

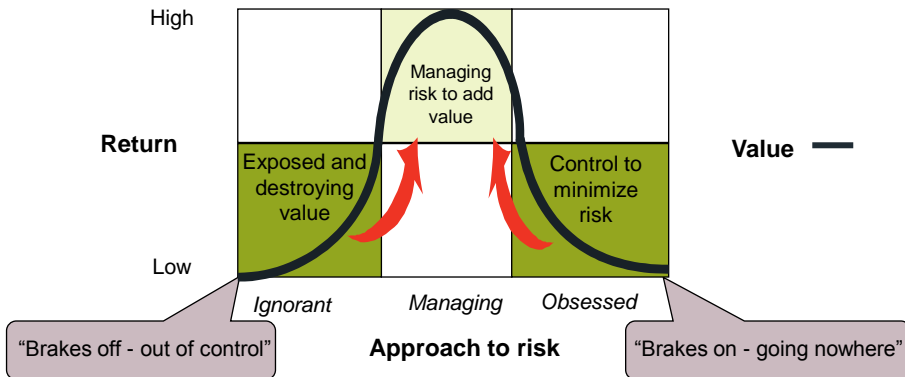
What keeps a CRO awake at night?

Andrew Birrell

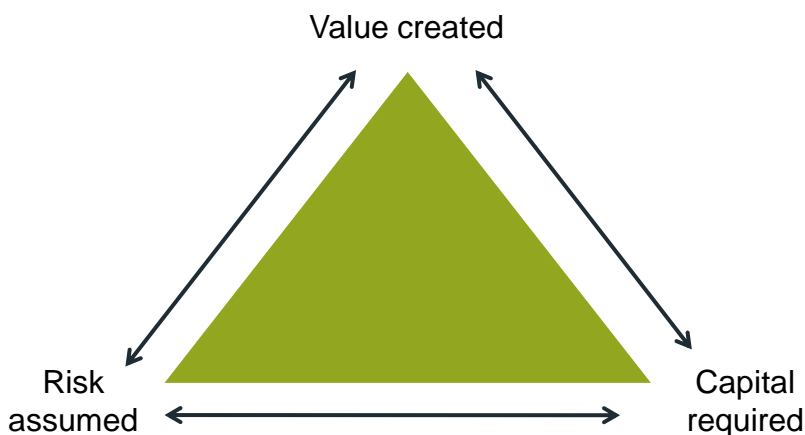


Approach to Risk Management

A pragmatic, balanced approach



The Risk / Capital / Value relationship



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Some high level considerations

- Does the risk management strategy align with corporate strategy ?
- Does remuneration strategy and approach support Risk Management behaviours ?
(*what gets measured and rewarded, gets managed*)
- Tone from the top – is Risk Management embedded as a discipline in the 1st line ?
- What governance and other supporting frameworks are there to ensure alignment between sound risk management and day to day activities
- Are capital requirements reflective of risk being taken in business ?
- How does the business manage existing risks ?
- How does the business assume new risks ?
- Is there a risk avoidance, risk mitigation or risk mitigation approach
- How is risk appetite set :
 - Is it quantifiable or can it be measured in a qualitative manner
 - Is it tracked
 - Who decides on whether it is appropriate ?
 - Who decides on modifications ?
 - What happens when things go wrong ?

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Some context : objectives

- Provide overall leadership, vision and direction for effective enterprise-wide risk management
- Guide the Board, EXCO and Risk Management Committee on the formulation of risk appetite, policies, delegated authorities and limit structures and to embed these within the Group Risk Management Framework
- Review and approve risk management methodologies & models and ensure consistency of risk assessment approach across the organisation
- Challenge, test and monitor the design and performance of risk assessment processes and provide recommendations on areas requiring improvement
- Analyse and assess key accumulations of risk across the organisation
- Review and report to the Board on the organisation's risk exposures against the risk appetite
- Challenge business decisions on key risk areas and have the ability to escalate issues that cannot be resolved
- Provide support, assistance and guidance to line management on all risk related matters

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Further context : Key behaviours

- Advisor
 - Provide advice and guidance to the 1st line management when the business strategy is being set
 - Set the framework and advise on appropriate risk appetite measures and limits
- Enforcer
 - Ensure the risk management framework is being embedded
 - Ensure the business identifies, escalates and manages risk issues to ensure prompt resolution
 - Follow up on remedial actions to minimise loss and prevent reoccurrence
- Enabler
 - Actively challenge management in relation to significant risk exposures
 - Act as a bridge between control functions to ensure information is shared and responses are coordinated
- Ambassador
 - Establish effective relationships to ensure there is a positive approach to risk management

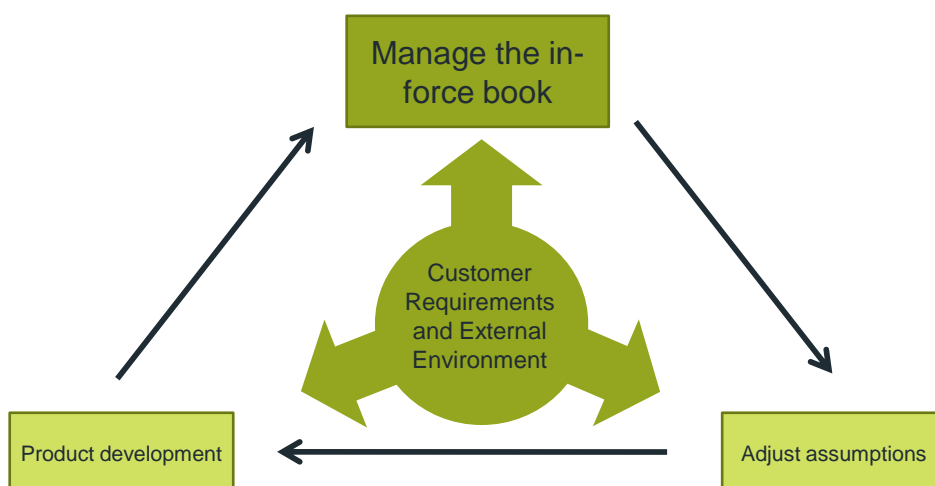
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Do we understand all of the key risk drivers ?

- It appears to me that Risk Management developed out of the Internal Audit function, as a way of ensuring preventative action was taken in respect of issues identified in audits – this presented a lot of attention to **Operational Risk**
- In my view, to have a good risk management function it is **Necessary** but not **Sufficient** to manage Operational Risk well
- Typically in insurers, **Asset Liability Mismanagement, Incorrect Assumptions** and **Pricing / Contract Design** issues have led to failures
- In my organisation, Operational Risk accounted for <15% of total Economic Capital at Risk, yet in 2007 was the main risk being focussed on

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Managing the Risk Lifecycle



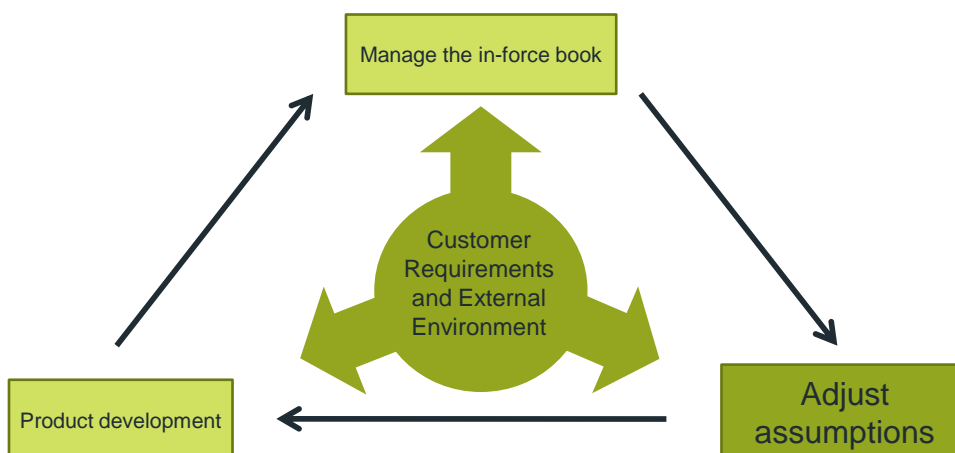
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Managing the In-Force book : existing business risk

- Governance Framework - Business, Liability, Market, Credit Risk, etc. policies
- Experience investigations
 - MCEV experience variances
 - Annual Mortality, Persistency, etc. investigations
 - Distributor analysis
- Ongoing reporting
 - Statutory, IFRS and MCEV results (including VNB, sensitivities, variances)
 - Assess new business profitability & volumes (too high could indicate mispricing/selling)
 - Operational losses (systems, people and process)
 - Evaluate Economic Capital and other Risk Appetite metrics
 - Monitor solvency levels
 - Certain guaranteed product approvals conditional on specific reporting
- Hedging effectiveness and reinsurance reviews
- Stress and scenario testing
- Feedback from customers and distribution channels

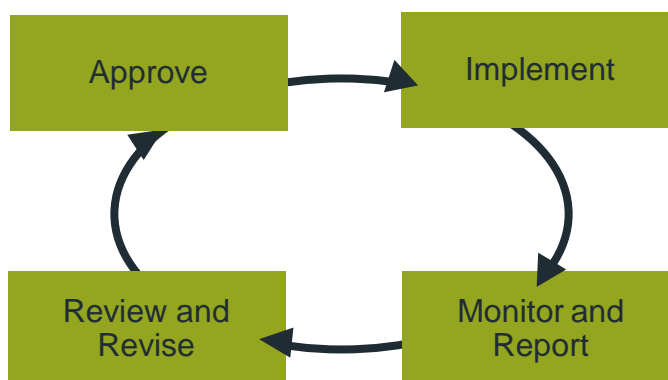
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Managing the Risk Lifecycle



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Strong monitoring / control cycle is key



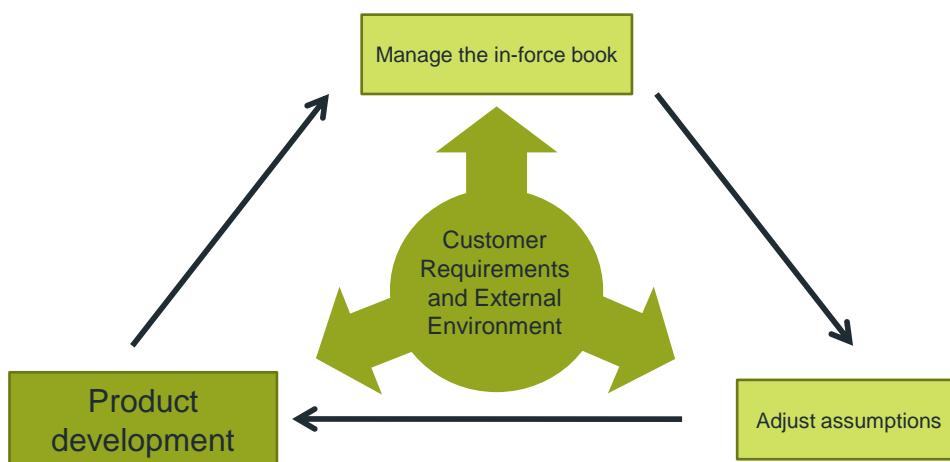
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Adjust Assumptions & External Environment : closing the feedback loop

- Governance
 - Established frameworks for reviewing assumptions and results
- Re-price
 - Economic climate
 - Demographic experience
 - Competitive environment
- Re-design
 - Based on customer / distributor feedback
 - Experience
 - Competitive environment
- Adjust hedging / reinsurance strategy
- Close to new business
- Launch alternative product ?

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Managing the Risk Lifecycle



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Product Development : Managing New Product Risk

- Governance Framework
 - Product approval process
 - Sign off by executives
 - Ensure that the chain remains intact at all times
- Metrics
 - Base case plus sensitivities in new product proposals
 - Margins, sales volumes, etc. reported at QBRs and as part of MCEV reporting
 - Capital requirements and new business strain as part of MCEV reporting
- Risk mitigation
 - Underwriting
 - Decide on hedging strategy and implement as appropriate
 - Appropriate reinsurance treaties

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Solvency 2 and managing the risk lifecycle

- Risk Strategy, Limits and Appetite setting
- Product Development and Pricing
 - Aligned to Risk Strategy
 - Projection of evolving economic capital requirements
 - View of Solvency II strategic implications for new product designs
- Measuring and Monitoring Solvency, Liquidity and Funding Levels
 - Better understanding of risks and how they interact under different conditions
 - Forecasting, capital monitoring and stress and scenario testing ability which makes information rapidly available
- Strategic Planning and Capital Allocation
- MI & Reporting
 - Get the right information at the right time to the right people
 - Help them pull the appropriate levers to deliver the required results
 - External communications to Regulators, Rating Agencies and Investors
- Governance: Embedding a risk and value culture
 - Ensure Performance Management and Incentivisation arrangements aligned

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Risk preferences – if you have not set these you don't know what you are being paid for

- Determine these based on corporate strategy, competitive advantage, risk appetite and capital requirements
- Need to know that one is being paid to take the risks one is taking, that one has the capital to underwrite these risks, and effective mitigation strategies
- Lose sleep on this one if this is not explicit, well understood and well managed

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Some danger signals

- When products sell too well
- When management do not appreciate challenge or alternative approaches
- When decisions are taken within time periods that do not allow reflection *Act in haste, repent at leisure*
- When there is little evidence of insight, but a lot of evidence of requiring perfect circumstances or heroic assumptions for the desired outcomes to be obtained
- Lack of evidence of market consistent pricing for investment based risks / complex black boxes which are protected or not well understood

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Questions or comments?

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