

Solvency II Briefing

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Solvency II: Agenda

- Background
- Process
- Flavour





Solvency II

New Capital and supervision regime for

- All EU Insurance companies
- All EEA Insurance Companies (N, Iceland, ...), & CH
- All EU groups of Insurance Companies
- All EU/EEA branches of non EU/EEA groups

- May be influential elsewhere through IAIS....





EU Governance 101

Commission – Career EU Civil Servants

Commissioners – career politicians 1 from each state – parachuted into “head” one of the EU Commissions departments

Council of Ministers – one from each member state takes decisions

EU parliament ratifies directives



Solvency II: Starting point

- Original (geriatric) solvency margin ~16% net premiums
- Solvency I – Quick Fix
 - Same answer whether discounted or not
 - Solvency Margin Loadings for “dangerous classes”
 - Updated for inflation
 - Super equivalence





Solvency II

What's the commission after:

- Harmonisation with banking sector
- Harmonisation across countries
- (Real) Harmonisation of underlying accounting

- Speed



Solvency II: Influences

- Basel banking paradigm
- Australia - risk margins
- Canada / UK / NL – DFA approaches
- IASB - standardising the accounting framework
- IAIS – good supervisory practice



Solvency II: Constraints


Needs to work in Practice!

- Not impossibly complicated!

- Southern and CEE Europe capitalisation levels!



Solvency II: Influences: Basel



Formulaic
Minimum
Capital
Require-
ments



Supervisory
Process



Market
Discipline
Transparency



Solvency II: Influences: IASB

- IFRS 4 – dragged life accounting into late C20th century...
- IFRS 4 – non-life - disclosure
- IASB Insurance Project phase II – all up in the air again...



Solvency II: Process

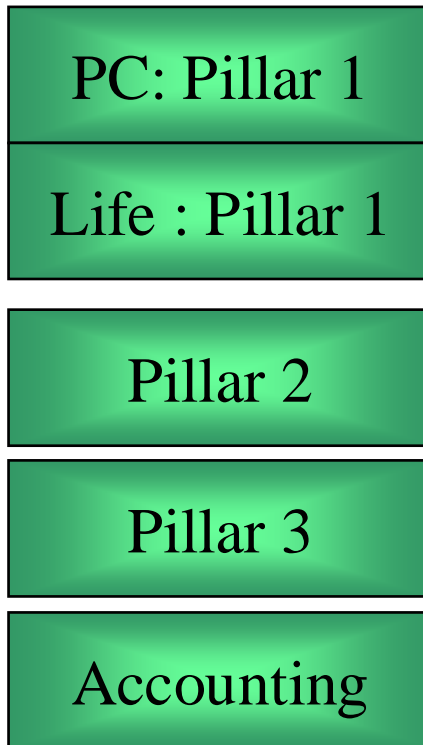
- Lamfalussy Process
- Idea: Enabling legislation 2005. “Rules may be promulgated under this legislation detailing
 - Solvency margins
 - Supervisory processes
 - Etc.”
- Detailed rules established by committee of “experts” ECIOPS



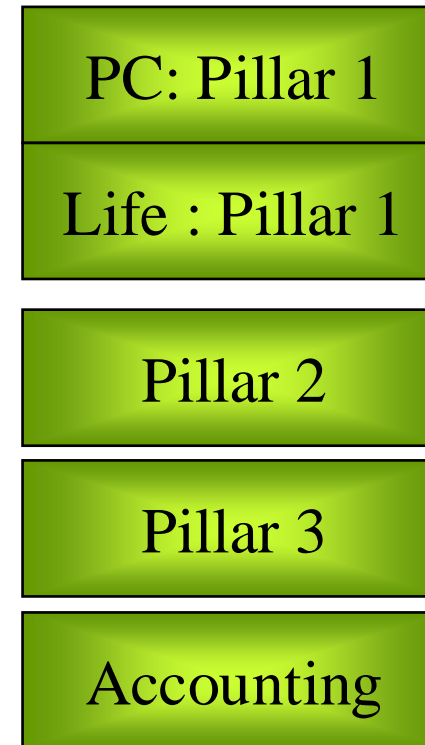


Process

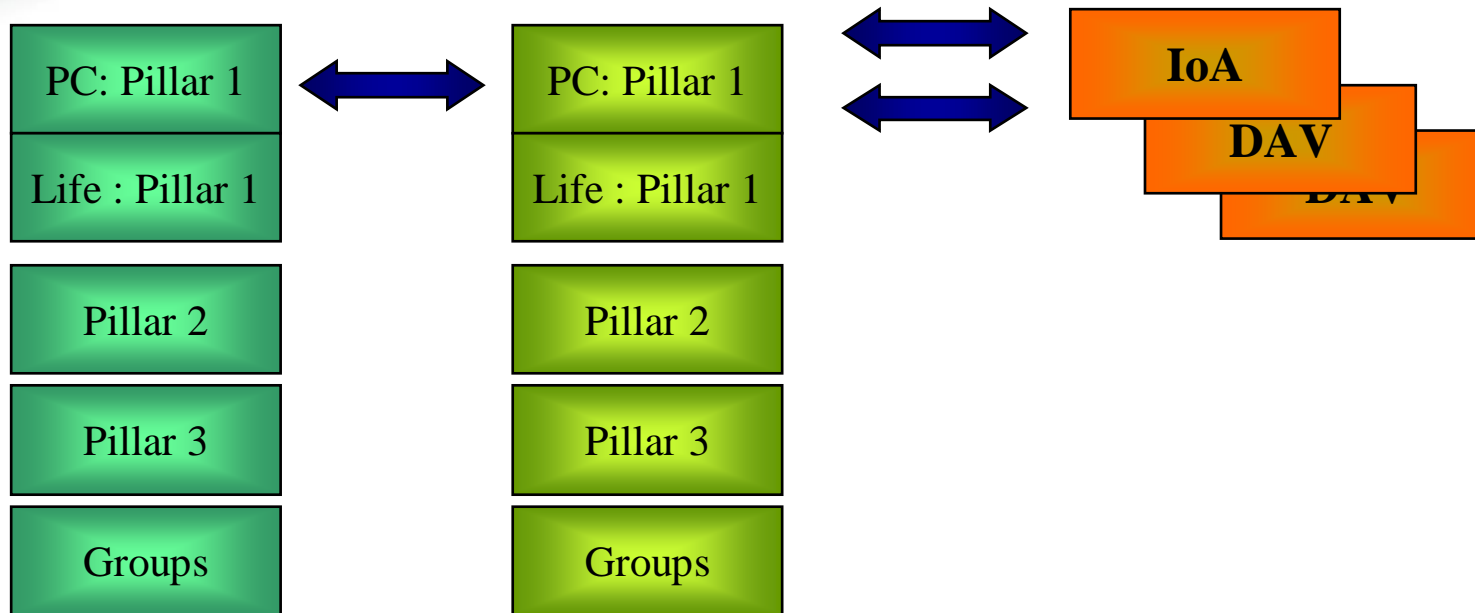
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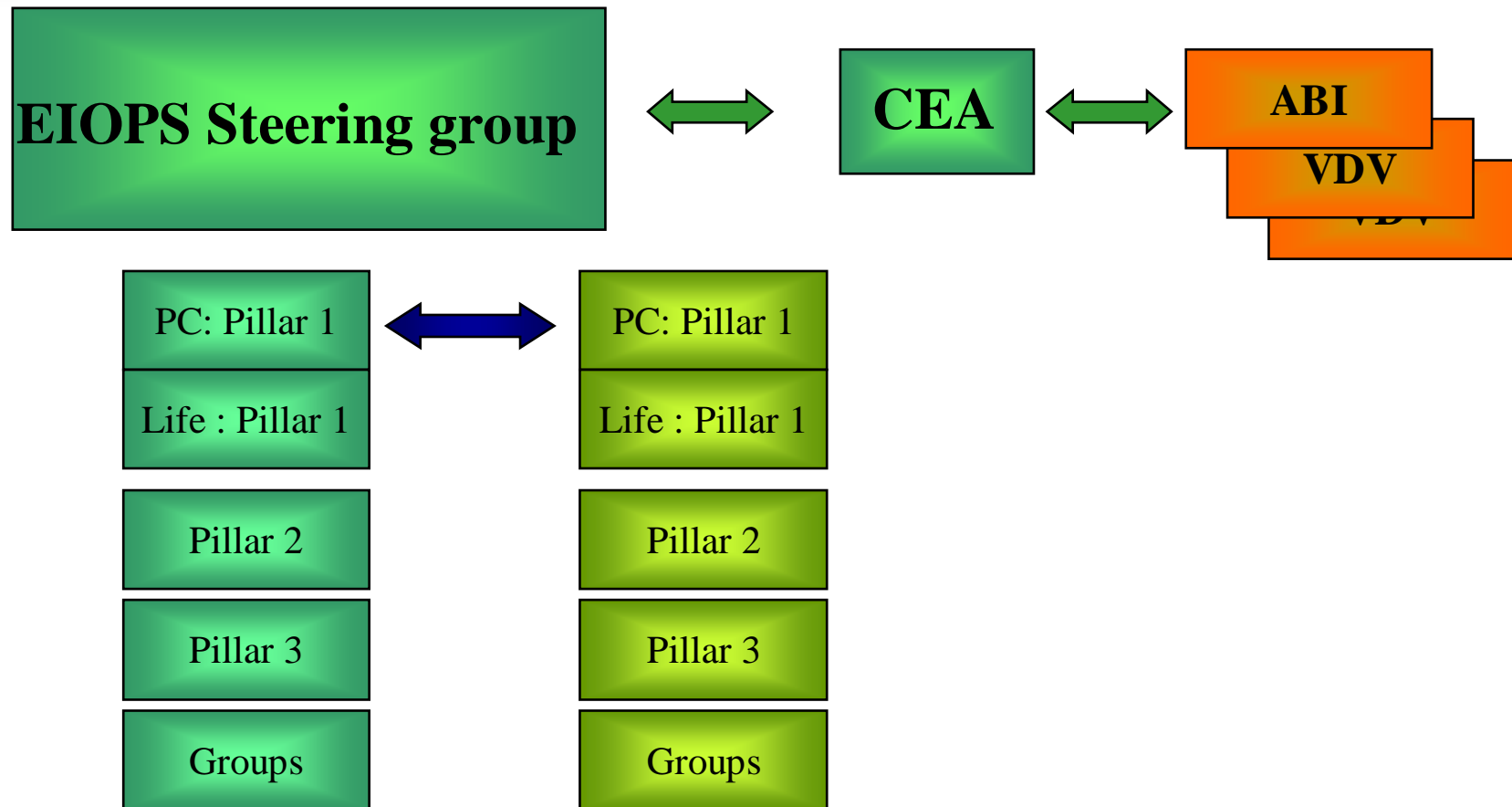
Group Consultatif



Process



Process





CEIOPS: Process

- Calls for advice – lots
 - Standard formulae for SCR
 - PC technical provisions
 - Reinsurance and risk mitigation
 - Internal models & their validation
 - Supervisory process and powers x n
- Meetings of insurance supervisors
 - Some of whom are actuaries





What will SCR look like?

Pillar One

- ? Risk Categories
 - Market (ie Investment)
 - Insurance (Underwriting and reserving),
 - Credit, Liquidity, operational
- ? Mixture of
 - Formulae
 - Stress/scenario tests
 - Maximum exposures
 - Internal models ?





Suggestions for formulae (WIP)

Pillar One: Reserving risk

$$R_i = \{ \{ \alpha_i \cdot \text{grossoutstandings}_i + \beta_i \cdot \text{grossIBNR}_i \\ - \alpha_i \cdot (1 - \delta) \text{quotasharereserves}_i \\ - \alpha_i \cdot (1 + \varepsilon) \text{excessoflossreserves}_i \} \\ + \gamma \cdot \text{emergingunderreserving} \}$$

$$* \max[\varphi \exp(\lambda \cdot \max[(\text{growth} - 10\%), 0]), \phi]$$

$$* \text{sizefactor} \quad ?$$



Suggestions for formulae (WIP)

Pillar One: Underwriting risk

$$W_i = \{\mu_i \cdot \text{exposure} / \text{proxy exposure}_i$$

$$- \mu_i \cdot (1 - \delta) \text{quotasharereserves}_i$$

$$- \mu_i \cdot (1 + \varepsilon) \text{excessoflossreserves}_i$$

$$+ 70\% (\text{net exposure} / \text{proxy exposure}_i + \text{net unearned exposure} / \text{proxy exposure}_i$$

$$* \text{reserveriskcharge}_i \cdot (1 - \text{paidyear1percentage}_i) \}$$

$$* \max[\phi \exp(\lambda \cdot \max[(\text{growth} - 10\%), 0]), \phi]$$

$$* \text{sizefactor}$$

Plus ? Three times cat. Retention ???





Suggestions for formulae (WIP)

Calibration

- Judgement calls
- Optimisation with judgement calls as constraints???



Suggestions for formulae (WIP)

Pillar One: Diversification

- Tail correlations are needed
- Layered
 - Between LoB classes
 - Between Risks, eg credit v underwriting
- Some risks may need to be split up eg Credit
- Covariance matrix approach ? Judgement calls?



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Solvency II

Enabling Directive 2005

Detailed Rules 2008



Solvency II

Now is the time to Engage!

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