The impact of Behavioural Economics and Finance on retirement provision

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1. Behavioural Finance & Economics
2. Key Concepts
3. Criticisms
4. Current industry issues
5. Harnessing member behaviour
Behavioural what?

• Harry Markowitz: Nobel prize for economic sciences
  • Aim - minimize future regret

• About how “real” people make decisions
  • Combine psychology and economics
  • Provide explanatory model

• Particular relevance to DC retirement funds
DC Environment

- Members decisions
  - Lots of information, cognitive limitations, time pressure
  - Not purely objective

- Adopt rules of thumb
- Refer to past experience

- Often useful and accurate
  - But... can lead to sub-optimal choices
Reality

Observe poor DC retirement outcomes

- 29% estimated to maintain standard of living in retirement
- 59% shortfall between income and expenses
- 32% believe they have saved enough capital
- 6% of large umbrella fund members expect to have 60%+ replacement ratio

Key concepts

Naïve diversification
Overconfidence bias
Decision avoidance
Availability
Representativeness
Hyperbolic discounting
Prospect theory
Ikea effect

Peer effects and herd behaviour
Regret aversion
Framing
Anchoring and adjustment
Mental accounting
Status quo/ inertia
Loss aversion

Choices faced by members e.g. choosing an investment portfolio
Naïve diversification

- Popular 1/n rule
  - An egg in each basket
  - Multi-managed solutions?
  - Not necessarily the worst option

- Practical limitations
  - Large number of funds
  - Odd numbers
Peer effects and herd behaviour

- People learn from each other
  - Right / wrong
  - Knowledgeable expert?
  - Individual choice influenced by peer group norm

- Herd behaviour driven by emotion
Overconfidence bias

• Overestimate
  • Intuitive reasoning
  • Cognitive ability

• Illusion
  • Knowledge & control

• Symptoms
  • Blind to negative information
  • Excessive switching
  • Poor diversification

Are you an above average driver?

93% of Americans think so

Svenson (1981)
Regret aversion

• Comparing
  • “what is” vs. “what might have been”
  • Indecisiveness

• No decision is a decision
  • Errors in commission / omission
Decision avoidance

Too much choice
- Can be demotivating
  E.g. buying jam
- Requires greater decision making
- Counterproductive → no decision
Framing

• Influences choice

• Positive or negative statement
  • Chance of death
  • Discount or surcharge

• Options
  • Easily comparable
  • Order of list
  • Not most expensive
Availability

- Mental shortcut
  - Easy to think of an example
  - Tilts decision making

- Retrievability
  - Advertising / vividness
  - Shark attack vs. diabetes

- Categorisation

- Narrow range of experience

- Personal resonance
Anchoring and adjustment

Anchor thoughts to initial reference point
• Carry disproportionate weight
• Sets tone for subsequent decisions
• Make adjustments away from “anchor”
Representativeness / similarity

Over reliance on stereotypes
- Miss important differences
- Interpret new data as confirming pre-existing notions

Linda is 31 yrs. old, single, outspoken and very bright. Majored in philosophy. As a student was deeply concerned with issues of discrimination & social justice. Participated in anti-nuclear demonstrations.

Option A: Linda is a bank teller.
Option B: Linda is a bank teller and active in the feminist movement.
Mental accounting

- Label money (goes in different jars)
- Assist with self-control
- Reality: money is the same
- Segregation impacts
  - Our propensity to consume

- How we save
Hyperbolic discounting

- Time inconsistent model of discounting
- Impatience for short time-horizon decisions

- Constraining future choices can help with self-control
Status quo / inertia

- Members tend not to revisit decisions
- Strong preference for the status quo
- Reluctant to move
- Likely to remain in allocated default

Linked to loss aversion and prospect theory
Loss aversion

- Emotional bias based on fear of losing
- Avoid losses over making a gain

I hate losing more than I love winning.

- Loss twice as influential as gain
- Risk averse
- Hold on to losing investment; sell winning too early
- Pensioners hyper loss averse
Loss aversion

- Emotional bias based on fear of losing
- Avoid losses over making a gain
- Linked to

![Endowment Effect Illustration]

*People value an object they possess much more than one they don’t.*
Loss aversion

- Emotional bias based on fear of losing
- Avoid losses over making a gain
- Linked to endowment effect

- Myopic loss aversion: loss aversion + frequent evaluation
Prospect theory

- Describes choice between risky events
- Combines loss aversion, status quo and anchoring
- People prefer
  - Events that are certain
  - Risk averse for gains but risk seeking for losses

Utility function
Prospect theory

- Describes choice between risky events

Utility function

- Choosing options
  - Rank and evaluate using a heuristic (framing)
  - Evaluate according to reference point (status quo/anchor)

- Shape differs: cultures and geographic boundaries
IKEA Effect

Disproportionally high value on items they help create
IKEA Effect

Disproportionally high value on items they help create
Critics

• Disbelief
  • Observed biases in financial markets statistically marginal
  • Over- and under-reaction to price information

• Caution
  • “Correctors” of bias also susceptible
  • Choice shaping
    • Interferes with free choice
    • Open to abuse

• Offer alternatives
  • Rational persuasion
  • Education
Current industry issues

3 Biggest mistakes members make:

- Lack of preservation
- Member apathy
- Low contributions

... from Principal Officers

Sanlam (2014)
Preservation

71% take savings in cash

Preservation rate younger 25: close to zero

1. Settle short-term debt
2. Living expenses
3. Home improvements
4. Started own business
5. Mortgage bond

Member apathy

43% know who is managing retirement fund

36% some idea where invested

Did you vote for trustees? 33%

Can you name one of your fund’s trustees? 30%

79% Of those in the default trust trustees to look after them

Old Mutual (2013), Sanlam (2010)
Low contributions

- **Issues**
  - Pensionable salary – beware rule-of-thumb
  - Low defaults – anchor
  - New employees (only 6% review decisions, status quo bias)

Last 5 year average

Sanlam (2014)
Auto enrolment

Formally employed
- Income Tax Act
- Eligibility
- Self-employed & informal sector
- Procrastination & discounting

34% do not save for retirement

39% children will look after them

Old Mutual (2014)
Retirement age & longevity

- Average in 1981 = 65 (m), 60 (f)
- Where does 65 come from?
- Is this realistic given demographic trends?

Plan to retire
61.3 yrs.

Like to retire
59.8 yrs.

Afford to retire
63.0 yrs.

Annuityation

Importance of retirement income

• Lost focus in DB to DC conversion?
• Retirement reform

DB
Consumption frame

DC
Investment frame
Annuitiesation

Framing of annuity choice

Consumption frame
Secure income stream, increasing with inflation

Investment frame
Live off volatile investment returns
Annuityisation

Framing of annuity choice

**Consumption frame**
Secure income stream, increasing with inflation

**Investment frame**
Flexibility: how assets are invested, retain control of assets on death
Annuitisation

Many other behavioural factors

• Mental accounting, discounting, endowment effect, decision avoidance, regret aversion, loss aversion
• Guaranteed annuities a gamble?
• Reality vs. survey results

29% never heard of annuity

Once explained

55% opted for inflation linked annuity

Old Mutual (2013)
Annuitisation

Many other behavioural factors

- Mental accounting, discounting, endowment effect, decision avoidance, regret aversion, loss aversion
- Guaranteed annuities a gamble?
- Reality vs. survey results

91% prefer guaranteed income rather than 50:50 chance 5% higher or 5% lower income

Sanlam (2014)
Annuitisation

Yet living annuities extremely popular

- How choice framed
- Insufficient savings (high drawdown rates)
- Sales incentives
- Health considerations
- Bequest motive

Happy with annuity choice

67%

Preferred annuity

62%

company pension

Sanlam (2014)
Investment choice

Member choice
- Mostly life stage
- Defaults prevail
- Regulator use Reg. 28 & PF 130

How do members choose (when they do)?
1. Financial advisor
2. Own knowledge
3. Colleague
4. Trustee recommendation
5. Random choice
Investment choice

Member choice
• 29% offer 6 / more options
• Strong anchoring bias

Myopic loss aversion
• Investment feedback quarterly / more frequent
• Switch monthly or daily

Communication

- Members prefer face-to-face
- Pensioners prefer hard copy to electronic
- Rate quality of information as good

78% do not want fund communication via social media

- Its personal
- For “fun” stuff

Sanlam (2014)
Harnessing Behaviour

Complex decisions – too much jargon

Next

Step 1  Consider current scheme options
  • Already impacting behaviour
  • Unintentional

Step 2  Improve retirement outcomes
  • Understand behaviour
  • Scheme design

Sanlam (2014)
Architecture of choice

• **More than just defaults**
  • Often set independently
  • Requires cohesive strategy

• **Start with the end in mind**
  • Target retirement income
  • Align communication & options
  • Provide holistic blue print
  • Use anchoring & inertia
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>45%</td>
<td>DC Funds have target pension</td>
</tr>
<tr>
<td>62%</td>
<td>Aligned default contribution rate with target</td>
</tr>
<tr>
<td>76%</td>
<td>Believe members in default investment choice will achieve target</td>
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<tr>
<td>45%</td>
<td>Aligned life stage strategy with annuity choice</td>
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Sanlam (2014)
Who is your “average Joe”

Average member

Vivid & realistic

• Nudge
• Anchor

• Familiar terms
• Just-in-time
Member involvement

- An involved member = 1st prize
  - IKEA effect
  - Member help create plan
  - Make it easy

- Nudge?
  - Peer effects for low contributions
  - Mental accounting for preservation
Automation options

• **Automatic contribution escalation**
  • At next salary increase
  • Pain only felt later - address loss aversion
  • Inertia – few opt out
  • See SMART

• **Auto-re-enrolment**
  • Require regular opt-out
  • Resistance
Conclusion

• Link between behaviour & retirement outcomes
  • Human beings
  • Faced with complex decisions
  • Some thrive
  • Other find choice bewildering

• Help members make better choices

Thank you
Further reading