



**The Actuarial Profession**

making financial sense of the future

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## Challenges in Product Pricing

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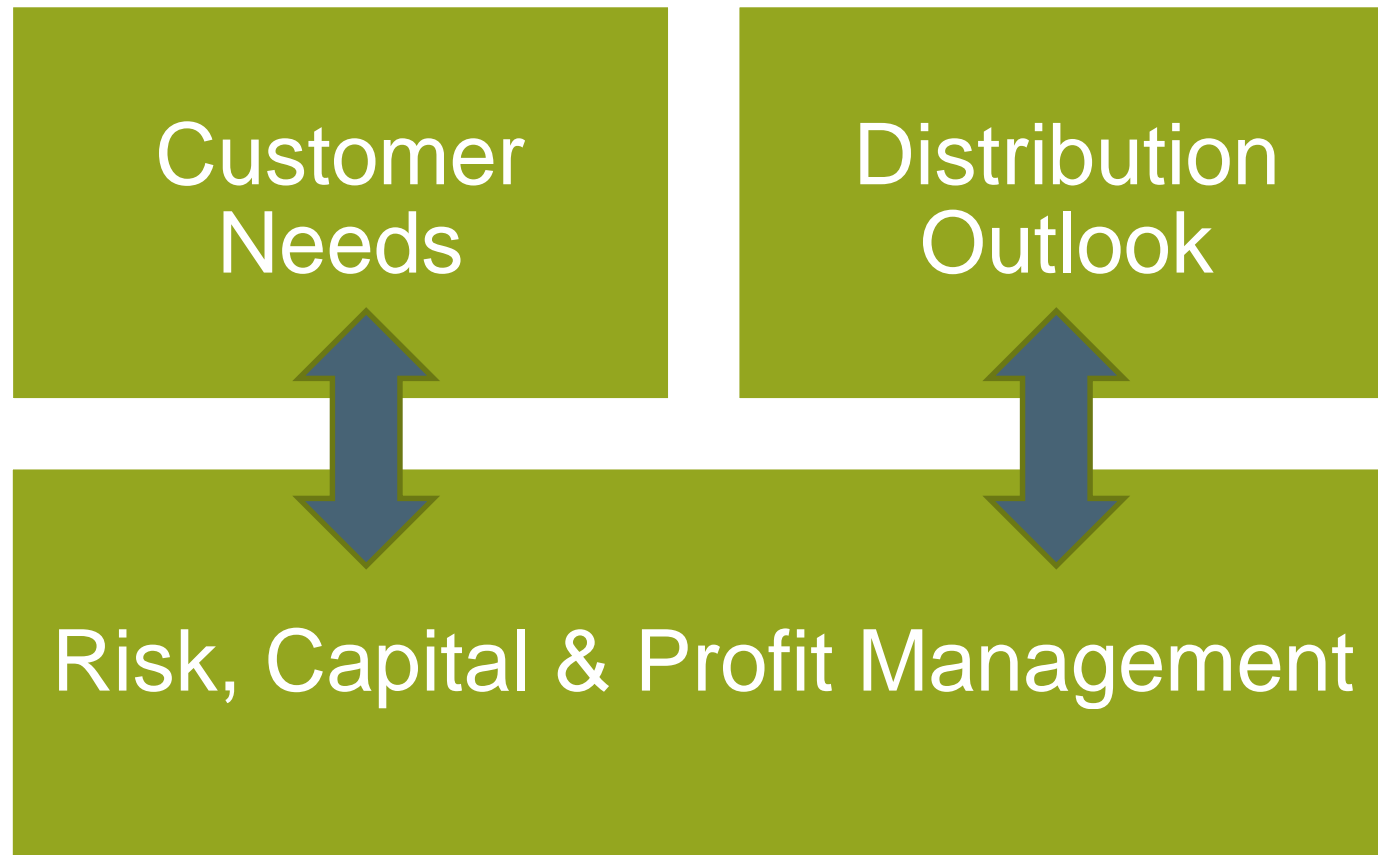
# Agenda

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- Current challenges in product pricing
- Aviva experience

# Current Challenges

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# Customer Needs

- Poor economic outlook
- Increased market volatility
- Past institutional failings undermine customer confidence
- Increased focus on credit worthiness of provider



- Need to provide security and value for money guarantees
- Providing transparency of product terms
- Improving accessibility
- Managing risks whilst providing value for money
- Managing capital strength

# Distribution Outlook

- Retail Distribution Review changes market dynamics
- Consolidation of distributors, removal of commission / preferential deals
- Increased standards within adviser community



- Deciding on strategy – minimum compliance to revolution
- Design of products suitable for sale direct to customer
- Differentiating product offering
- Improving product flexibility to service different types of distributor and pay fees

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# Risk, Capital and Profit Management

## *Risk Strategy*

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Solvency II increases the focus on risk management, for instance:

- How much risk does the organisation want – where does it add value?
- What risk metric does the company want to manage (e.g. P&L volatility, capital)?
- How should risk be shared between the insurer, reinsurer, hedge provider, customer...?

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# Risk, Capital and Profit Management

## *Capital Allocation*

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- Which capital measure should be used in pricing – SF v IM v OCA?
- How can the granularity of the capital allocation be increased to match that required for product pricing?
- How is the benefit of diversification allocated between product types?
- Is the shape of future capital requirements well understood?

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# Risk, Capital and Profit Management

## *Profitability Measures*

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- Return on capital – which technique and capital measure to use?
- What is the required return on capital - should it be lower if the organisation has reduced its risk exposure?
- Can the organisation design profitable products with viable charging structures?



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# Risk, Capital and Profit Management

## *Embedding Solvency II*

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- Use Test – *“Insurance and reinsurance undertakings shall demonstrate that the internal model is widely used in and plays an important role in their system of governance,..., in particular...their decision-making processes...”*
- Requires organisations to explicitly consider risk and capital within product pricing
- New metrics and limitations need to be clear to senior management

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# Risk, Capital and Profit Management

## *Modelling*

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- Pricing models are typically based on Solvency I measures and need to be updated
- As capital modelling becomes more complex the transparency of pricing reduces
- Approximations in capital modelling may be inadequate to reflect the true impact of the new capital regime

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# Risk, Capital and Profit Management

## *Practical Issues*

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- Lack of clarity on the approach required:
  - Liquidity premium
  - Contract boundaries
  - Internal Model approval
  - Tax
- Resources are diverted to Solvency II implementation projects

# Tension within Pricing Process

- Need to provide security and value for money guarantees
- Providing transparency of product terms
- Improving accessibility
- Managing risks whilst providing value for money
- Managing capital strength



- Pressure generate hurdle rate of return on capital
- Risk management can lead to more complex product design
- Capital management leads to products with fewer guarantees – greater proportion off risk passed to customer

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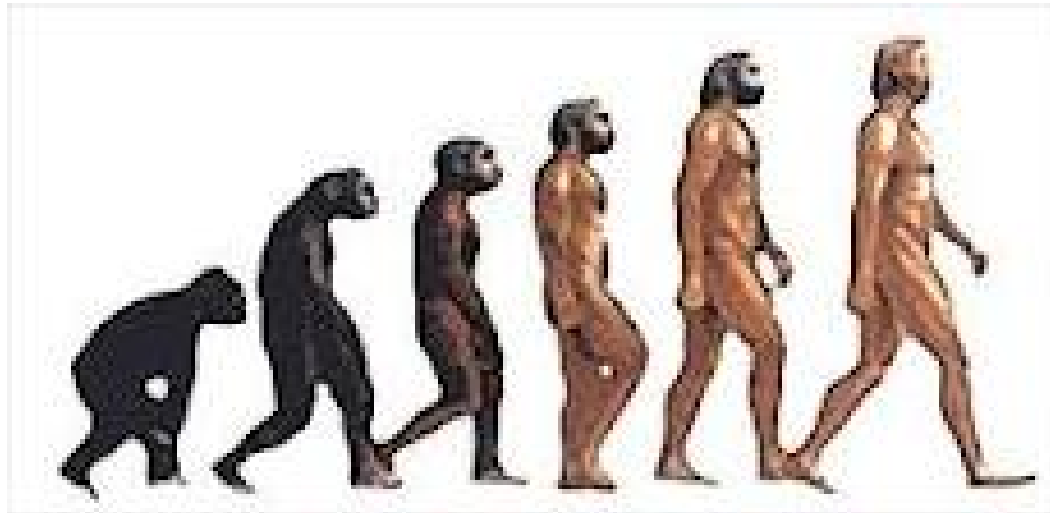
# Aviva Experience

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# Perfect Storm?

What	When	Impact
EU Gender Directive	21.12.12	Systems, Pricing Strategy, Underwriting
Tax Regime Change	01.01.13	Systems, Pricing Strategy
Solvency II	01.01.14? Now	Everything!
RDR	31.12.12 Now	Distribution deals, Pricing, Persistency
Factory Gate Pricing	31.12.12 Now	Systems, Pricing strategy, Distribution deals
Adviser Charging	31.12.12 Now	Systems, Pricing strategy, Distribution deals
NEST / auto-enrolment	01.10.12	Individual / Group Pension market
Current Market / Economic Conditions	Now	Customer uncertainty, Pricing volatility

# Evolution of Capital in Pricing



Statutory  
Capital

ICA

ICA+  
(increasing  
granularity)

Solvency 2  
(QIS 5)

Internal  
model

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# Challenges

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## How do you price using S2 methodology before the basis is finalised and all models are built?

- Choice of Matching Premium/allowance for investment returns
  - Nothing
  - Standard formula
  - Internal model view
  - Allowance for over-performance (akin to S1 basis)
- Allowance for diversification – how do you do this?
  - Allocation by area
  - Depends on fungibility of capital
- Changing view of rules – would you make different decisions as the rules change? Need to maintain business strategy and credibility in the market



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## Challenges (continued)

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- Embedding models into decision making
- S1 and S2 metrics alongside each other – potentially contradicting
- What on earth are the competition doing? Where are they on the Pricing journey?
- S2 may force a change in risk appetite
- Granularity of pricing information
- Limitations need to be made clear of approach at all times

# Senior Management Education

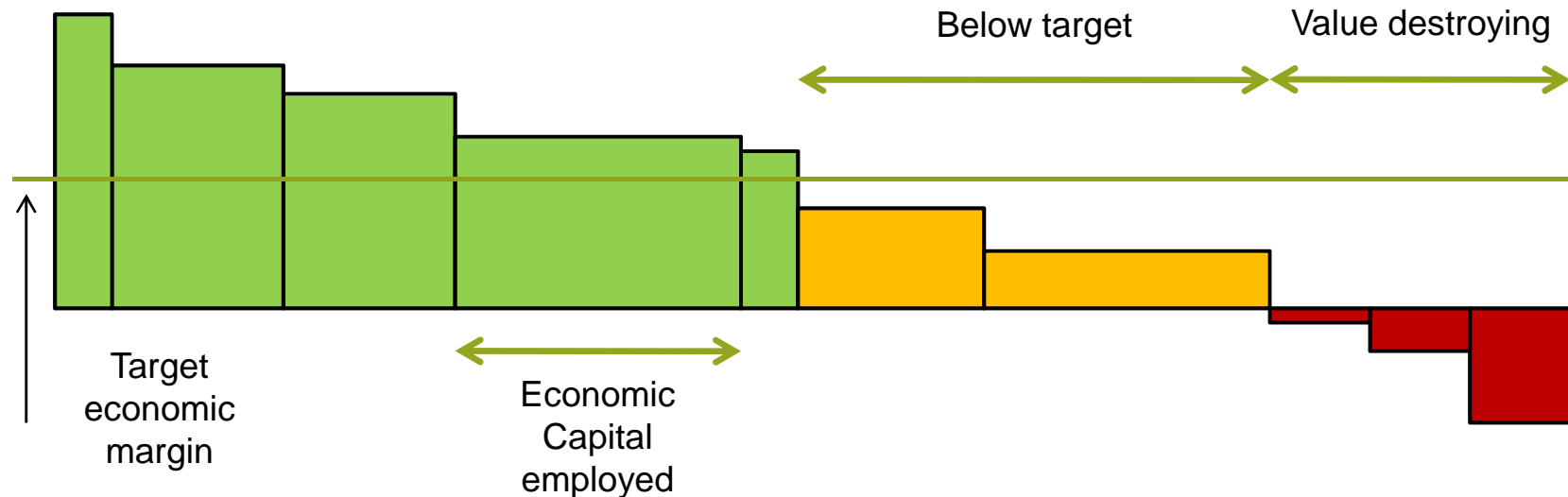
Old world metrics	New world metrics
NBC/Margin	NBC/Margin
Return on capital (statutory)	Return on capital (S1)
Capital employed (statutory)	Capital employed (S1)
	Economic profit
	Economic margin (what is this?)
	Economic IRR
	Payback period
	Capital employed (S2)

## What are we doing?

- Standardised papers
- Training
- Revised governance structures
- Evidence of Risk challenge
- Link with IMAP approval



# Impact on Business Strategy



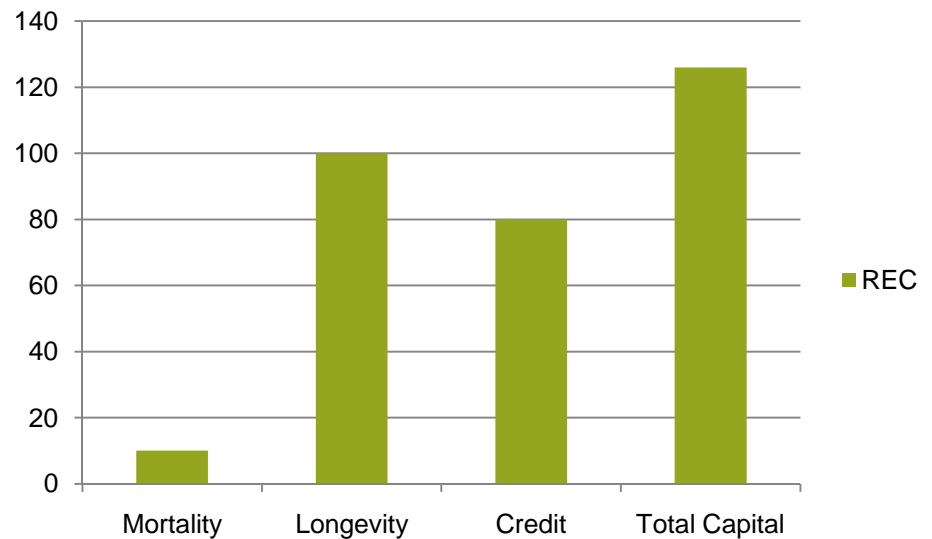
- Key thing is the goalposts have moved – products will have different levels of profitability with an economic profit view
- Different levers to affect economic profit. Affects:
  - Investment strategy and asset mix
  - Reinsurance approach
  - Level and length of guarantees offered in products
  - Product design

# Example

Required Economic Capital for a company selling a small amount of term assurance business and lots of annuity business

Company makes decision to:

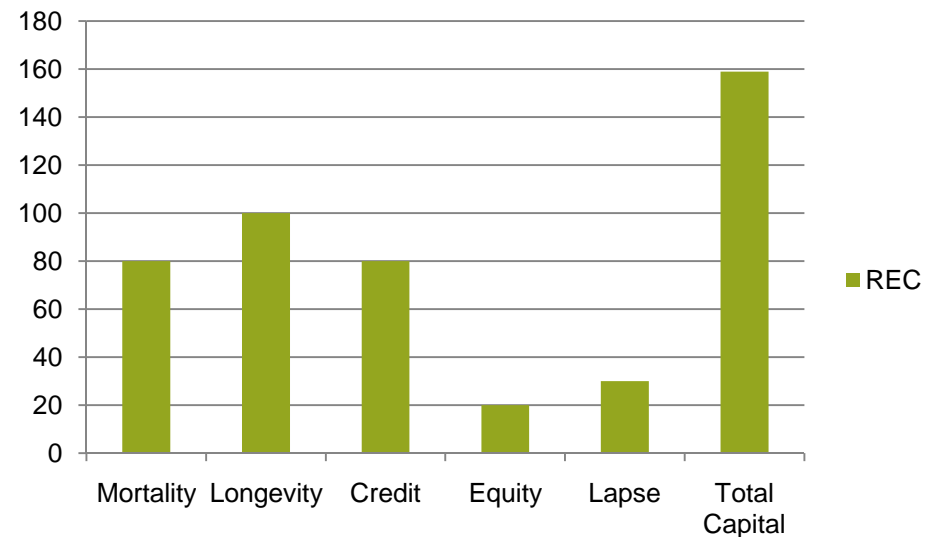
- Stop selling Annuities
- Sell more Protection business
- Start selling GPP business



## Example (continued)

See overall level of capital required has increased but by writing new business in a different mix you have not increased by as much as we would have done if we had continued writing old mix of business

- What level of capital so we price for. How do we decide by product?
- We may have reduced level of required capital but was the decision good value allowing for cost of risk?



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# Other Worries for Pricing People

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- RDR
  - What terms do we offer?
  - How will our persistency be affected?
  - What will it do to New Business?
- Will Auto-enrolment be an opportunity or will NEST take our business?
- I – E tax change – this will level the playing field for Protection but will this help customers?

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# Other Worries for Pricing People

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- Gender directive. Still wrestling with:
  - How do we price
  - What is the impact on back-book
  - Could be very active phase of pricing
- Current market conditions
  - Pension pots falling
  - Cost of guarantees rising/annuity rates falling

**Overall how do we manage all of these factors together?**

**What impact does it have on customers?**

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# Questions or comments?

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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 presenters.

