



# Solvency 2 Update

Dervla Tomlin and Jim Murphy  
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# Roadmap for Solvency 2

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- Directive adopted by European Parliament in April 2009
- Level 2 implementing measures
  - Commission currently drafting
- Quantitative Impact Study 5
  - August to October 2010
- Level 3 guidance
  - Supervisors responsible, due December 2011
- Implementation Date
  - Likely to be changed to 31 December 2012
  - Expected to be interpreted as 1 January 2013.

# Status of Level 2 measures

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- Drafting meetings January – June 2010
- Commission Solvency Expert Group includes representatives from all countries including Irish Department of Finance, supervisors also attend meetings
- Commission sought advice from CEIOPS (supervisors)
  - CEIOPS consulted prior to finalising advice (2009-Q1 2010)
  - Society participated actively in the Groupe Consultatif & the ‘Irish group’ responses to CEIOPS consultation
  - Thanks to all volunteers who reviewed and commented on consultation papers

# Status of Level 2 measures

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- Ongoing consultation with key stakeholders (Groupe Consultatif, CEA, CRO Forum etc)
  - Society participating as required via the Groupe Consultatif
  - Issue specific
  - Society provided Department of Finance with an opinion on own funds (one of the more contentious issues)
- Followed by formalities (legal drafting, formal adoption, Council and Parliament discussion) which will take until H2 2011.

# Current Hot Topics: Capital Requirements

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- Jim will cover under QIS5

# Current Hot Topics: Governance

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- **Supervision**
  - Convergence of supervisory practice across EU
  - How will supervisors engage with firms?
  - How will proportionality principle apply?
  - Supervisors need to consider skills and resources required.
- **Own Risk and Solvency Assessment**
  - Groupe Consultatif is preparing a paper
  - Society working group set up, presentation to members in Q4.
- **Actuarial Function**
  - CEIOPS and Groupe Consultatif preparing papers on actuarial standards. Scope and responsibility are the hot topics.
  - Independence and fitness and probity
  - Professional Affairs Committee and Solvency II Committee will consider implications for the Society.

# Current Hot Topics: Disclosure

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- Very high level of disclosure proposed
- Both qualitative and quantitative
- Some concerns that too much information could result in a lack of transparency



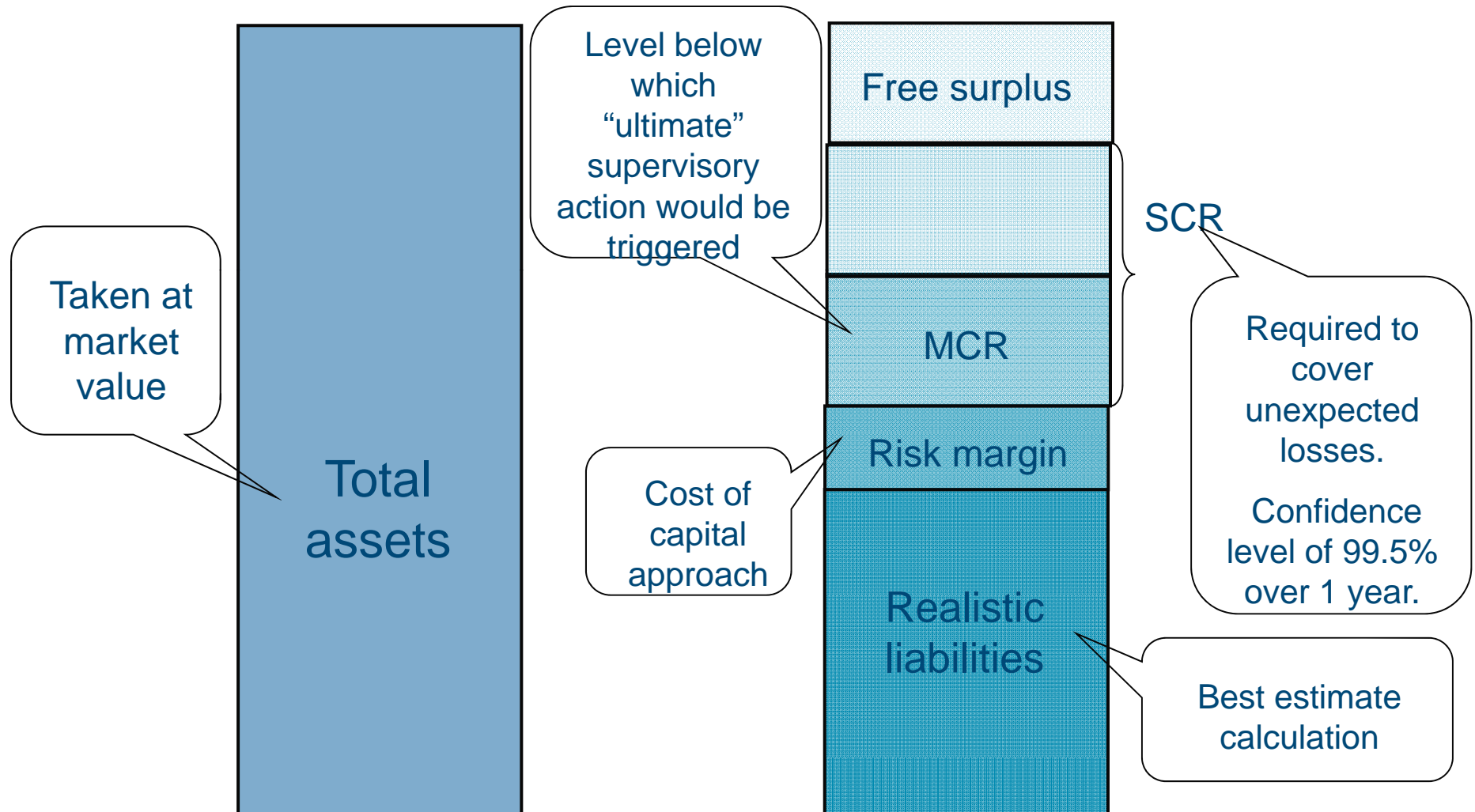
## QIS5 - Background & Timelines

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- Further road-testing of calibration of standard formula
- QIS 5 specification
  - Draft issued in mid April
  - Selected stakeholders invited to comment by end May
  - Final specification due by end July
- Runs from August to end October for solo entities
- Mid November deadline for Groups
- CEIOPS report due April 2011



# Reminder of SII Balance Sheet



# QIS5 Draft Specification

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- **Section 1 – Valuation of Assets and Liabilities**
- **Section 2 – Standard Formula SCR**
- *Section 3 – Internal Models*
- *Section 4 – Minimum Capital Requirements*
- **Section 5 – Own Funds**
- *Section 6 – Groups*
  
- Qualitative questionnaires included in addition to template spreadsheets.
  
- Draft nature highlighted throughout the document – final implementing measures will be different in some areas.



# Key changes from QIS4 to QIS5

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- Risk Free Discount Rates
  - Based on swap rates (adjusted for credit risk)
  - Illiquidity premium introduced
  - Grandfathering/Transitional measures introduced
- Market Risk
  - Introduction of volatility shocks (equity, interest risk)
  - Equity shock higher (but symmetric adjustment also applies)
  - Higher calibration of spread risk
  - Correlations are heavier than QIS4
- Intangible Assets
  - New SCR module



# Key changes from QIS4 to QIS5

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- Life Underwriting Risk
  - Some strengthening of shocks
  - Correlations – small changes
    - Separate aggregation of catastrophe risk
- Operational Risk
  - Factors have been increased
- Risk Margin
  - Diversification between lines of business is now recognised
- Future Premiums
  - “More symmetric” treatment

# Technical Provisions

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- Market Consistent Value of technical provisions
- Best estimate + Risk Margin if non-hedgeable
- If hedgeable then use value of financial instrument
- Amount required to transfer obligations to another company
  
- Segment into principal business lines
  - With profits, unit-linked, other non-profit and reinsurance accepted
- ... and risk drivers
  - Death, survival, disability and savings
- 16 segments in total



# Risk Free Rates

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- QIS5 risk free rates based on
  - Swap rates adjusted for credit risk
  - With allowance for illiquidity premium
    - Euro: 0.53% for 15 years reducing to zero after 20 years
  - Extrapolated at longer end to specified long term rates
- Illiquidity premium
  - 3 interest rate curves with full, half and zero illiquidity premium
    - Full curve applies to SP annuities (that meet certain criteria)
    - Half curve applies to other contracts with term of 1 year or more
    - Zero curve applies where term is less than 1 year
- Transitional arrangements
  - Current solvency I discount rate may be used for annuities
  - In this case, must show calculations using QIS5 full curve also

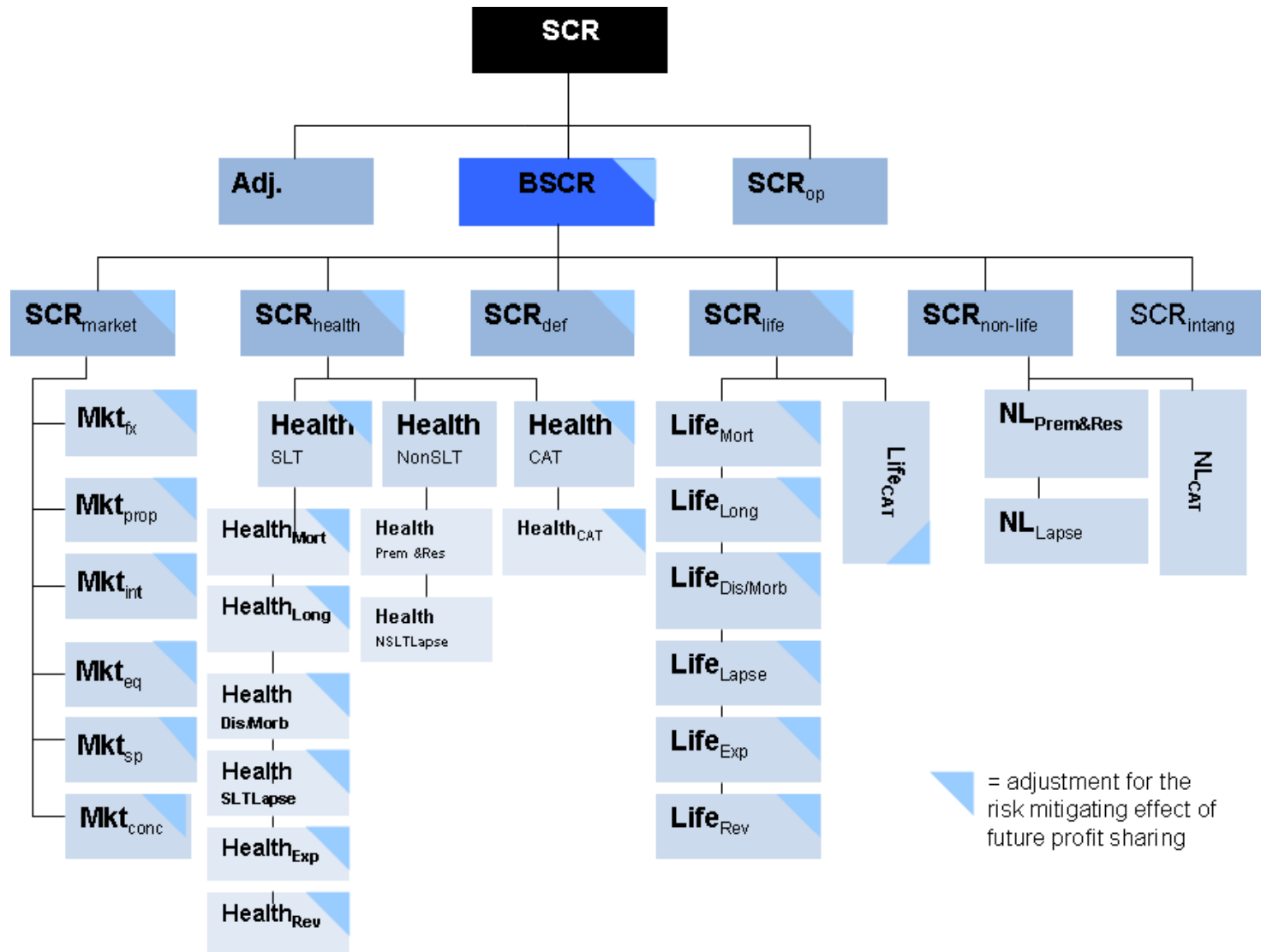


# Best Estimate Liabilities

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- Probability-weighted average of future cash-flows
- Calculated gross of reinsurance
- No surrender value floor
- Policy by policy calculation is default
  - But model point approach allowed subject to being appropriately representative of risk profile
- Specification addresses when stochastic and deterministic approaches are appropriate
- Future premiums
  - Allowance for future premiums based on realistic assessment of renewal
  - If insurer has unilateral right to cancel contract, reject premiums, or amend premiums or benefits should only allow for future premiums up to that point

# SCR Standard Formula





# SCR - Market Risk

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- Interest Rate Risk

- Up and down shocks by duration specified (max +70%, -75%)
- Down shock subject to a minimum of 100bps (interest rate floor of zero)
- Volatility shocks also specified: +12%, -3% (additive)
- Four scenarios in total

- Equity Risk

- Global equities: -39%
- Other equities: -49%
- Symmetric adjustment applies: For QIS5 results in 30%, 40% falls
- (22% fall for strategic participations, equities backing certain long term pensions liabilities)
- Volatility shocks also specified: +10%, -3% (additive)

# SCR - Market Risk

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- **Property Risk**
  - 25% fall (no differentiation between City and non-City properties)
- **Currency Risk**
  - +/-25% change versus reporting currency
- **Spread Risk**
  - Applies to bond, credit derivatives, structured credit products and mortgage loans
  - EEA or OECD Government bonds or Government guaranteed bonds are excluded
  - Factor based approach with different factors specified for different asset types
  - Potentially large capital requirement, especially for lower rated assets

# SCR - Market Risk

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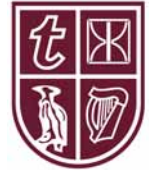
- Concentration Risk
  - Factor based calculation
  - Process
    - Calculate excess exposure (depends on rating e.g. 3% threshold if A rated)
    - Calculate risk charge per name by multiplying excess exposure by factor, which depends on rating (e.g. factor is 0.21 if A rated)
    - Aggregate assuming correlation of 0.25
    - Separate calculation for property concentration
      - Where single property is more than 10% of total assets, apply AA factor and 0 correlation
  - Exclusions
    - Assets covered by counterparty default risk module
    - EEA or OECD Government bonds or Government guaranteed bonds
    - Bank deposits covered by Government guarantee
    - UCITS if sufficiently diversified

# SCR – Counterparty Risk

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- **Covers**
  - Reinsurance, securitisations and derivatives
  - Receivables from intermediaries
  - Any other credit exposures not covered under spread risk
    - Policyholder debtors
    - Cash at bank
    - Deposits with ceding institutions
    - Capital, letters of credit received by undertaking
    - Guarantees, letters of credit provided by undertaking
- **Two types of exposure**
  - Type 1, likely to be rated
  - Type 2, unlikely to be rated
  - Deposits or called up but unpaid capital:  $\leq 15$  counterparties means Type 1



# SCR – Counterparty Risk

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- Type 1 SCR =  $\min [ \text{sum LGD}, \text{Factor} * \text{STDDEV}(\text{loss distribution}) ]$ 
  - LGD for reinsurance is equal to risk mitigating effect reduced by recovery rate and deduct any collateral
  - Recovery rate set at 50% for reinsurers and 10% for derivatives
    - In some cases, reinsurance recover rate limited to 10%
  - Factor is either 3 or 5 depending on volatility of risk
- Type 2 SCR =  $15\% * \text{exposures} + 90\% * \text{receivable from intermediaries due for more than 3 months}$

# SCR – Life Underwriting Risk

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- Mortality Risk
  - +15% applied to mortality rates
  - Applies where mortality strain exists
  - No need to unbundle death and survival benefits on the same life within a contract, floor of zero applies to risk charge
- Longevity Risk
  - Permanent -25% applied to mortality rates
- Disability Risk
  - Inception rates: +50% year 1, +25% thereafter
  - Termination rates: -20%

# SCR – Life Underwriting Risk



- Lapse Risk
  - Max (LAPSEdown, LAPSEup, LAPSEmass)
  - LAPSEdown =  $-50\% * \text{surrender rate}$ , where surrender profits exist
    - Subject to max of 20% change in surrender rate in absolute terms
  - LAPSEup =  $+50\% * \text{surrender rate}$ , where surrender strain exists
    - Subject to max of 100% to shocked surrender rate
  - LAPSEmass =  $x\% * \text{surrender strain for policies with positive strain}$ 
    - Where  $x\% = 30\%$  for retail business,  $70\%$  for non-retail business
- Expense Risk
  - Future expenses:  $+10\%$
  - Expense inflation:  $+1\%$

# SCR – Life Underwriting Risk

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- Catastrophe Risk
  - Applies to policies with mortality strain
  - +1.5 per mille over the following year
- Simplifications
  - Various simplifications are allowed for different risks



# SCR – Operational Risk



- Step 1
  - Calculate max. ( $4\% * \text{premiums}$ ,  $0.45\% * \text{technical provisions}$ )
    - Premiums = earned life premiums + amount of increase over last year (if over 10%)
    - Technical provisions = life technical provisions (excluding risk margin) + amount of increase over last year (if over 10%)
    - Unit-linked business excluded
- Step 2
  - Apply cap of  $30\% * \text{BSCR}$  to result 1, if relevant
- Step 3
  - Add 25% unit-linked administrative expenses
- For unit-linked companies, only step 3 is relevant

# SCR – Other

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- Intangible Assets Risk
  - SCR = 80% fair value of asset
- Financial risk mitigation
  - Can only allow for effect of hedging instruments in place at balance sheet date.
- Aggregation of risk charges
  - Correlation matrices set out in the draft specification for risks within sub-modules and between modules
  - Two alternative correlation matrices are specified for market risk
    - one for Interest Up shock, one for Interest Down shock

# Own Funds



	Basic Own Funds	Ancillary Own Funds
<b>Tier 1</b>	≥80% for MCR ≥50% for SCR	
<b>Tier 2</b>	Up to 20% for MCR Up to 35% for SCR	
<b>Tier 3</b>	Not allowed for MCR <15% for SCR	

- Classification depends on
  - whether paid in or called up and
  - loss absorbing capacity
- Reduced by value of own shares held
- Limit of 20% of Tier 1 in hybrid debt

# Own Funds

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- **Winding up Gap & Expected Future Profits**
  - Classified as Tier 1 under QIS5
  - Will be further debate before implementing measures are finalised
  
- **Grandfathering**
  - Transitional arrangements envisaged to allow for various current forms of capital e.g. some relaxation of “incentives to redeem” criteria
  - Tier 1 limit of 20% for hybrid debt includes grandfathered arrangements
  - QIS5 will be key to informing final transitional arrangements

# Summary

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- QIS5 more onerous than QIS4
  - But less onerous than CEIOPS final advice
- Key open issues include
  - Winding up gap/expected future profits
  - Illiquidity premium
- Calibrations are not final and will be further changes before implementing measures are finalised