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2004 Life Convention

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Fixed Interest Investment for Life Insurers – Driven by Investment Principles or Regulation?

FIB Working Party 3

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Agenda

- Trends in bond holdings of Life Insurers
- Analysis of recent fixed interest performance
- New Regulatory restrictions for Life Insurers
- The impact of regulation on optimal bond strategies
- Tools for risk management of credit portfolios
- Conclusions and discussion

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Current bond holdings for Life Insurers

- Different insurance companies, and different funds within insurance companies, invest in bonds for varying purposes
- Separately analysed recent historic and current bond holdings of with-profits funds, unit-linked funds and assets backing non-profit liabilities in UK life insurance companies

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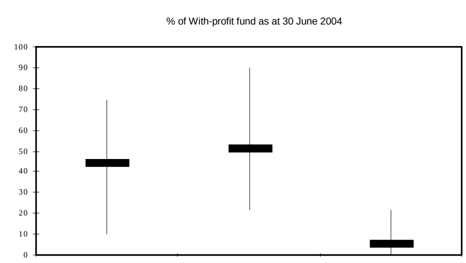
Current bond holdings for Life Insurers – With-profit funds



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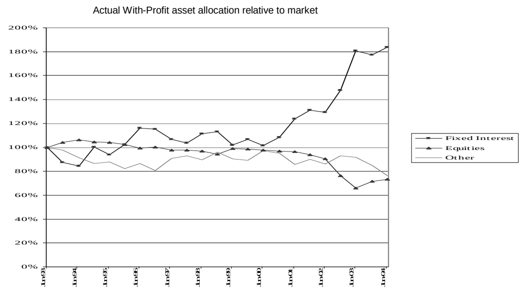
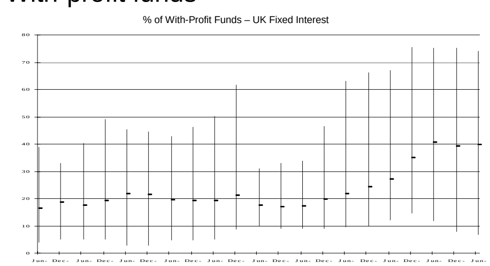
Trends in bond holdings relative to market movements – With profits funds



Trends in bond holdings for Life Insurers – With-profit funds



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Trends in bond holdings for Life Insurers – With-profit funds

Fixed Investment Holdings of with-profits funds, June 2001 to June 2004

	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Dec-03	Jun 04
UK gilts	31.8%	30.6%	27.1%	37.4%	26.4%	27.4%	28.5%
UK corporates	55.7%	60.1%	62.6%	60.0%	64.5%	67.4%	65.1%
Overseas bonds	12.5%	9.3%	10.3%	2.6%	9.1%	5.1%	6.4%

The above table shows how the fixed interest holdings have changed over the past few years.

Investment in UK corporate bonds has increased at the expense of UK government and overseas bonds.

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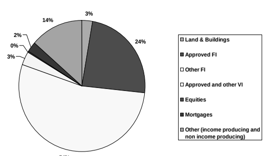
Current bond holdings for Life Insurers – Unit-linked funds

- Invest in accordance with stated investment aims
- Policyholder makes the investment choice, since taking the investment risk
- Normally, lower levels of fixed interest investment than with-profit funds.
  - Balanced funds – up to 85% in equities
  - Cautious funds – up to 60% in equities
- Average balanced fund at end of 2003 held only 10% in bonds

Current bond holdings for Life Insurers – Non-profit funds

- Typically, the company bears all investment risk
- Aim to match liabilities closely by duration and cashflow
- Heavily backed by FI, especially corporates



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Conclusions

- NP assets virtually all bonds
- UL assets virtually all equities
- WP assets roughly 50:50
- Can these differences be fully explained by differences in liabilities or are other factors, eg regulation, at play?

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Overseas investment – hedged versus unhedged

For a UK investor	Standard deviations (% pa)		Annual returns (% pa)	
	Hedged	Unhedged	Hedged	Unhedged
Germany	3.5	8.6	8.6	4.2
Japan	3.8	12.7	10.3	4.1
US	4.6	8.7	8.1	6.7

Source: JP Morgan 1993-2002

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Active versus passive management

- Median manager performance in 5 years to 31 December 2003 (% pa)

	Active Managers	Index
UK gilts	4.2	4.4
UK corporates	6.0	6.4

- Active management typically costs 10-20 bps per annum more than passive management for a £100m bond portfolio

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Conclusions

Recent experience would advocate the use of:

- Hedged overseas investment
- Corporate bonds of all investment grades
- Passive management of bond portfolios

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Effect of ICA

- Should align the economic considerations of the insurer with the regulatory position => should minimise the distorting effects of regulation
- However, ICA practice is yet to be established and may well build upon current methodologies and hence distortions may remain
- In particular, latest draft of TS3 states that it is unlikely to be appropriate for any ICA stress test to be less than the equivalent RCM stress for realistic basis firms

Effect of ICA on fixed interest investment

- Lot of “guessing” in the market as to the effect of ICA on life companies
- Because it is each company’s individual assessment, it is very difficult to predict what the impact may be and it does not appear that there is any definite investment decision that most companies will make
- Highly likely that many companies will look to de-risk and one of the areas where a de-risk is possible is lower quality credit

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Effect of ICA on fixed interest investment

- Impact on realistic basis firms may not be that large as corporate bonds may not be a significant part of their portfolio and they will already be holding a RCM for an equivalent level of stress
- Major impact is likely to be to specialist annuity and protection companies who have significant corporate bonds holdings
- However, these companies are generally unlikely to have an amount of bonds that could see significant market moves through increased supply or demand

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PS04/16 – credit stress test

- Credit spread shock = $\sqrt{\text{Credit spread}}$ * Spread factor
- Applied at individual bond level – no test of diversification
- Spread factors rating dependent
- Firms nominate rating agencies
  - Where one rating, use that
  - Else use 2nd highest rating
- Unrated – own view, but …

Spread factors

Credit rating	Factor
AAA	3.00
AA	5.25
A	6.75
BBB	9.25
BB	15.00
B	24.00
Below B	24.00

Subject to minimum 5% haircut for bonds < B

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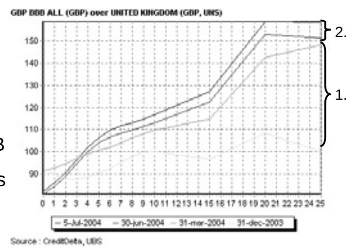
Market reaction (not from insurers!)

1. CP195 induced steepening of credit curves
2. PS04/16 - immediate widening of BBB
3. Demand for taps from supras



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Regulatory peak

- Historically "credit free-lunch" – valuation capitalised credit spread, less "prudent" deduction for defaults
- Per PS04/16 can only capitalise this "liquidity premium" if hold bonds to maturity
- FSA's initial intention that:
  - Held to maturity = onerous IAS39 standard
  - Otherwise risk free
- But have subsequently moved back from that position

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Dear Chief Executive

Credit Risk Management in Life Insurance Firms

Areas of weakness

- Unrated (e.g. debentures): no independent review
- Liquidity: little evidence that liquidity risk mitigated
- Reinsurance: no mitigation of risk from legacy contracts
- Independence: segregation between implementation / compliance, and between credit analysis / investment
- Management information: e.g. rating/sector breakout
- Counterparty exposure: limited information / controls

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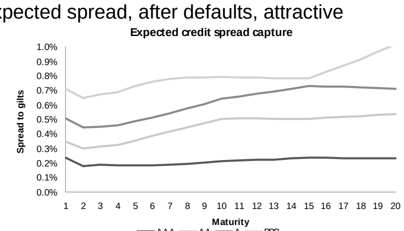
Expected performance vs. risk free

- Expected spread, after defaults, attractive



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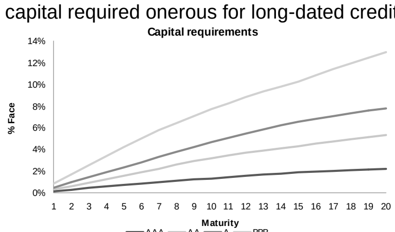
Capital requirements under RCM

- But capital required onerous for long-dated credit



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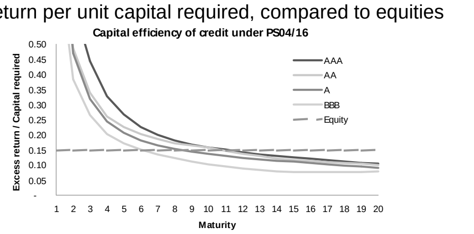
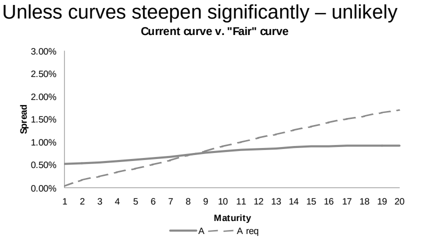
How does credit compare?

- Return per unit capital required, compared to equities



Long-dated credit unattractive

- Unless curves steepen significantly – unlikely



Optimal realistic peak strategies

- Penal treatment of long-dated credit

⇒Separate credit exposure (short-dated) from liability matching (typically long-dated)

- Penal treatment of lower-rated credit
- No credit under Pillar 1 for diversification

⇒Potential role for securitisation?

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Risk management tools

- Interest-rate (and inflation) swaps
  - Liberate credit strategy from liability matching
- Credit default swaps
  - Liberate credit strategy from liability matching
  - Protect credit exposure – e.g. reinsurance
- Securitisation – and CDOs
  - Tailored exposure to credit risk
  - Enhance liquidity of illiquid underlying assets

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Liberating credit strategy from liability matching

- More tailored cashflow matching
- Diversification – richer choice of names, overseas issuers (using basis swap)
- Better value – long-end of £ credit curve flat
- Reduce impact of credit spread volatility – and hence Risk Capital Margin
- HTM while avoiding taking a 30 year view

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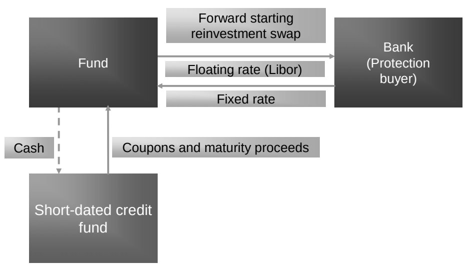
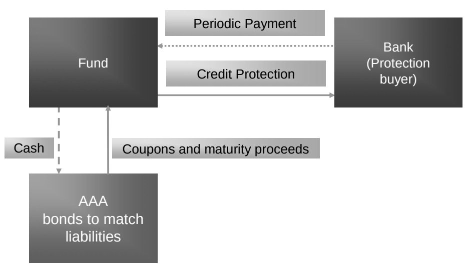
Liability matching using swaps



Liability matching using CDS



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