GIRO Convention

Emerging Market Practice for ICAs

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Wednesday 13 October 2004







- Introduction
- The process
- Typical FSA questions
- Operational risk
- Discussion





Introduction

- The process
- Typical FSA questions
- Operational risk
- Discussion





Introduction

- The FSA pilot
- Future timetable
 - Companies
 - Lloyd's

Introduction

- The FSA really mean it!
 - Asking difficult questions
 - Putting on pressure

Process

- Limited reinsurance on motor

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Operational risk

Discussion

Introduction

Are the new FSA rules a business critical issue?

- Given the free assets of UK companies:
 - 15% fail ECR

Introduction

- 30% fail ICA/ICG
- 40% will need to alter their business strategy

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• Extra £21/2 billion capital required by market

Operational risk

Discussion

- Business strategies may change
- European super-equivalence

Introduction

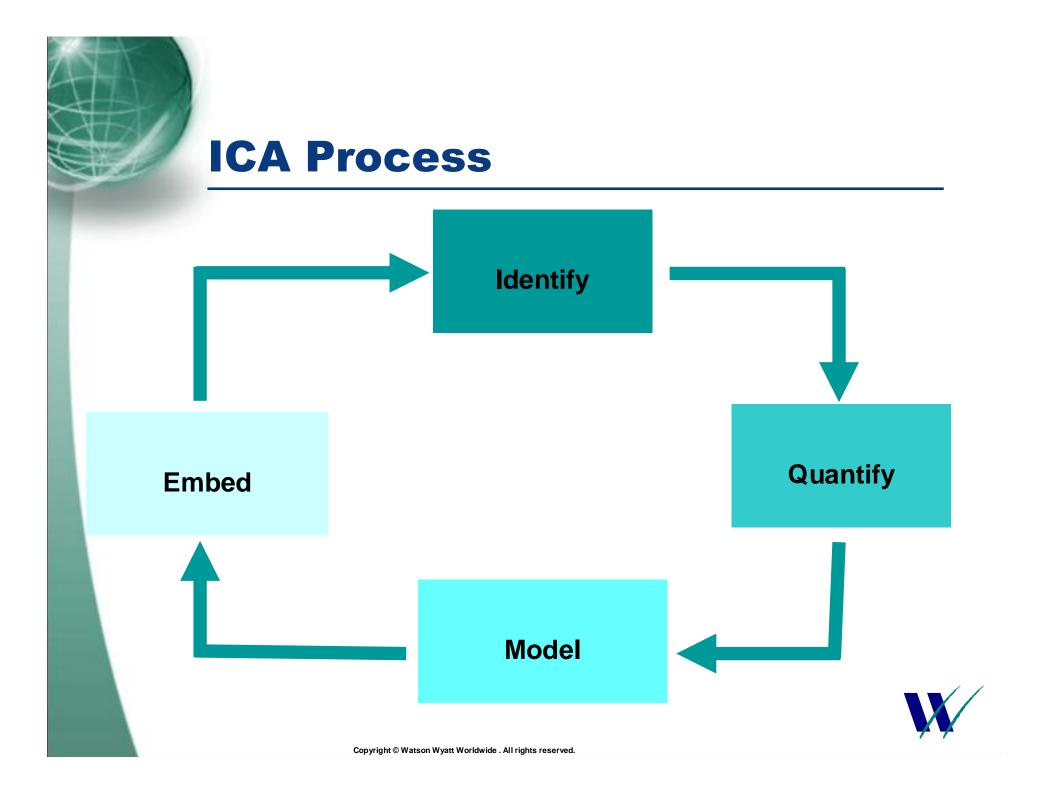
- Are insurers still behind banks?
- Banking Pillar 1 more sophisticated
- Insurer Pillar 2 more sophisticated
- Insurers now taken the lead?





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ICA Process

		Timescale
Risk register	Risk identification	September-October
	Risk ownership	September-October
Quantify	Risk mitigation	September-October
	Risk quantification	September-October
Modelling	Customising model	September-October
	Parameterisation	September-November
Embed in culture		September-December
ICA report	Producing report	November-December
	Board sign-off	December
	Modelling Embed in culture	Risk ownershipRisk nitigationRisk nitigationRisk quantificationModellingCustomising modelParameterisationEmbed in cultureICA reportProducing report



Risk Register

- Process principally to identify risk
- but other related uses in addition

• Design risk register with its ultimate use in mind:

Operational risk

Discussion

- Allocate responsibility

Process

- Reduce risks - systems and controls

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- Quantify risk
- Model risk



Risk Register Headings

Risk details

- Risk name / identifier / category
- Risk owner
- Description

Systems and controls

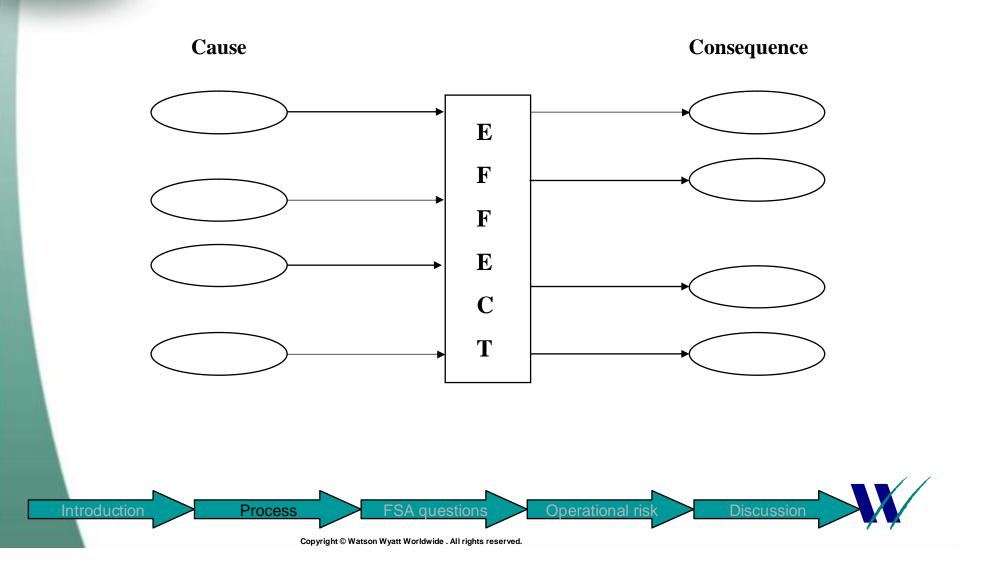
- Outline of key controls
- Mitigation and relevant policy

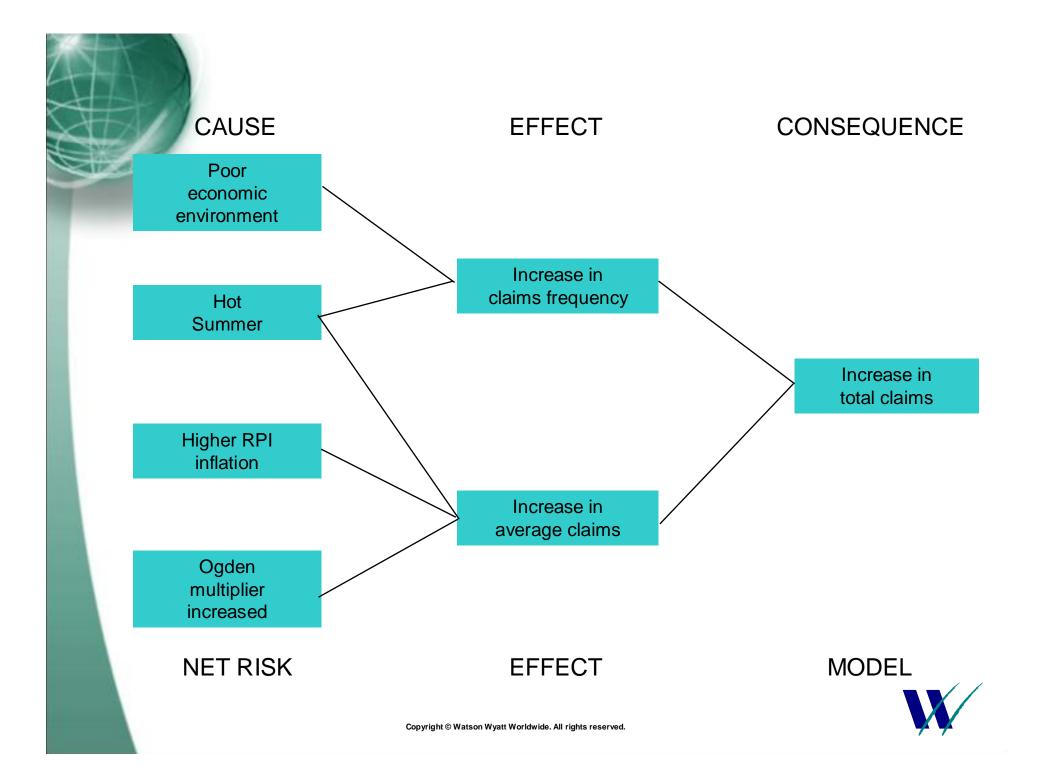
Quantification

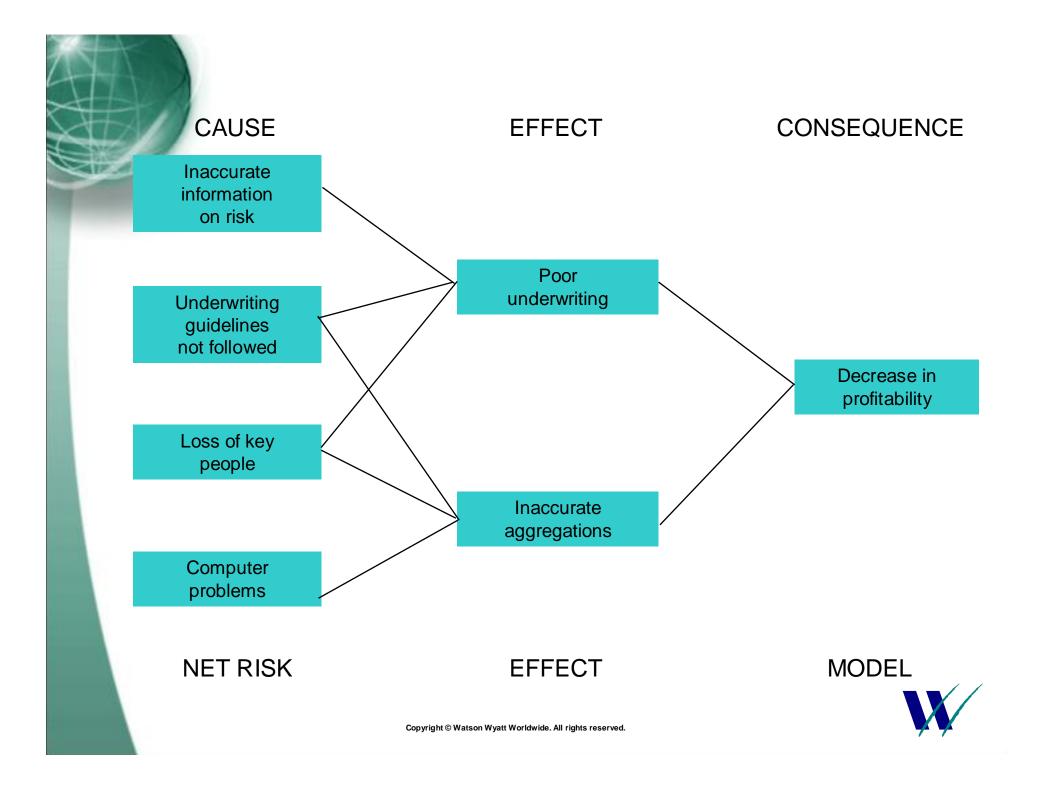
- Probability of occurrence
- Impact
- Statistical distribution

Introduction Process FSA questions Operational risk Discussion

Cause, effect or consequence







Gross risk and net risk

- Gross risk is the risk before systems and controls
- Quantification of gross risk is not particularly helpful
- But it is helpful to consider the gross risks to ensure suitable systems and control are put in place

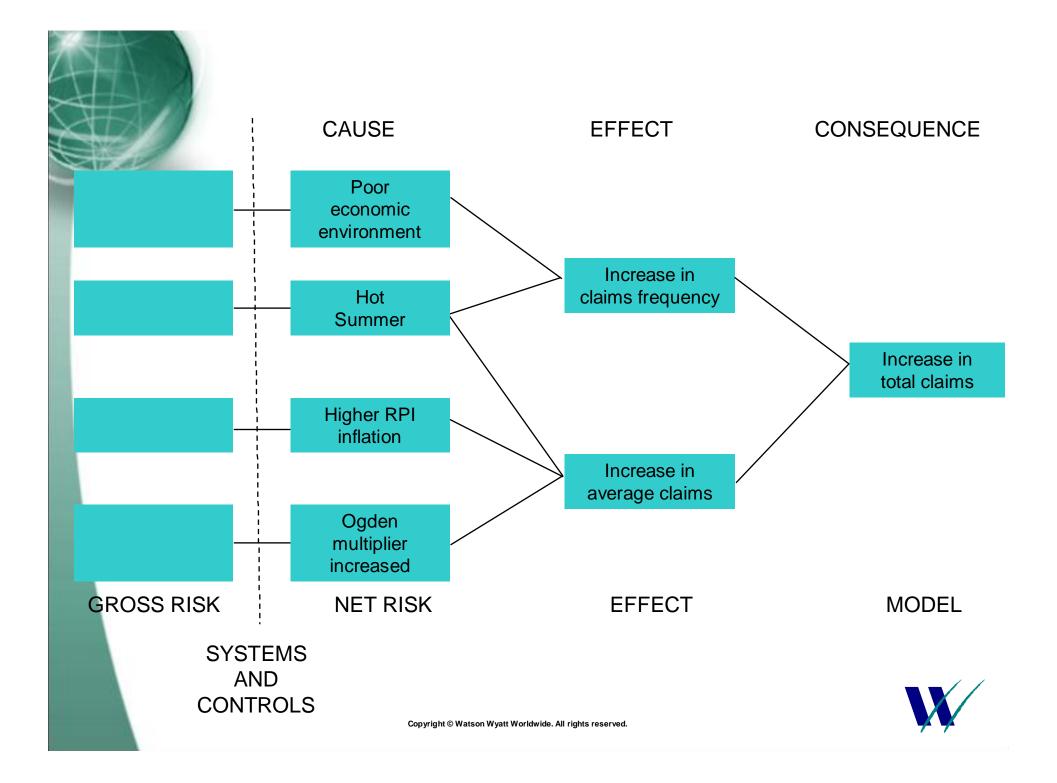
Operational risk

Discussio

Quantification of net risks is required

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Process



Modelling

- Model consequences
- But ensure all risks have been considered
- Classify risks for modelling purposes as:

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- Too small or normal cost of doing business do not model explicitly
- Meaningful, but subject to substantive systems and controls do not model explicitly

Operational risk

Discussion

- Too big assess/understand and use stress tests do not model explicitly
- Meaningful model explicitly

Process

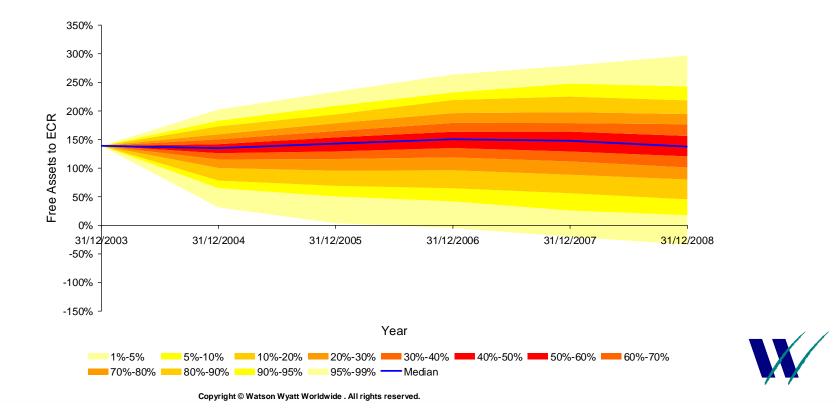
Modelling

- Stochastic model or stress/scenario testing?
- Companies
- Lloyd's
- Size



Capital underlying ICA

- Less than actual capital (- you hope!)
- Which assets do you exclude from the calculation?
- For highly capitalised companies, ECR > ICA





FSA documentation

- ICA output for FSA:
 - Risk Register
 - Financial Model
 - ICA Report
- Internal documents





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Typical FSA questions

Risk register:

- Allocation of responsibility
- Definition of operational risk
- Operational risk database
- Mapping risks to the model





Typical FSA questions

Modelling:

- Time period
- Rating cycle
- Reserving risk
- Correlations
- Operational risk capital (as % of premium income)

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Operational risk

Discussion

- Management decision rules
- Embedded in culture
- Allowance for major events
- Parental guarantee

Process

Typical FSA questions

FSA not hung up on detail

- but they want thoughtful analysis
- and top-level buy-in
- and systems & controls





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Basic approach

- Basic approach
 - Included in past
 - Projected in to future
 - But allow for specific items eg computer developments
- Allows for "normal" attritional risks and costs of doing business (except in investments)
- But does not allow for catastrophe operational risks eg damage to reputation

More sophisticated approach

- Basic approach as previously
- Consider two or three largest operational risks

Operational risk

Discussio

- Very rough quantification

• $\sqrt{100^2 + 5^2} = 100.1$

- Determine capital requirement
- Assume independence from other risks (reasonable assumption in practice?)

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Future approach

- Michael Tripp's paper
- Collect data
- Take past operational risks out of data
- Project operational risks separately



Comparison with Banks

- Banks use theoretical models for all risks
- No allowance for operational risk
- Operational risk capital requirement:
 - Basic indicator is 15% of gross interest income
 - Standardised approach
 - Advanced measurement approach
- Perhaps 15% 20% loading on capital for operational risk

Operational risk

• Applicability to insurance companies?



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