Agenda

1. About Aviva
2. How Aviva measures capital
3. Capital and risk
4. Capital allocation
5. Managing capital
6. Governance
7. Final thoughts

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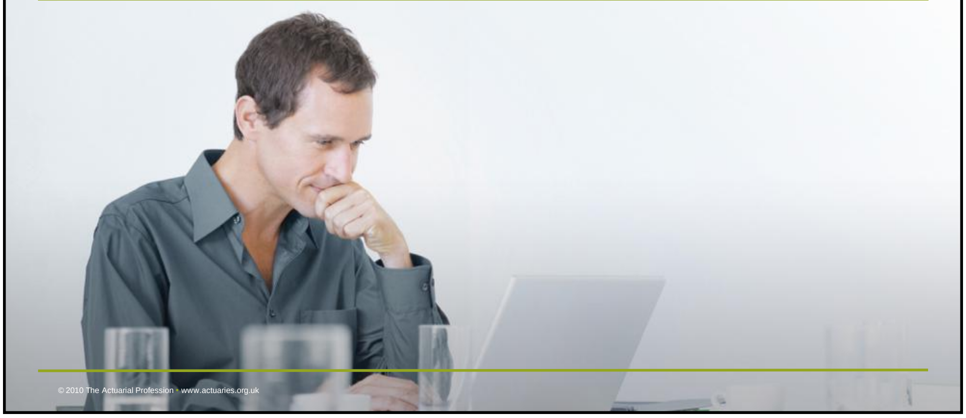
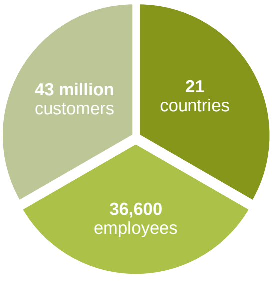
About Aviva



About Aviva

- Diversified business covering life and general insurance
- UK Group parent therefore whole group subject to Solvency II.



Aviva worldwide

Developed markets	Higher growth markets	Aviva Investors

A range of perspectives

Require us to hold sufficient capital to meet promises in all foreseeable circumstances, but ultimately pay for excessive capital through product pricing (which may make the group uncompetitive).

Customers ⬆⬇

Aviva

Investors ⬆⬇

Regulators ⬆

Require confidence in our financial resilience, but also in our capital efficiency to deliver superior returns.

Require us to meet regulatory capital requirements to protect policyholders and secure financial stability.

Importance of capital to Aviva

Focus

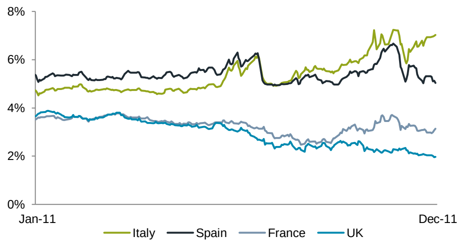
Financial strength

Performance

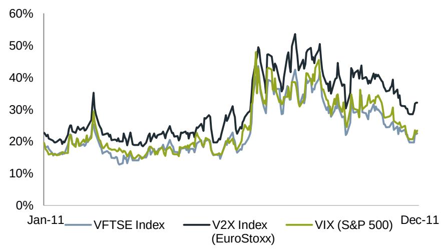
Stakeholders

In a challenging environment

10 year sovereign yield

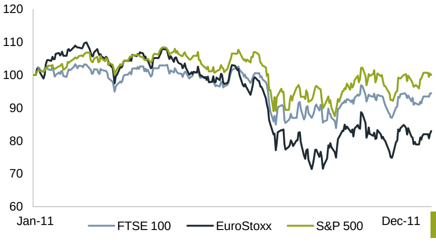


Equity volatility



Credit spreads

Equity markets



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How Aviva measures capital

Range of measures to assess capital

Economic Capital	• Aviva's own assessment of both capital available and capital required • Most appropriate method of assessing capital allocation
Rating Agency	• Formula-based assessment of both capital available and capital required • Each agency uses a defined set of rules for rating assessment
IGD (Solvency I)	• Current means for assessing regulatory capital, will be replaced by Solvency II in 2014 • Not a risk-based measure
ICA	• UK regulated entities risk-based measure which allows some economic principles to be used
Solvency II	• Detailed requirements and transition rules remain uncertain • Expected to be introduced in 2014

Economic Capital management

Available Economic Capital

Capital resources available to the group measured on an economic basis

Required Economic Capital*

Our **Required Economic Capital** is the amount of risk capital, assessed on an economic basis, which is needed to cover risks taken by the group, such as market risk, credit risk, insurance risk and operational risk

** this capital is 'required' based on internal assessment and capital management policies. The term 'required' does not imply required by regulators or other third parties*

How do we use Economic Capital?

Economic models (capital & risk)

Increasingly an integral part of running the business

Strategy
- Product design
- Pricing
- Capital structure
- Reinsurance
- Asset/liability matching
- Investment management
- Hedging
- Enterprise risk management

- Optimise capital deployment
- Facilitate good risk management on an enterprise wide holistic basis
- Optimise product design
- Transparent evaluation of assets, risks, scenarios and strategic options
- Optimal diversification of risk
- Business lines/liability mix
- Prosperity and peace of mind for our customers

Use of Economic Capital models helps to inform strategy and support decision making to maximise return on shareholder capital while protecting policyholders.

Solvency II

Solvency I
- 1970s
- Public
- Not market consistent (except e.g. UK With-Profits)
- Inconsistent across jurisdictions
- Archaic
- Factor based
- No incentive for effective risk management

ICA
- 2005
- Private
- UK regulated entities only
- Firms required to assess capital needed to mitigate risk to 99.5% VAR
- Consider all risks
- Incentives for improved risk management

Solvency II
- 2014
- Public
- EU market consistent
- Based on three pillars
- Internal economic models
- Prudent person
- Own Risk & Solvency Assessment (ORSA)/ incentives for improved risk management

Solvency II perspectives

Significant challenges remain:

– The right balance between customers, investors and regulators as requirements are finalised

– Uncertainty increases demands on scarce resources as implementation draws closer.

Benefits:

– Customer prosperity and peace of mind

– Rewards of good risk management

– Confidence in the insurance industry.

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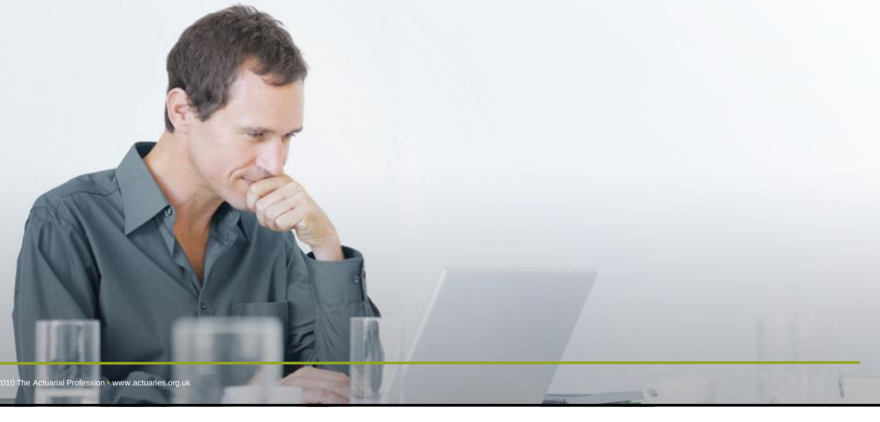
Capital and risk



Risk assessment

- Assessing risks we wish to take on and those we wish to manage down:
  - Do we believe there is an opportunity for high returns?
  - Do we have a competitive advantage?
  - Are these risks comparatively more predictable than other risks?
  - Are they diversifiable with other risks within our business, while being in line with our core strategy?
  - Are they manageable?
  - Is the downside limited?

Risk types and Aviva's preferences

Preferred

A measured, controlled approach to taking:

- Life insurance risk
- General insurance risk
- Credit risk
- Equity risk
- Property risk.

Limited preference

Limited appetite for and active management of:

- Interest rate risk
- FX risk.

Least preferred

Reduced to as low a level as possible:

- Operational risk
- Brand and reputational risk.

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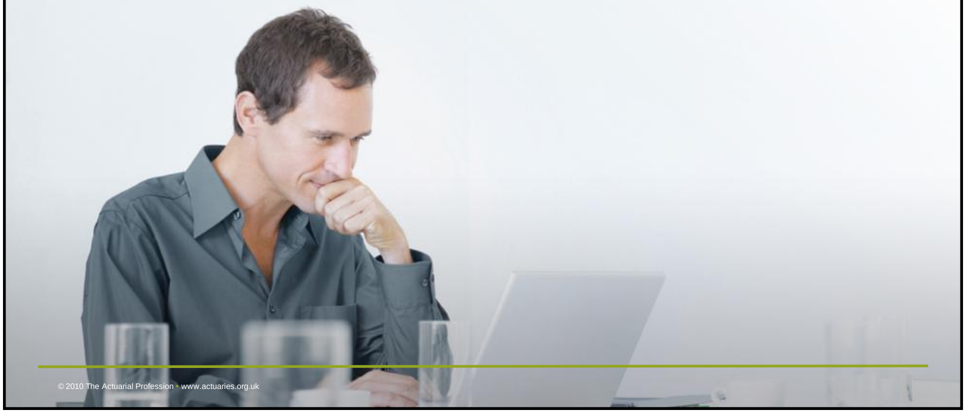
Capital allocation



Approach to analysing how to allocate capital

- Value creation and sustainable cash generation are strategic objectives
- Assessment focuses on a consistent set of balanced KPIs
- Assessment criteria defined with focus on financial performance and competitive position / market outlook
- Focus on financial (e.g. IFRS return, economic return) and market metrics (e.g. Growth, market share)
- Prioritisation required to focus on key areas.

Capital allocation

Key questions to be asked when considering capital allocation:

- What are the returns?
- How much cash is generated?
- What is the value of new business?
- Market position / growth perspective?

 18

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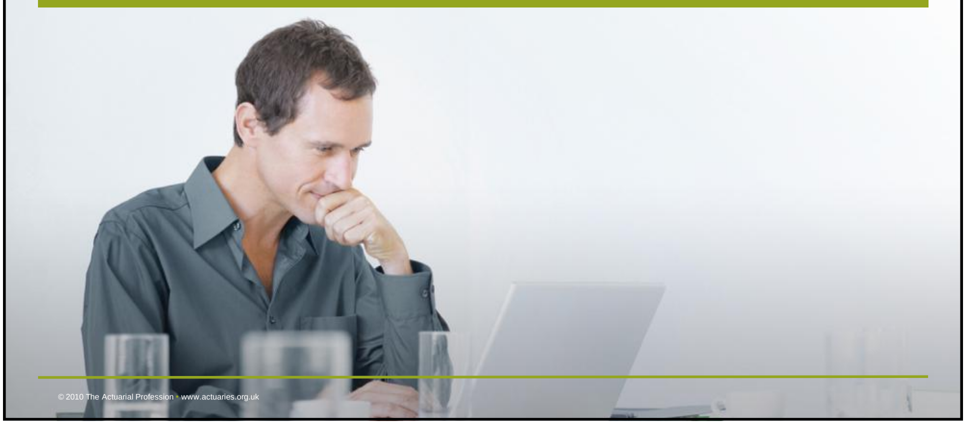
Managing capital



Overview of capital tools

- Capital allocation => capital and risk budget
- Stress and Scenario Testing
- Reverse Stress Testing
- Management actions.

Capital and risk budget

- Budget set for all levels of the Group for all risk types.
- Key driver for deciding:
  - Which markets/geography;
  - What products;
  - What volumes;
  - What investments.
- Extensive monitoring and measurement against budget and decisions to ensure the business is on track.

Stress and scenario testing

(1) Setting

- Identify, develop and parameterise scenarios
- Scenario setting covers both quantitative and qualitative perspectives.

(2) Quantify & Evaluate

- Stress and scenarios identified are executed and evaluated
- Methodologies used to assess impacts should be sufficiently consistent to be repeatable and scalable.

(4) Reporting

- Output feeds Management Actions at all levels of the organisation
- Defined metrics and indicators to identify need for management actions.

(3) Management Actions

- Analysis and approval of actions to mitigate risk
- Prepare contingency plans for extreme outcomes
- Document and refine pre-emptive and contingency management actions.

Comparing SST and Reverse Stress Testing

Scenario testing and reverse stress testing require different approaches to scenario development

Scenario testing – identify the impact of particular events

1. Determine scenario or cause → 2. Assess impact on business → 3. Evaluate outcome

Reverse stress testing – identify the particular events that lead to a given impact

3. Consider what could cause impact ← 2. Assess impact on business ← 1. Determine outcome

Managing our capital – actions we have taken

Demonstrating our ability to take action to protect policyholders and shareholders

	Risk aware	Fast and effective action	Profit	Solvency	Economic Capital
Action on products	Economic capital model used for scenario testing Conservative ALM policy Simplified product offering	Capital intensive sales reduced	↓	↑	↑
		Product mix changes to reduce capital strain	↑	↑	↑
		Guarantees lowered	↑	↑	↑
Action on asset portfolio	Conservative investment policy Minimal high risk asset exposure £3.4 billion equities sold in 2007 £550 million increase in provisions in 2008	Proactive asset switching	↑	increasing protection	increasing protection
		Irish sovereign debt management	↑	increasing protection	increasing protection
		Delta Lloyd interest and equity hedges	↑	increasing protection	increasing protection
Group actions	"One Aviva" strategy strengthened the business: • cost saves • operational simplification • strengthened risk management	IPO of Delta Lloyd	↓	↑	↑
		Sale of Australia: proceeds allocated to reattribution	↑	↑	↑
		Dividend rebased	–	↑	↑

Managing our capital – actions we can take

Hedging – market and credit risks

Product design and redesign across the Group

Debt raising

Reinsurance solutions e.g. AXXX, VIF

Hedging considerations

- Aviva has used derivatives to manage and control all of its market and credit risk types

Why hedge?
- Out of risk appetite
- Improves metrics
- Efficient portfolio management

Where to hedge?
- Legal entity level vs Group overlay
- Offsetting and/or diversifying risks at Group balance sheet level

How to hedge?
- Cost-benefit analysis on a range of metrics
- Capital treatment of various instruments

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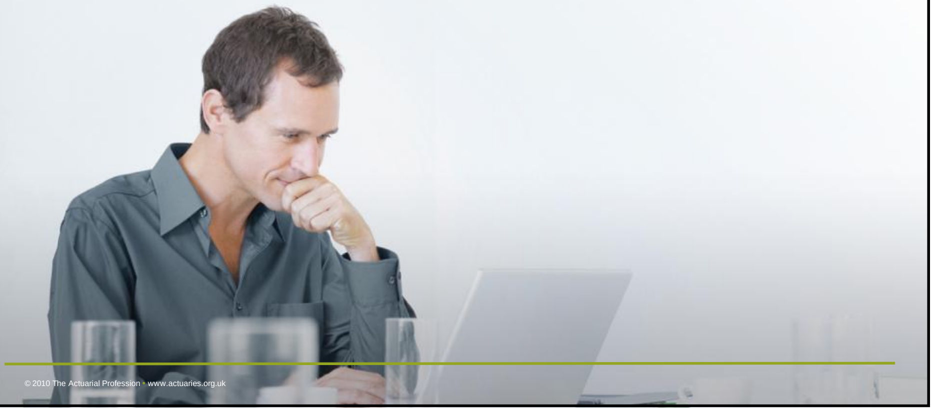
Governance framework



Governance framework

Front line

Accountability for managing all risks

CEO, CFO, operational management etc

- A CEO & CFO team with a comprehensive knowledge & experience in financial services
- Deep bench of expertise with strong succession planning

Second line defence

Risk Management: integral challenge & oversight

Executive level appointment

- Aiming for a balance of technical & business expertise
- Recent recruitment of recognised industry talent
- Ongoing and high priority development agenda

Third line defence

Independent assurance

Internal & external audit, independent actuarial reviews etc

- A comprehensive range of leading industry advisors actively engaged in independent audits & reviews

Final thoughts and looking ahead

Focus

Financial strength

Performance

Stakeholders

Questions or comments?

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 presenter.