The Actuarial Profession
making financial sense of the future

Life Conference 2011
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Solvency II - Will it Change the Purchasing of Reinsurance?

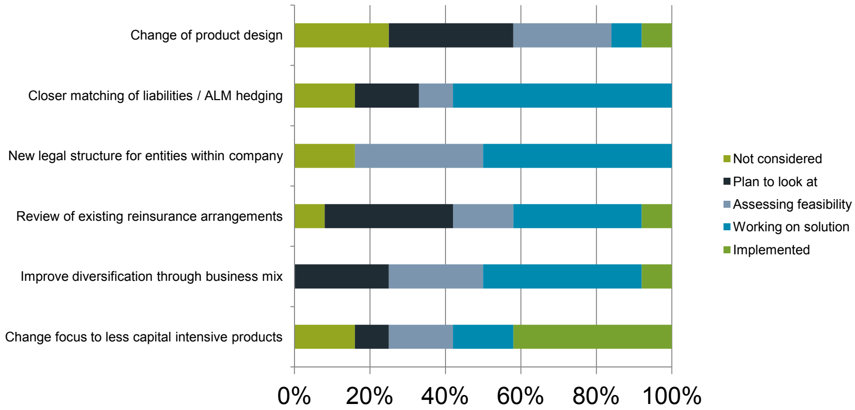
20- 22 November

Agenda

- Current Life Office focus
- Risks inherent in typical life contracts
  - Term assurance
  - Longevity
- Rationale for reinsuring
- Impact of Solvency II on each risk
- Impact of Solvency II on rationale to reinsure
- Results of survey
- What needs to change ?
- Conclusion / Questions

Current Life Office Focus

Results of an E&Y survey of life offices



Current Life Office Focus

Key messages

- Firms are exploring a wide range of capital optimisation strategies
- Few of these have been fully implemented as yet
- The results suggest that the current focus is on overall balance sheet optimisation, particularly looking at legal structure and ALM, but also including seeking an optimal business mix to improve diversification and reviewing reinsurance arrangements
- There is less focus at this stage on exploring changes to product design
- Only one third of firms are still considering moving to less capital intensive products, with half the responses saying this has happened already

Risks inherent in typical life contracts Term assurance

- Mortality - from a gross perspective, this is the key risk
  - Highly competitive market → low margins, little scope to absorb fluctuations
  - Initial mortality / trends / pandemic
- Persistency
  - Early persistency (ie do we recoup initial expenses)
  - Late persistency (ie when claims > premiums)
- Expenses
  - Tied in with persistency – ie do we recoup initial expenses / commission
- Market Risk
  - Limited impact on term assurance given relatively small reserves

Risks inherent in typical life contracts Longevity

- Mortality – as with term assurance, a key risk
  - Trends more important than for term assurance (longer mean duration)
  - Pandemics can only work in our favour !
  - Significantly longer term than mortality – so diversification benefit short lived
- Market Risk
  - Hugely important as significant invested reserves
  - Can achieve very close matching – so credit risk is the key concern

Rationale for reinsuring

- Knowledge of a product / market
- To reduce volatility of earnings
- Regulatory arbitrage
- New business financing
- Tax arbitrage
- Differing views of underlying claims cost
- To mitigate the key risks of the underlying product
  - Mortality / Persistency / Market Risk / Expenses
- But, ...

Impact of Solvency II on rationale to reinsure

- Under a Solvency II regime, does the rationale for reinsuring change ?
- Taking each reason for reinsuring in turn ...

Impact of Solvency II on rationale to reinsure

Reinsurer's Knowledge of a product / market

- *still applies*
- *How many offices have enough data of their own to be able to set decrements for*
  - *Mortality*
  - *Morbidity (CI or IP)*
  - *Lapses ?*

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Impact of Solvency II on rationale to reinsure

Reducing volatility of earnings

- *still applies*

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Impact of Solvency II on rationale to reinsure

Regulatory arbitrage

- On the face of it, this ceases to be an advantage under Solvency II
- Assuming that both insurer and reinsurer are using the same model, and have same assumptions, their insurance risk capital under Solvency II should be the same
- And additional explicit counterparty risk capital is introduced
- But it's more complex than this – eg
  - Contract boundaries – eg on Reviewable / Unit Linked business
  - Ring fencing of matching premium for Annuity business

Impact of Solvency II on rationale to reinsure

New business financing

- Reinsurance offers two distinct forms of new business financing
  - Capital arbitrage at outset
  - Reduced premium reinsurance structures
- The former of these will potentially cease to be an advantage under Solvency II
- But the traditional reduced premium structures will continue to offer financing support

Impact of Solvency II on rationale to reinsure

Tax arbitrage

- This still applies – to the extent that the profits that the reinsurer makes are taxed at their local rate

Impact of Solvency II on rationale to reinsure

Differing views of underlying claims cost

- This certainly still applies
- If offices tender to a range of reinsurers, there is a reasonable chance that one will have a lighter view of claims experience than the office does

Impact of Solvency II on rationale to reinsure

To mitigate the key risks of the underlying product

- **Mortality** – using a typical quota share, mortality variation can of course be reduced– but at the expense of ceding a large proportion of the business. There are other ways of ceding much of the risk – use of stop loss, surplus, or tail cover can give the desired protection without ceding so much of the total risk.

- **Persistency** – structures can be put in place to help reduce lapse risk – but what is the cost of reinsuring it against the savings from capital released. The answer to this is far from certain, so needs some in-depth analysis (which would require rates under various scenarios to be supplied by reinsurers)

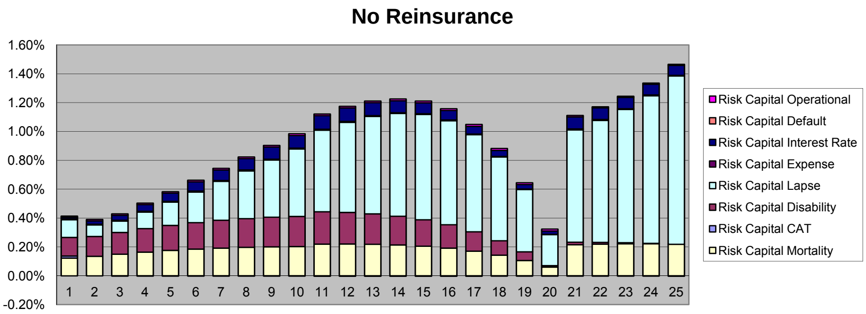
- **Market Risk** – using an asset structure for longevity reinsurance can pass market risk to the reinsurer. But the capital is just being moved, not reduced.

Impact of Solvency II on rationale to reinsure

But,

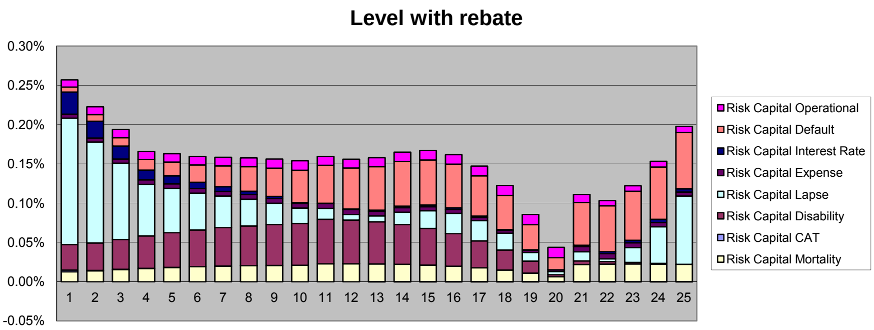
- reinsurers seek a profit loading
- Insurer takes on default risk
- And are reducing their diversification against market risk
- Currently the typical reinsurance program is
  - large quota share reinsurance of life risk
  - retention of large amount of longevity
- A rebalancing of this will also improve diversification
- Marginal capital for life risk may be low for a period of time for insurers with large longevity books

Impact of Solvency II on rationale to reinsure



- High SCR requirement
- Volatile over time
- Key SCR components :Lapse / Mortality / Disability / Default

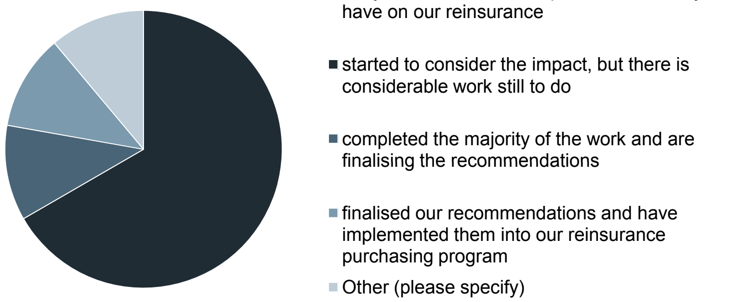
Impact of Solvency II on rationale to reinsure



- Lower SCR requirement
- Less volatile over time
- But reinsurer charges to take on this risk !

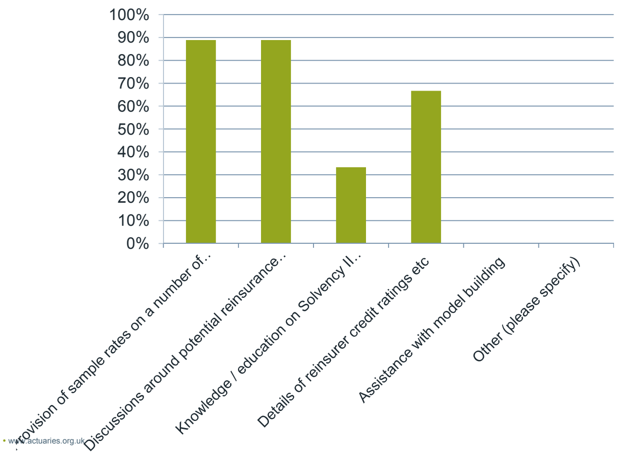
Results of Survey

How far have you progressed in assessing the effects of Solvency II on your reinsurance purchasing ?



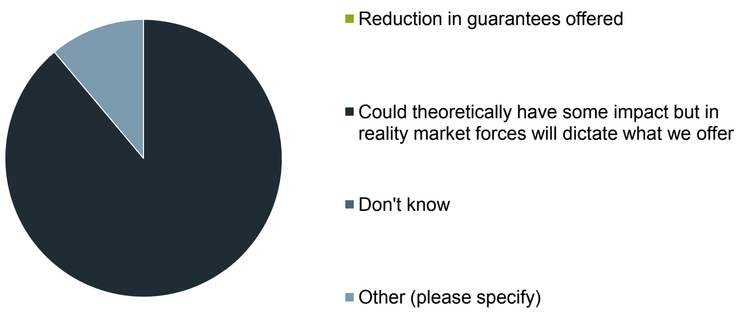
Results of Survey

What support do you expect from reinsurers in order to assess the possible impact of Solvency II on reinsurance ?



Results of Survey

What impact will Solvency II have on product design ?



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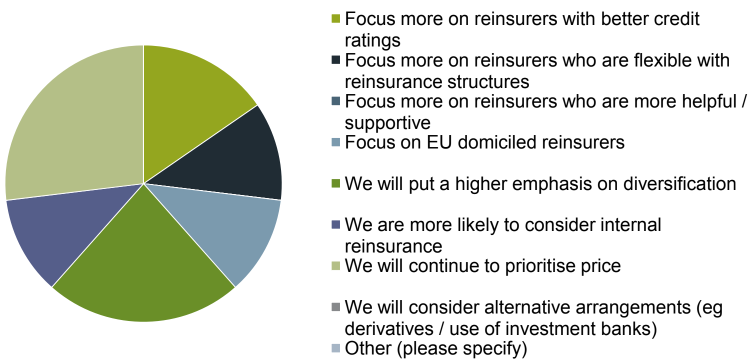
Results of Survey

How will Solvency II affect your choice of reinsurer (tick the key reasons that apply) ?



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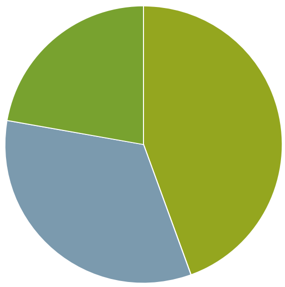
Results of Survey

Will Solvency II impact on the volume of reinsurance you will purchase ?



- Our reinsurance purchase will not change in terms of volume
- We will purchase more reinsurance
- We will purchase less reinsurance
- Don't know
- Other (please specify)

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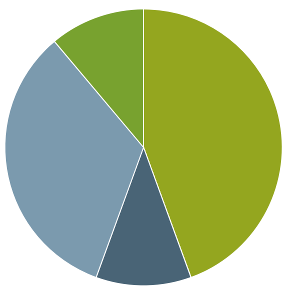
Results of Survey

Do you think that Solvency II will impact on the general level of pricing within the reinsurance market ?



- In general, reinsurance prices will remain the same
- In general, reinsurance prices will rise
- In general, reinsurance prices will fall
- Don't know
- Other (please specify)

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Results of Survey

I'm sure that the aggressive nature of reinsurance pricing within the UK will mean that the industry will continue with high QS reinsurance for protection in the future.

Would like to see more information from reinsurers over their key risks and the type of stresses they have capital to cover.

Solvency II principles have been embedded into our modelling for pricing and reinsurance purchasing over the past few years, so any further changes to reinsurance buying as a result of S2 are likely to be small

What needs to change ?

- Currently, high quota shares, because
  - exploits regulatory arbitrage
  - reduces volatility
  - benefit from differing views on claims
- But, this has disadvantages under solvency II
  - default risk of reinsurer
  - less insurance risk to diversify against market risk
  - Possible misalignment of mortality / longevity
- So alternatives should be considered eg use of surplus cover / stop loss / tail cover could offer the required volatility protection – but without some of the disadvantages of large quota share

What needs to change ?

- Persistency risk is a key risk for many offices
- Whilst some is passed to reinsurers, most current structures leave significant lapse risk with the office
- Better transfer of persistency risk could be achieved through different structures – eg
  - A combination of level and risk premiums
  - A quota share % that varies over time

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Conclusions

- Regulatory Arbitrage may largely cease under Solvency II
- But, other key reasons still exist
  - Differing views of underlying claims cost
  - Reinsurer's knowledge
  - Reduction of volatility in earnings
- Currently, few offices have thought through the implications of Solvency II on their reinsurance purchasing in any detail
- Offices need to
  - Assess where their risks are (a breakdown of SCR component parts is ideal for this)
  - Consider their risk appetite & hence what they are keen to remove / reinsure
  - Have lots of conversations with their reinsurers over how to achieve their objectives
  - Consider the impact of SII holistically (not at the product line level)

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Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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