Society of Actuaries in Ireland

Solvency II Standard Formula Model – All Change

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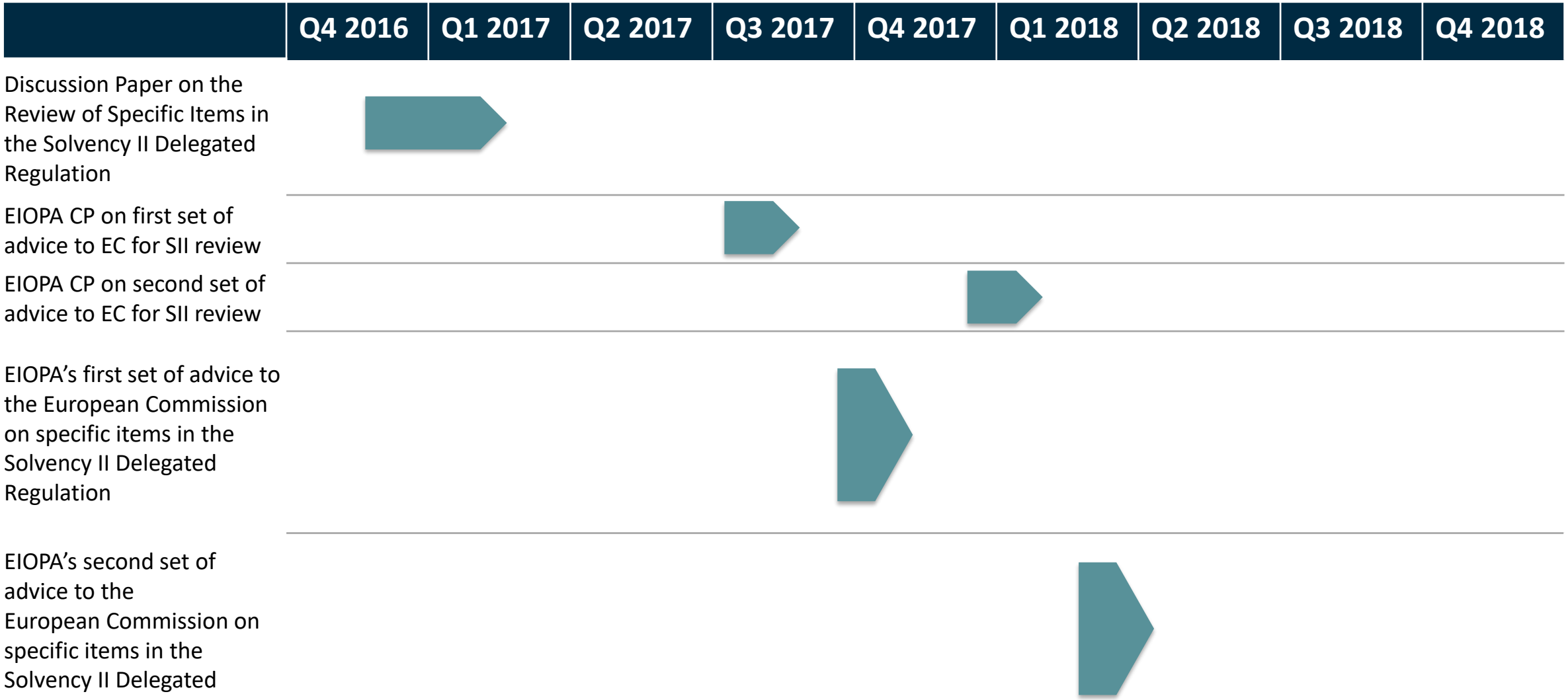
Disclaimer

The views expressed in this presentation are those of the presenter(s) and not necessarily of the Society of Actuaries in Ireland

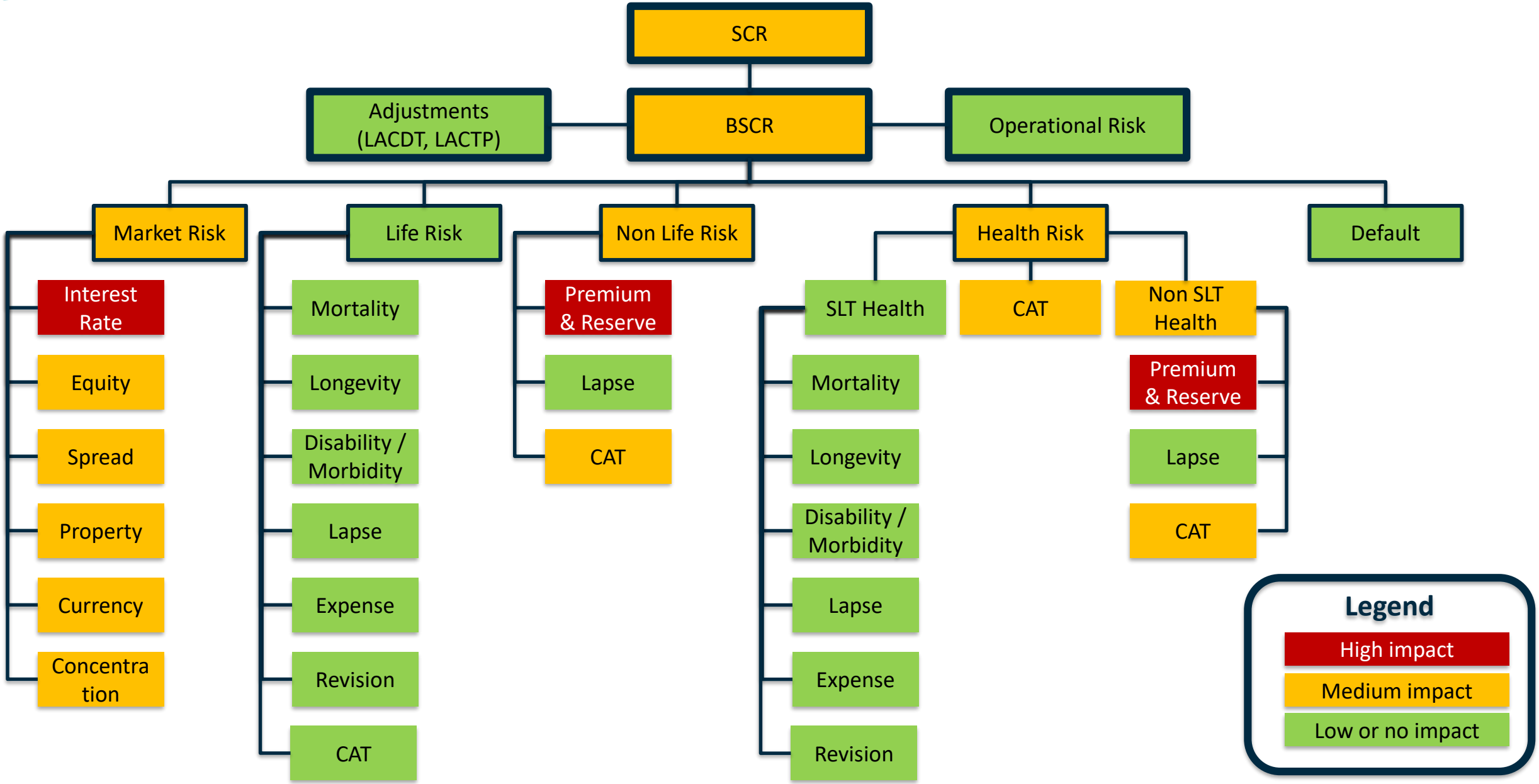
Agenda

- Introduction
- Market Risks
- Life risks
- Non-Life risks
- Health risks
- Default risk
- Other changes, LACDT, Risk Margin etc.
- Questions

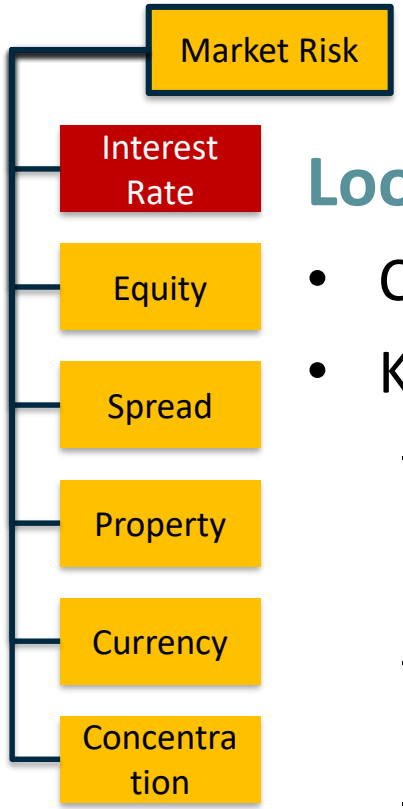
Introduction



Modules to be impacted



Market Risk



Look through approach (solo)

- Current position on look through.
- Key changes
  - "20% limit" not to apply for unit-linked where market risk is not material.
  - Last reported allocation (up to 1 year).
  - More liberal use of CQS.
  - Additional qualitative criteria

- Open questions
  - Treatment of currency where look through is not available.
  - Defining materiality of market risk for unit linked business.
- Impacts
  - More flexible application of prudent data groupings.
  - Increased harmonisation across different jurisdictions.

Look through approach (group)

- Alignment of group approach to solo approach for related undertakings.

Market Risk

- Market Risk
  - Interest Rate
  - Equity
  - Spread
  - Property
  - Currency
  - Concentration

Interest rate risk

- Criticism of current approach
- Key changes
  - Proposal of a relative shift approach
  - The increased term structure for a given currency shall be equal to:

$$r_t^{up}(m)=r_t(m)*(1+s_m^{up})+b_m^{up}$$

  - The decreased term structure for a given currency shall be equal to:

$$r_t^{down}(m)=r_t(m)*(1-s_m^{down})-b_m^{down}$$

Maturity	Sm(up)	Sm(down)	Bm(up)	Bm(down)
1	61%	58%	2.14%	1.16%
2	53%	51%	1.86%	0.99%
3	49%	44%	1.72%	0.83%
4	46%	40%	1.61%	0.74%
5	45%	40%	1.58%	0.71%
6	41%	38%	1.44%	0.67%
7	37%	37%	1.30%	0.63%
8	34%	38%	1.19%	0.62%
9	32%	39%	1.12%	0.61%
10	30%	40%	1.05%	0.61%
11	30%	41%	1.05%	0.60%
12	30%	42%	1.05%	0.60%
13	30%	43%	1.05%	0.59%
14	29%	44%	1.02%	0.58%
15	28%	45%	0.98%	0.57%
16	28%	47%	0.98%	0.56%
17	27%	48%	0.95%	0.55%
18	26%	49%	0.91%	0.54%
19	26%	49%	0.91%	0.52%
20	25%	50%	0.88%	0.50%
60	22%	33%	0.00%	0.00%
90	20%	20%	0.00%	0.00%

Market Risk

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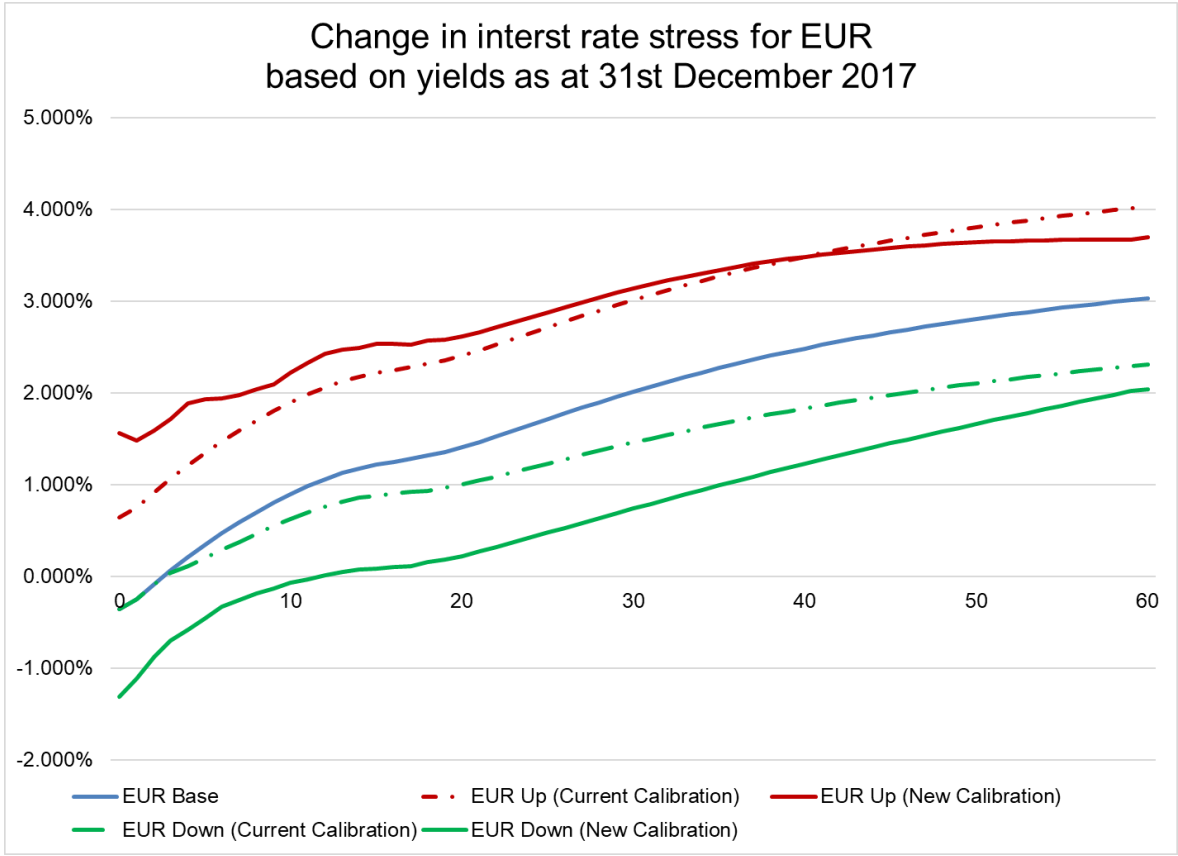
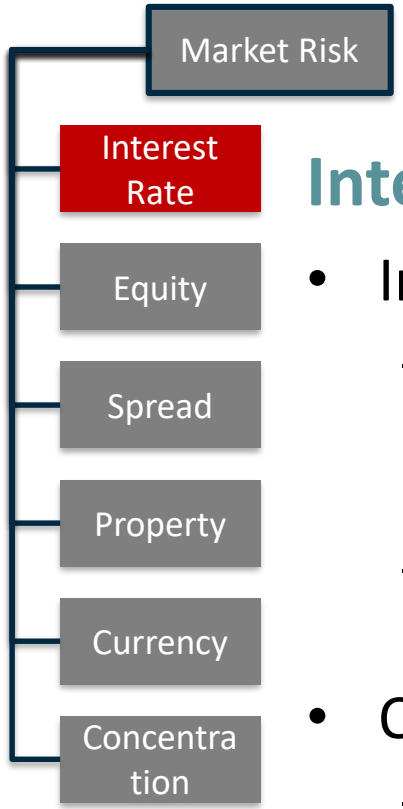
- Impacts



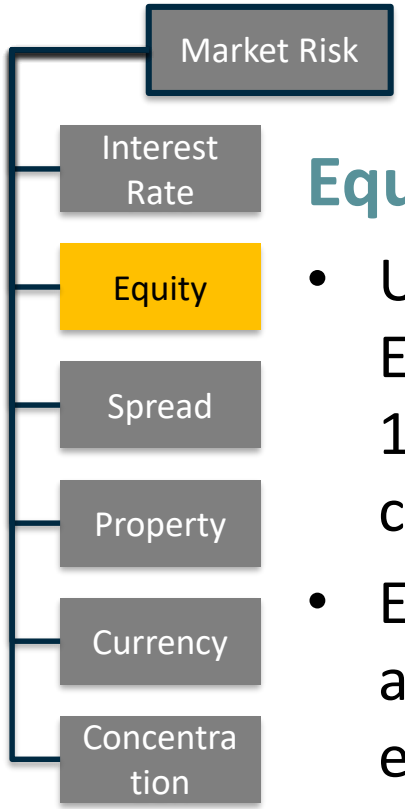
Market Risk



Interest rate risk (continued)

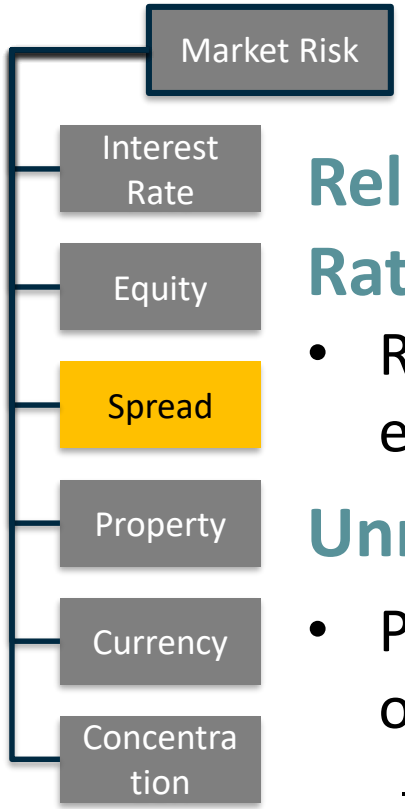
- Impacts
  - (Potentially) large increase in SCR for insurers writing large amounts of annuity business.
  - Material impacts for insurers having investment guarantees.
- Other things to note
  - Still no change to nil charge on EEA government bonds.
  - Implementation phased over a 3 year period.

Market Risk



Equity Risk

- Unlisted equities outside the EEA can be subject to a Type 1 equity charge provided certain conditions are met.
- EIOPA also provided factual advice to EC on strategic equity investments.



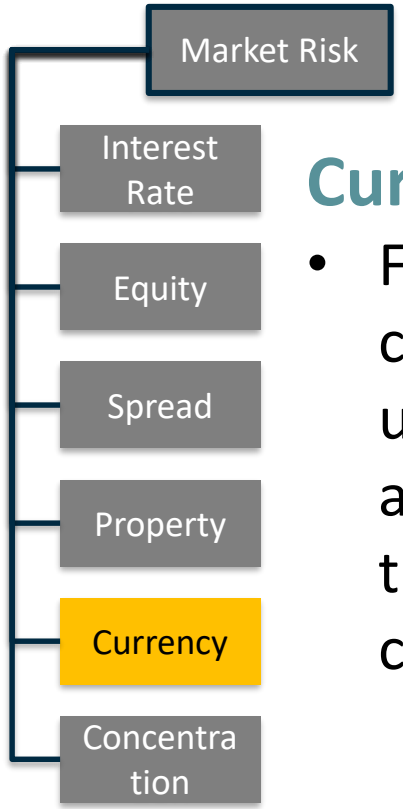
Reliance on External Ratings from ECAI

- Reducing reliance on external ratings.

Unrated debt

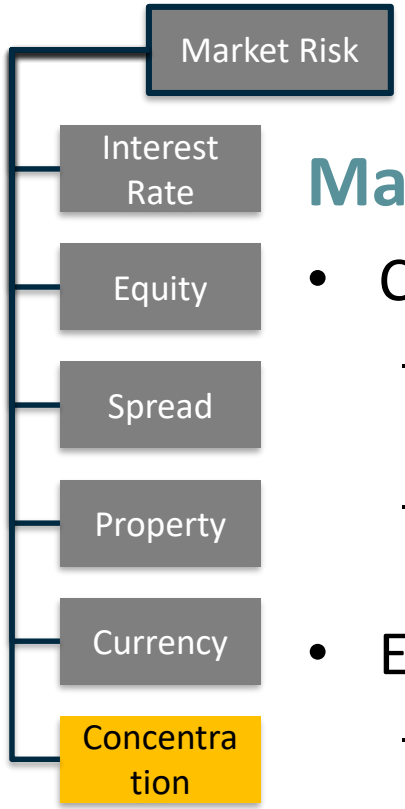
- Potential rating to be obtained via:
  - Internal assessment by insurers; or
  - Where a bank and insurer co-invest; an approved internal model of the bank.

Market Risk



Currency Risk for groups

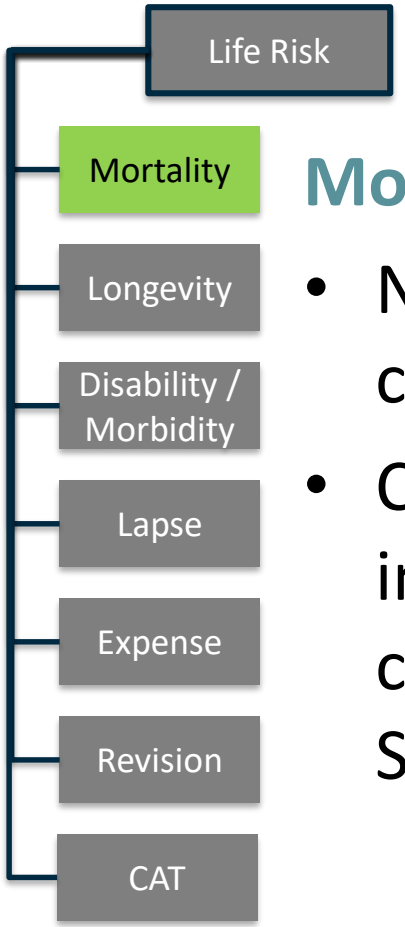
- Flexibility to select a 'local' currency other than the one used for their consolidated accounts, for the purpose of the calculation of the currency risk sub-module.



Market risk concentration

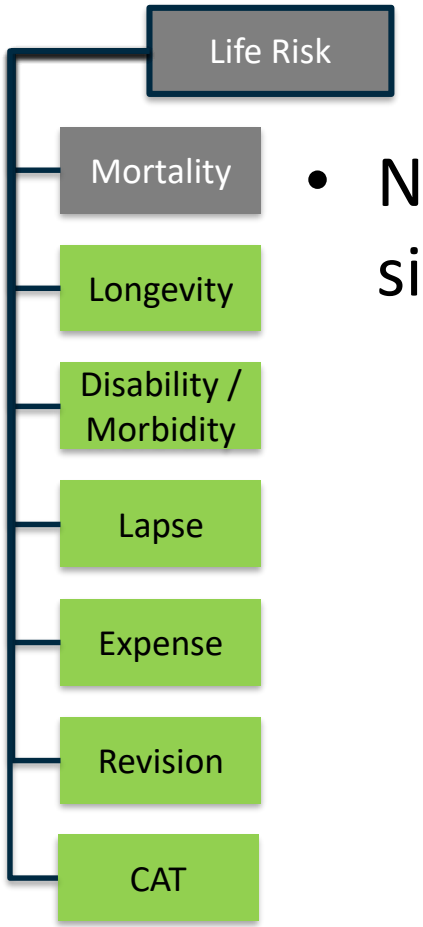
- Current issues
  - Inconsistent use of Single Name Exposures ("SNEs")
  - Unavailability of credit ratings from nominated ECAIs
- EIOPA advice
  - Use of solvency ratios to determine CQS.
  - EIOPA to consider the necessity of further advice on definition of SNEs.

Life Risk



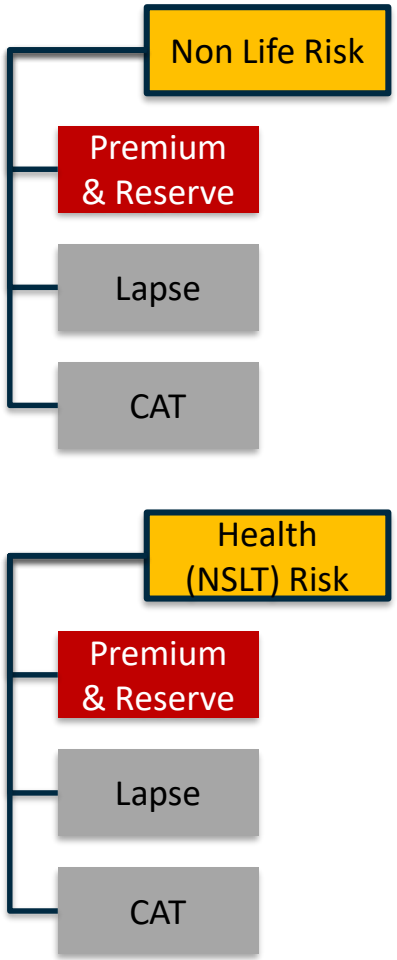
Mortality Risk

- No changes to the calibration.
- Correction of formulae in the simplified calculation for mortality SCR.



- No changes of significance.

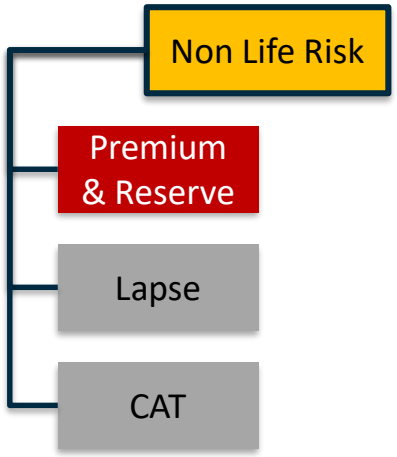
Non-life & Health (NSLT) Underwriting Risk

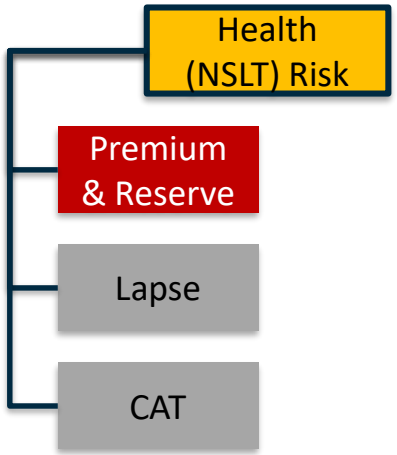


Advice in relation to two key areas within the premium & reserve risk submodule:

- Recalibration of standard parameters for premium and reserve risks for certain lines of business
- Reassessment of the definition of the volume measure for premium risk for continued appropriateness.

Non-life & Health (NSLT) Underwriting Risk



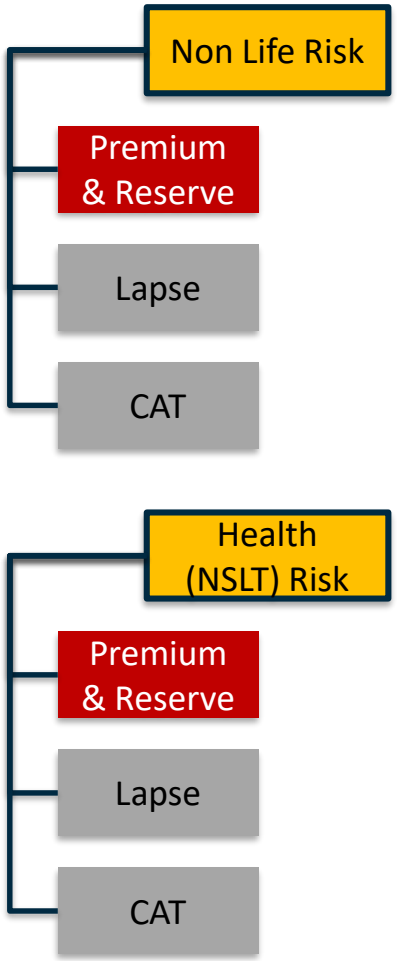


Recalibration of standard parameters for premium and reserve risks for certain lines of business

- A recalibration exercise was carried out for the non-life & health (NSLT) premium and reserve risk standard deviation for the following lines of business: medical expense, credit & suretyship, assistance, legal expense, workers' compensation.
- The following changes have been recommended:

Line of business	Premium risk		Reserve risk	
	Original	New	Original	New
Medical expense	5.0%	5.0%	5.0%	5.7%
Workers' compensation	8.0%	9.6%	11.0%	11.0%
Credit and suretyship	12.0%	19.0%	19.0%	17.2%
Legal expenses	7.0%	8.3%	12.0%	5.5%
Assistance	9.0%	6.4%	20.0%	22.0%

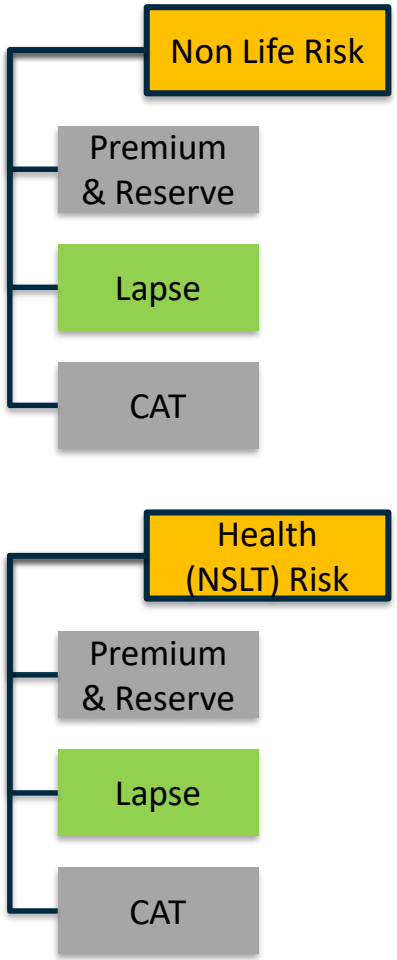
Non-life & Health (NSLT) Underwriting Risk



Reassessment of the definition of the volume measure for premium risk for continued appropriateness.

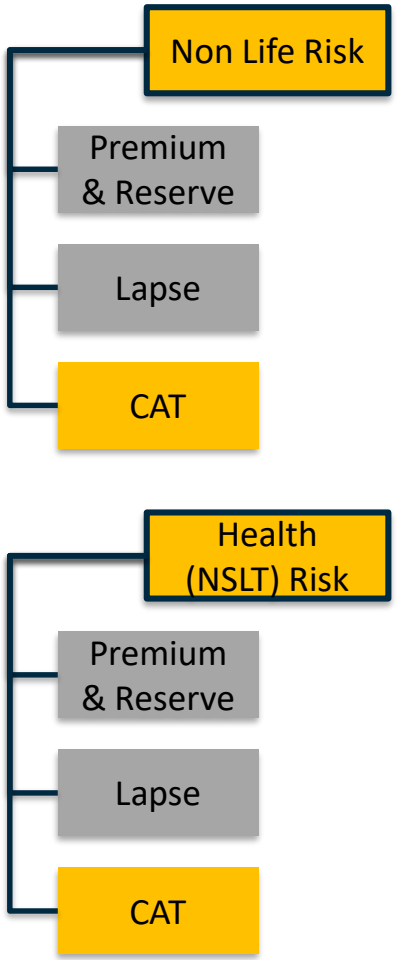
- EIOPA advises to distinguish 1-year contracts from multi-year contracts:
  - **For 1-year contracts:** no change to $FP_{(future)}$
  - **For multi-year contracts:** removing the gap (by considering premiums twelve months after the valuation date, rather than after initial contract recognition) and introducing an adjustment factor of 30% in $FP_{(future)}$
- In the definition of $FP_{(future)}$, EIOPA has clarified that the initial recognition date be consistent with the approach taken in the valuation of the technical provisions.

Non-life & Health (NSLT) Underwriting Risk



- Undertakings to be provided with a **simplified calculation** that allows the calculation to be based on the same **homogeneous risk groups** that are used for the calculation of the Best Estimate.
- The discontinuance of 40 % should be applied to those homogeneous risk groups where it would **result in an increase of technical provisions** without the risk margin.
- This simplified calculation should only be applied where the (re)insurance undertaking can demonstrate that the particular grouping used for calculating the best estimate **does not allow for material compensations between policies** in case of lapse events.

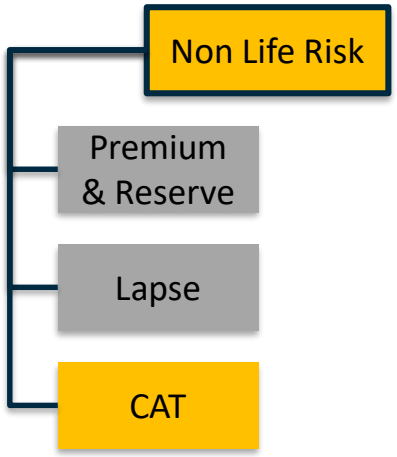
Non-life & Health (NSLT) Underwriting Risk



Advice requested for all CAT modules:

- **Assess if the complexity is proportionate** to the nature, scale and complexity of the risk, in particular for small and medium-sized undertakings.
- Where appropriate, **develop suggestions for simpler structures** for this module, respecting the existing scope.

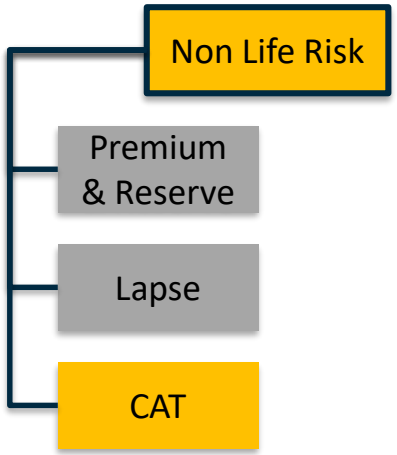
Non-life & Health (NSLT) Underwriting Risk



Natural Catastrophe Risk

- If a portion of the sum insured for natural catastrophe perils (windstorm, earthquake etc) for a region cannot be allocated to a specific zone, then this **unallocated portion should be allocated to the CRESTA zone with the highest risk weight in the region**.
- **Recalibrated country factors** have been produced.
- The **aggregation matrices** for windstorm and hail scenarios on a region/country level have been updated.
- **Zonal risk weights have been recalibrated** for a number of perils and regions:
- An ex-post adjustment has been introduced that takes into account the **specific exposure of undertakings** that sell contracts with **policy conditions** different to the average undertaking.

Non-life & Health (NSLT) Underwriting Risk

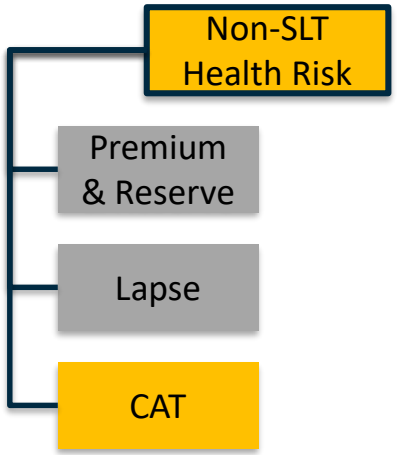


Man Made Catastrophe Risk

- Small simplifications to the following:
  - Fire Risk
    - Only consider top five exposures per risk-type – largest concentration assumed to be one of these five
  - Marine Risk
    - Broaden ‘tanker’ scenario to include exposure from any vessel

- Entities shall now identify the largest risk exposures on a **net of reinsurance basis** for Fire, Marine, Aviation.

Non-life & Health (NSLT) Underwriting Risk



Mass-Accident Risk Simplification

- Removal of “disability that lasts 10 years” scenario
- Recalibration of other scenarios
  - Update the risk factor (ratio of insured persons) for the permanent disability scenario from 1.5% to 3.5%
  - Update the risk factor (ratio of insured persons) for the temporary (1 year) disability scenario from 13.5% to 16.5%.

Pandemic Risk Simplification

- NSAs should set the maximum per-person claim costs for hospitalisation, consultation and no formal medical care sought.

Counterparty Default Risk

Default

EIOPA Objectives

- Provide information on the **relative significance of capital requirements** related to these modules.
- Assess if this **complexity is proportionate** to the nature, scale and complexity of these risks, in **particular for small and medium-sized undertakings**.
- Where appropriate, **develop suggestions for simpler structures** for these modules, respecting their existing scope.

Counterparty Default Risk

Default

Provide information on the relative significance of capital requirements related to these modules.

Average SCR CDR/BSCR

	Small	Medium	Large	All
Life	16%	10%	10%	**11%**
Non-life	22%	18%	12%	**17%**
Composite	17%	13%	10%	**13%**
Total	**21%**	**15%**	**10%**	**15%**

Counterparty Default Risk

Default

Develop suggestions for simpler structures for these modules, respecting their existing scope.

- EIOPA proposes an **optional simplification for the computation of the LGD** for reinsurance arrangements in Article 192(2) of the Delegated Regulation.
- the risk-mitigating effect on counterparty-level should be **floored at zero**, to avoid a situation where derivatives have a negative impact on the risk-mitigating effect.
- **Optional simplified calculation** for counterparty default risk for **type 1 exposures**.
- **Optional simplification** for the computation of the **risk-mitigating effect of reinsurance** arrangements. This applies only where the reinsurance arrangement affects only one line of business.

Other notable considerations

Risk Margin

- EIOPA is recommending to keep the cost of capital at its current level of 6%
- It is recommending that the risk margin methodology is reviewed by the EC in 2021 (5 years after Solvency II implementation)

Undertaking Specific Parameters (USPs)

- EIOPA advises a new standardised method for the calculation of the adjustment factor for non-proportional reinsurance in the case of stop-loss treaties.

Loss Absorbing Capacity of Deferred Taxes

- EIOPA has advised not to introduce a simplified calculation for LACDT
- NSAs have similar approaches with respect to more than 75% of almost 100 billion euros in LACDT across the EEA15.

Society of Actuaries in Ireland

Questions?