IFRS 17 & Solvency II Workshop
Background and scope of Solvency II

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Agenda

Monday, 15 July	Tuesday, 16 July	Wednesday 17 July
• Recap of IFRS 17 Background • General Measurement Model • Reinsurance Held and Contracts Acquired • Implementing IFRS 17	• Measurement of direct participation contracts • Illustrative examples of the Premium Allocation Approach • Presentation of IFRS 17 Results • Data management and calculation engines • Background and scope of Solvency II • Quantitative Aspects of Solvency II	• Quantitative Aspects of Solvency II (cont'd) • Governance under Solvency II • The Risk Management & Reporting Processes

The road to regulation

- In 1974, the G-10 established the Basel Committee of Banking Supervision
  - no legal force, but it formulates guidelines known as “The Basel Accords”
- In insurance, parallel developments emerged, usually more fragmented
  - except, perhaps, for the Solvency II framework of the EU
- Solvency II
  - initiated in 2001, but in force since 2016
  - overseen by EIOPA, but implementation carried out by national regulators
  - goal of strengthening the capital adequacy by reducing the possibilities of consumer loss or insurance market disruption

From Solvency I to Solvency II

- Solvency I established a “minimum guarantee fund” through a rules-based framework, in essence, a collection of several directives
  - simple, inexpensive, and volume-based not risk-based
- The Solvency II framework went through a process of refinement through a series of quantitative impact studies (QIS)
  - risk-based (or principles-based) system of three three pillars (much like the Basel Accords)
  - the solvency capital requirement is the amount of capital that ensures that the probability of insolvency over a one-year period is no greater than 0.5%
  - insurers calculate a minimum capital requirement to continue operating without supervisory intervention
  - a standard formula or an internal model may be used
  - if an internal model is adopted, a “use test” must be satisfied

Insurance supervision

G-20 — POLITICAL AUTHORITY

FINANCIAL STABILITY BOARD (FSB) — FINANCIAL REGULATION POLICY

INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS (IAIS) — GLOBAL REGULATORY STANDARDS FOR THE INSURANCE INDUSTRY

JURISDICTIONAL AUTHORITIES

EIOPA

NAIC (56 JURISDICTIONS)

SUSEP
ANS

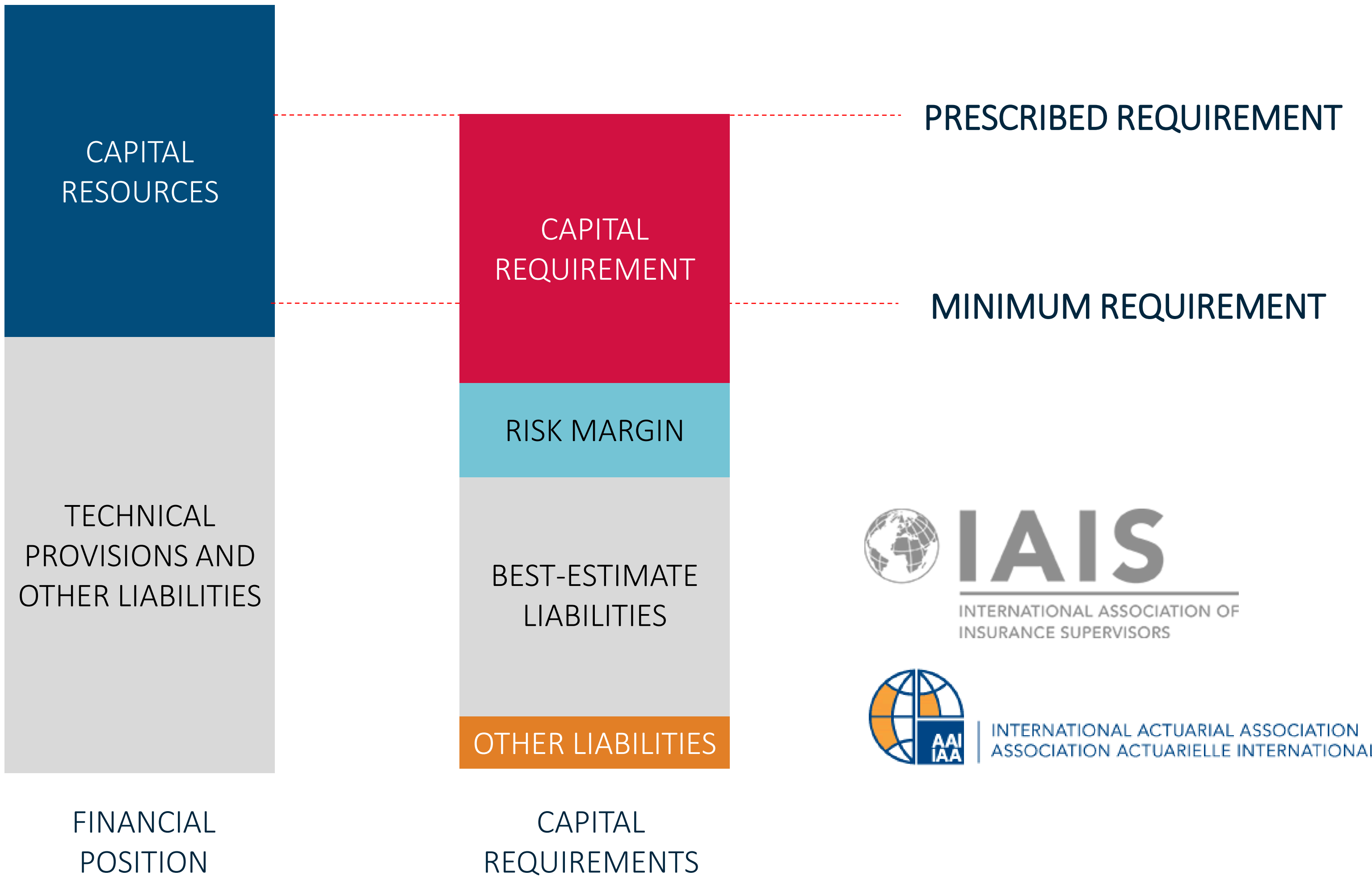
(151 MEMBERS OF IAIS)

PRINCIPLES OF INSURANCE SUPERVISION AND REGULATION

STANDARDS OF SOLVENCY CAPITAL

- Balance sheet approach
- Assessment of all relevant risks
- Maintenaince of adequate solvency levels
- Control levels
- Calibration of solvency requirements
- Disclosure and reporting standards

Structure of capital requirements

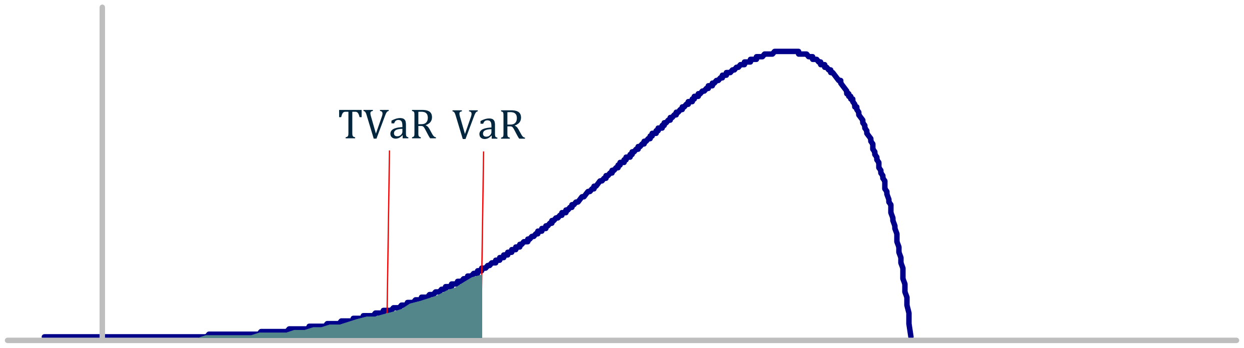


IAIS
INTERNATIONAL ASSOCIATION OF INSURANCE SUPERVISORS

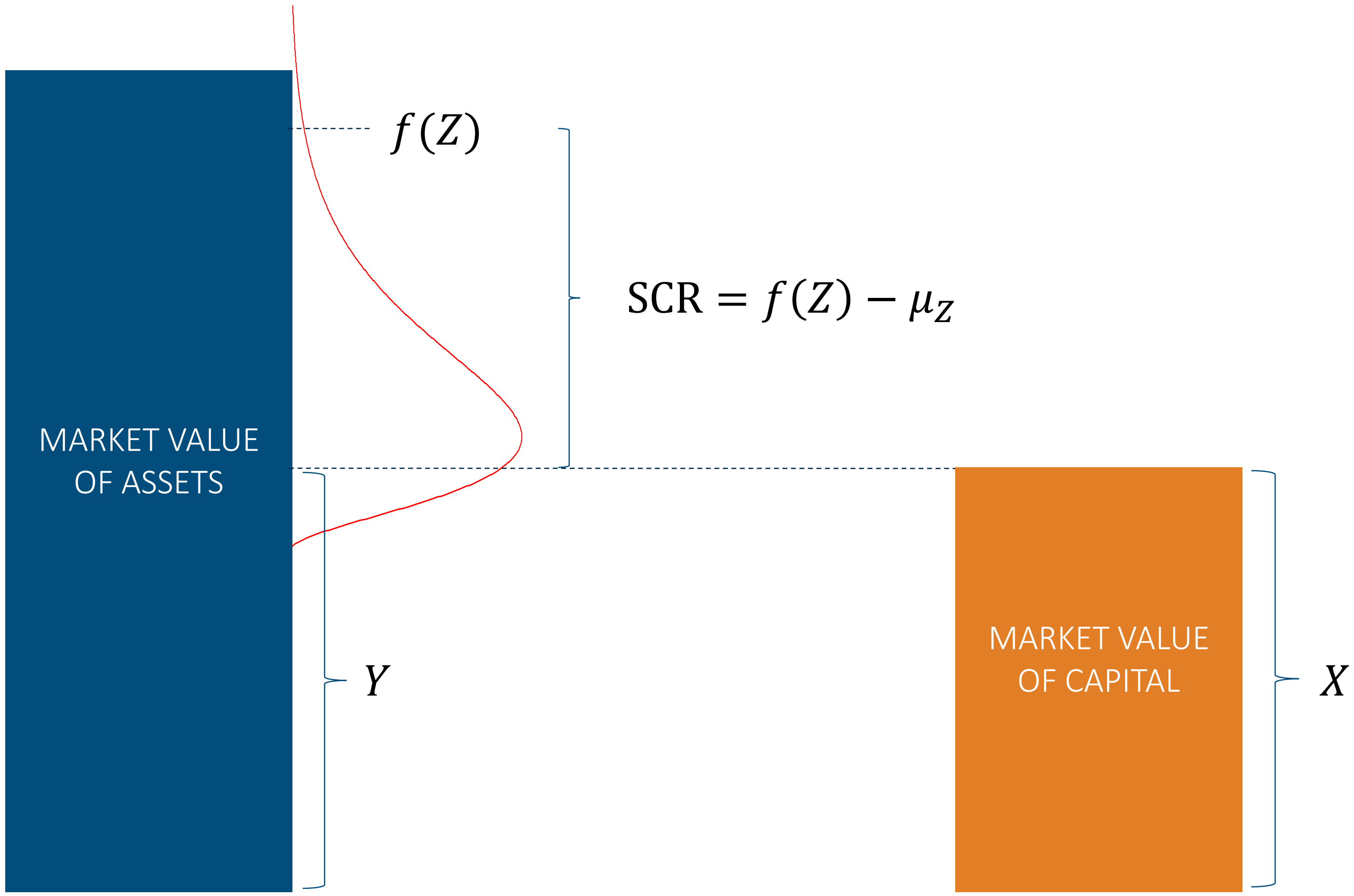
AAI IAA
INTERNATIONAL ACTUARIAL ASSOCIATION
ASSOCIATION ACTUARIELLE INTERNATIONALE

Modeling a solvency capital requirement

- Let the solvency capital requirement, SCR, be defined as a function of $Z = h(X, Y)$, where
  X is a random variable that represents the market value of capital, and
  Y is a random variable that represents the market value of assets that support the market value of capital
- Let $\mathrm{E}[Z] = \mu_Z$
- Then, $\mathrm{SCR} = f(Z) - \mu_Z$
- $f(Z)$ is commonly a risk metric (or distribution characteristic), for example, VaR or TVaR



Modeling a solvency capital requirement



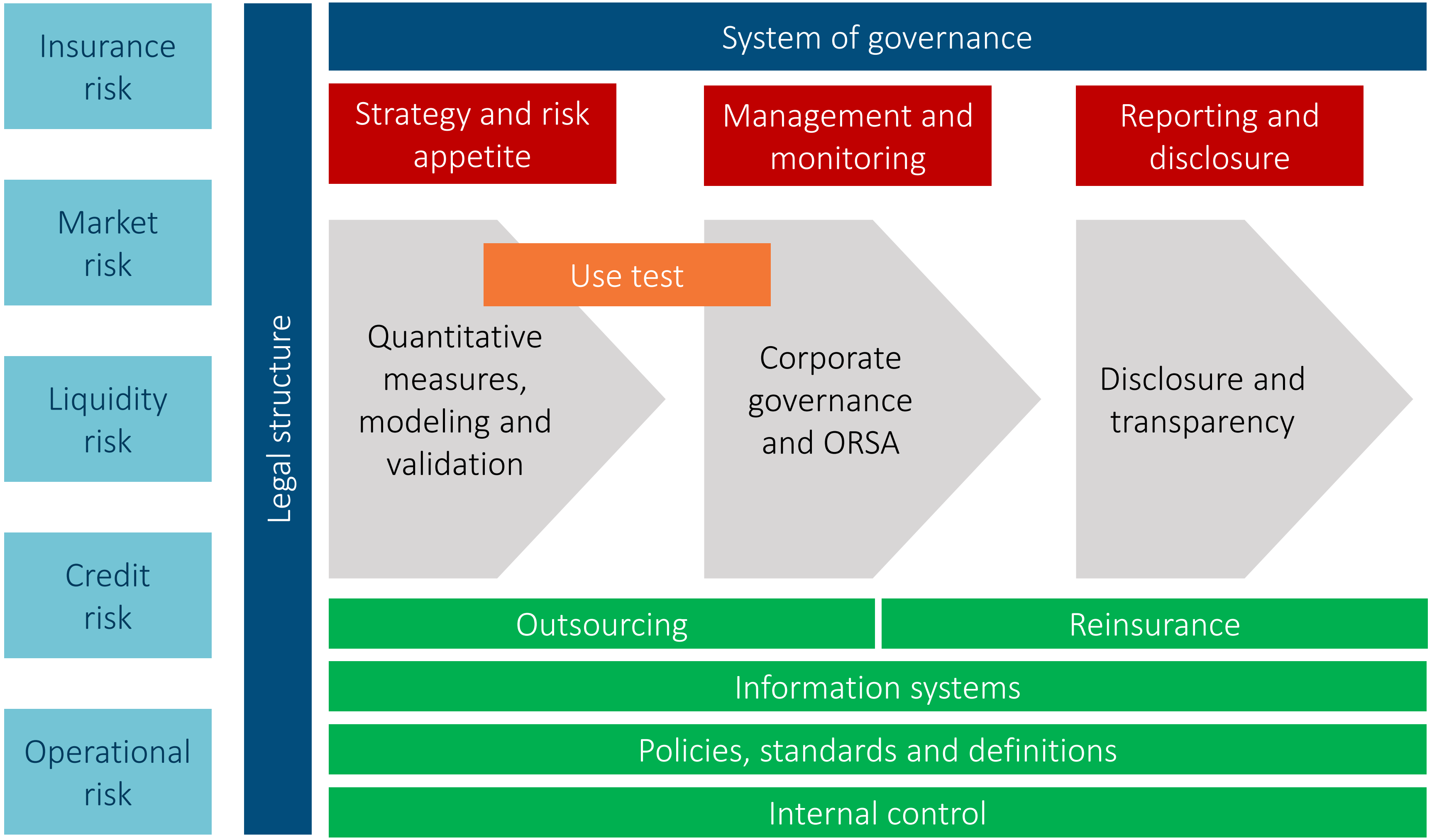
Snapshot of Solvency II

Why Solvency II?	Who must comply?
To facilitate the development of an integrated EU market for insurance services, while securing an adequate level of consumer protection	Almost all EU insurers and reinsurers (insurers with annual GWP < € 5m are exempted)

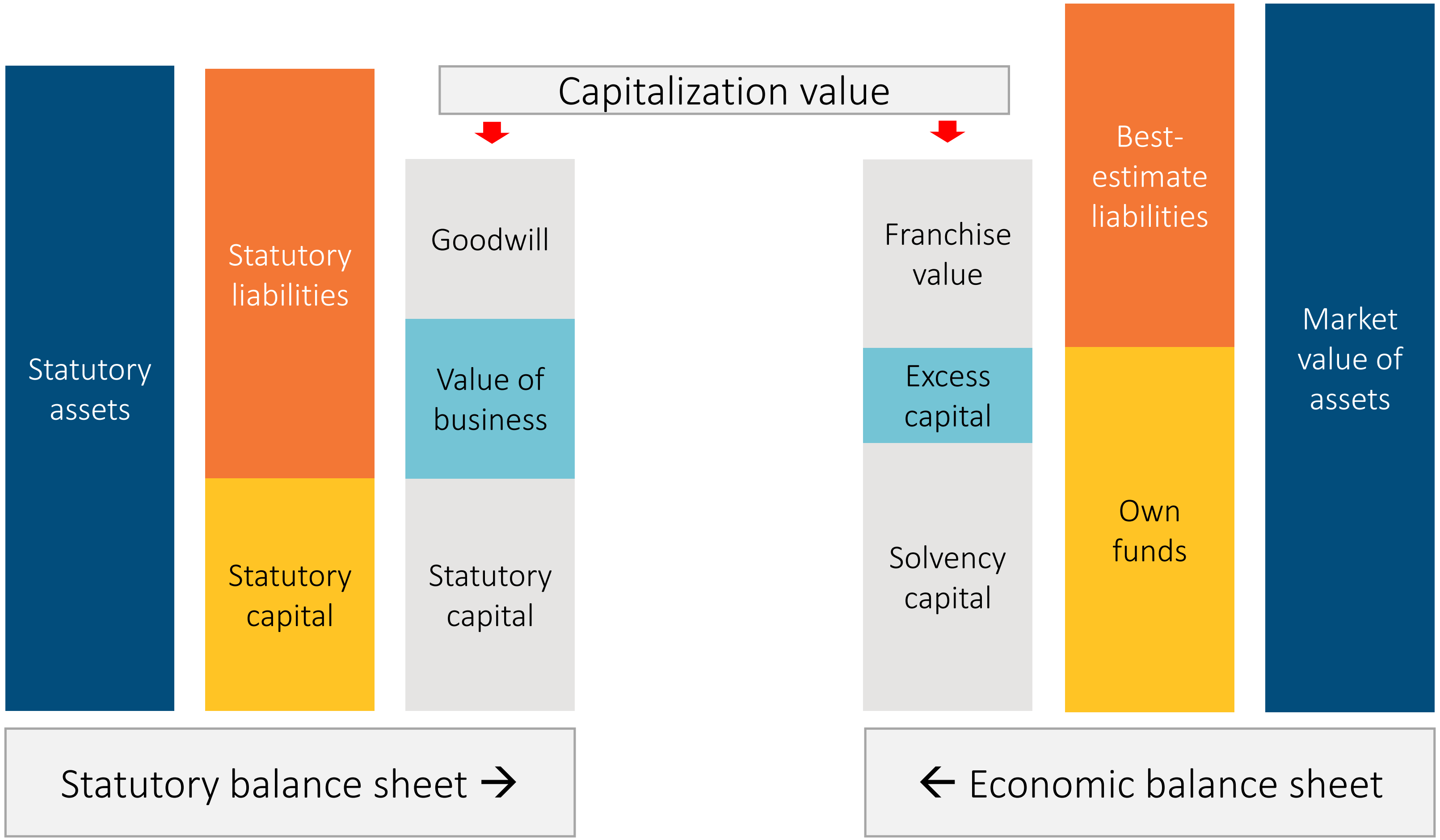
What changes with respect to previous directives?

- Introduction of economic risk-based solvency requirements
- Quantitative requirements – over and above the technical provisions
- Own Risk and Solvency Assessment (ORSA)
- Supervisory Review Process (SRP) – better and earlier identification of insurers with potential difficulties
- Establishment of internal control functions, e. g., actuarial, risk management, compliance and internal audit (plus risk modeling, if an internal model is adopted)

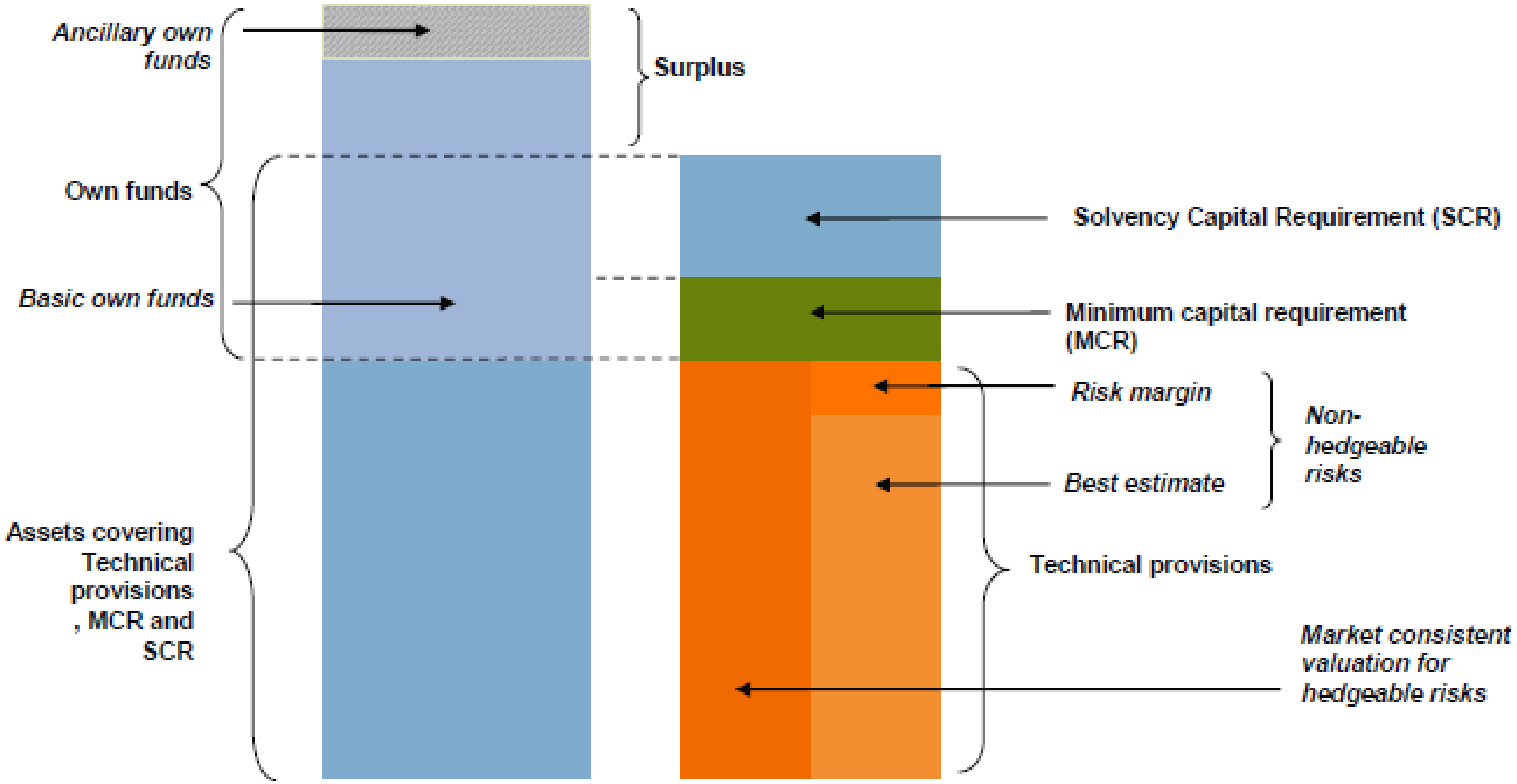
Solvency II framework



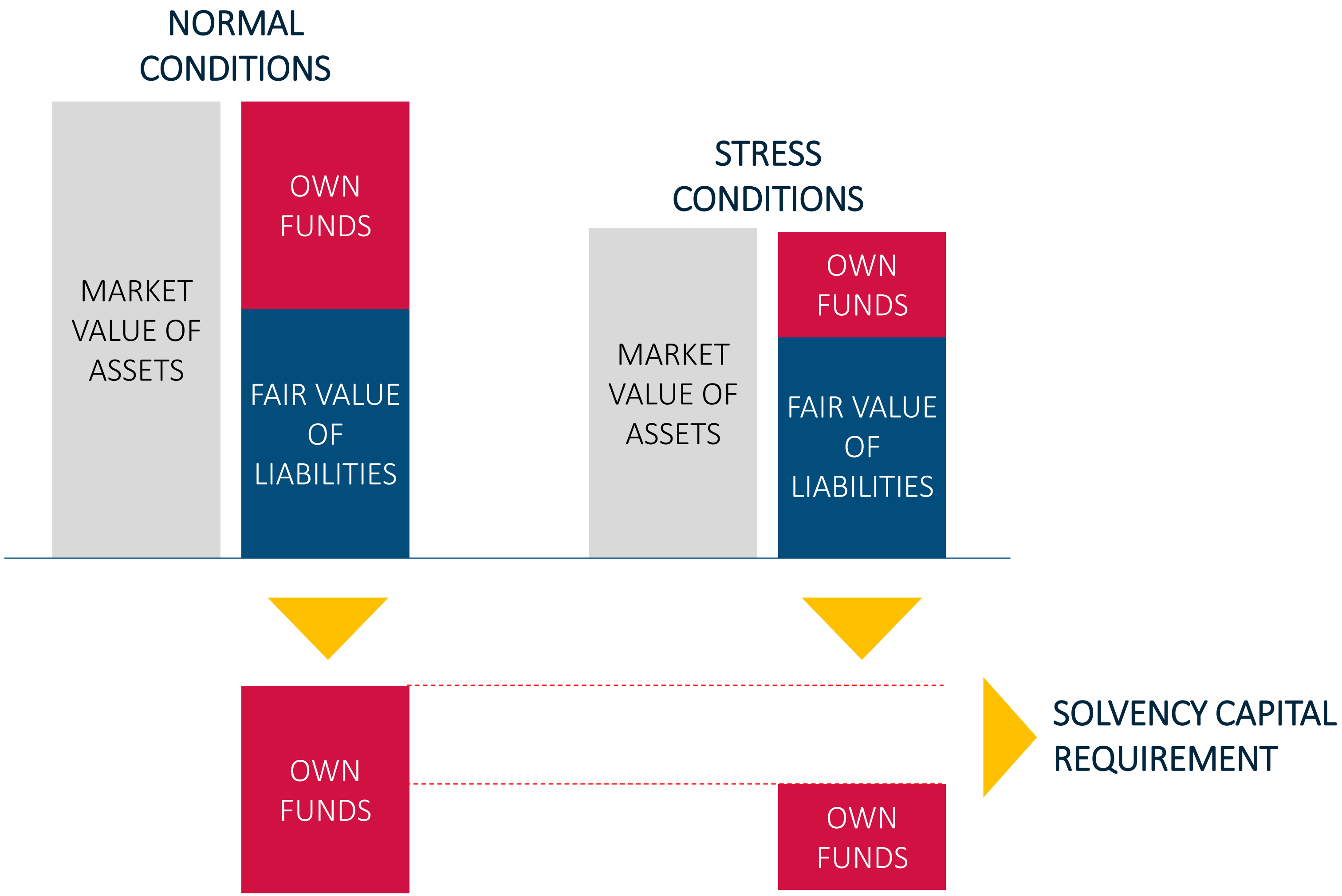
Different views of capital



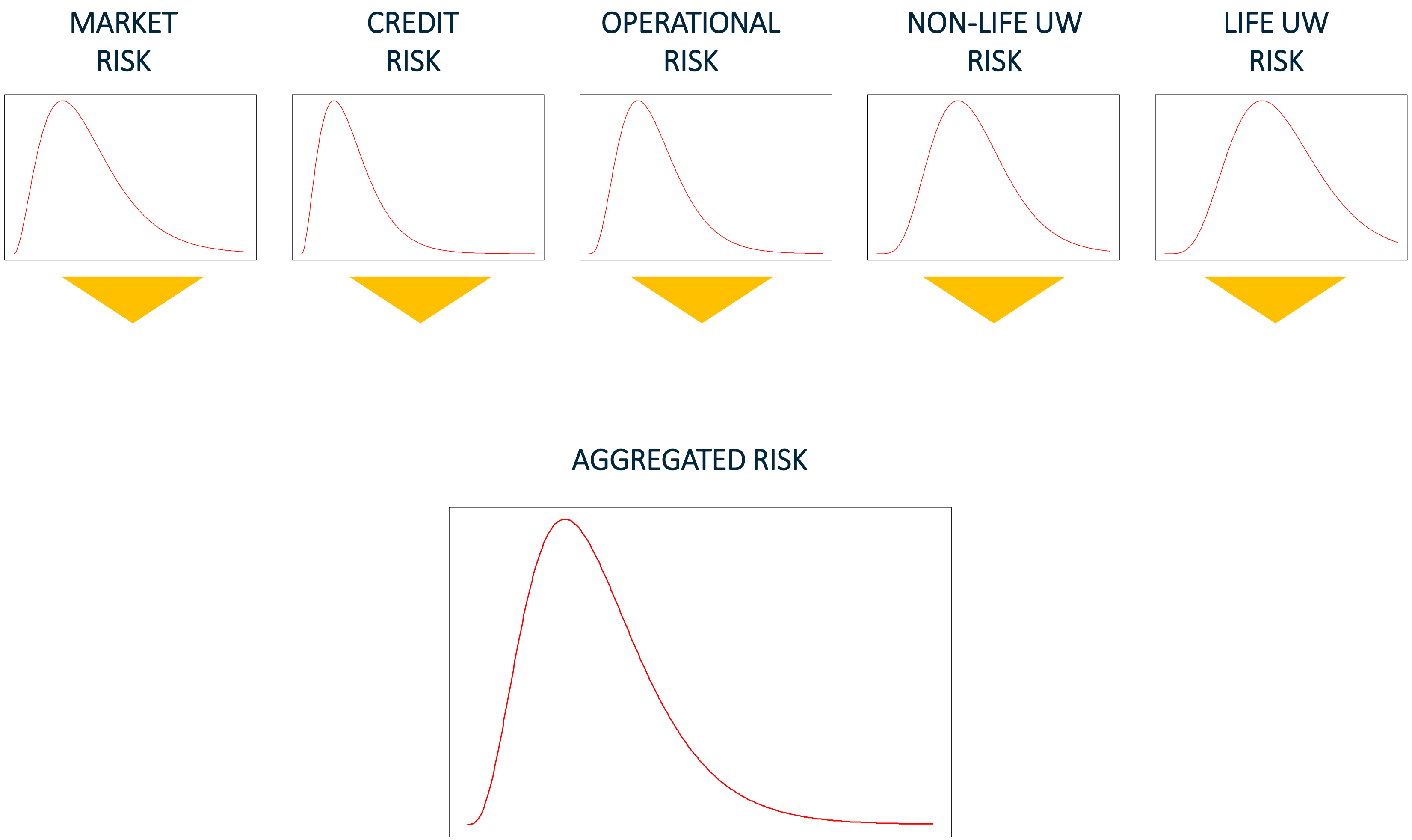
The Solvency II balance sheet



Shocking the balance sheet

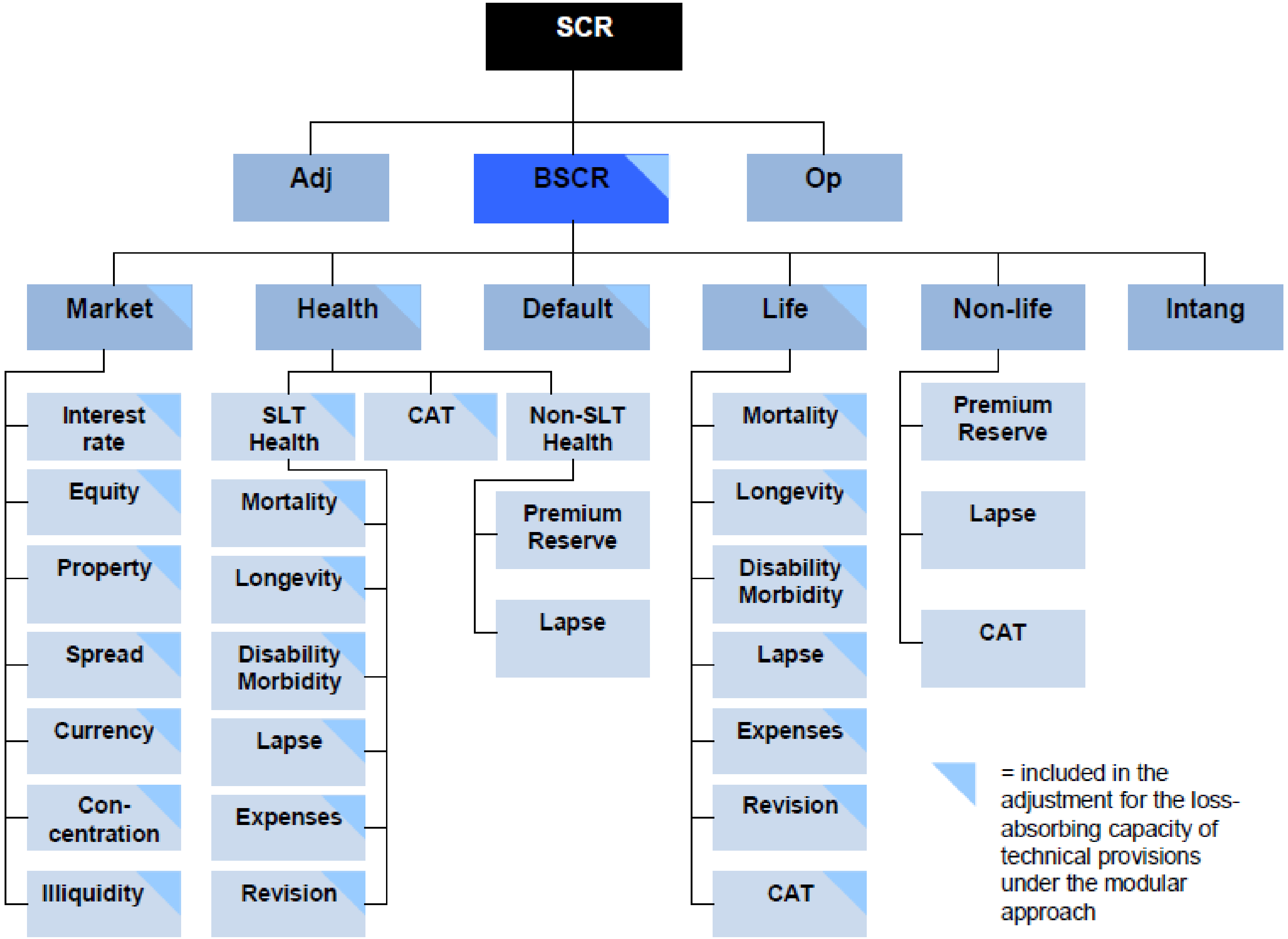


Notion of risk aggregation



Overall structure of the solvency capital requirement

ACCORDING TO THE STANDARD FORMULA



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