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Herding Behaviour as a Source of Risk

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IFoA Herd-like Behaviour working party

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Agenda

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Overview

Definition of herd-like behaviour

- Herd-like behaviour arises when the group to which an individual(s) belongs to or is associated with has a disproportionate impact on their reasoning or their decisions.
- From another perspective, herd-like behaviour arises when there is an inadequate amount of individual thought to counteract the influence of the group in arriving at their decisions.

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Analogy

- The analogy of the Fish, the Shoal and the Trawler[1]
  - Somewhat helpful behaviour – protects fish from sharks
  - But also highly destructive – can result in near total loss of shoal
  - The behaviour of the group influences the choice of the prudent decision for the individual.

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[1]Credit to Tony Jeffery, FIA of Bank of England

Aim of the working party

- To investigate the underlying drivers of herd-like behaviour and how it manifests in financial service organisations
- To raise awareness of herd-like behaviour as a source of risk
- To recommend changes to mitigate adverse herd-like behaviour

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Drivers of herd-like behaviour

- **Selfish herding** – Hamilton's 'selfish herd' model[2] views HLB as a selfish act where each individual seeks to reduce their exposure to a perceived threat or predator at the periphery of the herd
- **Threats** – may take many forms in the insurance industry:
  - ***Organisational culture*** – fear of dominant senior leaders; fear of being perceived as uncooperative; or fear of voicing contentious opinion
  - ***Competition*** – fear of losing market share
  - ***Regulator*** – fear of a capital add-on, adverse ruling, or scrutiny
  - ***Auditors*** – fear of assumptions/methodology/results not being accepted by the auditor

[2]Hamilton, W.D. (1971). "Geometry for the Selfish Herd". Journal of Theoretical Biology

Model to assess herd like behaviour– Narrative risk[3]

"All things were together. Then thought came and arranged them." Anaxagoras

- Using the distinction between a narrative and an analysis
- What is a narrative?
- Example – stock market crash
  - Shallow narratives – superficial understanding
  - Deeper narratives – sufficient depth and breath to not only attain some understanding but to also facilitate progressive resolution of problems
- Why is it important?
  - People cast their own identity in some sort of narrative form
  - The 'narrative' dominates and limits the 'analysis'

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[3]Theory is based on the work of Greek Philosopher Anaxagoras and on Greek mythology.

Narrative risk

- Dangers from shallow narratives
  - Rhetoric can prevail over reason and logic
- Shallow narratives inhibit rather than facilitate progressive outcomes and inhibit resolution of conflicts
- Shallow narratives usually result in poor outcomes
- Shallow narratives create herd-like behaviour risks

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Examples – the good, the bad and the ugly

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- ✓ Herd-like behaviour can aid reaching optimum outcomes in the context of influence from a progressive group
  - ✓ e.g. being Fellow of IFoA, standing on the shoulders of giants, etc.
- ✓ A group or organisation acting as one to achieve a common goal – greater than the sum of parts
- ✓ An organisation or individual may have less information than the industry
- ✓ Reduces volatility of outcomes – can suppress reckless behaviour

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	Example	Driver	Outcome
1	Suppressing ideas and questions at meetings/committees	Fear of looking ‘stupid’ or appearing difficult – ‘that annoying person’	Decisions made without full set of considerations and insufficient challenge **> sub-optimal outcome**
2	Too much reliance on industry when setting assumptions	Greater challenge & scrutiny from auditors/PRA if out of line with peers	Internal views & data supressed **> Lower contribution to pool of knowledge**
3	Mis-pricing & poor product design	Competition and fear of missing out	Own information & analysis supressed **> Quick wins can turn into long term losses**

Financial market bubbles

(more on this later)

Unsustainable products

(more on this later)

Crashes or collapses

Scandals

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Potential higher risk areas of HLB now

Longevity assumptions	Product design	Working party reliance
Solvency II internal models	Benchmark reliance	Investment strategy
ESG	VaR measures	Insurance cycle

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Case studies

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Case study (1) – financial market bubbles

- Examples
  - Tulip bubble
  - South-sea bubble
  - 1929 Stock market crash
  - Dot com bubble
  - Financial crisis of 2008

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Case study (1) – financial market bubbles

- Could be argued to result from shallow narratives – extreme cases
  - Shoe-shine boy explaining how to make money in 1929
  - Internet stocks in 1999
  - Tulips in Holland
- Assessing the risk of a stock market bubble could be considered to be assessing the risk that the stock market narrative has become too shallow – either generally or in relation to a particular issue.
  - Bubble risk = could be considered the tail risk in any narrative risk

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Case study (1) – financial market bubbles

- Bubbles typically happen when something causes a shock to the group narrative, some big change, e.g. the internet, tulips and quantitative easing
  - The group mind does not think – so struggles to create a sensible narrative (Trotter and Bernais)
- Careful using shallow narratives to explain previous bubbles.

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Case study (1) – financial market bubbles

- Quantitative Easing
  - current 'big change'
- Existing narrative
- Alternative narrative

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Case study (2) – banking crisis

- Banks are good – life blood and heartbeat of the economy – save them!
- Banks are bad – just parasites, taking money from some, keeping some and give the rest to others, not producing anything – let them die!
- Both shallow narratives – with bad outcomes
- Deeper narratives – ?

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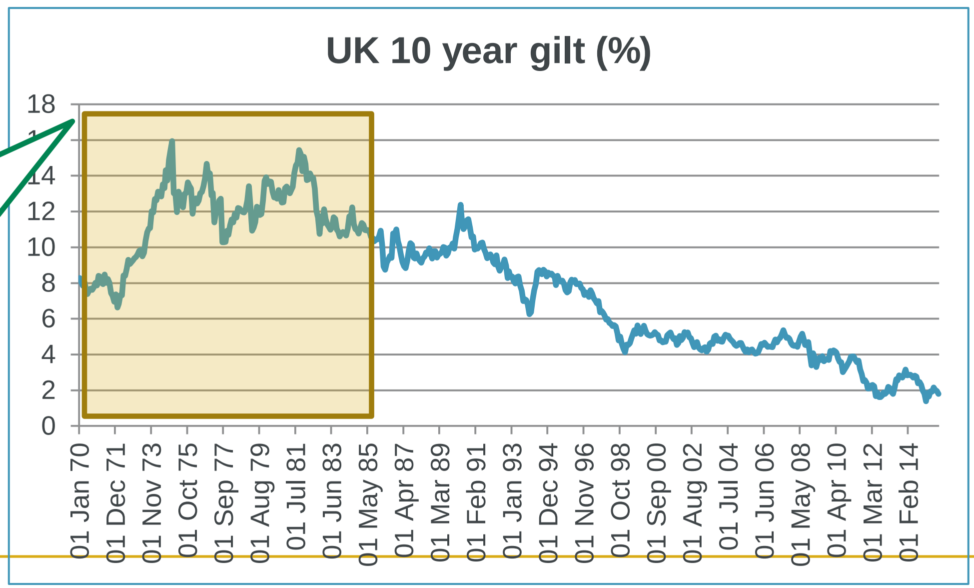
Case study (3) – Guaranteed Annuity Options

- Guaranteed Annuity Options (GAOs) are a policy feature, that give policyholders an option to purchase an annuity at a guaranteed rate on retirement
  - GAOs were first launched by a mutual life insurer and were eventually offered by up to 40 companies offered GAOs over the 1970s to 1980s
  - Most options were written in a high inflationary and interest rate environment, where guarantees were not biting.

Most GAOs were written over the ‘70s-’80s



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Case study (3) – GAOs

- The cost:
  - Estimated collective losses of **£10bn**[4] across the industry
  - Reduced credibility of the insurance industry and the actuarial profession in the eyes of the public
- Underlying signs of HLB:
  - Companies perceived GAO offerings as key to maintaining competitive position
  - After a prolonged period of high interest rates, people started to believe this was the new normal – it was difficult for individuals to recognise the risk of rates reducing and voice caution
  - Complex risks involved over a long horizon, but modelling and risk mitigation instruments were limited

[4] 'Did anyone learn anything from the Equitable Life? Lessons and learnings from financial crises' Roberts, 2012

Herding as a source of systemic risk

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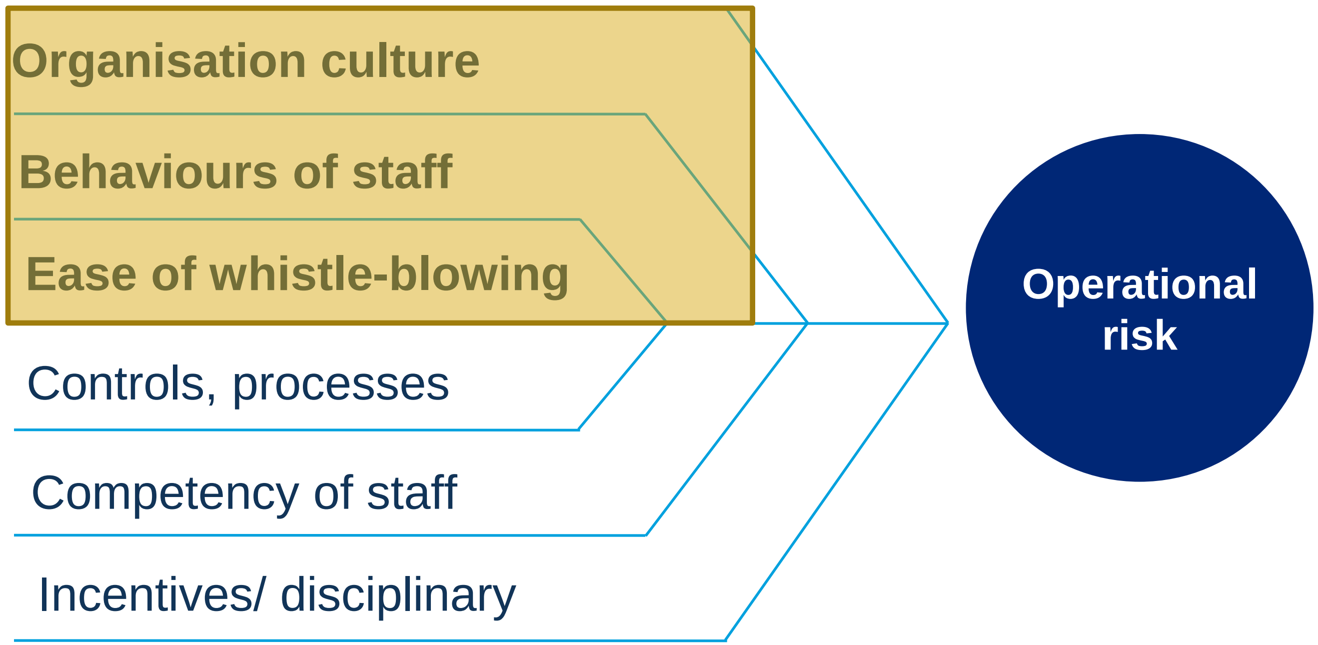
Source of risk

- Adverse herd-like behaviour is a driver of operational risk and should be considered as part of the ERM framework

Herd-like behaviour influences the cultural and behavioural sources of operational risk



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Managing adverse herd-like behaviour

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Approach

- Two approaches
  - **Macro** – investigate the narrative to discern if it is deep or shallow, take remedial action if a shallow narrative is discerned
  - **Micro** – investigate the extent to which individuals are thinking for themselves – SAI Risk Personality Questionnaire
- Challenges
  - Macro – difficult
  - Micro – new approach, necessity to step outside the herd to use it

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Cultural change

'No problem can be solved from the same level of consciousness that created it.' Albert Einstein

- HLB emerges from lack or suppression of creative and imaginative thought and challenge
- Problems
  - Dominant CEO / dominant boss => disobedience = can get fired
  - Whistleblowing => may be difficult initially for the individual, despite clear recent guidance on professional responsibilities
  - Organisational culture rarely encourages much curiosity
- Creative thought necessitates self-awareness

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Ideas

- Open forum events in organisational social calendars that provide a safe environment to submit ideas, challenge strategy and question leaders - and laugh[5]

- Regulatory requirements to demonstrate rigorous challenge from a diverse group and cultural support of such actions.
- Policies to encourage progressive curiosity.

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[5]Idea is based on the concept that if you cannot laugh at somebody, they have authority over you, and so you curtail your self-awareness. Linked to the comedy festivals in Ancient Athens – politicians were made to sit in the front row while they were being made fun of by the actors

Questions

Comments

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Appendix – Further reading

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Further reading

- Bernais - Propaganda
- Freud – Mass psychology
- Galbraith – A short history of financial euphoria
- Kindleberger & Aliber – Manias, panics and crashes
- LeBon – The crowd: a study of the popular mind
- Lippmann – Public opinion

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Further reading

- Mackay – Extraordinary popular delusions and the madness of crowds
- Reinhart & Rogoff - This time is different
- Surowiecki - The Wisdom of crowds: why the many are smarter than the few
- Trotter – Instincts of the herd in peace and war

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