



The Actuarial Profession

making financial sense of the future

The future of the Actuarial Function Charles Garnsworthy and Tim Stedman



The future of the Actuarial Function

21st November 2011

Agenda

- Introduction
- The role of the Actuarial Function post Solvency II
- Changing insurance landscape
- Table discussions
- Case study: Legal & General
- Questions.

Role of the Actuarial Function under Solvency II

Actuarial Function	
Technical Provisions	<ul style="list-style-type: none">• Co-ordinate (and oversee) calculation• Assess sufficiency & adequacy of data• Ensure appropriate methods & assumptions• Compare experience to best estimate assumptions
Internal Model	<ul style="list-style-type: none">• Contribute to risk modelling• Identify risks to be included in the model• Assess volatility and possible risk mitigation strategies;
Risk Policies	<ul style="list-style-type: none">• Express an opinion (at least annually) on:<ul style="list-style-type: none">• underwriting policy• adequacy of reinsurance arrangements
Reporting	<ul style="list-style-type: none">• Primary audience is management/supervisory board• Supervisor may also request the actuarial report
ORSA	<ul style="list-style-type: none">• Check compliance with technical provisions• Contribute to analysis of deviations between the risk profile with assumptions in the SCR

Comparison of Risk Management and Actuarial Functions

Risk Management Function		Actuarial Function
Technical Provisions		<ul style="list-style-type: none"> • Co-ordinate (and oversee) calculation • Assess sufficiency & adequacy of data • Ensure appropriate methods & assumptions • Compare experience to best est. assumptions
Internal Model	<ul style="list-style-type: none"> • Design • Implement • Monitor 	<ul style="list-style-type: none"> • Contribute to risk modelling • Identify risks to be included in the model • Assess volatility and possible risk mitigation strategies;
Risk Policies	<ul style="list-style-type: none"> • Ensure risk appetite established by Board • Create and maintain all written risk policies 	<ul style="list-style-type: none"> • Express an opinion (at least annually) on: <ul style="list-style-type: none"> • underwriting policy • adequacy of reinsurance arrangements
Reporting	<ul style="list-style-type: none"> • Report on risk profile to Board via CRO • Provide ORSA to supervisor 	<ul style="list-style-type: none"> • Primary audience is management / supervisory board • Supervisor may also request the actuarial report
ORSA	<ul style="list-style-type: none"> • Calculate SCR • Compliance • Reconcile ORSA and SCR. 	<ul style="list-style-type: none"> • Check compliance with technical provisions • Contribute to analysis of deviations between the risk profile with assumptions in the SCR

Three lines of defence

1 Business Operations

- “Business as usual”
- Investment strategy, including ALM
- Reinsurance
- Underwriting
- Reserving
- Capital management

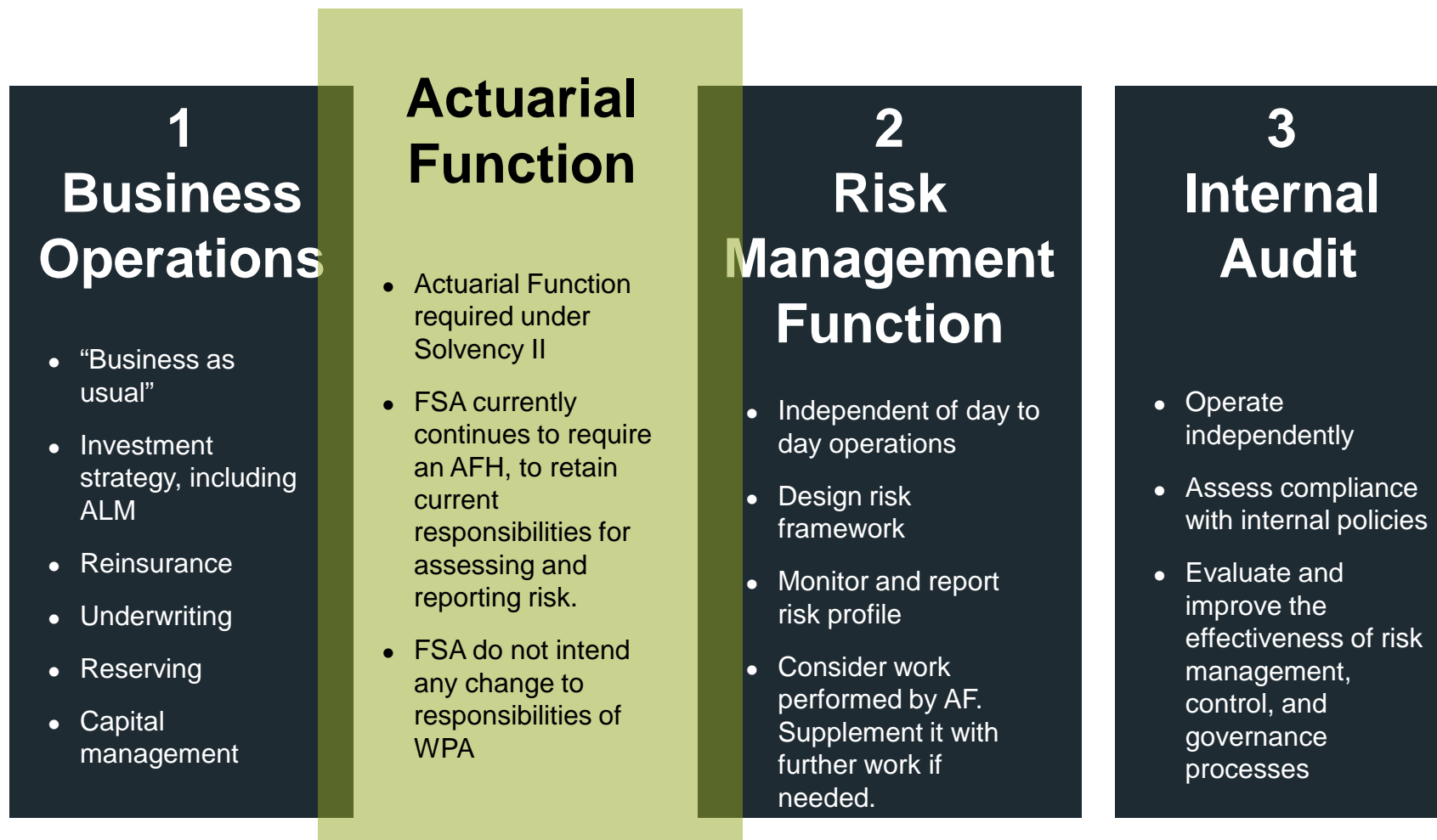
2 Risk Management Function

- Independent of day to day operations
- Design risk framework
- Monitor and report risk profile
- Consider work performed by AF. Supplement it with further work if needed.

3 Internal Audit

- Operate independently
- Assess compliance with internal policies
- Evaluate and improve the effectiveness of risk management, control, and governance processes

Three lines of defence

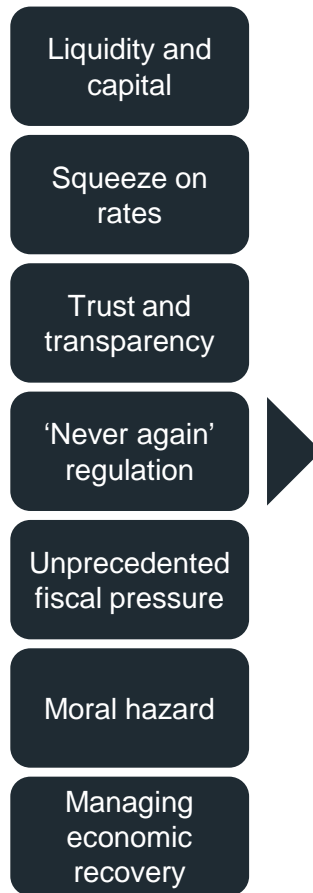


Key things to think about

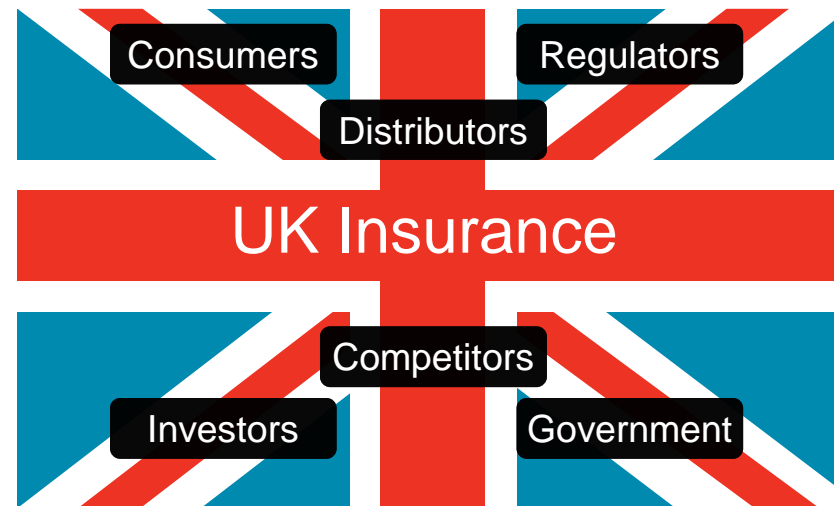
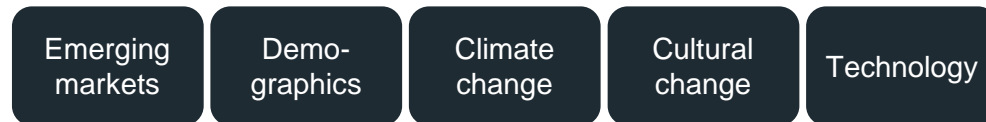
- Be clear about what the role is in your own organisation
 - Avoid ambiguity
 - Or things being “lost between the cracks”
- Conflicts of interest
- How to make the role work in practice
 - Be visible
 - Access to, and be on the agenda of, key stakeholders
 - Be there when decisions are made
 - Provide useful analysis in “real time”
 - Strategic perspective: know the questions not just the answers

Changing Insurance Landscape

Financial crisis themes



Long term themes

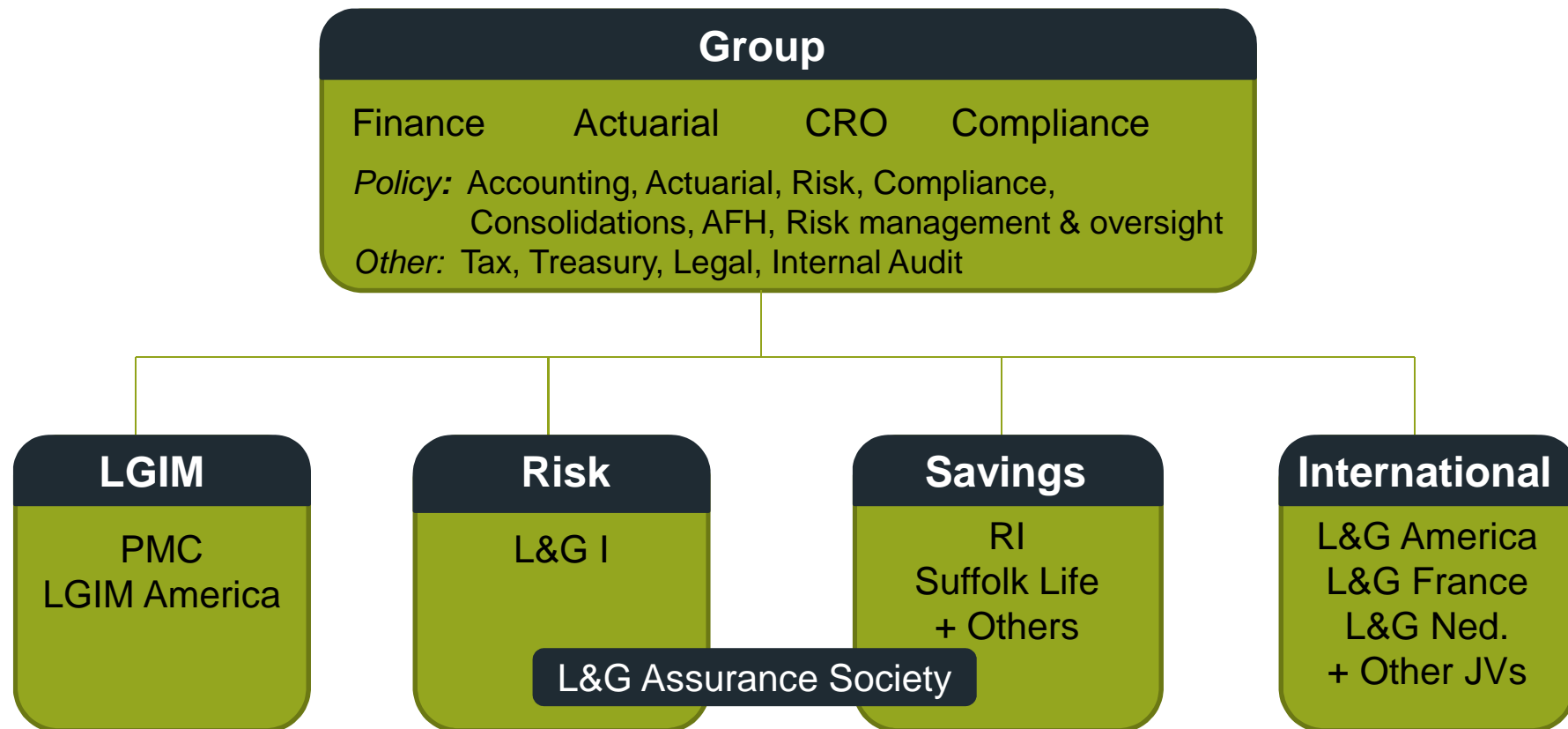


Medium term themes

Table discussion topics

- Will there be more, the same or fewer life actuaries in the UK than there are today on
 - 21 November 2015
 - 21 November 2020
 - 21 November 2025?
- Should the Actuarial Function sit in the 1st, 2nd or 3rd line of defence or be separate?
 - Who should the Actuarial Function report to?
- How can actuaries ensure they add the most value in their firms?

Current Position



Design Principles

- Business unit accountability and ownership
 - MDs manage their own risks and are targeted to deliver returns on economic capital
- Group level oversight of BU activity and risk management
 - CRO team provides challenge to MDs and ensure decisions are risk based
- Group layer with minimal duplication of activity
- What would the FSA expect to see?

Internal Model Validation

OBJECTIVE: To produce a robust, proportionate, demonstrably complete approach to validation using three lines of defence model, overseen by the CRO.

- **CRO team define scope and focus for validation activity using Solvency 2 solution design**
 - Risk based approach applied to products, risks and process steps – approved by IMG
- **Business (1st line) validation performed by Business Divisions**
 - Businesses define validation activity to be performed in their Programme of Work
 - Agreed with CRO / IMG
 - Business produces Validation Completion Report - highlights weaknesses, priorities for change etc
- **Independent (2nd line) validation owned by CRO**
 - Review Business Division documentation, discuss with SMEs, assess robustness of 1st line approach against approved methodology / standards
 - Independent validation reports consolidated into Internal Model report by the CRO team
- **External (3rd line validation)**
 - Terms of reference for this agreed
 - Could include assessing whether company standards are robust, whether validation findings are properly evidenced, validation process is robust and properly governed etc

Reports provided to IMG and key issues escalated to GRC

Design Issues

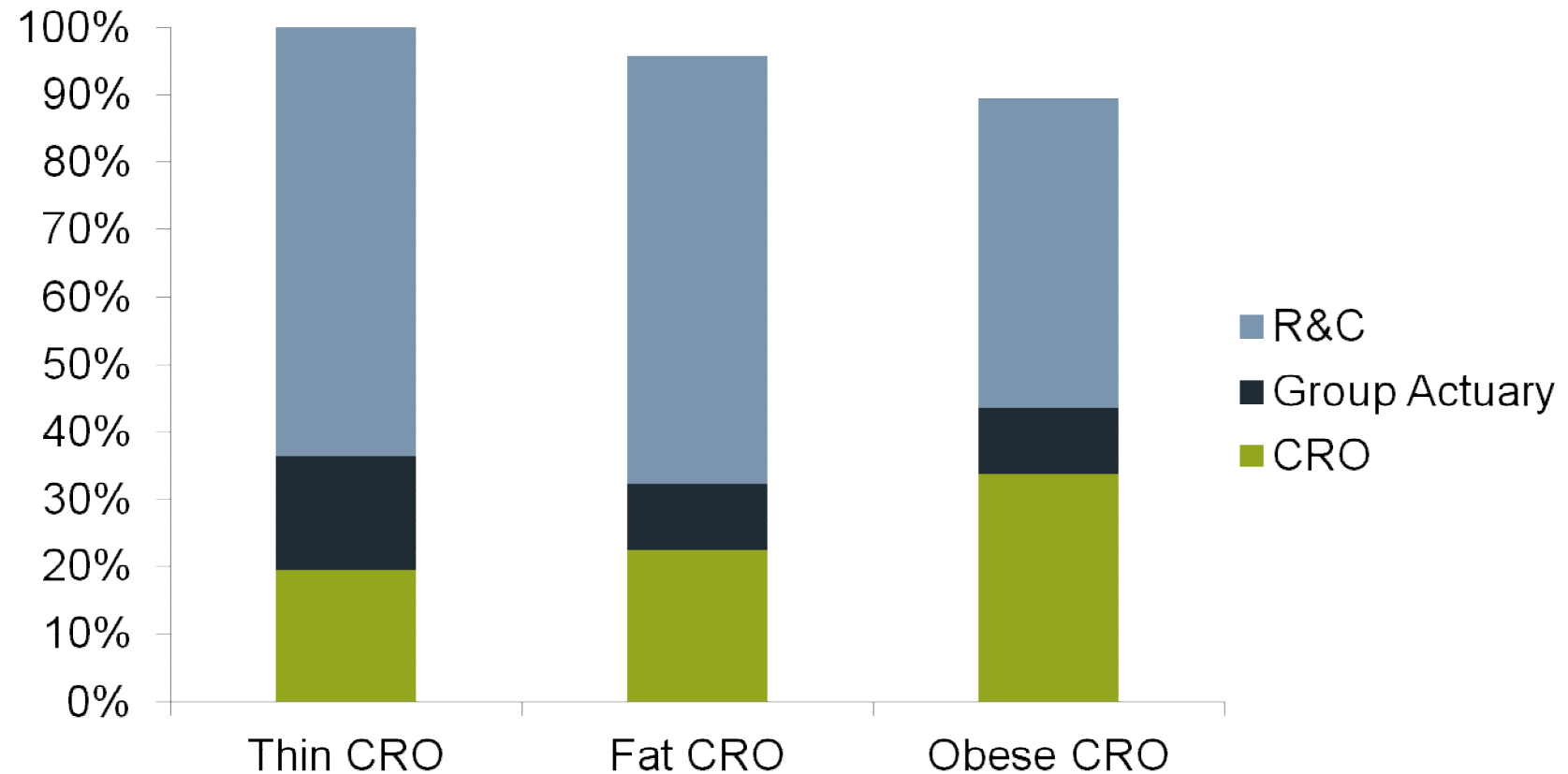
- Scope of the Actuarial & CRO Functions and levels of overlap
 - Actuarial function contributes to risk management
 - Actuarial function defined more by 2nd line activities
- Actuarial Function can span 1st and 2nd lines of defence
- Which line do certain activities sit in?
 - Scenario generation
 - Aggregation and attribution
- Responsibility for legal entity compliance
- Will the LTF structure survive?
 - CP11/22 suggests not

Options – Thin, Fat or Obese CRO?

		Thin CRO	Fat CRO	Obese CRO
CRO	Risk Policy & Appetite	✓	✓	✓
	Risk Appetite	✓	✓	✓
	Risk Management Framework	✓	✓	✓
	Risk Oversight - ex Op Risk	✓	✓	✓
	IM Ownership & Effectiveness	✓	✓	✓
	IM Validation	✓ x	✓	✓
	FSA (PRA) Relationship	✓	✓	✓
	ORSA Consolidation	✓	✓	✓
Group Actuarial	Actuarial Function	x	✓	✓
	Group Actuarial	x	x	x
	Actuarial Policy	x	✓	✓
	Actuarial Oversight			
	SII	x	✓	✓
	IFRS, EEV, ICA	x	?	?
	IM Validation (for CRO)	x	✓	✓
	Technical Provisions	x	✓	✓
	Underwriting & Reassurance	x	✓	✓
	IM Aggregation & Attribution	x	x	x
Risk & Compliance	Compliance Oversight	x	x	x
	FSA (FCA) Relationship	x	x	x
	Operational Risk Policy	x	x	✓
	Operational Risk Oversight	x	x	✓

What type of CRO - Thin, Fat or Obese?

Employees



Any final 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.

