Capital Management in a Solvency II World

Society of Actuaries in Ireland

Sinéad Clarke
Eoin Ó Baoighill
Eamonn Phelan

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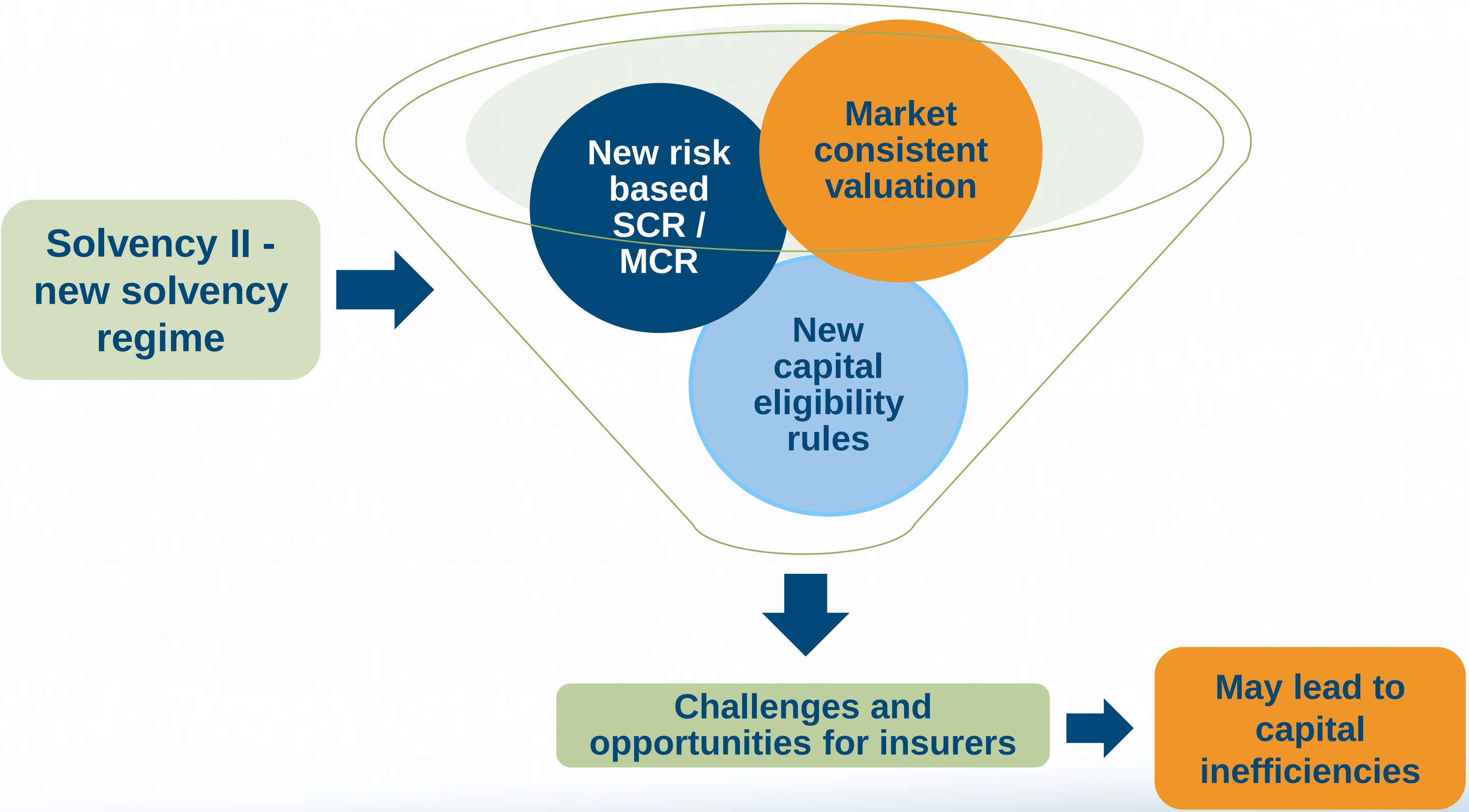
Introduction

Managing capital in a Solvency II world
Introduction



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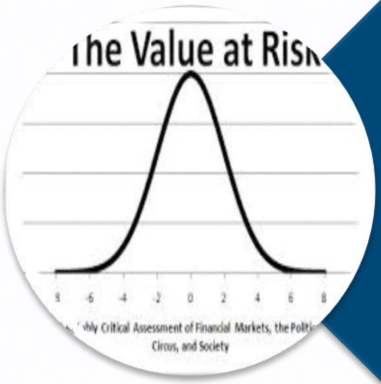
Agenda

- Informed decision making
- Underwriting and Claims Strategy (Non Life)
- Reinsurance & capital market solutions (Non Life)
- Investment Strategy (Non Life)
- Corporate structure and portfolio restructuring
- Internal models & USPs
- Capital Structure
- Reinsurance & capital market solutions (Life)
- Investment Strategy (Life)

What else is covered in these papers?



Risk Modelling

- Proxy modelling techniques
- Modelling management actions
- Operational risk modelling
- Data Quality

Pillar II & Pillar III requirements

- Capital management policy & plan
- Reporting requirements

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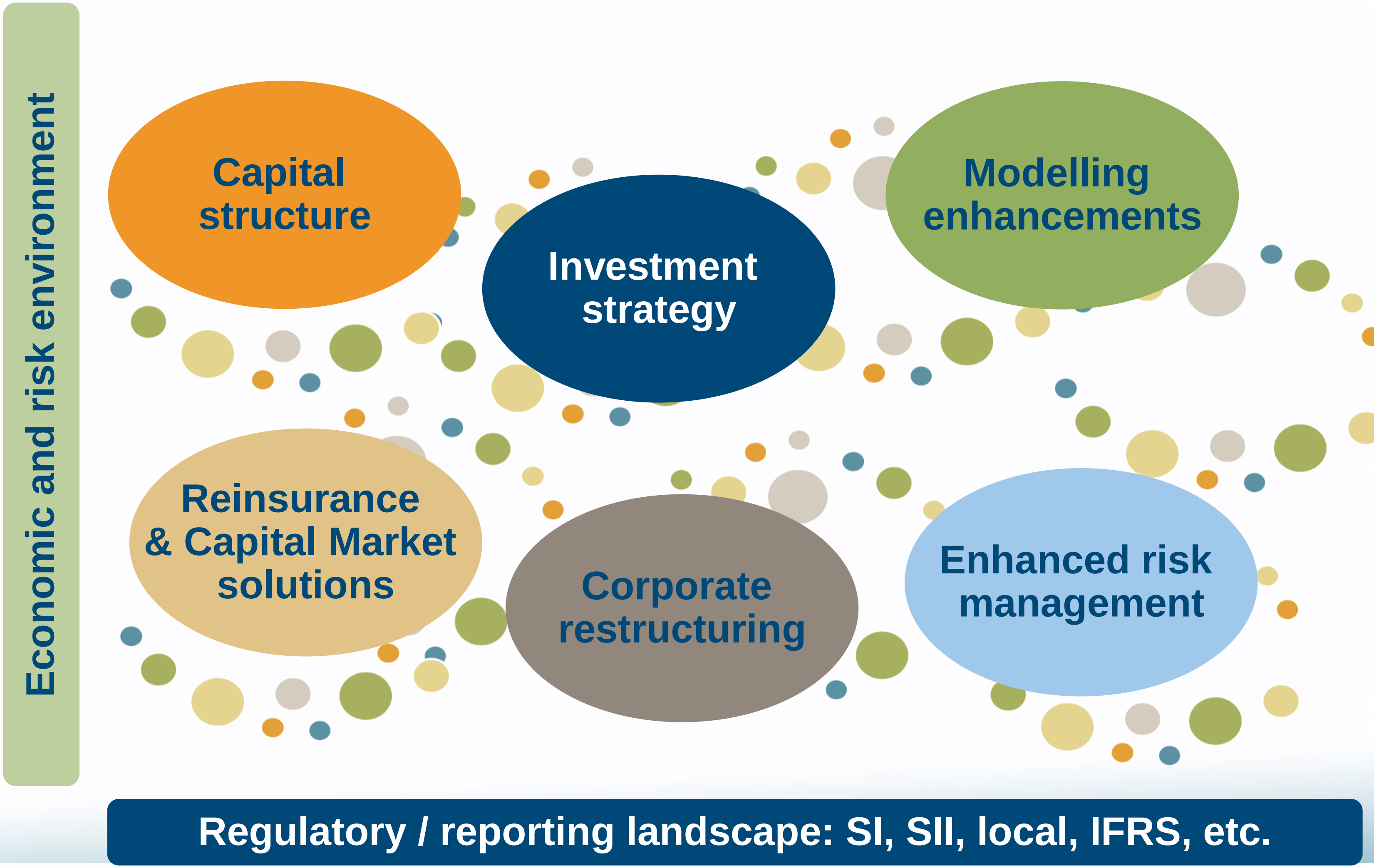
Informed decision making

Where to start?



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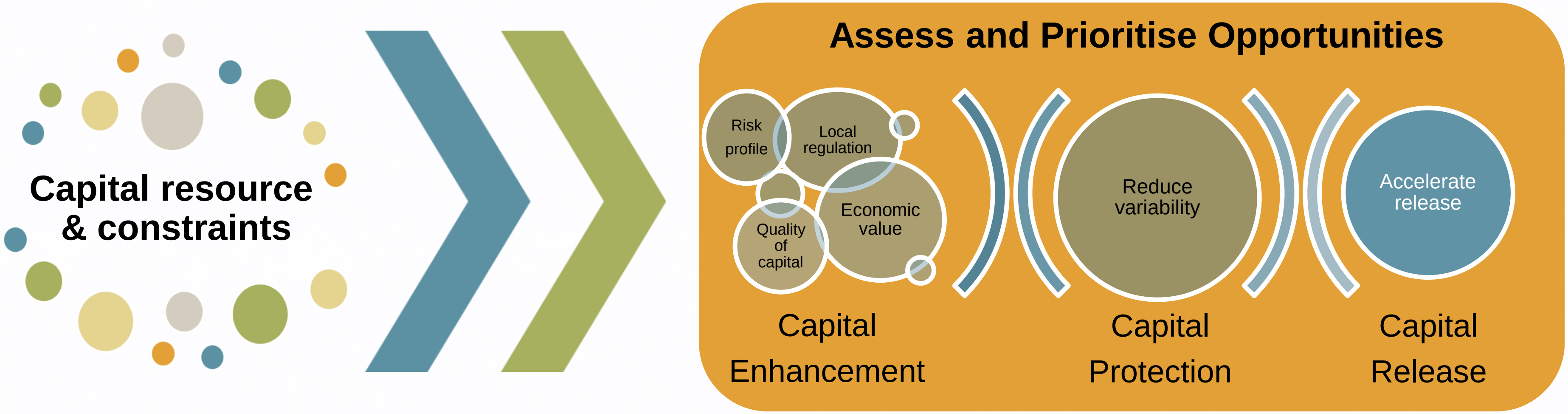
Informed decision making

Assessing and prioritising actions



Insurers need a consistent and systematic approach for the identification, evaluation and prioritisation of opportunities

Informed decision making

Assessing and prioritising actions

1. Analyse business units by key metrics
2. Sensitivity test risk drivers
3. Identify areas with most potential
4. Consider management actions

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Non-Life Underwriting Risk

- Premium Risk
- Claim & Reserve Risk
- Catastrophe Risk
- Lapse Risk

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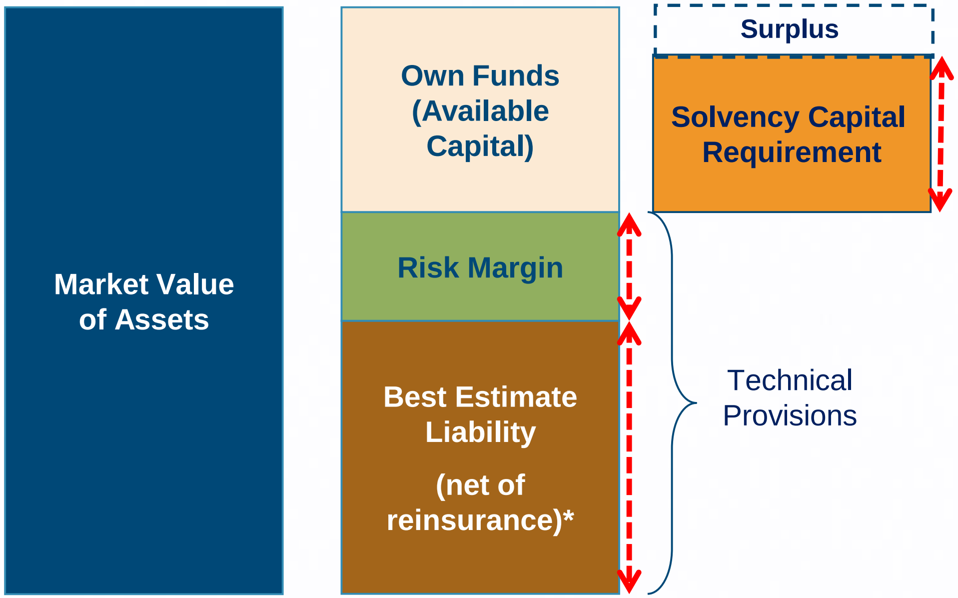
Reinsurance

Optimising traditional reinsurance strategy

Theoretical optimisation:

1. Maximise balance sheet value
2. Minimise SCR
3. Subject to constraints of risk tolerance, local restrictions, increased counterparty risk etc.

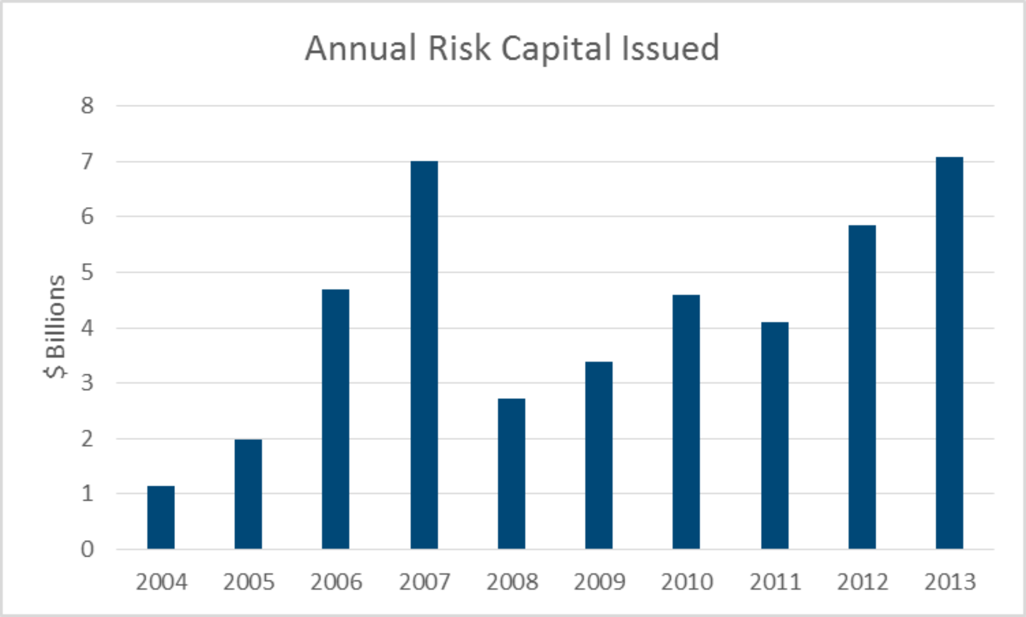


In practice, a trial-and-error approach on carefully selected reinsurance structures is adopted for testing the financial impact

* Strictly speaking, this would be reflected as a reinsurance asset

Catastrophe Bonds & Swaps

- Catastrophe Bonds



- Catastrophe Swaps

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Investment strategy

- Life versus Non Life
- PPOs
- Matching Assets and Liabilities

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Corporate Structure and Portfolio Restructuring

- Branch Structure
- Merger and Acquisitions
- Third Country Equivalence
- Bank Owned Insurers
- Portfolio Restructuring
- Portfolio Management

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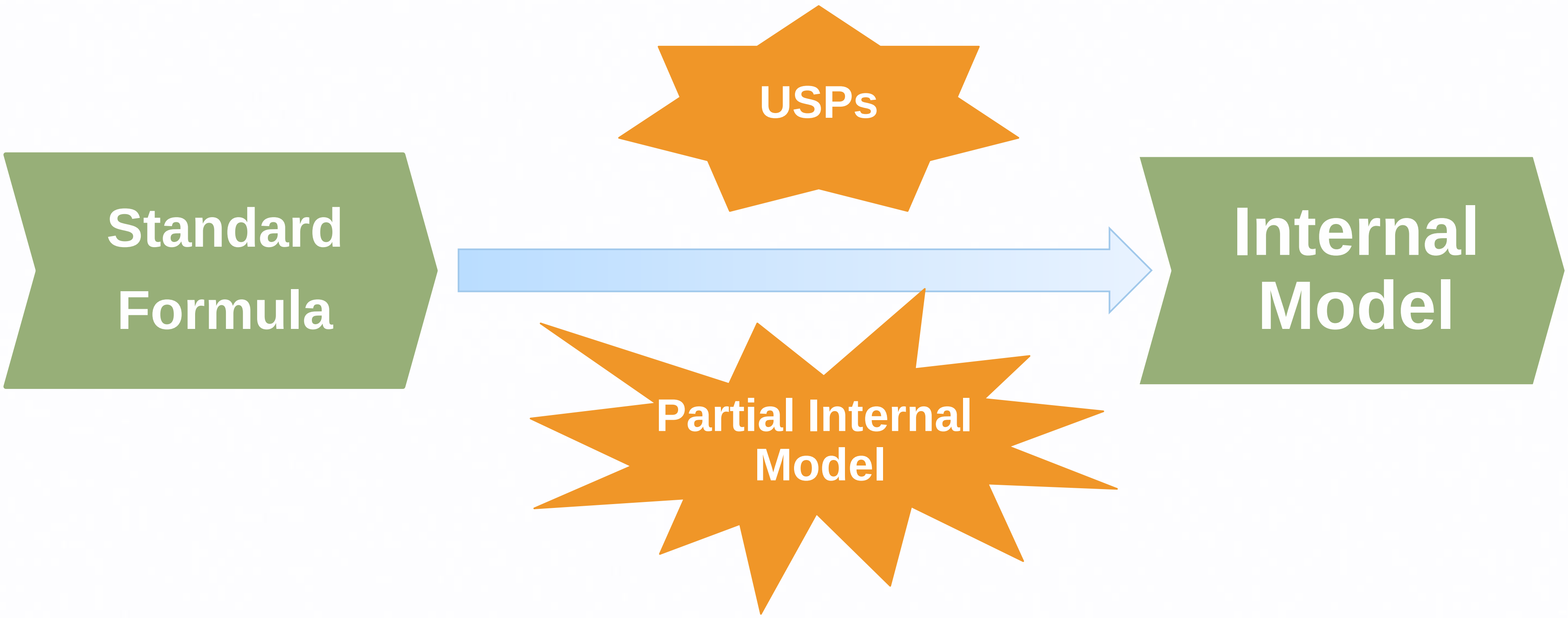
Internal models & USPs



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Capital structure

Solvency II considerations

Tiering limits

Quality versus cost

Transitional measures

Market volatility

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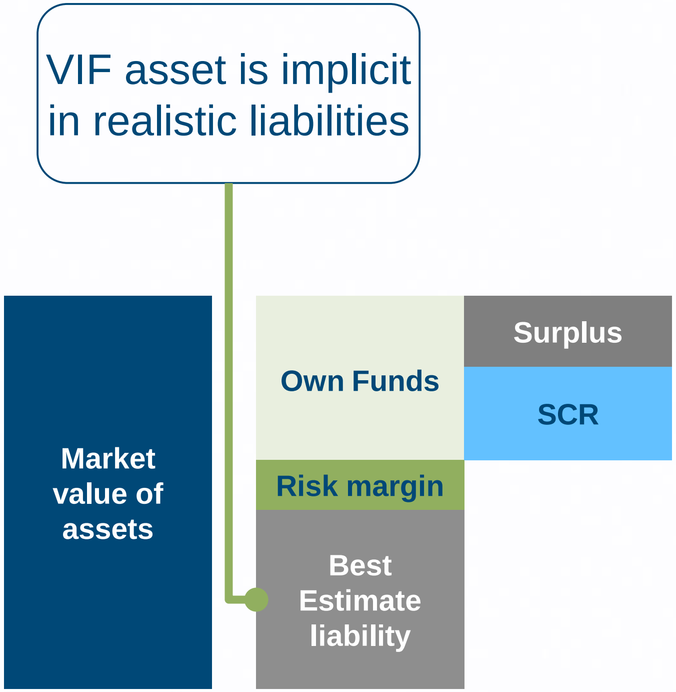
Reinsurance

VIF monetisation



Before monetisation

VIF monetisation:

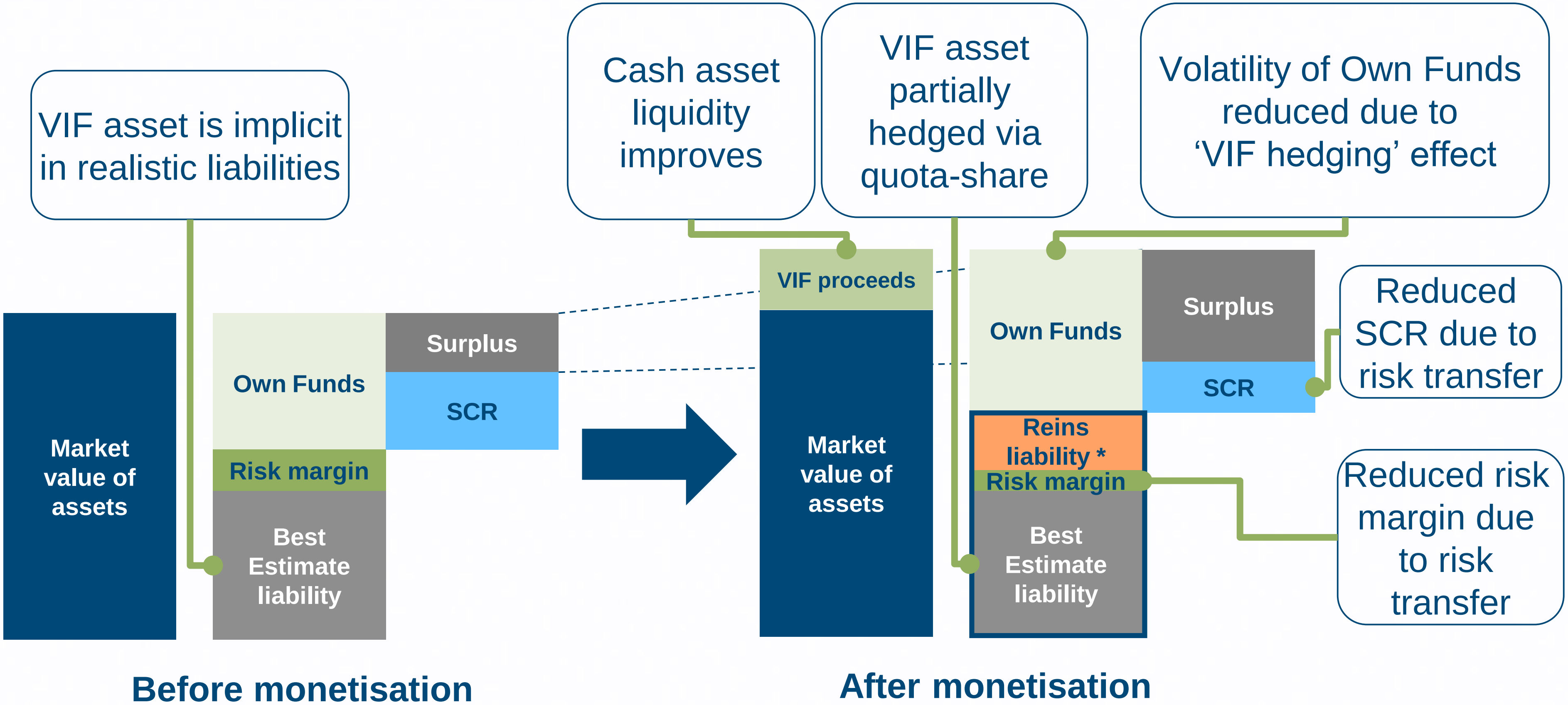
- Realising an upfront payment from a third party in return for a share in the expected future profit as and when it emerges

But the expected future profit is already included as an asset on the Solvency II balance sheet…so why monetise it?

- Raise Finance
- Remove variability of own funds
- Alternative to sale
- Contract boundaries

Reinsurance

VIF monetisation



Depending on price, Solvency II surplus can increase via risk transfer, especially via removal of contract boundary restrictions.

* Strictly speaking, the reinsurance liability would be reflected as a negative reinsurance asset

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Investment strategy

Introduction

- Matching assets and liabilities as closely as possible may not always be feasible
- Financial crisis lead to some issues e.g. increased spread on government bonds
- LTG package introduced:
  - Matching adjustment – based on actual asset holdings
  - Volatility adjustment – based on reference portfolio
  - Extrapolation
  - Transitional measures
- Excess assets are also considered in SCR calculations

Lots of different things to consider when determining an appropriate investment strategy under Solvency II

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Investment strategy

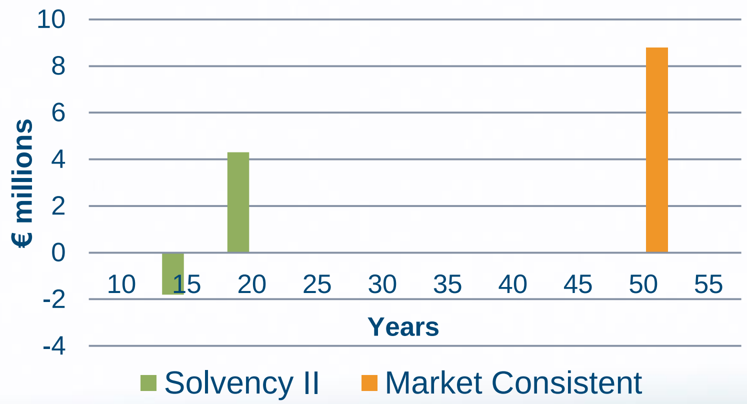
Integrate capital considerations into investment strategy decisions

Investment strategy

Derivatives and Hedging

Hedging the BEL (risk free rate)

- Complications arise due to adjustments to the risk free rates for the LTG measures
- Chart below shows delta hedge for a € liability due in 50 years time
- SII hedge based on extrapolated yield curve (no matching adj. or vol. adj.)



Hedging the SCR

- Use derivatives to reduce market risk capital charges
- Reduce equity risk with an out of the money put option
- Fx hedges can reduce currency risk
- CDS and TRS used to reduce credit, concentration or spread risk

Hedging the Risk Margin

- Risk Margin is sensitive to interest rate movements
- Hedging could reduce balance sheet volatility but may increase SCR

Investment strategy

Unit Linked Matching

“the technical provisions in respect of those [linked] benefits must be represented as closely as possible by those units or, in the case where units are not established, by those assets”

Life Insurance Directive 2002/83/EC (i.e. Solvency I)

“the technical provisions in respect of those [linked] benefits must be represented as closely as possible by those units or, in the case where units are not established, by those assets”

Solvency II directive, Article 132, paragraph 3

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Investment strategy

Unit Linked Matching

- Possible advantages of mis-matching unit linked assets?
  - Reduce solvency balance sheet volatility
  - Minimise SCR
  - Improve capital efficiency

- Possible disadvantages of mis-matching unit linked assets?
  - Volatile solvency coverage ratio
  - Volatile IFRS accounts
  - Tax implications
  - Practical difficulties

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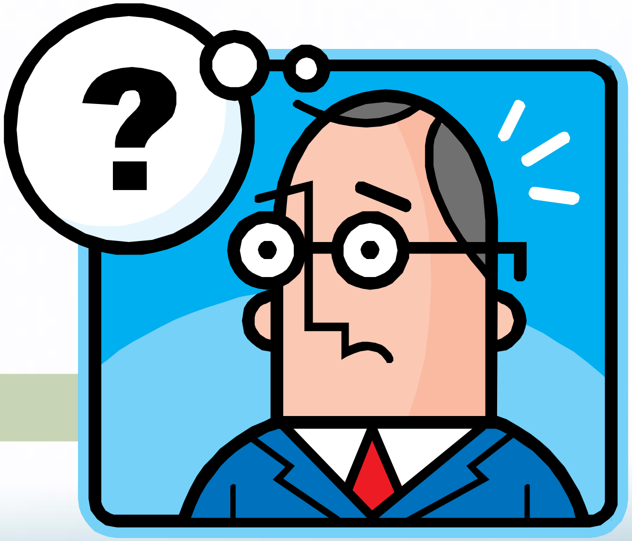
- **Questions**



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