The Actuarial Profession
making financial sense of the future

Life conference and exhibition 2010

Cormac Galvin & Richard Baddon

Contingent Capital
in a post Solvency II world

7-9 November 2010

Contingent capital

Do you agree?

- Contingent capital structures are redundant under Solvency II
- FinRe is not regulatory arbitrage
- A longevity swap is contingent capital
- CP10/10 (and the subsequent changes to the Prudential sourcebook) is counterintuitive

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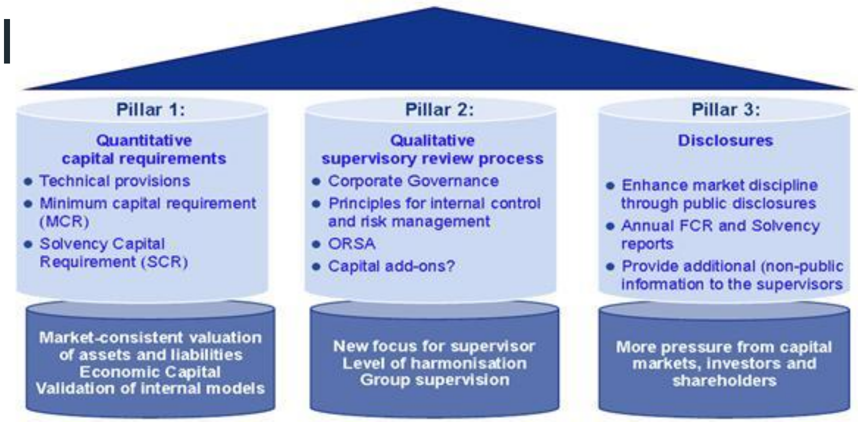


Introduction to capital & contingent capital

Defining capital

Defining contingent capital

Introduction to capital & contingent capital

What is capital?

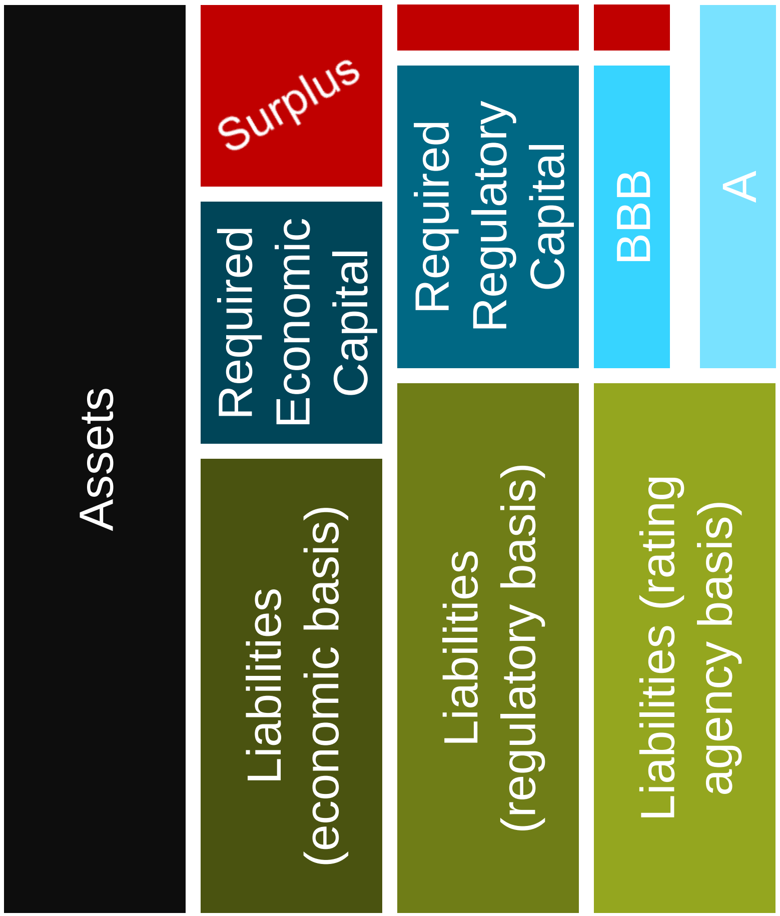
- Assets available for use in the production of further assets
- Assets that are able to absorb losses

Capital measures when considering contingent capital

- Economic capital, regulatory capital, rating agency capital, …

Capital & required capital – not to be confused!

Introduction to capital & contingent capital



A simple illustration

- What is required capital?
- How do different measures of capital interact?
  - Liabilities on each basis are not necessarily equal
  - Equally, the required capital on each are not necessarily equal
  - Surplus on economic basis
  - But it can't be put to use…

Contingent capital can help!

Introduction to capital & contingent capital

What is contingent capital?

- Contingent capital is debt that converts into equity when there is a crisis or when certain triggers are met
- Regulators have made no secret of their fondness for contingent capital - it keeps down the cost of capital in the short term, by classifying it as debt, but provides a buffer in case of emergencies that can be switched into loss-absorbing equity

Introduction to capital & contingent capital

What does contingent capital do?

- It can help to meet the regulatory requirement with minimal economic effect. It aims to align the economic and regulatory basis at a low cost
  - For example, if a bank or a reinsurer takes the risk that profits don't emerge, i.e. equity is provided when profits don't meet a pre-arranged limit
  - This has little effect on the economic basis but can reduce liabilities on the regulatory basis, (ignoring costs and transfer of tail risk on the economic basis)
  - It may also reduce the required capital

Of course things are not so simple!

- The typical structure used by UK insurers; contingent loans & FinRe

Introduction to capital & contingent capital

Regulatory capital

Some features under Solvency II

Tier 1	Most deeply able to absorb losses, (most deeply subordinated) Undated or a term of at least 10 yrs Includes EPIFP (Expected Profits incl. in Future Premiums)
Tier 2	Ranks after claims, beneficiaries and non-subordinated creditors Term of at least 5 Years
Tier 3	Term of at least 3 Years

Are contingent capital structures redundant under Solvency II?

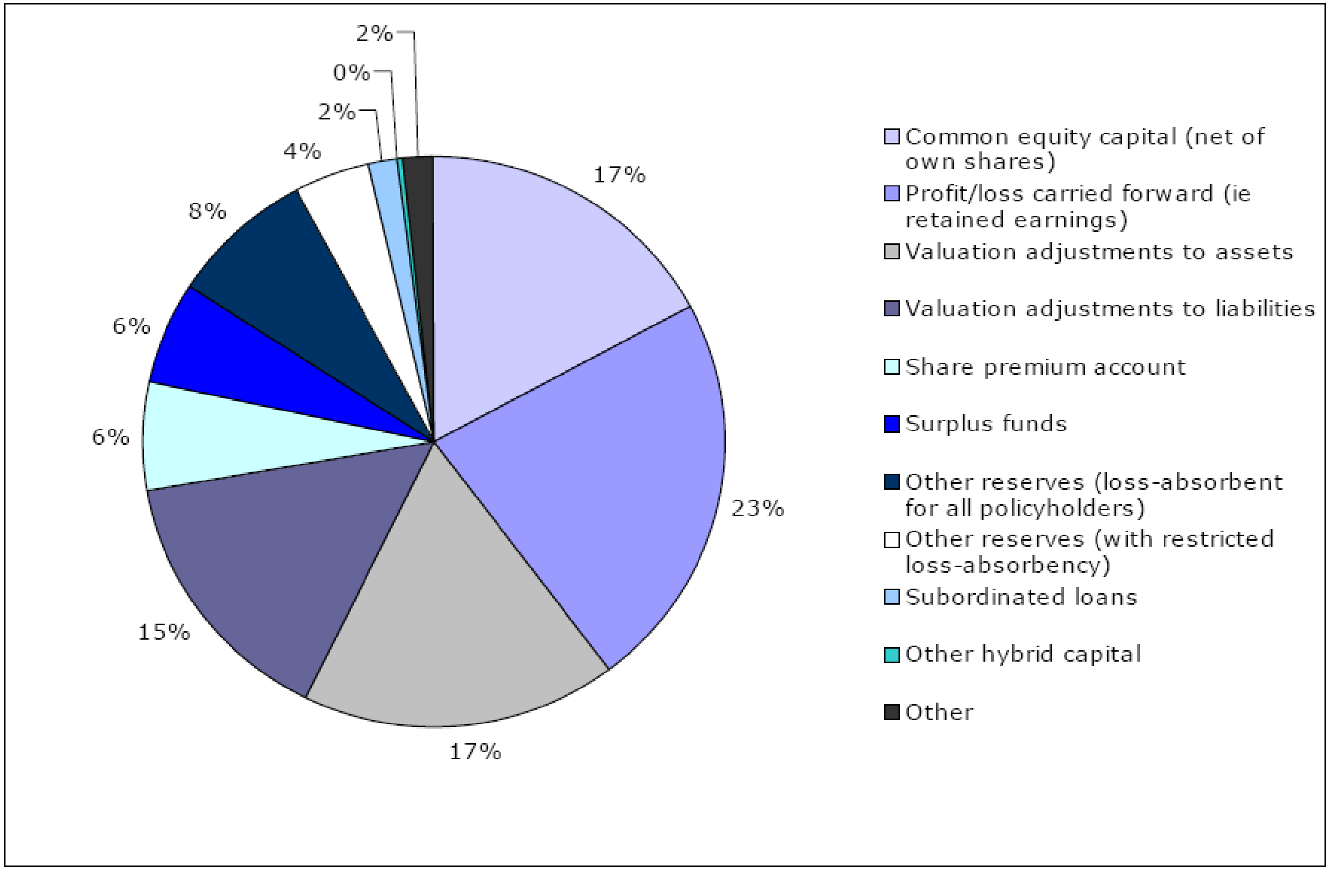
Introduction to capital & contingent capital

Why is contingent capital attractive to insurers?

- It keeps down the cost of capital in the short term;
  - The intention of the liquidity provider is that the instrument will not become equity
- Provides a buffer in case of emergencies;
  - Can be switched into loss-absorbing capital on a triggered event
- Meets an insurer's corporate objectives more economically
  - Improving solvency, (aligning regulatory & economic capital)
  - Raising financing & improving liquidity

Introduction to capital & contingent capital

Sources of capital - QIS4 Tier 1 Own Funds



- Diverse range of qualifying capital
- Contingent capital is not shown explicitly, but it is there

Introduction to capital & contingent capital

What is regulatory arbitrage?

- A transaction that improves the regulatory capital position without changing the economic capital position

Is contingent capital regulatory arbitrage?

- Insurers have entered into transactions that have changed the risk profile
- Sometimes the risk transferred is minimal
- Depends on your view!

Introduction to capital & contingent capital

Is a longevity swap is contingent capital?

- Contingent capital is debt that converts into equity when there is a crisis or when certain triggers are met
- QIS5 includes EPIFP as Tier 1 capital
- For you to decide!

Solvency I & CP10/10

Contingent capital in Solvency I

CP10/10

Pre Solvency II structures

Solvency I & CP10/10

Solvency I & CP10/10

What is contingent capital?

FINANCIAL TIMES LEXICON

- Contingent capital is debt that converts into equity when there is a crisis or when certain triggers are met
- But it depends what is meant by equity?
- We have taken the widest definition of equity not restricting ourselves to paid up share capital

Solvency I

A quick history of contingent capital under Solvency I

- Financial Reinsurance widely used from early 1990s
  - Virtual Capital and surplus relief raised capital
  - Financing treaties raised cash and capital
- Small number of capital market transactions
  - Raised cash and capital but was the cash un-emcumbered?
  - Rating agency friendly, not financial leverage
- Wide use of hybrid securities in the last 10 years
  - Debt market boom provided cheap cash and capital

Solvency I

A quick history of contingent capital under Solvency I

- In the General Insurance world other instruments
  - LOC
  - Cat Bonds
  - Scor UBS
  - Soc Gen?

But Banking Wins.....

  - CLOCS (committed long-term capital solution) – RBC and Swiss Re 2001
  - Lloyds CoCo program 2009

Solvency I

Contingent Capital in Solvency I

Structures aim to align regulatory capital with economic capital

- Improved solvency or raised financing & possibly improved liquidity
- Typically minimal economic capital benefits
- Some P&L drag
- Some tax benefits

Solvency I

The state of play prior to CP10/10....

- Increasing sophistication and increase in capital providers
- No just reinsurers, but credible banks and private equity have capital to use in the sector
- The cost of liquidity led to a preference for capital only trades, with no liquidity
- Cheaper capital, but this means counterparty risk

CP10/10

Why do we have CP10/10 – Abridged from the CP

- … significant counterparty risk … where transactions are unfunded.

- Similar risks … when these arrangements are connected … could result in undermining the contingent nature of the cash outflows

- … no rules corresponding to INSPRU 1.2.79R(2) … expected under Solvency II
- … difficult to see how unfunded arrangements, …

  satisfy the loss absorbency characteristics of Tier 1 capital

CP10/10

The key to most deals - INSPRU 1.2.79R(2)

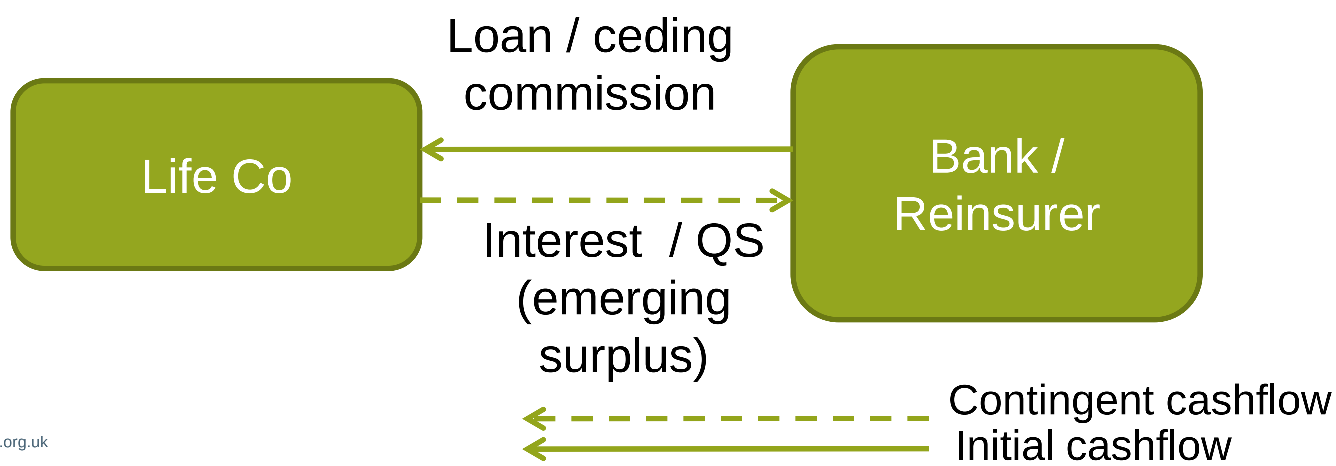
- Allows insurers to disregard reinsurance cash outflows that are unambiguously linked to the emergence of surplus
- GENPRU 2.2.104 creates core tier 1 capital

What is the change?

- INSPRU 1.2.79R(2) will only apply provided:
  - The credit taken for the arrangement does not exceed the accumulated value of net cash inflows received
  - There are no connected transactions that provide support for the arrangement

Post CP10/10 structures - I

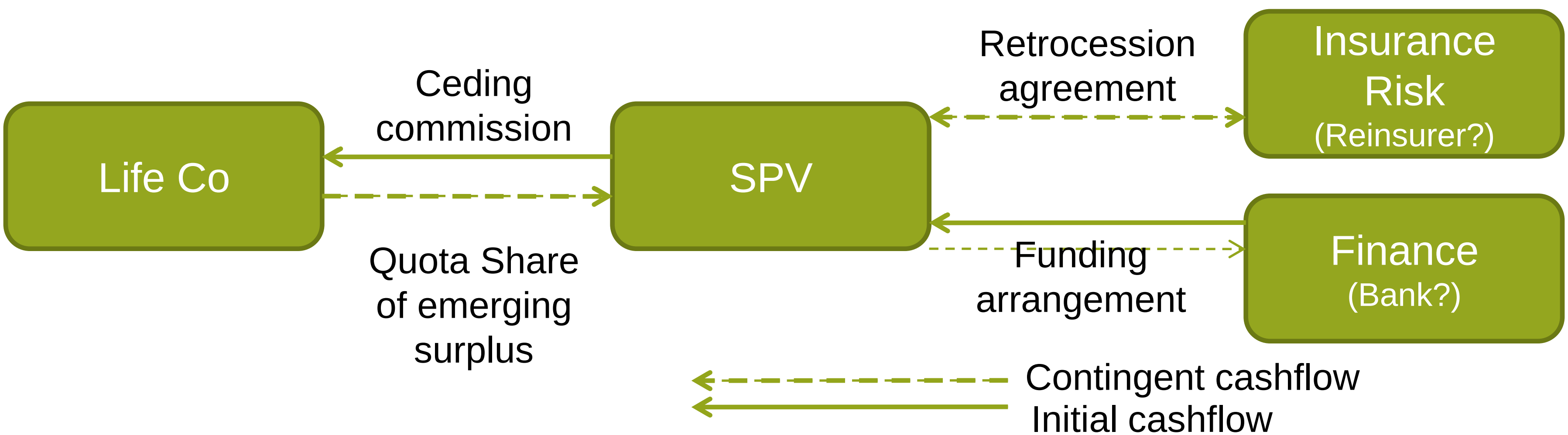
- Use contingent loan or quota share reinsurance structure
- Must be funded
  - Leads to a significant change in the economics
  - What to do if the insurer only needs capital not liquidity?



CP10/10

Post CP10/10 structures - II

- Funded deals means banks may partner with reinsurers
- Higher absolute costs because of the more complex structure
- Clear difference between Fin Re and traditional reinsurance



CP10/10

Contingent loans or reinsurance – how do they measure up?

- Very similar concepts with similar cashflows
- Main differences around legal documentation
- FSA allows regulatory benefit for a funded contingent loan
- Reinsurance provides an additional benefit due to reduction in technical reserves meaning lower Solvency capital requirements
- Broadly tax neutral

Solvency II

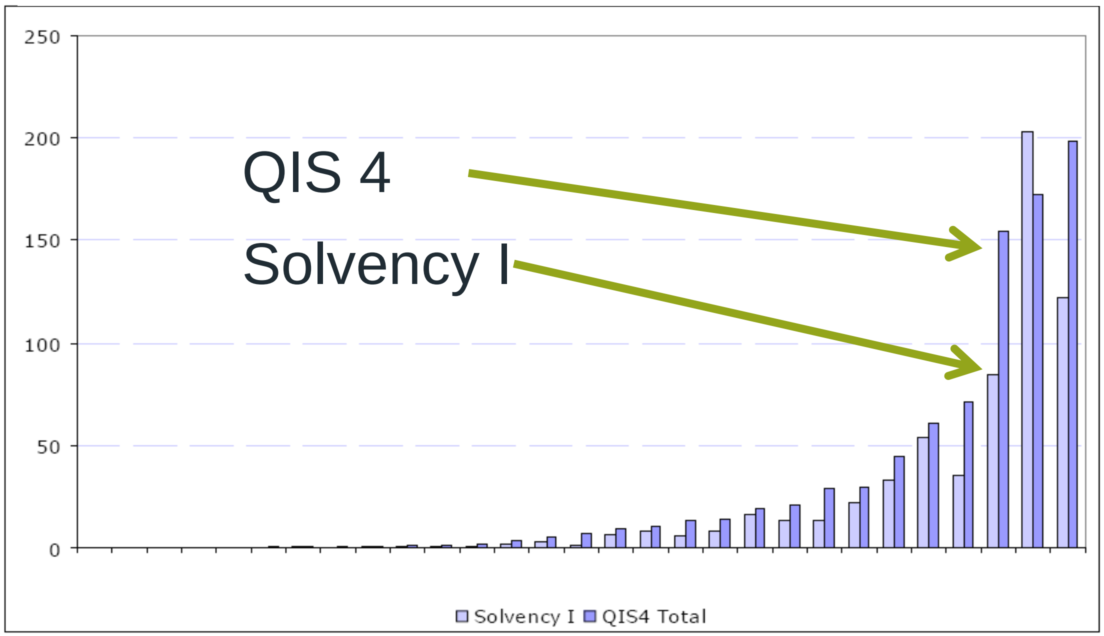
Capital under Solvency II

Re-writing the Rules

Solvency II

Regulatory capital (or is that economic capital?) under QIS4 & beyond

Total Own Funds under SI and QIS4
All Undertakings



Countries

- Estimated decline in headline solvency ratio for the listed European Insurers from c.200% to c.135%[1]
- Implies the need for a re-calibration of appropriate capitalisation under SII

[1] *Oliver Wyman / Morgan Stanley, September 2010*

Solvency II

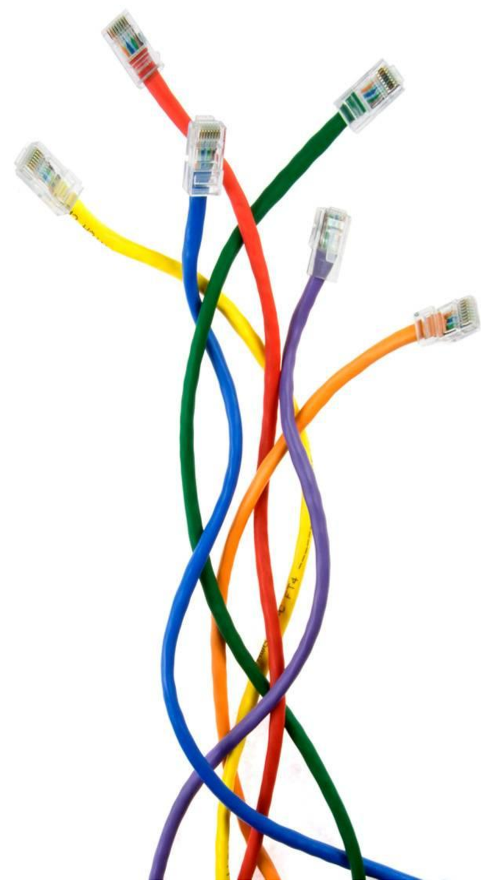
Expected Profits Included in Future Premiums ....Does what it says on the tin!

- QIS5 includes *Expected Profits Included in Future Premiums* ("EPIFR") as Tier 1 Own Funds
- In simple terms we already include VIF so.....
- ....there will be little need for SI style contingent structure e.g. FinRe or contingent loan
- Does this mean there will be no contingent structures?

Solvency II

Contingent capital under Solvency II

Will still aim to align regulatory capital with economic capital but....



- SII is based on a market consistent framework which gives a greater alignmen between regulatory and economic capital

- Structures may aim to manage economic capital rather than regulatory arbitrage

- Especially important if using internal models

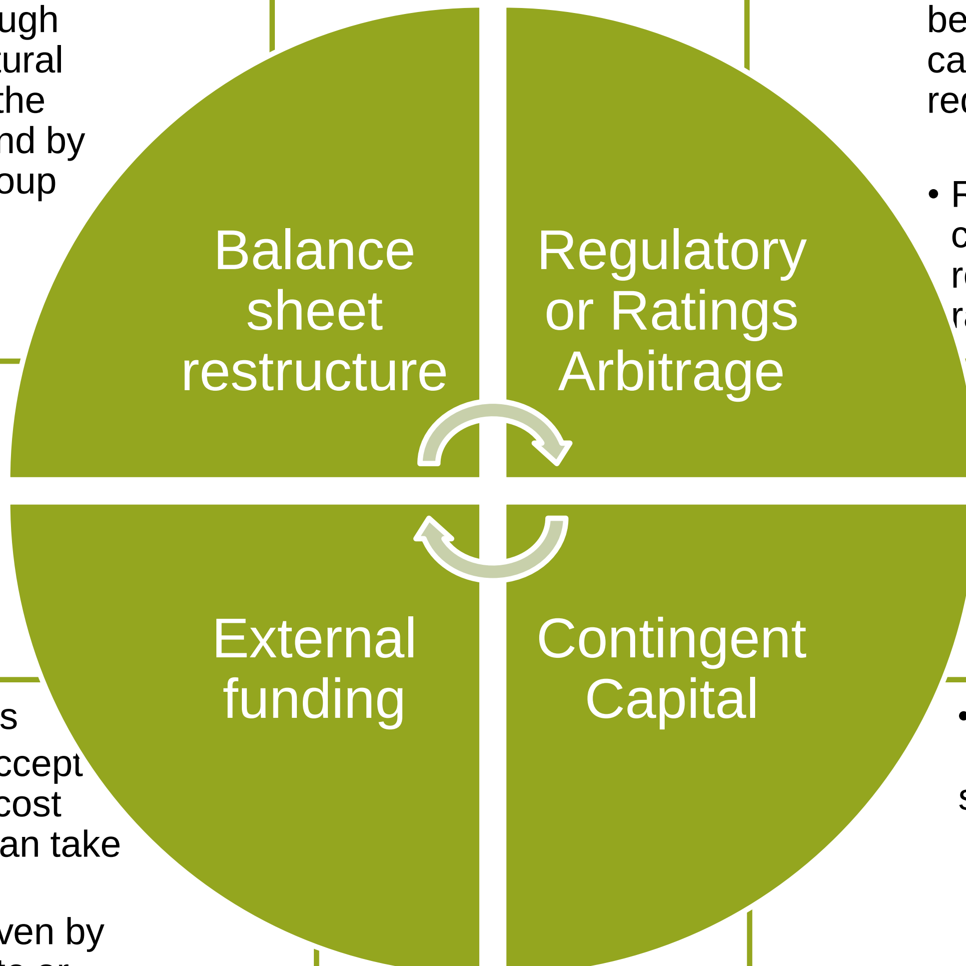
Solvency II

- Capital efficiency can be achieved through eliminating structural in efficiencies in the balance sheet, and by optimising the group structure.

•Regulatory arbitrage can be used to optimise both capital treatment and reduce third party fees.

- Ratings arbitrage. Many credit based capital requirements are linked to rating agencies.

The options available



- External investors can be used to accept risks for a lower cost than the Group can take these risks.
- This could be driven by either risk appetite or regulatory arbitrage

- External investors or reinsurers providing securities that provide equity in specific scenarios.

Solvency II

Managing the balance sheet

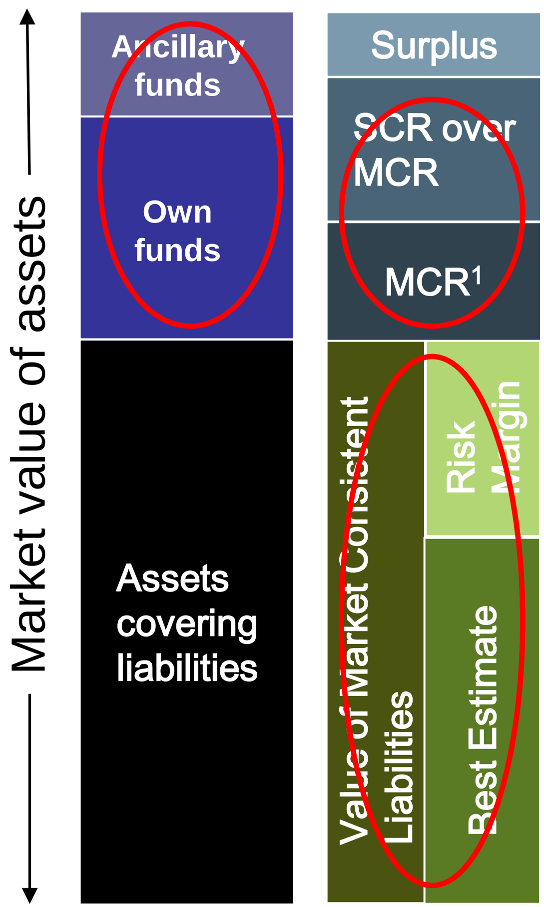
- Structures
  - Greater focus on risk management
  - Real risk transfer not just regulatory arbitrage
  - Target rules that are not truly economic/market consistent

Solvency II

Managing the balance sheet

- Structures will aim to:
  - Manage the value of liabilities
  - Manage the SCR
  - Manage Risk Margin
  - Manage Own Funds
  - Manage Group balance sheets

Solvency II



Managing the balance sheet

- Structures will aim to:
  - Manage the value of liabilities
  - Manage the SCR
  - Manage Own Funds
  - Manage Group balance sheets

Solvency II

Not to forget the rating agencies & investors......

- Likely to take a different view from SII
- Central to capital raising
- Will continue to develop their thinking prior to SII

Discussion

Concocting Some Potential trades.....

Do you agree?

Discussion

Concocting Some Potential trades

a) Reducing the value of market consistent liabilities

b) Reducing the SCR or Risk Margin

c) Increasing Own Funds or managing their classification?

d) Groups - dealing with fungibility?

Solvency II

Examples of transactions

Liabilities	• Liquidity premium - reinsure to a well rated reinsurer outside SII?
SCR	• Managing the correlation matrix - maximise diversification benefit? Reinsure or swap risks? • Solvency II stresses - are these truly economic?
Own Funds	• EPIFP - where will this end up? • Contingent security - trigger event which on occurrence converts to capital
Groups	• Fungibility - triggers which prove liquidity

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Thank you for your attention