



**The Actuarial Profession**

making financial sense of the future

# **GIRO Convention**

**23-26 September 2008**  
**Hilton Sorrento Palace**

Risk appetite workshop

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# Agenda

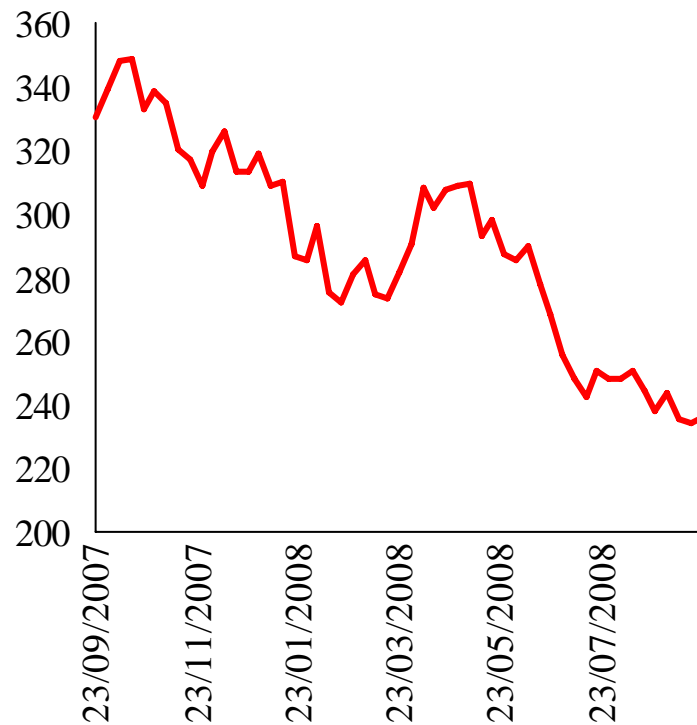
- Why companies are interested in risk appetite
- Building blocks of risk appetite frameworks
- Challenges and expected developments

# Agenda

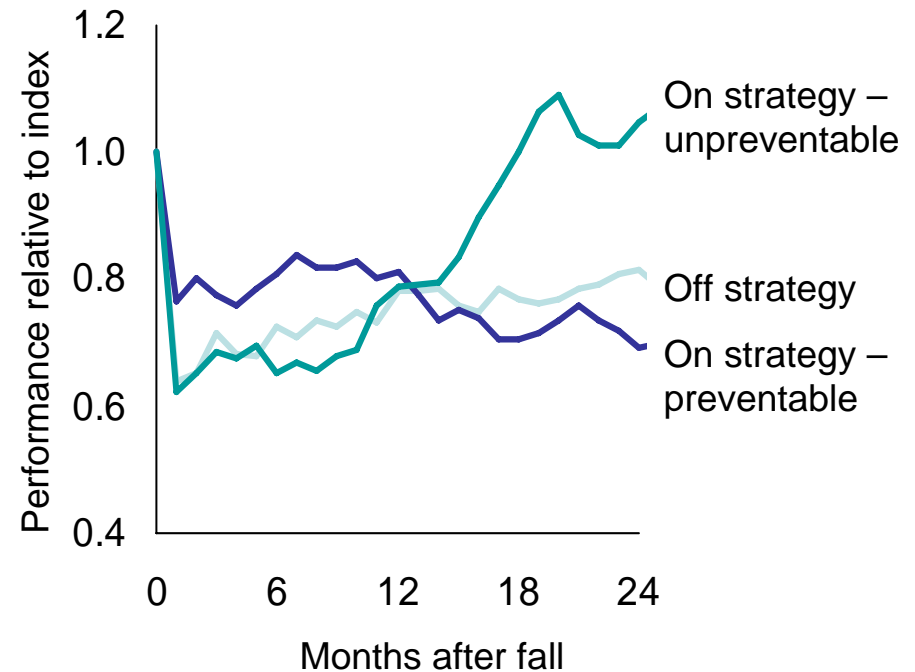
- **Why companies are interested in risk appetite**
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# Clear risk strategy can lead to faster recovery from shocks

DJ Global insurance titans<sup>1</sup>



Impact of share price “shocks”<sup>2</sup>



Source:1 Bloomberg, 2 Oliver Wyman analysis

# Regulators and rating agencies are pushing firms to consider risk appetite

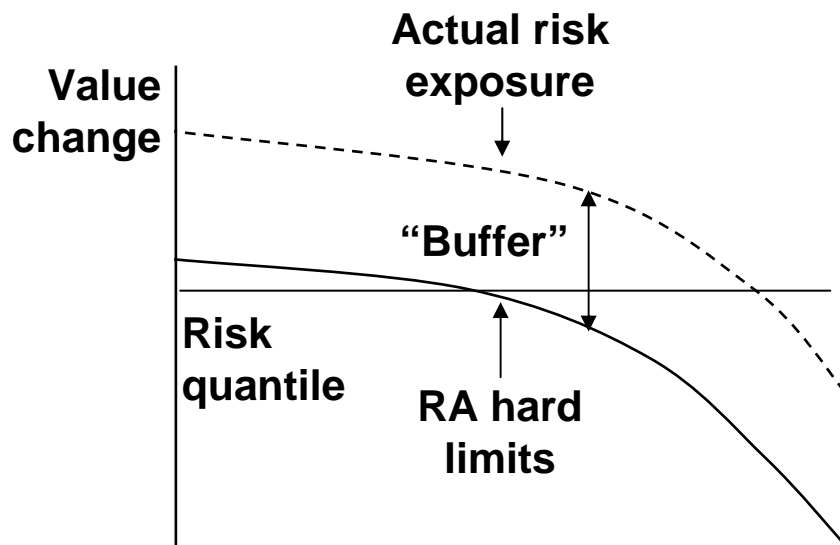
- FSA Insurance sector briefing on risk management
  - “...risk appetite is not well understood in many firms to a level of clarity that provides a reference point for all material decision making”
  - “There is a big step between defining and applying risk appetite”
- S&P ERM rating framework
  - “Focus is on an insurer’s risk tolerance, appetite and preferences”
  - “...need to have a process for choosing and rejecting potential options that have higher or lower risk-adjusted returns”

# Risk appetite frameworks can help align risk-taking with strategy

- Measure current risk profile
- Forecast risk profile implied by strategy
- Ensure risk profile is in line with strategy
- Reassure shareholders

# ...but what is risk appetite?

## Example representation



- Boundary/target to risk taking
- At specific confidence intervals
- Metrics that matter to key decision makers
- ...however definitions, confidence intervals and metrics vary by company

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# Typical elements of a risk appetite framework

- Risk appetite statement
- Measurement infrastructure
  - EC-based calculation of risk profile
  - Filters for other (non-economic) metrics
  - Stress and scenario testing
- Reporting and monitoring infrastructure
  - Limits system
  - Risk dashboards

# Industry practice on risk appetite is developing around four dimensions

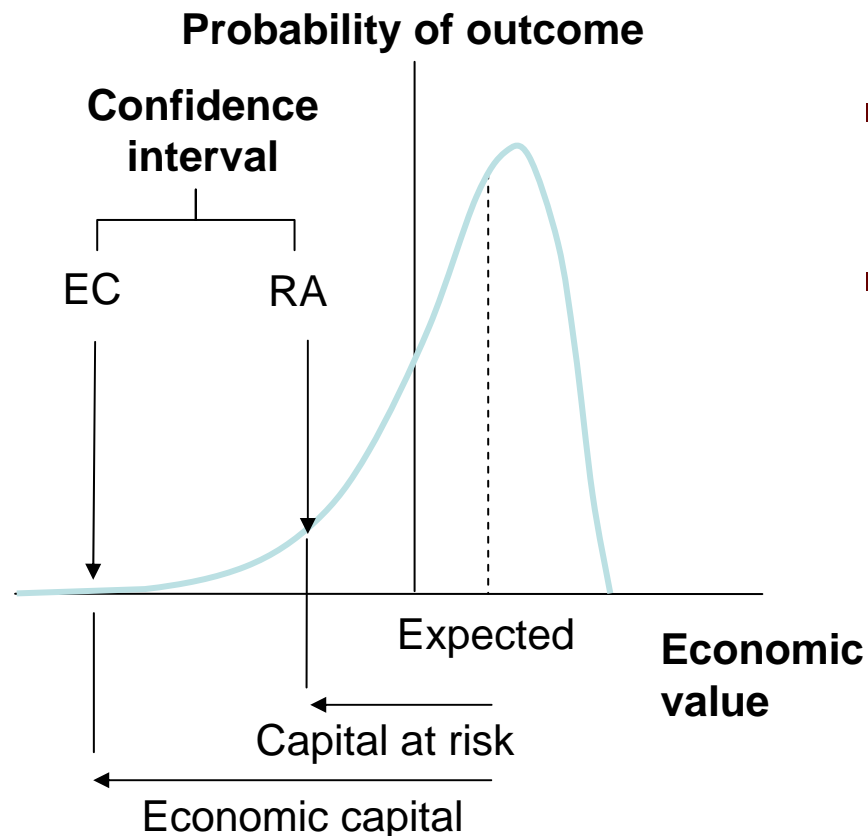
Dimension	Common elements
<b>Adequate capital level</b>	<ul style="list-style-type: none"><li>▪ Maintain regulatory requirements</li><li>▪ Maintain rating</li><li>▪ Meet target economic requirements</li></ul>
<b>Stable profitability and growth</b>	<ul style="list-style-type: none"><li>▪ Keep up stable earnings</li><li>▪ Keep up stable EV growth</li></ul>
<b>Sufficient liquidity</b>	<ul style="list-style-type: none"><li>▪ Maintain dividend cover</li><li>▪ Maintain debt cover</li></ul>
<b>Sound reputation</b>	<ul style="list-style-type: none"><li>▪ Corporate governance and citizenship</li><li>▪ Consistent deliverance on promises</li><li>▪ Reputational risk</li></ul>

# Example of external communication on risk appetite statement: Prudential plc

Group Risk Appetite Framework					
		Earnings measures (flow)		Capital measures (stock)	
		EEV	IFRS	Economic	Regulatory (local/PCD)
Business as usual		Maintain target EEV operating profit	Maintain target IFRS operating profit	Maintain target level of capitalisation Individual tail events should not significantly reduce financial resources	Maintain suitable margin above Group solvency requirement over planning horizon
Earnings stress		No large unexpected falls in EEV operating profit	No large unexpected falls in IFRS operating profit	Remain above minimum capitalisation	Meet Group solvency requirement and hold sufficient resources to pay dividends and fund new business

Source: Prudential plc 2006 Annual Report

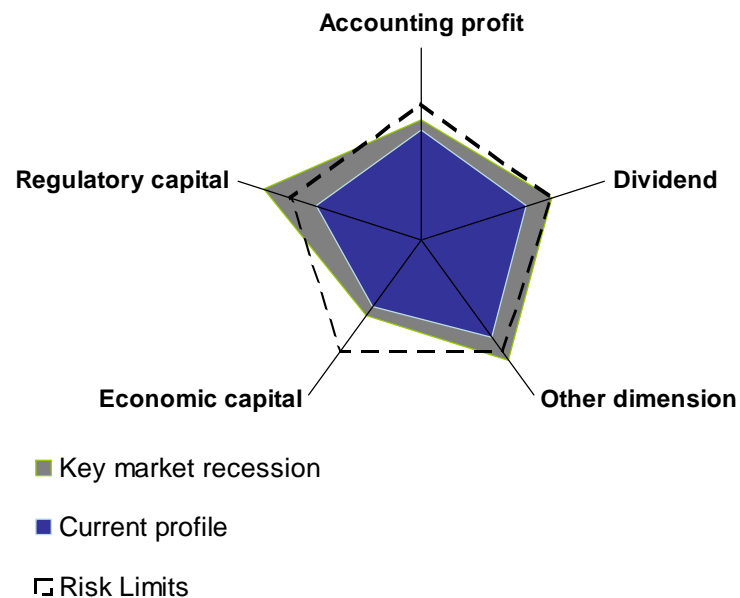
# Measurement infrastructure is often based on Economic capital



- Re-scale EC for capital at risk
- Filters pick up impact on other dimensions
  - IFRS profit
  - Cashflow/dividend capacity
  - Regulatory solvency
  - etc.

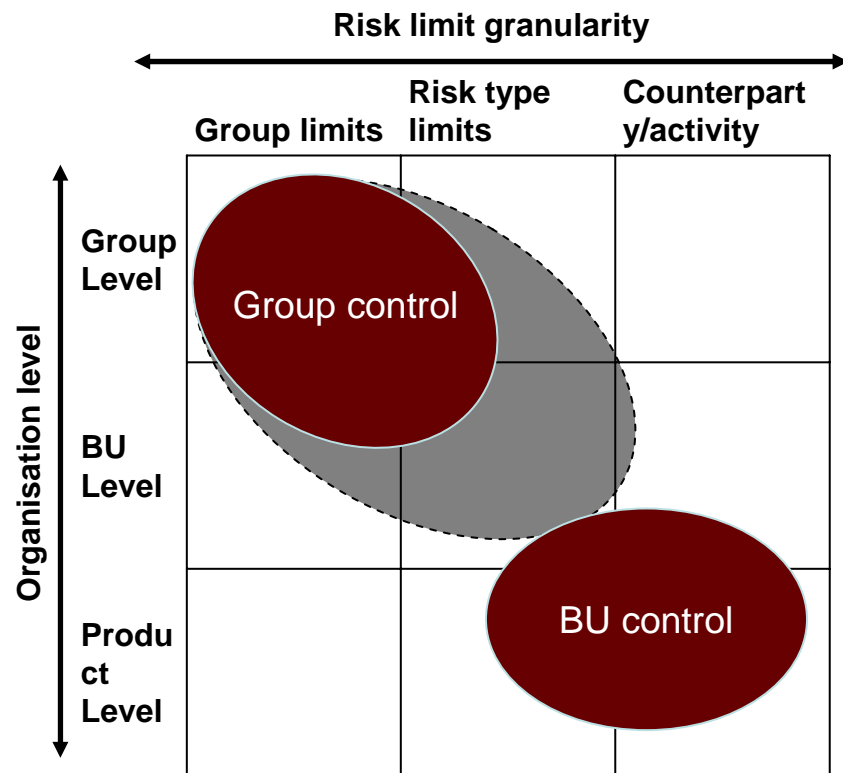
# More advanced frameworks include stress and scenario testing

## Scenario testing example



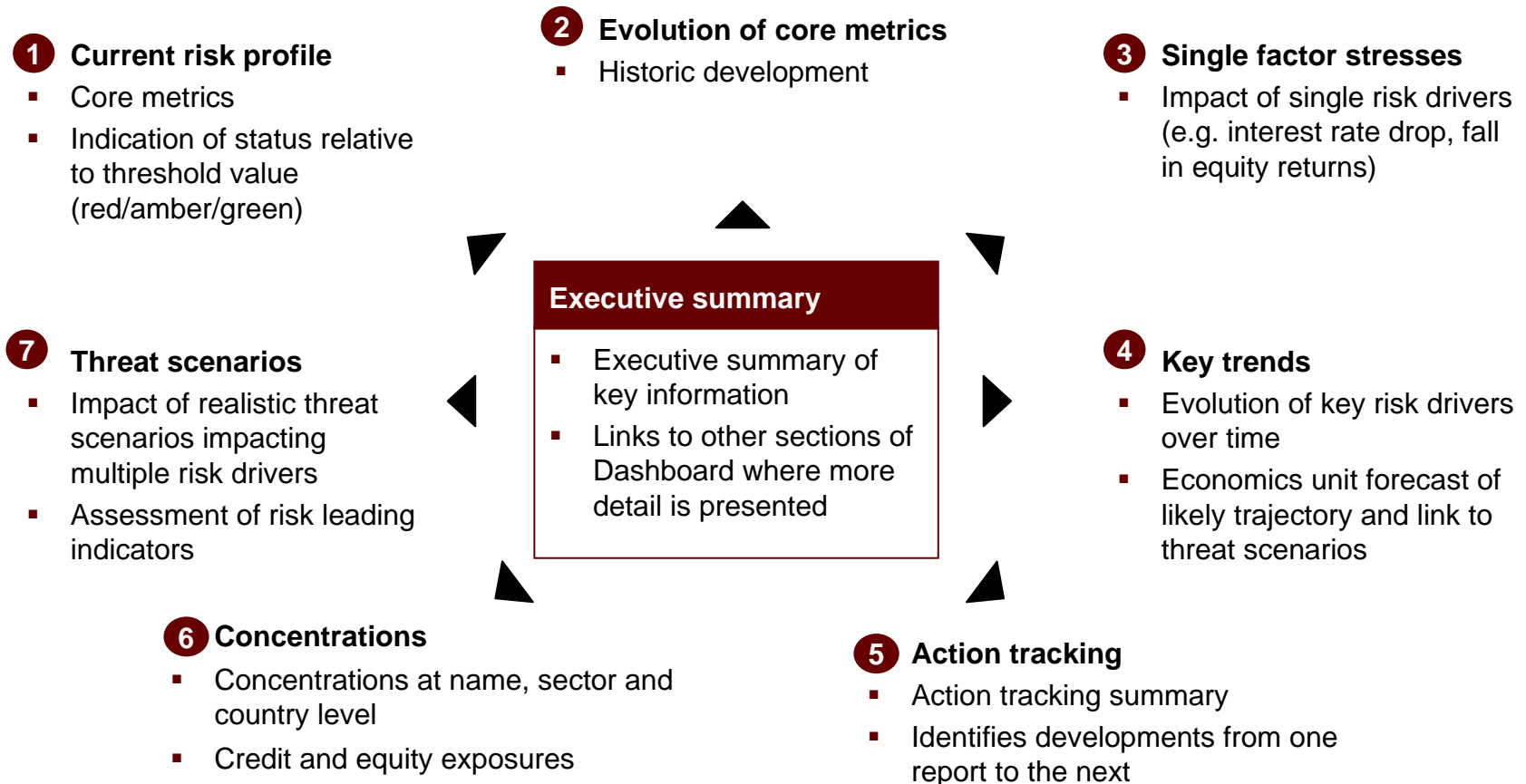
- Measure exposure to realistic business scenarios...
- ...and to the unthinkable
- Counter concerns around reinforcing risks (non-linearities)

# Limits system links group risk appetite to individual business decisions



- Main challenge is linking top-down to bottom-up
- But there are others
  - How to allocate
  - Alignment with management structure and risk ownership
  - Not unduly onerous
  - Super-tanker rather than battleship
  - Flexible and intuitive
  - Stability

# Components of dashboard-based monitoring and reporting framework



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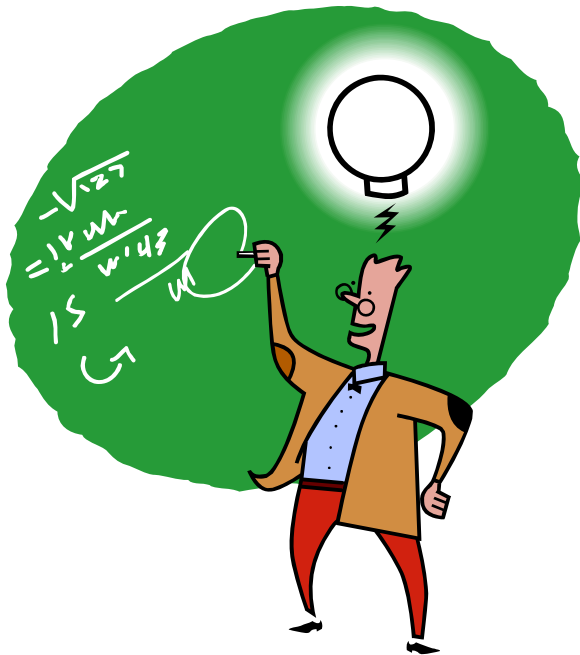
# We expect that there will be 'false dawns' for some firms

*...[at poorly performing firms] drive to generate earnings was not accompanied by clear guidance on the tolerance for expanding exposures to risk... balance sheet limits may have been freely exceeded rather than serving as a constraint to business lines.*

**- SSG, March 08**

- Lots of companies are using risk appetite
- But level of embedding varies
- Future shocks will highlight those who are truly using risk appetite

# Modelling infrastructure will continue to develop



- Increased frequency of calculation
- Forward-looking/leading risk indicators
- Responsive scenario testing
- Alignment of measurement, management and mitigation
  - “Rapid reaction”

# Frameworks are becoming embedded in several key business processes

## Planning/limit setting



- Tie top-down limits to business decision-making
- Integration into planning process
- Wider uses...

# Conclusion

- Risk appetite is an interesting and fast-moving area
- Frameworks will be developing and embedding in next few years
- Actuaries (and other business areas) will be involved  
OR
- Brings together actuarial, risk management, strategy and operations