

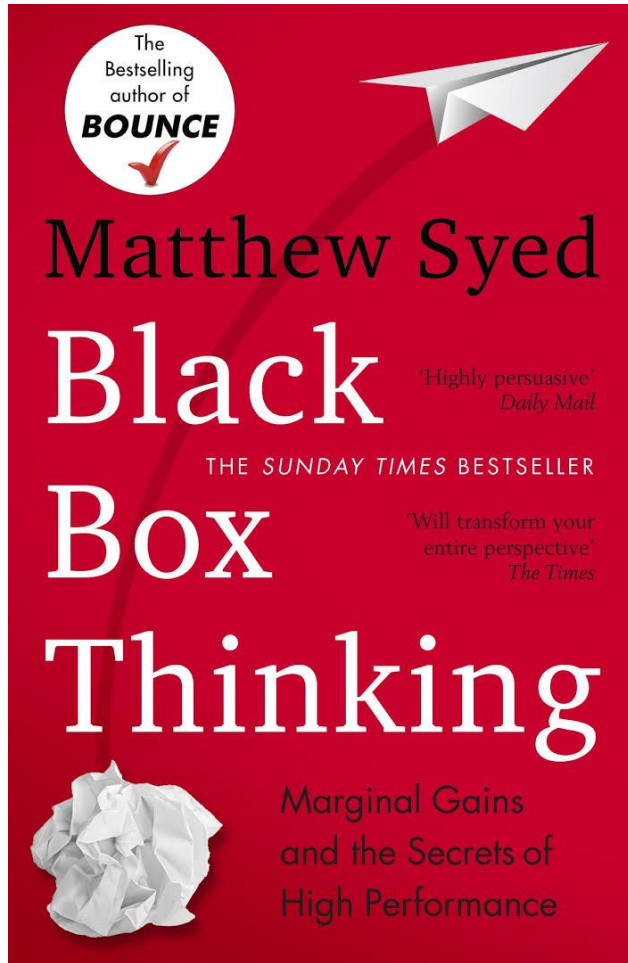
Private and confidential



Black Box Thinking For Pension Funds

21 September 2017

Black Box Thinking



Source: Google images



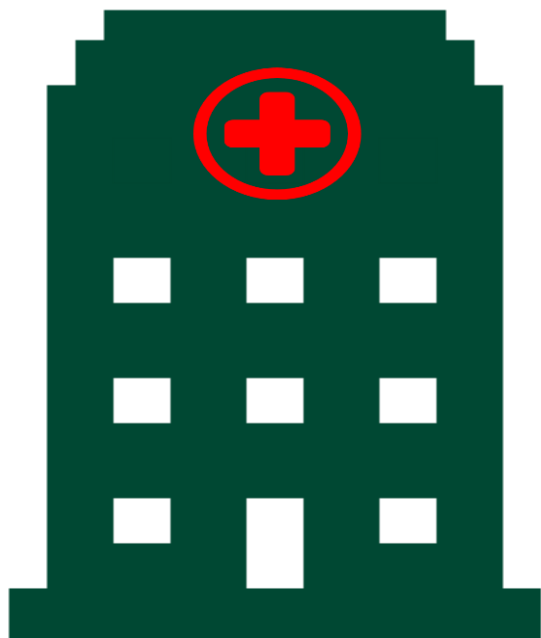
Black Box Thinking

United Airlines 173



Source: Google images

Black Box Thinking



Elaine Bromiley

- **It's one of those things**
- **Accidents sometimes happen**
- **We did our best**

Martin Bromiley

Closed Loop Thinking

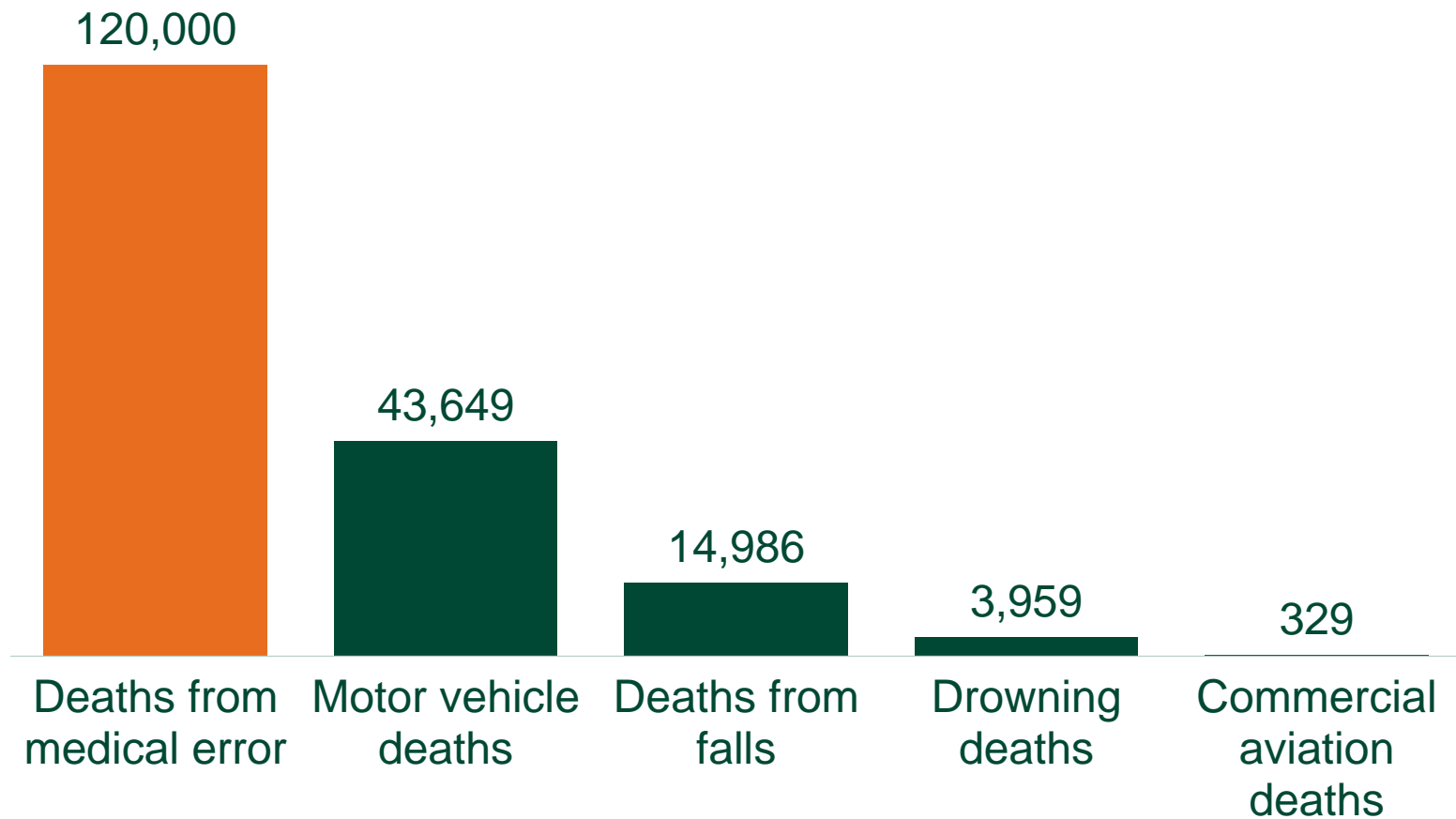
- **Pilots taught to listen**
- **Crew given assertiveness training**

PACE

- **Probe**
- **Alert**
- **Challenge**
- **Emergency**

Black box thinking

Accidental deaths in the US



Source: National Safety Council. United States only.

Black Box Thinking

Are we closer to health or aviation?

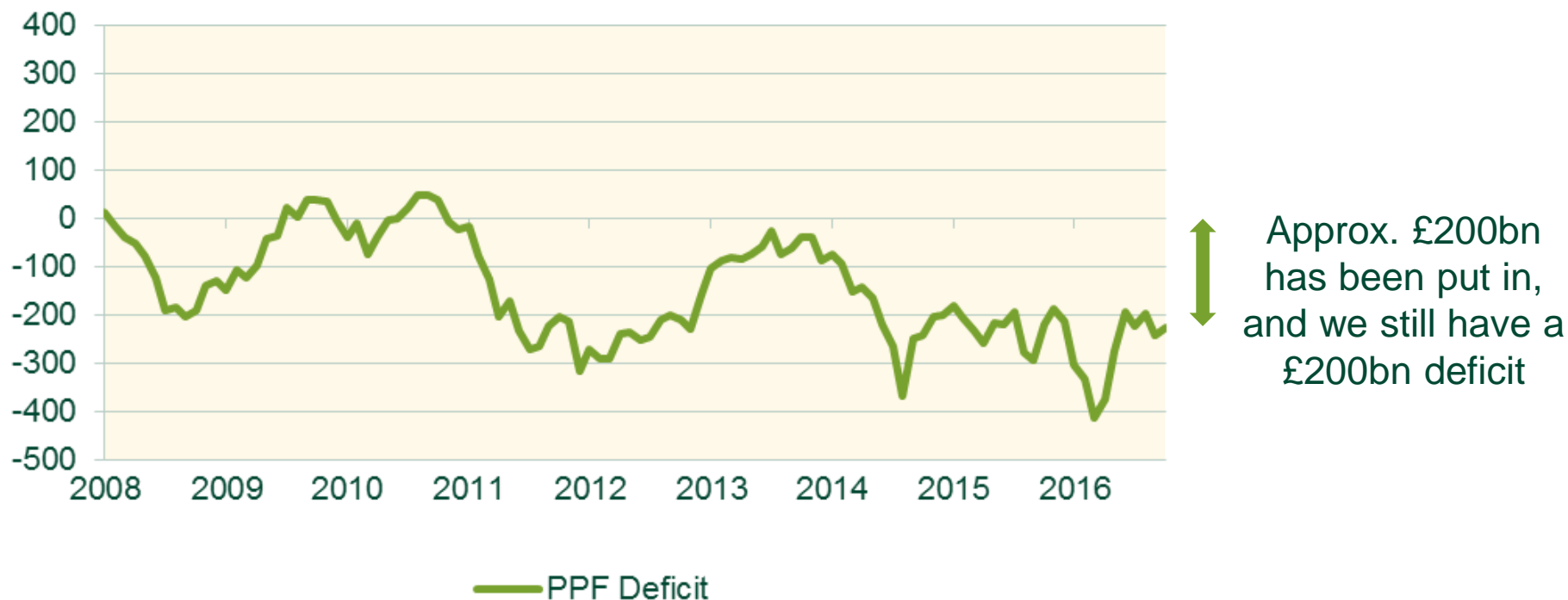
Can we interrogate and learn from black boxes?

Who is accountable?

What will happen next?

The Pensions Industry has lost £400bn

PPF deficit (£bn) Including contributions



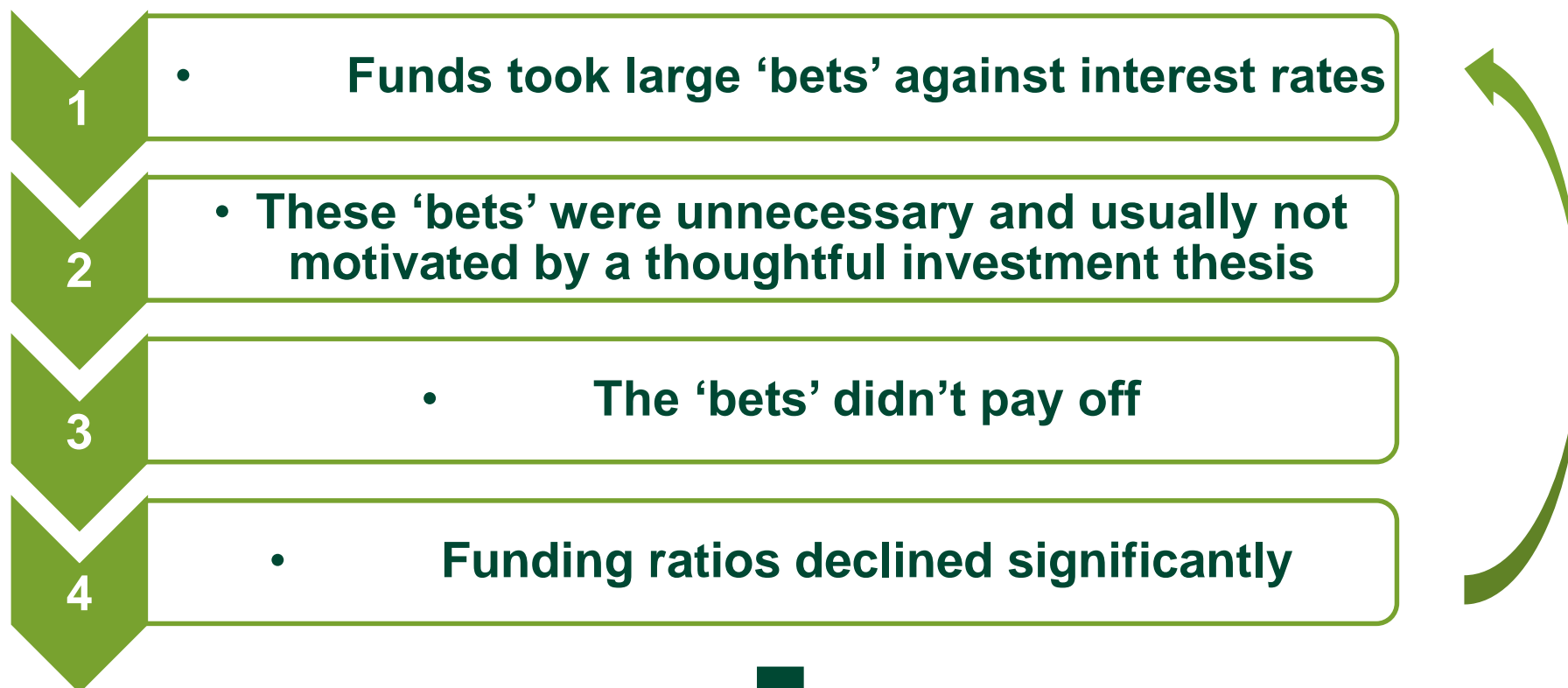
Source: PPF 7800 Index, Cardano. average pension scheme performance is estimated based on information contained in the Purple Book published by The Pensions Regulator and the Pensions Protected Fund using market index returns and implied hedge ratios based on the bond asset allocation only. No allowance for deficit repair contributions have been made. The liability benchmarks in the calculation of relative returns are taken from the composite of Cardano clients. Past investment performance is not a reliable indicator of future results, no guarantees of future performance are provided.

Millions destined for the PPF How many black boxes?

“ ...around **1,000** schemes (1 in 5) remain subject to unmanageable stresses and are **very unlikely to pay future pensions in full** ”

Source: Greatest Good 2, Cass Business School and The Pensions Institute, June 2017

What might the pension fund 'black box' say?



Why have we repeated this cycle for nearly 20 years, accumulating a £400bn loss?

Black Box Learning

- **Assets and Liabilities holistically**
- **Static Portfolios**
- **Use of full tool kit**
- **Is ALM limited**
- **Active Management**

Who is accountable for financial performance?

Is it:

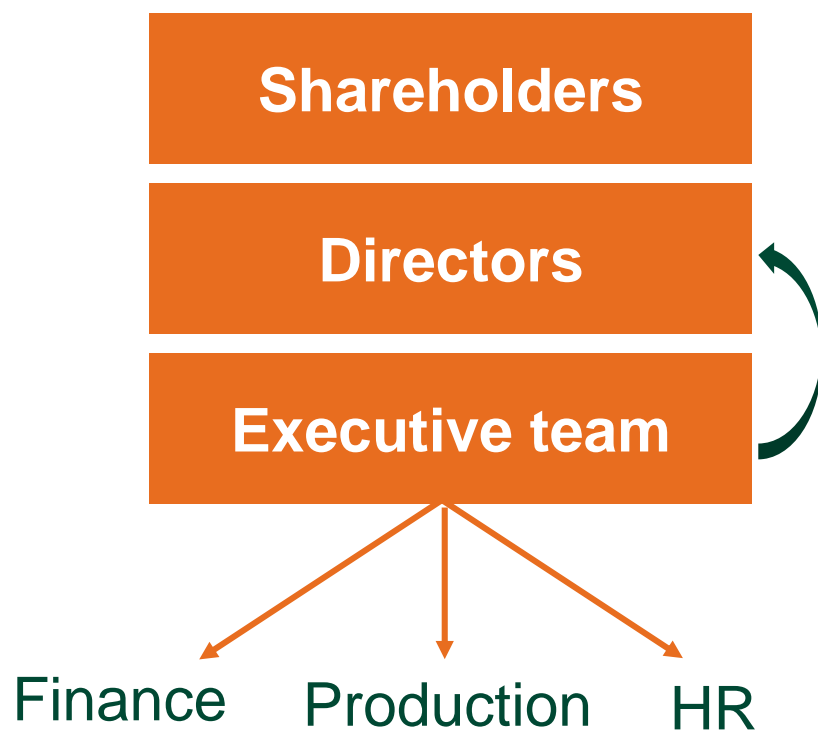
- The Trustees?
- The Sponsor?
- The investment adviser?
- The fund managers?
- The economy?
- The actuarial profession?



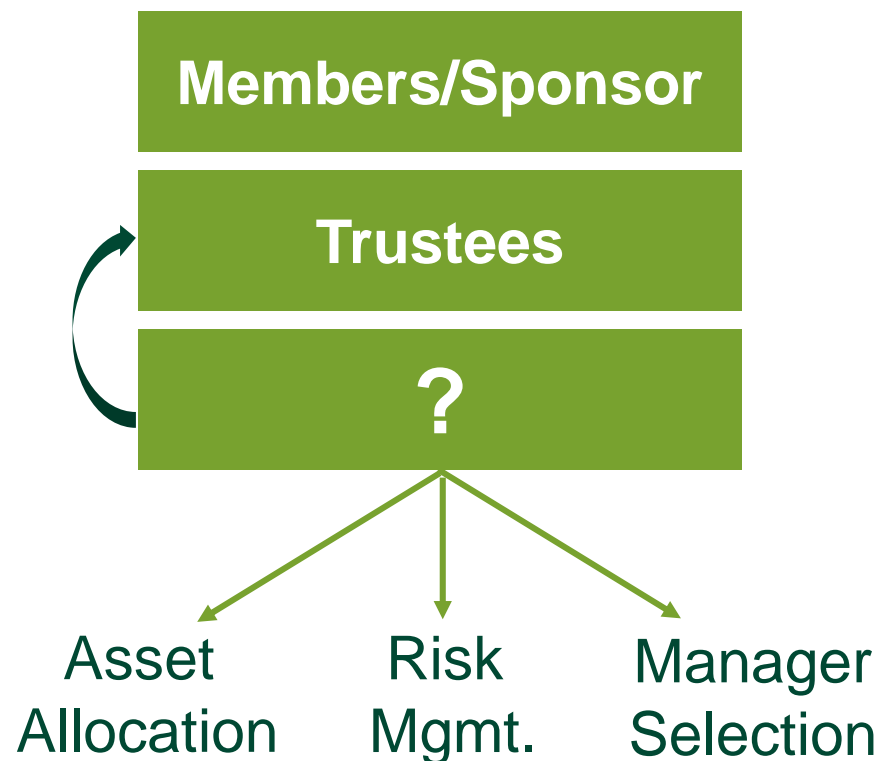
Nobody is accountable for financial performance

Lessons from corporate finance

Director structure in company



Trustee structure in pension fund



The Corporate Code
Principle Based

Black Box Thinking



Source: Google images

Thank You

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