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Risk management in with-profits funds

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Background

- The 21st century has been a relatively hostile environment for with-profits funds:
  - Regulatory concerns over solvency
  - Increasingly onerous "fairness" rules
  - Adverse publicity
  - Shareholder risk awareness increased

High levels of risk management activity

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Overview

- Nature of the risks that need to be managed
- Risk management
  - Robust processes
  - Liability management
  - Investment strategy and use of derivatives

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Examples of risks that need to be managed

Market & credit risk	Insurance risk	Operational risk
▪ Equity falls ▪ Yield curve changes ▪ Implied volatility changes ▪ Credit spreads & defaults	▪ Mortality/longevity ▪ Persistency ▪ Take-up rates ▪ Switching/increments ▪ Expenses	▪ Non-compliance with PPFM/ TCF ▪ Errors eg in asset share calculations ▪ Exercising discretion

Interaction between risks complicates risk management

Policyholder and shareholder risks (1)

- Policyholder risks
  - Investment performance of asset shares
  - Lower bonus rates
  - Miscellaneous losses, increased guarantee charges, lower estate distributions
  - Loss of investment freedom
- Shareholder risks
  - Reduced shareholder transfers
  - Burn through costs
  - Reduction in franchise value
- Other potential participants, eg staff pension scheme

Policyholder and shareholder risks (2)

- Is the division of risk and reward fair?
- What impact do potential risk management strategies have on:
  - Risk and reward for shareholders?
  - Risk and reward for policyholders as a whole?
  - Risk and reward for different groups of policyholders?

Robust processes

TCF issues

- A With-Profits Fund must be managed by a firm so as to have "due regard to the interests of its customers and treat them fairly" (PRIN 6)
- Given the regulatory rules, it is essential to:
  - Demonstrate that decisions taken comply with PPFM or other documentation
  - Be able to show why a decision is compatible with PRIN 6 obligations
  - Be able to show why it meets the guidance in COB 6.12, or if not why not

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Robust processes

PPFM

- Ensure the PPFM is robust enough to cope with changing circumstances and is TCF
  - Eg are there any risks policyholders or shareholders would not expect to bear and what happens when financial circumstances change?
  - More or less detail?

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Robust processes

Management information

- Appropriate information to Board/WPC/Senior Management etc to enable them to
  - Monitor risk and reward for different stakeholders
  - Monitor compliance with TCF/PPFM
  - Exercise discretion/take decisions
- For example
  - Projected asset allocation, guarantee charges, estate distributions, shareholders transfers
  - Level of cross-subsidies: now and projected
  - Impact of smoothing
  - Scenario testing
  - Limits and triggers

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Robust processes

Asset shares

- Ensure the asset share methodology and calculation are:
  - Tested for accuracy
  - Consistent with Principle 6 (TCF) and, more specifically COB 6.12
  - And that the above can be demonstrated by reference to relevant documentation

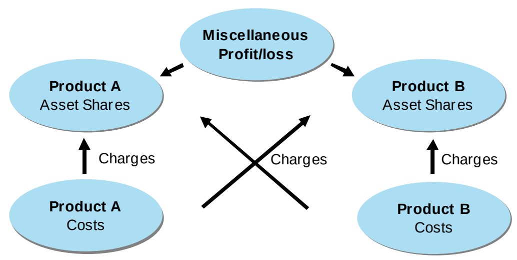
Liability Management

Managing liabilities

- New business
- Risk transfer
  - Reinsurance, securitisation
  - Transfer, amalgamation of funds
- Asset share policy (next slide)
- Bonus policy and smoothing
- Surrender terms/MVRs

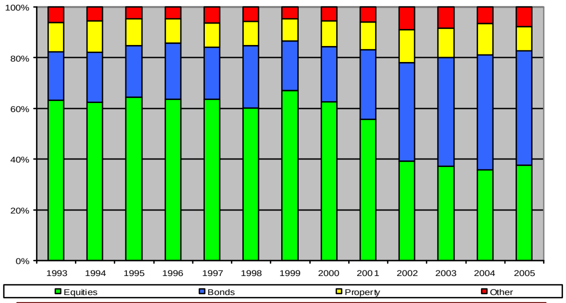
Liability Management

Asset share policy



Would any changes be appropriate?

Investment trends – WP assets



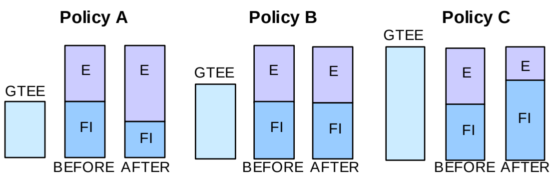
Source: Watson Wyatt With-Profits Investment Survey

Investing asset shares

- Direct exposure for policyholders
- Level and flexibility of proportion invested in equities but also impacts on estate and shareholders and other risky assets (property, credit)
- Composition of return seeking assets (UK & overseas, active versus passive, hedge funds, private equity…..)
- Options within asset share?

Differential asset share returns

- Equity backing ratio (“EBR”) varying by duration and/or guarantee level



- Bonds matched by duration to asset share cohorts

Impact on guarantee charges?

Investment

Investing the estate and other assets

- Estate
  - Indirect exposure for policyholders and shareholders
  - The same investments as asset shares or different?
  - Investment of estate to protect shareholders or policyholders?
- Other assets
  - Profile and hedge residual shareholder losses?

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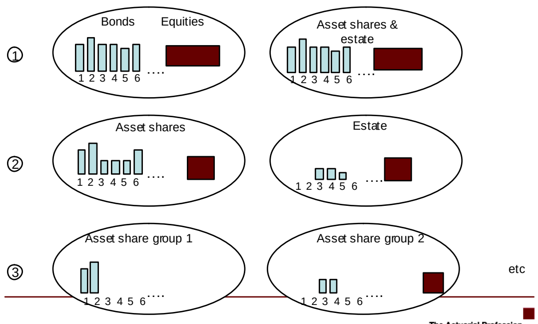
Investment

Hypothecation / cohort returns



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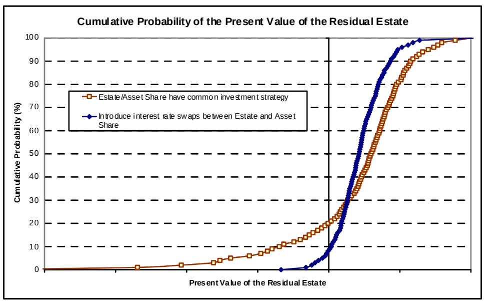
Investment

Example of hypothecation effect



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Investment

Dynamic short equity positions

- Example:

Starting position / 20% market fall

Assets backing asset shares			Other assets		
Equities	60	48	Equties	-20	-16
Bonds	40	40	Bonds	40	40
Total	100	88	**Total**	20	24
Asset shares	100	88	**Guarantee costs**	20	24

- Short using futures or offset against equities in asset shares

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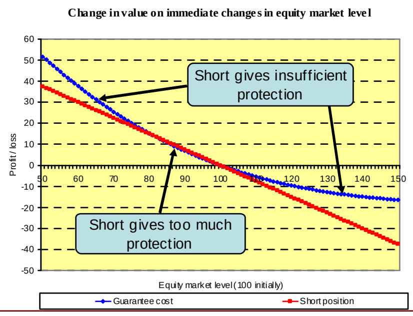
Investment

What happens for other changes in market prices?



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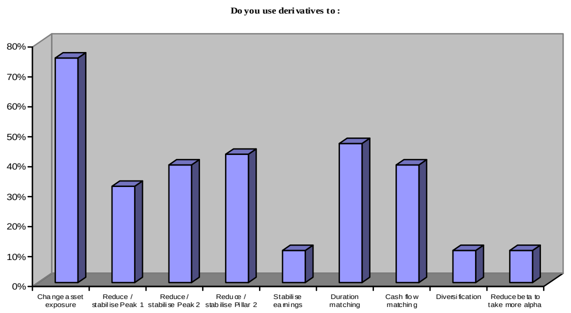
Derivatives

Use of derivatives



Source: Watson Wyatt With-Profits Investment Survey

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Derivatives

Overview – derivative activity

"First wave"
- Sterling and Euro quanto swaptions for GAO hedging
- Equity options (especially collars) to manage resilience reserve
- Cash flow matching

"Second wave"
- Restructuring of GAO hedges
- Longer dated equity options
- Hedge interest rate risk at fund level
- Reduction of risk in staff pension scheme
- Credit derivatives
- Hybrids
- Property swaps

"Drivers for second wave"
- RBS, ICA
- Closed funds, M&A
- Capital market developments
- Admissibility changes

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Derivatives

Derivatives held where?

Location of derivatives	Volatility of asset shares	Volatility of guarantee charges	Volatility of estate/shareholder interest
In asset shares	↓↓↓	↓↓	↓
In estate, & inside guarantee recharge formula	=	↓↓	↓ OR =
In estate, & outside guarantee recharge formula	=	=	↓↓

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Derivatives

Choice of derivative strategy – some general issues to consider

Tailored hedge	Standardised instrument

▪ Less dynamic strategies
▪ Illiquid, difficult to adjust
▪ Include longer term options, hybrids, options based on actual holdings rather than indices
▪ Residual risks remain due eg to policyholder behaviour and management actions
▪ Price intransparency
▪ Cost
	▪ More dynamic strategies using more liquid instruments
	▪ Basis risks, eg
	  ▪ Price return vs total return
	  ▪ Names & weightings
	  ▪ Strike & term
	  ▪ Correlation between market risks
	▪ Rebalancing costs and tracking error

Difficult to decide where to strike the balance

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Conclusions/summary

- Complex risks
- Need to consider interests of policyholders, as a whole and as individuals, and of shareholders and decisions on what risks appropriate for each group to take
- Strong process and controls are essential
- Significant activity in reducing ALM risk within this framework