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## Have We Had Enough of Experts?

Andy Cox (L&G) and James Latto (KPMG)

24 November 2017



### Presentation purpose

As actuaries we are often perceived as experts in our field but is being perceived as an expert a help or a hindrance?



*An expert is one who knows more and more about less and less until  
he knows absolutely everything about nothing*

Nicholas Murray Butler



This talk explores the apparent trend for disliking experts and also potential flaws of experts and how they can be managed.



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## Benefits and risks of experts – James Latto

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### Introduction – rise / fall of the expert

Public perception of expertise has deteriorated in recent years and there is an increased awareness of the fallibility of experts.

*“The people of this country have had enough of experts from organisations with acronyms, saying that they know what is best, and getting it consistently wrong.”*

**Michael Gove – 6 June 2016**

*“We have not overthrown the divine right of kings to fall down for the divine right of experts.”*

**Harold Macmillan – 16 August 1950**



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## Introduction – what makes an expert?

### Definition of an Expert

Oxford English Dictionary – A person who is very knowledgeable about or skilful in a particular area.

### How to become an expert

*..it takes 10,000 hours (20 hours for 50 weeks a year for ten years = 10,000) of deliberate practice to become an expert in almost anything...*

*Dr. Anders Ericsson's research on expertise 1990*



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## Introduction – Fatigue with experts



### What is driving public frustration in experts?

- Concern experts are part of establishment / elite
- More awareness of failings of experts and examples of wrong predictions
- Fatigue with level of disagreement between “experts” leading to the idea that experts don’t know anything, e.g. climate change
- Fatigue with experts is particularly strong in certain fields like economics and politics. That is linked to the level of uncertainty in an area and extent public are arm chair experts themselves
- Increased general cynicism....



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## 1. Expertise – link to behavioural finance

**Confirmation and hindsight biases** – people have a tendency to introduce biases in processing certain kinds of information and events

**Overconfidence** – people tend to have an overly optimistic assessment of their knowledge or control over a situation

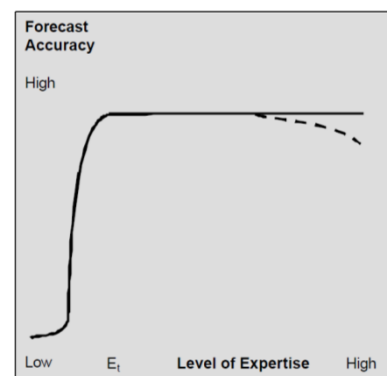
**Herd behaviour** – there is a tendency for individuals to mimic the actions (rational or irrational) of a larger group which can equally apply to groups of experts

Often hard to identify these biases in play in our work environment

## 2. Expertise – too much of a good thing

*“Some expertise seems to lead to a higher level of accuracy in forecasting change; beyond a minimal level, however, additional expertise does not improve accuracy – and there is even some evidence that it may decrease accuracy.”*

**Armstrong, J. S. (1980). The seer-sucker theory: the value of experts in forecasting.**



### 3. Expertise – Misrepresentation of uncertainty



Usually experts predict range of outcomes and not right answer:

- Economists are often challenged for not have correctly predicted what would occur when in reality all they do is give a range of likely outcomes which are normally undermined by unpredictable political events

Limitations of work may not be set-out:

- Reports and analysis tends to get summarised more and more as reported to more senior people / committees

### 4. Expertise – Group think



Useful to be able to identify and manage Group think

**Group think can happen within an organisation and across an industry ...**

- *emperor's new clothes* – people may be reluctant to challenge the majority
- *disregarding alternative views* – dissenting views suppressed

**How to challenge group think**

- *power of disruption* – putting a diverse group together avoids Group think
- *avoid blame culture* – one of drivers of group think is often fear of repercussions

## 5. Expertise – Will AI / robots replace experts

- Big push for Insurers to make use of Artificial Intelligence and Robotics
- If expertise is just something that is effectively learned through experience then surely this an area where machine learning can succeed

Expertise is unlikely to be replicated by AI / robots in short term due to:

- Lack of ability to explain simply how / why a decision was reached
- Unable to use common sense or creative responses
- Only works where can extrapolate from previous decisions to current one which is not always possible



Useful to understand advantages experts bring



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## 6. Expertise – Model Error Risk



Mentions of Model Risk in literature

Source: Google NGram

High Profile Model Errors

- Recent opinion polls
- West Coast mainline franchise



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## Case Study – Internal Audit in Insurance – Andy Cox

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## Case Study – Internal Audit in Insurance



- Internal Audit departments don't seem to have had enough of experts
- Trend in employing experts in Internal Audit:
  - IT professionals
  - Change professionals
  - Data analysts
  - Actuaries
- Boards & Audit Committees have been reliant on advice of experts. Now looking to have more independent experts challenge

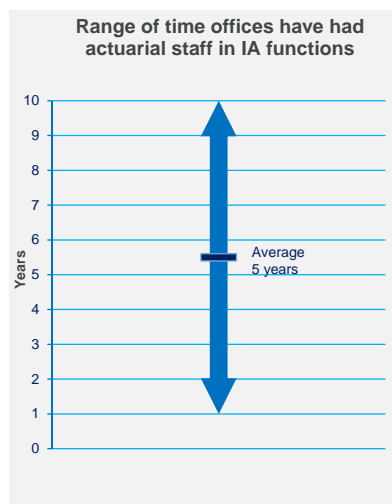
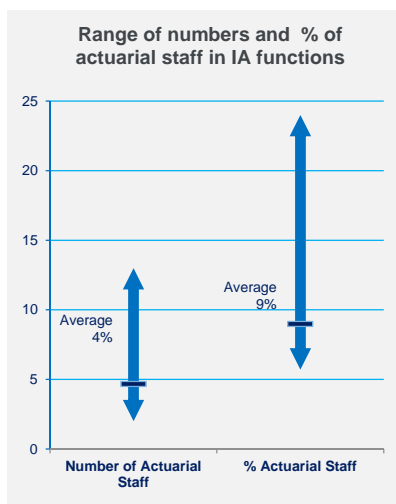


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## Actuaries in Internal Audit



Source: Internal Audit Actuarial Network  
2016 Survey of six major UK insurers

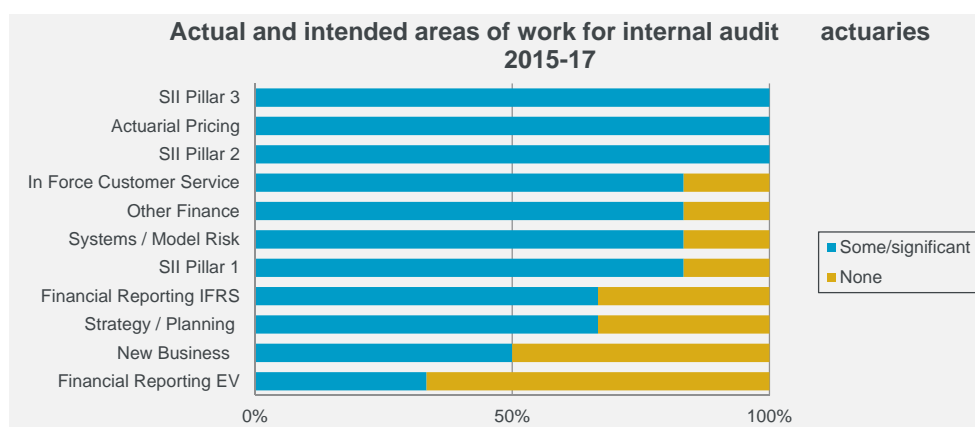


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## Actuaries in Internal Audit



Source: Internal Audit Actuarial Network  
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## Case study 1

### Audit of Early Warning Management Information

Indicator	Day	Week	Month	Year
Equity index 4	-0.49%	-1.97%	0.00%	0.00%
Inflation index 1	-0.25%	-1.49%	-5.94%	-17.83%
Exchange rate 2	-0.43%	0.00%	0.00%	0.00%
KPI 18	-0.09%	-0.37%	-0.37%	0.00%
Exchange rate 1	-0.17%	-0.99%	-2.98%	-2.98%
KPI 21	-0.02%	-0.07%	0.00%	0.00%
KPI 20	-0.30%	-1.48%	-2.96%	-8.89%
Equity index 3	-0.44%	-0.44%	-0.44%	-0.88%
KPI 19	-0.46%	-0.46%	-0.46%	-0.91%
Inflation index 2	-0.43%	-2.13%	-12.80%	-12.80%
Equity index 2	-0.14%	-0.43%	-1.74%	-1.74%
Volatility index 2	-0.33%	-1.31%	-3.94%	0.00%
Interest rate 1	-0.07%	-0.13%	-0.67%	-2.00%
Volatility index 1	-0.32%	-0.65%	-0.65%	0.00%
Credit index 2	-0.10%	-0.19%	-0.19%	-0.39%
Exchange rate 3	-0.31%	-2.19%	-2.19%	0.00%
Credit index 3	-0.44%	-0.44%	-1.31%	0.00%
Credit index 1	-0.41%	-1.22%	-4.90%	-14.69%
Interest rate 3	-0.32%	-1.58%	-3.17%	0.00%
KPI 22	-0.25%	0.00%	0.00%	0.00%
Equity index 1	-0.21%	-0.21%	-1.26%	-1.26%
Interest rate 2	-0.14%	-0.57%	0.00%	0.00%
Credit index 4	-0.33%	-1.66%	0.00%	0.00%



Indicator	Actual				Limit			
	Day	Week	Month	Year	Day	Week	Month	Year
<b>Strong Indicators</b>								
Equity index 4	-0.49%	-1.97%	0.00%	3.12%	0.30%	2.10%	6.30%	12.60%
Inflation index 1	-0.25%	-1.49%	-5.94%	-17.83%	0.27%	1.89%	2.84%	5.67%
Exchange rate 2	-0.43%	0.20%	0.30%	2.20%	0.50%	3.50%	5.25%	10.50%
KPI 18	-0.09%	-0.37%	-0.37%	5.30%	0.05%	0.35%	0.53%	1.05%
Exchange rate 1	-0.17%	-0.99%	-2.98%	-2.98%	0.20%	1.40%	2.10%	4.20%
KPI 21	-0.02%	-0.07%	0.50%	1.21%	1.00%	7.00%	21.00%	31.50%
<b>Weak Indicators</b>								
KPI 20	-0.30%	-1.48%	-2.96%	-8.89%	0.40%	2.80%	8.40%	16.80%
Equity index 3	-0.44%	-0.44%	-0.44%	-0.88%	0.50%	3.50%	5.25%	10.50%
KPI 19	-0.46%	-0.46%	-0.46%	-0.91%	0.10%	0.70%	1.05%	2.10%
Inflation index 2	-0.43%	-2.13%	-12.80%	-12.80%	0.50%	3.50%	5.25%	10.50%
Equity index 2	-0.14%	-0.43%	-1.74%	-1.74%	0.20%	1.40%	2.10%	4.20%
Volatility index 2	-0.33%	-1.31%	-3.94%	0.00%	0.40%	2.80%	4.20%	8.40%
Interest rate 1	-0.07%	-0.13%	-0.67%	-2.00%	0.10%	0.70%	1.05%	2.10%
Volatility index 1	-0.32%	-0.65%	-0.65%	0.00%	0.35%	2.45%	3.68%	7.35%
Credit index 2	-0.10%	-0.19%	-0.19%	-0.39%	0.20%	1.40%	2.10%	4.20%
Exchange rate 3	-0.31%	-2.19%	-2.19%	0.00%	0.05%	0.35%	0.53%	1.05%
Credit index 3	-0.44%	-0.44%	-1.31%	0.00%	0.50%	3.50%	5.25%	10.50%
Credit index 1	-0.41%	-1.22%	-4.90%	-14.69%	0.02%	0.14%	0.21%	0.42%
Interest rate 3	-0.32%	-1.58%	-3.17%	0.00%	0.50%	3.50%	5.25%	10.50%
KPI 22	-0.25%	0.00%	0.00%	0.00%	0.10%	0.70%	1.05%	2.10%
Equity index 1	-0.21%	-0.21%	-1.26%	-1.26%	0.30%	2.10%	3.15%	6.30%
Interest rate 2	-0.14%	-0.57%	0.00%	0.00%	0.20%	1.40%	2.10%	4.20%
Credit index 4	-0.33%	-1.66%	0.00%	0.00%	0.50%	3.50%	10.50%	15.75%



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## Case study 2

### A new proposal to the Board

- Internal Audit getting involved in “live” proposals to Boards:
- Internal audit paper presented simultaneously as a business’ proposal
- Internal Auditors may:
  - interview key stakeholders
  - review key papers and work
- This can state:
  - material risks and uncertainties articulated
  - limitations explained
  - controls performed
- An actuary may be best placed to review the processes and calculations
- A non-expert may be better writing the Board report articulating the issues



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### Case study 3

#### *Auditing asset modelling*

- Audit of asset modelling in one part of the business:
- Challenged “Group-think” in that part of the business by:
  - comparing to other areas of business
  - bringing in external consultants to benchmark to market
- Challenge the business in what they saw was norm (up or down):
  - in quality and timeliness of MI
  - validation/checking within processes
  - quality of documentation of code in models



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### Case study 4

#### *Expert Underwriting*

Auditing a large bespoke insurance quote:

- Usually be a core methodology with a layer of expert judgement
- However expert may be biased in wanting or not wanting to “do the deal”
- Judgements may be influenced by the bias
- The judgements should be able to be coded to avoid bias
- Judgement could then be used in deciding on profit margin
- More transparent

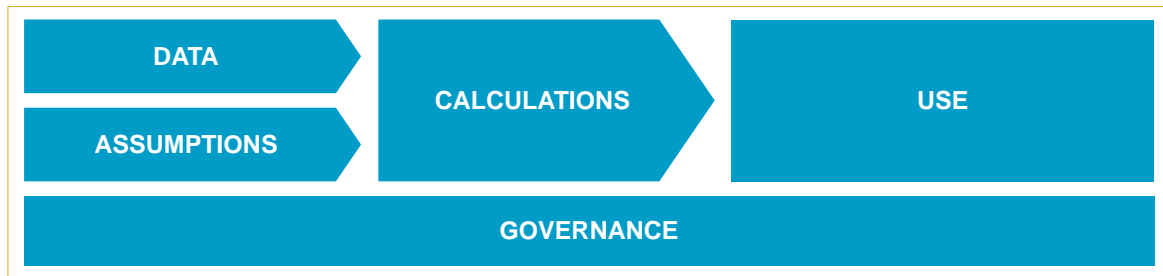


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## Case study 5

### *Auditing Model Risk*



Thinking about the components of a model can help ensure:

- limitations of all aspects are considered
- potential and appetite for all types of error are considered
- clarification of owners, users and operators of each part of the model



## Summary / conclusions

- Experts are good and add value but there can be pitfalls
- Risk of group think when dealing with experts needs to be managed
- As actuaries we are likely to be perceived as experts
- Need to be clear on which topics we are actually experts when talking to people – our expertise may not be as wide as people assume
- When you leave here please ...



# Comments & Questions

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