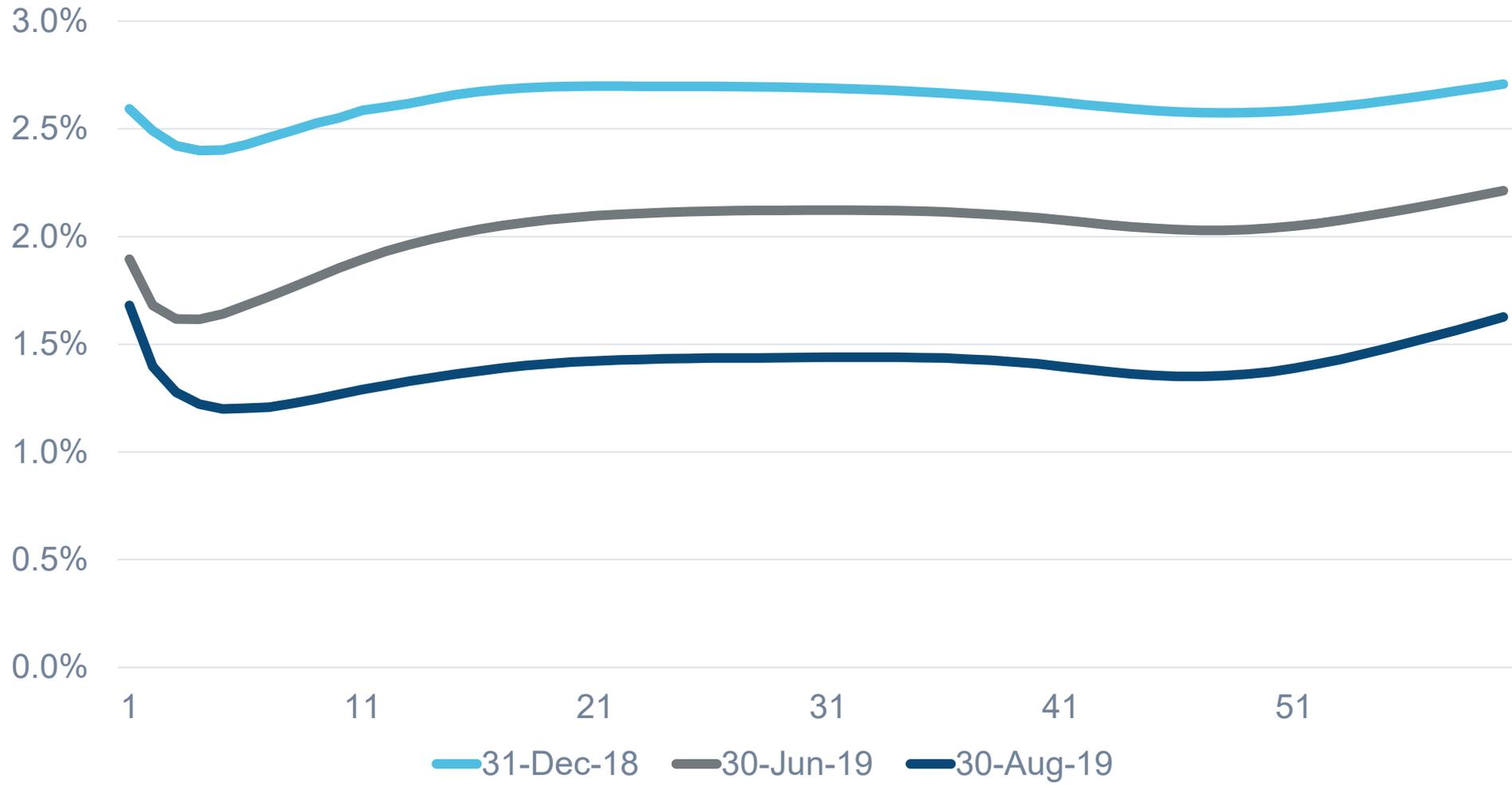
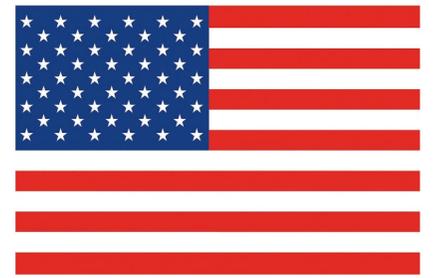


Well, this is awkward...

EIOPA RFR spot rates (no V.A.) - GBP



EIOPA RFR spot rates (no V.A.) - USD



Monetary policy - What has been said?

TIME

Christine Lagarde Defends the European Central Bank's Low Rates as She Prepares to Take Over

FINANCIAL TIMES

Bank of England may have no choice but to join race to the bottom

The New York Times

Fed Chair Powell Speaks and Leaves Investors Expecting a Rate Cut

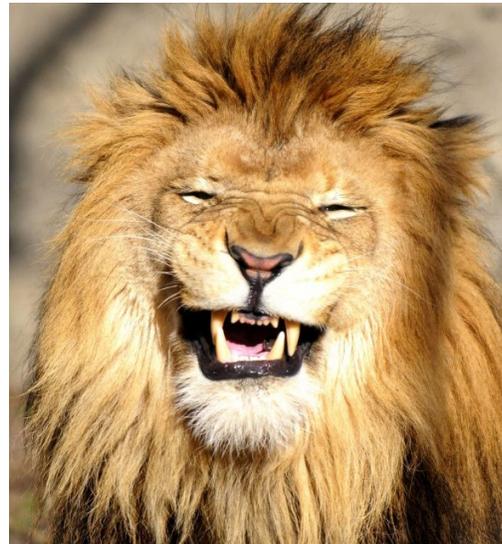
CNBC

Trump says Fed 'boneheads' should cut interest rates to zero 'or less,' US should refinance debt



Impact on insurers

- Captured fully by the SCR shock for interest rates?



Impact on insurers – Annuity / VA liabilities

- Increase to **BEL**



- Increase to longevity and expense **SCR**



- Substantial increase to **risk margin** – double impact



- Biggest impact on longest-term business



Impact on insurers – Protection liabilities

- Usually increase in **BEL** (future premiums vs. outgo) 
- Increase to expense and mortality/morbidity **SCR**, particularly for high-persistency business 
- Increase to **risk margin** 

Impact on insurers – Unit-linked liabilities

- Change in **negative BEL (VIF)** (exps vs. income)  
- Increase to expense **SCR**, particularly for high-persistency business 
- Increase to **risk margin** 

Impact on insurers – Assets

- Increase in bond values



- Lower yields in future / on reinvestment

=> impact on pricing, profitability and product attractiveness



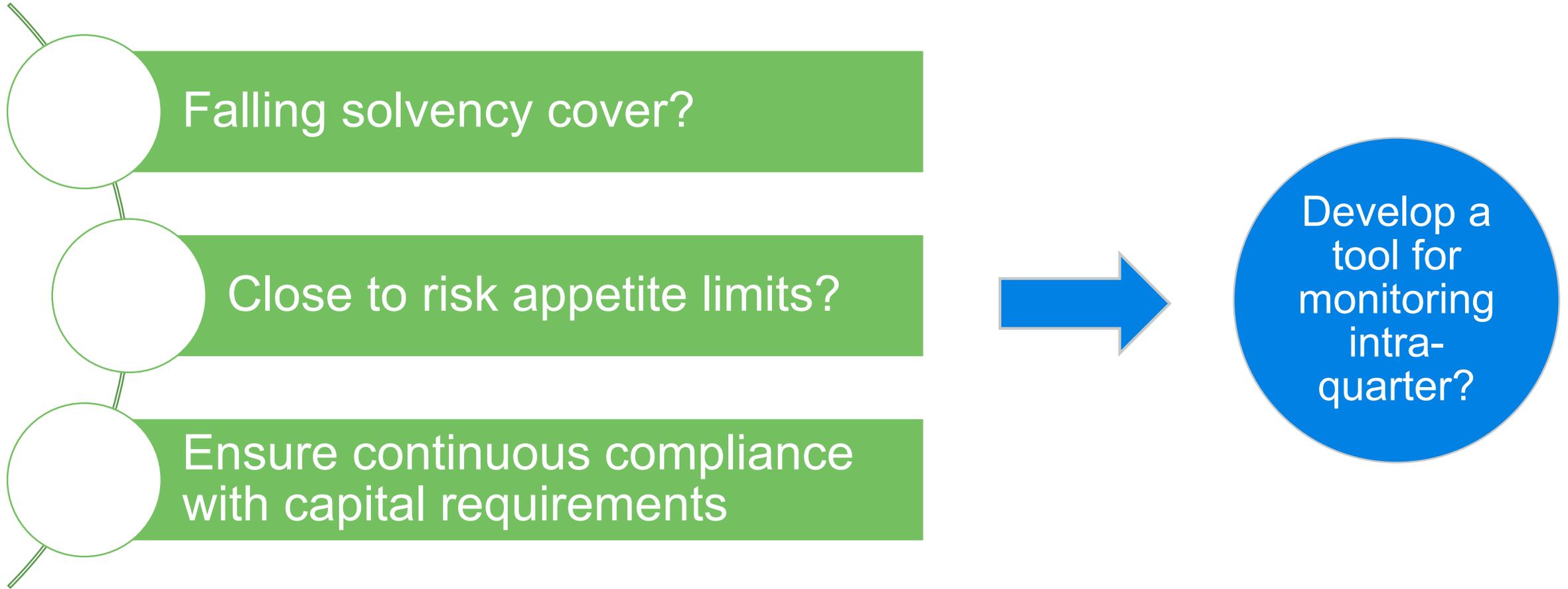
- Liability impact may be mitigated by hedge assets



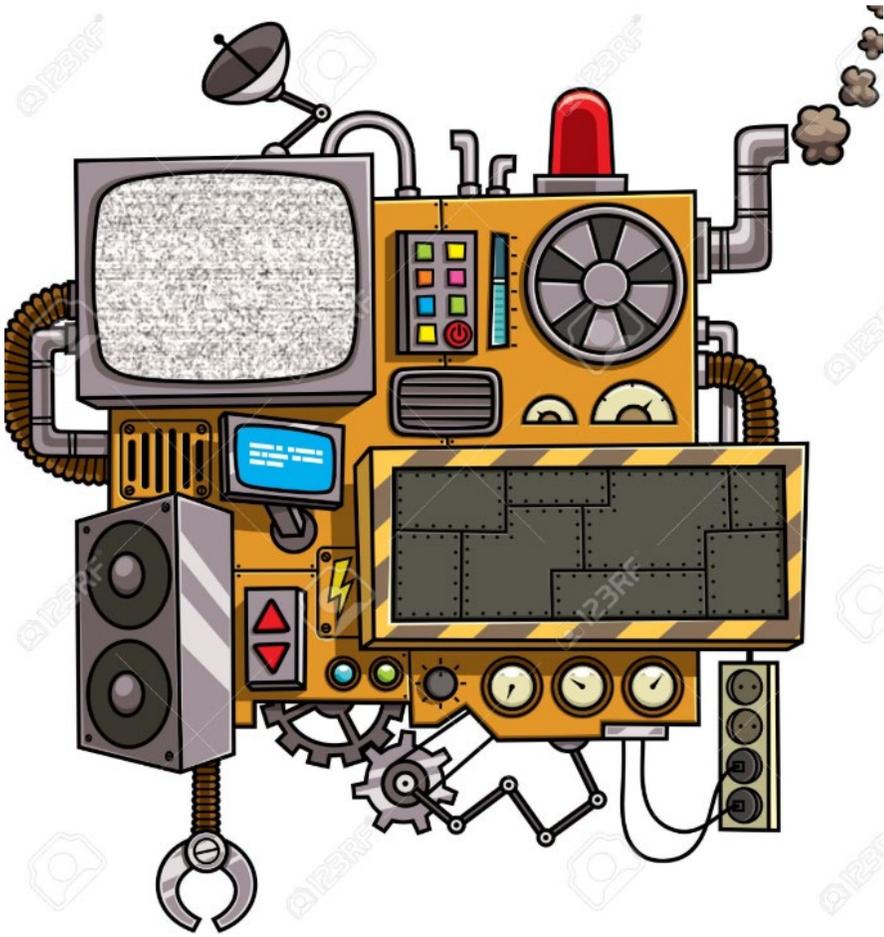
- Reinsurance arrangements impacted?

- Search for yield?

Solvency monitoring framework



Solvency monitoring framework



- Use:
 - TP sensitivities
 - ORSA stresses
- Track:
 - EIOPA curves or proxy
 - Symmetric adjustment
 - FX rates
 - NB volumes
 - Fund performance
 - Asset allocations
 - Expenses
 - Large claims
 - ...

Solvency monitoring framework - benefits

