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FINANCIAL GUARD

Life Conference Session B3:

Investments and the Optimising of Capital under Solvency II

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Agenda

1. Historic View
2. Objectives
3. Capital Optimisation
4. Future Developments

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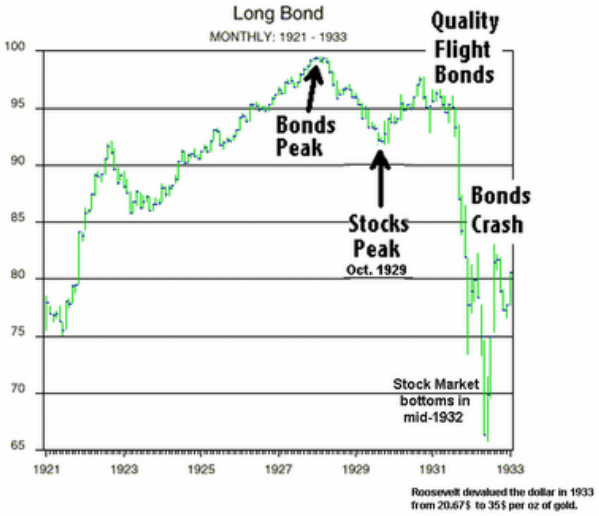
1. Historic View of Capital

1. Historic Changes

- Amortised Value



Ref

1. Historic Changes

- Amortised Value
- Market Values

Ref

1. Historic Changes

- Amortised Value
- Market Values
- Fair Value

Ref

1. Historic Changes

- Amortised Value
- Market Values
- Fair Value
- Transitional Rules

Ref

1. Solvency II – Negotiations with Regulators

- Internal Models
- Ultimate Forward Rate
- Long-Term Guarantee Adjustments
  - Volatility Adjustment
  - Matching Adjustment
- Inclusion of certain Assets Classes
  - Equity Release Mortgages in Matching Adjustment
  - Infrastructure Assets (projected)

1. “Quick Wins” to Date:

- Lower/higher rated bonds
- Illiquid assets
  - Private placements, callable bonds
  - Renewables, etc.
- Diversify away from asset-liability match
  - Interest rate mismatch
  - Equity

1. Further ideas for wins

- Transparency for funds
  - Operational Risk
- Fewer guarantees in products
- Where are prudent assumptions?
- Relationship with IFRS reserves
- Opportunities to recognise Value-in-force (VIF)
- Reinsurance: use a non-EU reinsurer (e.g. Bermuda).

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2. Objectives

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onsorship
Thought leadership
Progress
Community
Sessional Meetings
Education
Working parties
Volunteering
Research
Shaping the future
Networking
Professional support
Enterprise and risk
Learned society
Opportunity
International profile
Journals
Suppo

2. Objectives: Spiral of Capital Improvement

You can have a world-class, **capital-generative organisation** for the price of your least expensive capital project.

2. Sample Capital Improvement Projects

Risk Projects:	Longevity Hedge & Reinsurance	Diversify out of Credit			OOTM Equity Options	All but Property	1. Longevity 2. Equity Options 3.Gov't Bonds
		Gov't Bonds	Property	Other Bond-Like			
Capital Generated (£m)	£14	£13	£1	£26	£13	£49	**£40**
Increase in ROC	**-1%**	**1%**	**0%**	**2%?**	**1%**	**5**	**1%**
On-going Annual Cost	£2	£0	£3	??	£1	£6	£3
Time to implement (years)	1-2	1	3	3-?	1/4	3-?	1-2
Management Acceptance	Average	Easy	Average	Hard	Easy	Hard	Easy-Average
Regulatory Acceptance	Easy	Easy	Easy	???	Easy	???	Easy
Other criteria	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Ordering of Projects	**3rd**	**2nd**		**4th**	**1st**		

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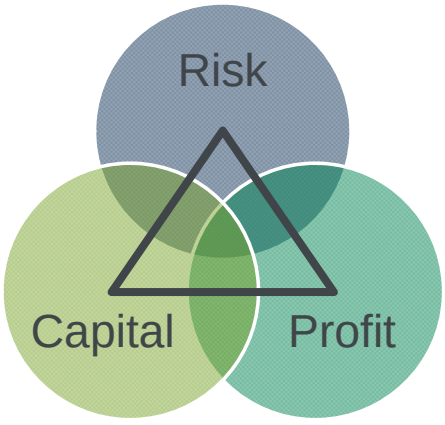
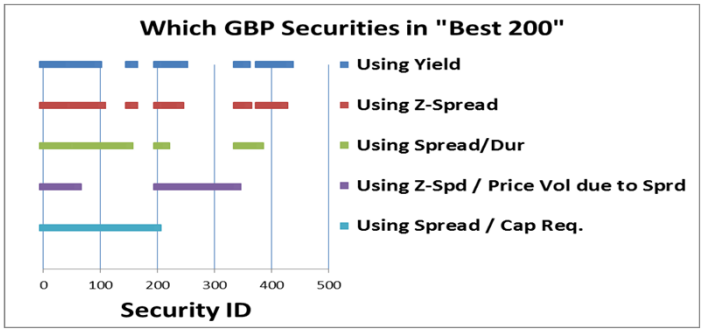
2. Capital Fundamentals – Risk, Capital and Profit



2. Objectives: What is the objective?

- Maximize (IFRS) profits
- Control level of capital requirements
- Minimize volatility
  - …of earnings
  - …of capital requirements

2. Optimization requires Correct Target



Using an incorrect target can lead to non-optimal portfolios.

Assets sorted according to Spread / Capital Requirement.

Conclusion: Must have capital model in the investment process.

Examples are illustrations only.

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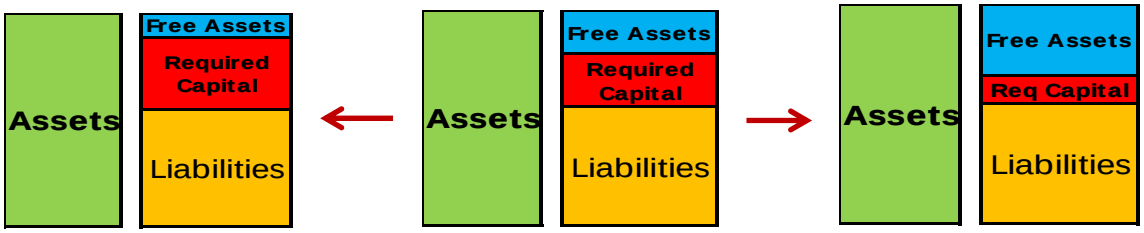
3. Capital Optimisation

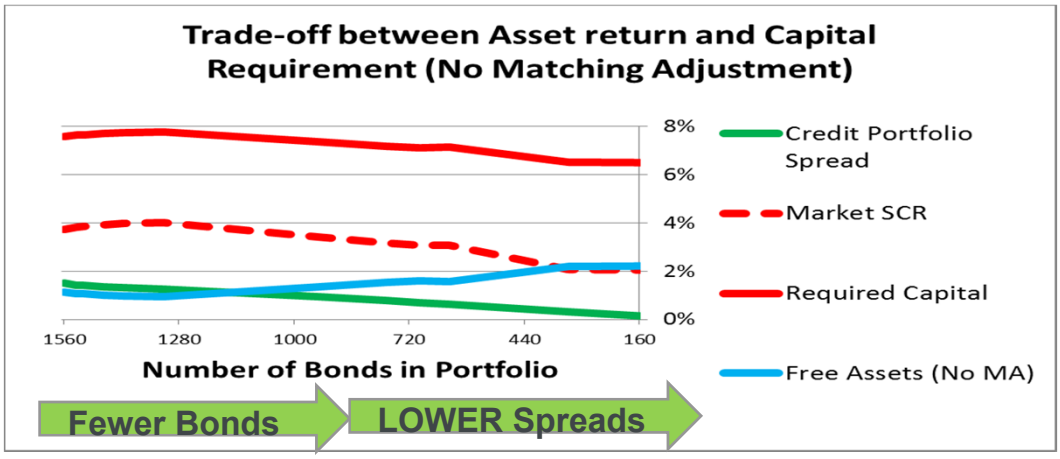
3. Insurance Company Balance Sheet



Strategy 2 :
Get higher returns by employing more risk capital.

Strategy1 :
Free up Capital by moving to less risky assets.

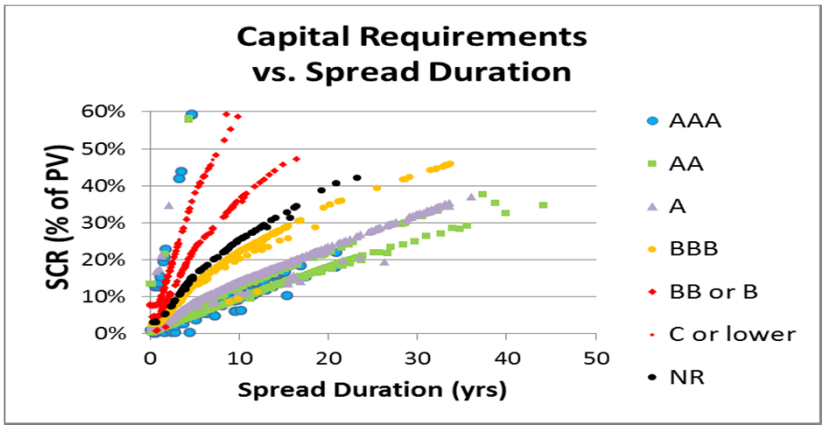
3. Optimization - Depends on Insurer's Strategy



Insurer may chose any trade-off between lower capital requirements (higher free assets) and portfolio return.

Note: For illustration purposes only

3. Capital Requirements related to Spread Duration

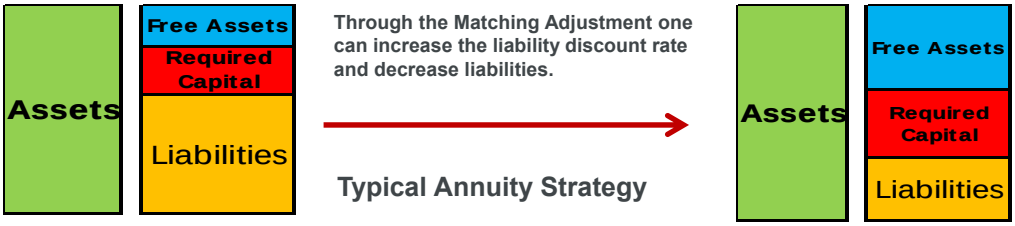


Capital Requirements (SCR) by asset are related to:
- spread duration
- rating.

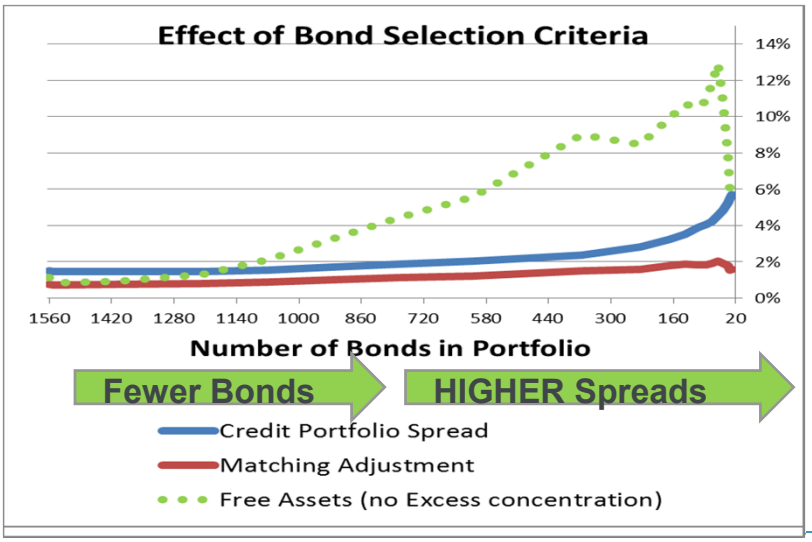
Notice that some AAA bonds have the lowest SCR, while others have the highest.

3. Effect of Matching Adjustment

All previous examples could be tailored to any insurer.
The final example is specific to insurers using matching adjustment.



3. Optimization of Matching Adjustment Portfolio



These graphs generally assume no concentration in excess of the Solvency II Standard Formula levels of:

- **3.0 % AAA – A**
- **1.5% BBB**

However, permitting some excess concentration above these levels results in even higher free assets.

Risk Management may lead to additional filters on strategy.

Note: For illustration purposes only
Source: Data as per 30.06.2015

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4. Future Developments - Prognosis

4. Future developments

Management Issues

- Volatility of Free Assets
- Managing Transitional Rules
- Implications of derivative liquidity

4. Future developments

Solvency II Review

- MA and VA
- UFR, symmetric adjustment, etc.
- Stressing correlation
- High correlation between companies' risks

4. Future developments

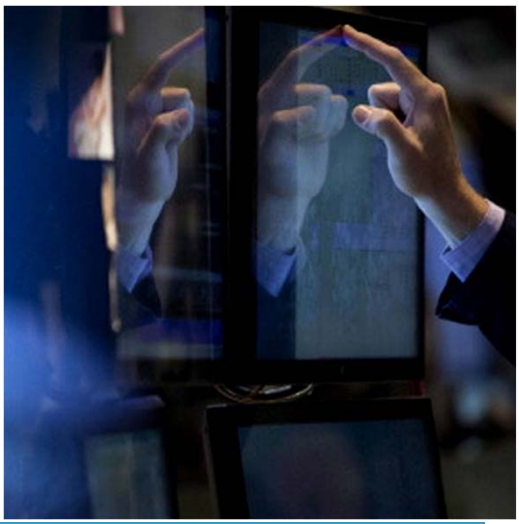
Assets

- Continued diversification into alternatives
  - Infrastructures, convertible bonds, hedge funds, royalties
- Deeply out-of-the-money options for equities
- Refocus on managing exchange-traded assets

4. Future developments

Capital Model

"**On the investor's desk**"



Questions

Comments