



Society of Actuaries in Ireland

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# **Solvency II for Beginners**

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16.05.2013

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## Agenda

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- Why has Solvency II been created?
- Structure of Solvency II
- The Solvency II Balance Sheet
- Pillar II & III Aspects
- Where are we now?
- Solvency II & Actuaries



## Why has Solvency II been created?

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- *“It is unacceptable that the common regulatory framework for insurance in Europe in the 21st-century is not risk-based and only takes account, very crudely, of one side of the balance sheet. The European Union urgently needs a new regulatory standard which differentiates solvency charges based on the inherent risk of different lines of business and which provides incentives for enhanced risk management. It urgently needs a framework that takes account of asset risks in an insurance company. It urgently needs a framework that encourages better governance and management of risk. And it urgently needs a framework that provides better disclosure to market participants – on a consistent basis – of the health of insurance companies.”*  
(Matthew Elderfield, 9 May 2013)



## Why has Solvency II been created?

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- Solvency I only a minor tweak of previous requirements
- Create a (more) principles-based system
- Risk-sensitive capital requirements
- Alignment with best risk management practices
- Consistent application across EU – from minimum standards to “Maximum Harmonisation”
- Consolidate all existing life, non-life and reinsurance directives



## Solvency II Structure

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- Conceptually based on Basel II structure for banking sector
- The “Three Pillars”:
  - Pillar I: Quantitative measures, technical provisions and capital requirements
  - Pillar II: Qualitative measures, governance, risk management, supervisory interaction
  - Pillar III: Supervisory reporting and public disclosure
- Solvency II developed under the “Lamfalussy Process”



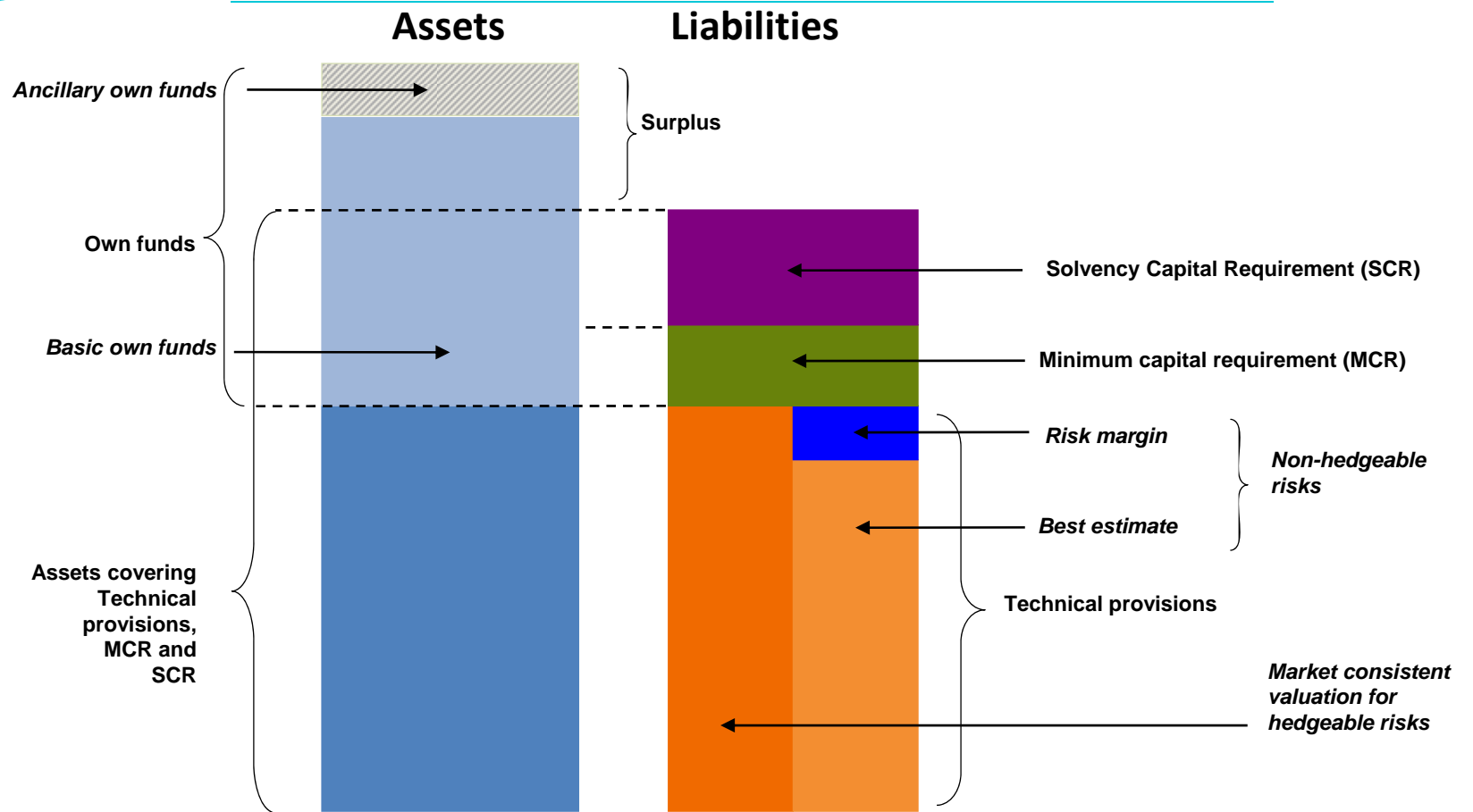
## Solvency II – the Lamfalussy Process

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- **Level 1: The Directive**
  - Joint decision of the Council of Ministers and the European Parliament
- **Level 2: Delegated Acts** (formerly known as “Implementing Measures”)
  - Responsibility of the Commission, based on the advice of EIOPA (but influence of Finance Ministries)
- **Level 2.5: Technical Standards**
  - Adopted by the Commission based on drafts submitted by EIOPA
- **Level 3: Guidelines and Implementing Acts**
  - Responsibility of EIOPA, not legally binding, “comply or explain”
- **Level 4: Enforcement**
  - Responsibility of Commission; ensure all member states have implemented fully / correctly



# The Solvency II Balance Sheet





## The Solvency II Balance Sheet

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- **Technical Provisions (TP)**
  - TP can be valued directly if a market instrument exists that replicates the cash flows under the policy
  - Far more likely to be valued as combination of:
    - **Best estimate:** probability-weighted average of future cash flows, discounted using risk-free term structure of interest rates
    - **Risk margin:** margin required by a third-party to take over the obligation (Cost of Capital)





## The Solvency II Balance Sheet

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- **Solvency Capital Requirement (SCR)**
  - Capital required to meet quantifiable risks on existing portfolio plus one year's expected new business
  - Calibrated at VaR 99.5% over one year
  - Standard Formula Principle: apply a set of instantaneous shocks, calculate net impact on balance sheet at valuation date, then apply appropriate correlations to the results of individual shocks to aggregate total capital
  - May derive SCR from this standard formula approach, or use result of internal model (or combination – partial internal model) – subject to supervisory approval
  - “Undertaking Specific Parameters” may also be applied to the Standard Formula in certain limited circumstances



# The Solvency II Balance Sheet

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- **Solvency Capital Requirement risk categories**
  - Non-life underwriting risk
    - Premium & reserve risk
    - Catastrophe risk
  - Life underwriting risk
    - Mortality
    - Longevity
    - Morbidity
    - Expenses
    - Lapse
    - Catastrophe
  - Health underwriting risk
    - Premium & reserve risk
    - Expense risk
    - Catastrophe risk



## The Solvency II Balance Sheet

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- **Solvency Capital Requirement risk categories**
  - Market risk
    - Interest rate risk
    - Equity risk
    - Property risk
    - Credit spread risk
    - Currency risk
    - Concentration risk
  - Credit risk
  - Operational risk
    - Except for unit-linked business, Op risk capital charge can't exceed 30% of the sum of the rest of the SCR



## The Solvency II Balance Sheet

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- **Minimum Capital Requirement (MCR)**
  - Lower than SCR – “point of no return”
  - Calibrated to 85% VaR over one year from valuation date
  - Subject to a corridor of 25-45% of the SCR
  - Calculated as a linear function of some or all of:
    - Technical Provisions
    - Written Premiums
    - Capital-at-risk
    - Deferred Tax
    - Administrative Expenses
  - Subject to a monetary minimum floor
  - All very reminiscent of Solvency I !



# The Solvency II Balance Sheet

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- **Own Funds (Eligible Capital)**
  - First classification: Basic or Ancillary
  - Basic Own Funds: Surplus of assets over liabilities, or subordinated liabilities
  - Ancillary Own Funds: Other loss-absorbing items, including unpaid share capital, letters of credit, guarantees
  - Ancillary must receive prior supervisory approval
  - Second classification: Tiers of Capital, judged according to criteria:
    - Permanent availability
    - Subordination
    - Absence of incentives to redeem
    - Absence of mandatory servicing costs
    - Absence of encumbrances



## The Solvency II Balance Sheet

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- **Own Funds (Eligible Capital)**
  - Tier One: Basic own funds, if all the boxes are ticked
  - Tier Two: Basic own funds, even if permanent availability is not met, or Ancillary Own Funds, if all the criteria are met
  - Tier Three: Anything else
- Quantitative limits apply to the extent to which Tier Two and Three items can be recognised to meet SCR / MCR
- Tier One must constitute more than one third of Eligible Capital, Tier Three must be less than one third



## The Solvency II Balance Sheet

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- **Assets**

- The “Prudent Person Principle” applies:
  - Must be able to identify, measure, monitor, manage, control and report the risks involved in the investments
  - Must ensure the security, quality, liquidity and profitability of the portfolio as a whole
  - Must be appropriate to the nature and duration of the liabilities
  - Derivatives allowed if they reduce risks or facilitate efficient portfolio management
  - Assets should be properly diversified
- No prescribed quantitative limits
- No localisation requirements
- No compulsory collateral for reinsurance



## Pillar II Aspects

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- **Governance**

- Must have an effective system of governance which provides for sound and prudent management
- Proportionate to the nature, scale and complexity of the operations
- Specific functions/systems must be in place (operating to prescribed standards):
  - **Risk Management**
  - **Internal Control**
  - **Internal Audit**
  - **Actuarial Function**
  - **Outsourcing**
- Must have an effective risk management system comprising strategies, processes and reporting procedures necessary to identify, measure, monitor, manage and report, on a continuous basis the risks





## Pillar II Aspects

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- **Own Risk and Solvency Assessment (ORSA)**
- Must consider
  - overall solvency needs allowing for the specific risk profile, approved risk tolerance limits and the business strategy
  - compliance, on a continuous basis, with the capital requirements, and with the requirements regarding technical provisions
  - the significance with which the risk profile of the undertaking concerned deviates from the assumptions underlying the Solvency Capital Requirement
- Must have in place (proportionate) processes which enable the company to properly identify and assess the risks
- Must be an integral part of the business strategy



## Pillar II Aspects

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- **Requirements for supervisors**
  - Review strategies, processes and reporting procedures (with regard to the proportionality principle), including:
    - Assessment of the qualitative requirements relating to the system of governance
    - Assessment of the risks which the company faces or may face
    - Assessment of the ability of those undertakings to assess those risks
  - Review and evaluate compliance with requirements
    - Including methods used to identify possible events or future changes in economic conditions that could have adverse effects



## Pillar III Aspects

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- **Report on solvency and financial condition** (at least annual)
  - Most of the content will be public, though can apply for supervisory approval to keep aspects confidential
  - Must include descriptions of:
    - the business and the performance of the company
    - the system of governance and an assessment of its adequacy for the risk profile
    - (for each category of risk) the risk exposure, concentration, mitigation and sensitivity
    - for assets, technical provisions, and other liabilities, the bases and methods used for their valuation, together with an explanation of any major differences in the bases and methods used for their valuation in financial statements



## Pillar III Aspects

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- **Report on solvency and financial condition**
- Must include descriptions of the capital management (not normally public), including at least:
  - the structure and amount of own funds, and their quality;
  - the amounts of the Minimum Capital Requirement and of the Solvency Capital Requirement;
  - the option used for the calculation of the Solvency Capital Requirement;
  - the main differences between the underlying assumptions of the standard formula and those of any internal model used;
  - the amount of any non-compliance with the MCR or SCR, even if subsequently resolved, with an explanation of its origin and consequences as well as any remedial measures taken.



## Where Are We Now?

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- **Level 1: Solvency II Directive finalised April 2009**
  - 312 Articles plus 7 Annexes
  - Entry into force: 1 November 2012
- **But – Additional / Amending Directive Required – “Omnibus II”**
  - Reasons: New legal architecture required under Lisbon Treaty, Reflect establishment of EIOPA, Change implementation date to 1 January 2013
- **In practice, Omnibus II re-opened unresolved technical questions ...**
  - First draft issued in January 2011 – still not agreed
  - The big issue – Long-Term Guarantees – is market-consistent valuation appropriate?
- **Long-Term Guarantee Impact Assessment**
  - Quantitative study aimed at providing data to break the political impasse
  - Carried out Jan-March 2013, reporting June/July
  - Then political discussions will resume .....
  - Next European Parliament vote on Omnibus II expected on 22 October
  - Earliest expectation of full Solvency II implementation is 1 January 2016 (but ...)



## Where Are We Now?

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- **EIOPA concerned at the delayed implementation when “most” of Solvency II is known and agreed**
- On 27 March EIOPA published 4 Consultation Papers:
  - System of governance
  - A forward looking assessment of the undertaking’s own risks (based on ORSA principles)
  - Submission of information to National Competent Authorities (NCAs) – e.g. the CBI
  - Pre-application for internal models

*“These are areas which EIOPA considers fundamental to ensure effective preparation for Solvency II. The purpose of the Guidelines is to adopt a consistent and convergent approach to Solvency II preparation across Europe and to mitigate the risk that supervisors will adopt their own approaches at a national level.” (CBI Solvency II Matters 7 May)*

- Consultation open until 19 June
- Effectively, a “soft” implementation of large parts of Pillar II & III from 1 January 2014



## Solvency II and Actuaries

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- Existing reserved roles abolished (Appointed Actuary, Signing Actuary)
- Future defined roles to include Head of Actuarial Function, Head of Risk Management – can one individual hold both roles?
- Head of Actuarial Function does not have to be an “Actuary”
- Greater recognition of the need for actuarial-type skills
- Groupe Consultatif recognised as a key stakeholder feeding in to Solvency II development
- In relation to technical actuarial standards, move from national-specific approach to pan-European.



# Solvency II for Beginners

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Q&A