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The impact of Behavioural Economics and Finance on South African retirement provision

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10 May 2016



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

Expertise
Sponsorship
Thought leadership
Progress
Community
Sessional Meetings
Education
Working parties
Volunteering
Research
Shaping the future
Networking
Professional support
Enterprise and risk
Learned society
Opportunity
International profile
Journals
Support

Behavioural what?

- Harry Markowitz: Nobel prize for economic sciences
 - Split retirement savings between bonds & equities
 - Aim - minimize future regret

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

- Particular relevance to DC retirement funds



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DC Environment

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

- Adopt rules of thumb

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



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Reality

Observe poor DC retirement outcomes

20% estimated to maintain standard of living in retirement

48% shortfall between income and expenses

35% believe they have saved enough capital

6% of large umbrella fund members expect to have 60%+ replacement ratio



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Sanlam (2016), Alexander Forbes (2013)

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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



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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



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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



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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)



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Regret aversion

- Comparing
 - “what is” vs. “what might have been”
 - Indecisiveness
- No decision is a decision
 - Errors in commission / omission



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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.



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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

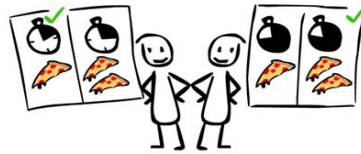


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Hyperbolic discounting

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



- Constraining future choices can help with self-control

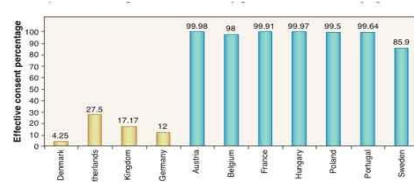


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Status quo / inertia

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



Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

- Linked to loss aversion and prospect theory



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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



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Loss aversion

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



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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

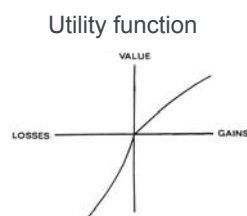


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Prospect theory

- 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

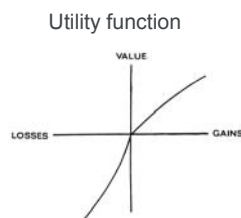


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Prospect theory

- Describes choice between risky events



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

- Shape differs: cultures and geographic boundaries



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IKEA Effect

Disproportionally high value on items they help create



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IKEA Effect

Disproportionally high value on items they help create



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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



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Current SA industry issues

3 Biggest mistakes members make:



Lack of preservation



Member apathy



Low contributions

... from Principal Officers



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Preservation when changing jobs

72% take savings in cash

Preservation rate younger 25: close to zero

Despite tax “penalty” to
withdraw cash



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Sanlam (2015), Alexander Forbes (2013)

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Preservation when changing jobs

What do members do with the cash?

- | 2010 | 2015 |
|---------------------------|---------------------------|
| 1. Settle short-term debt | 1. Settle short-term debt |
| 2. Mortgage bond | 2. Living expenses |
| 3. Living expenses | 3. Home improvements |



Preservation when changing jobs

Member feedback

- | | |
|--|---------|
| Did you realise the tax implications | No 49% |
| Did you realise impact on retirement income | No 45% |
| Have you regretted not preserving your savings | Yes 39% |
| Pensioners | Yes 54% |



Managing lump sum on retirement

50% of pensioners have depleted lump sum

↳ more prevalent at lower income levels

56% of these pensioners within 2 years of retirement

Mostly on living expenses



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Member apathy

43% know who is managing retirement fund

36% some idea where invested



Did you vote for trustees?

14%

Can you name one of your fund's trustees?

15%

70% Of those in the default trust trustees to look after them

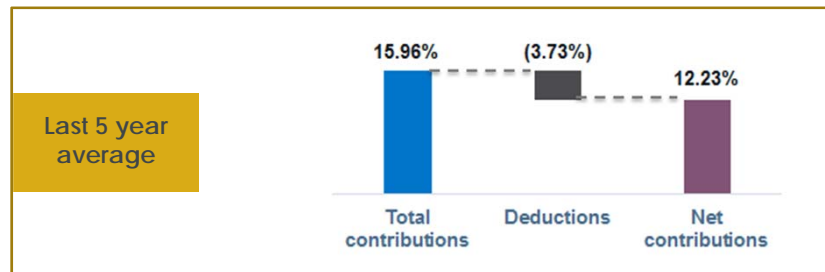


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Old Mutual (2013), Sanlam (2015)

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Low contributions



• Issues

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



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Sanlam (2014)

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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



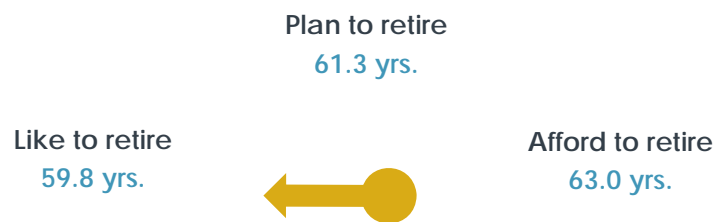
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Retirement age & longevity

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



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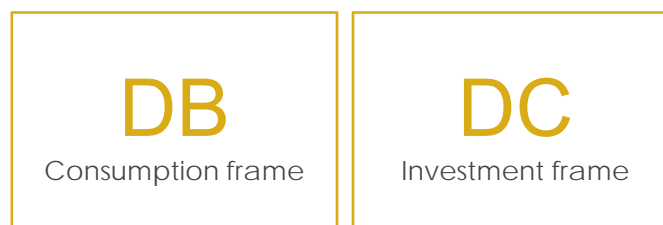
Sanlam (1981), Old Mutual (2013)

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Annuitisation

Importance of retirement income

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



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Annuitisation

Framing of annuity choice

Consumption frame

Secure income stream,
increasing with inflation

Investment frame

Live off volatile
investment returns



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Annuitisation

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



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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



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Old Mutual (2013)

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Annuitisation

Many other behavioural factors

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

87% prefer guaranteed income
rather than 50:50 chance 5% higher or 5% lower income



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Annuitisation

Yet living annuities (drawdown) extremely popular

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

Happy with annuity
choice

72%

Preferred
annuity

62%

company pension



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Sanlam (2014, 2016)

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Investment choice

Member choice

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



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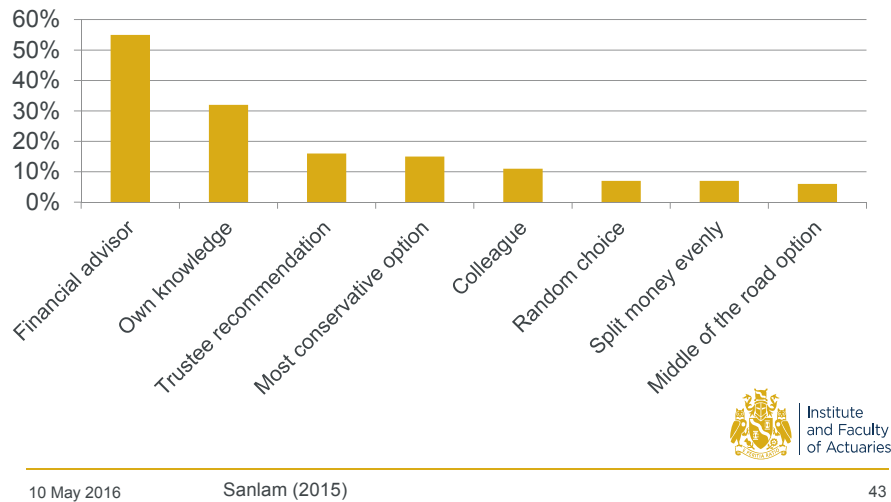
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Sanlam (2014)

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Investment choice

How do members choose (when they do)?



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



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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



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Sanlam (2014)

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DB type needs, but divergent paths

- UK reform
 - Shelve Defined Ambition & Collective DC ideas?
 - No need to annuitise

- South Africa
 - Relook role of employer
 - Refocus on retirement income
 - Aim to enforce annuitisation for all funds
 - Draft regulations on defaults



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More engaged employers

Employers believe they are responsible to enable good retirement outcomes

- To some extent **36%**
- To a large extent **45%**
- Completely **6%**

Senior management sit on board of Trustees

90%

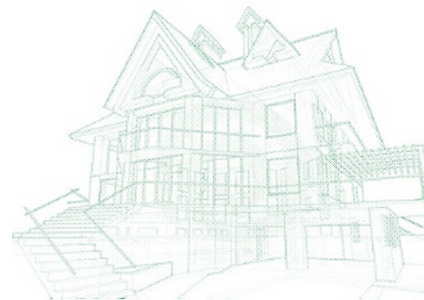


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Architecture of choice

- 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



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Idea starting to take shape

48%

DC Funds have target pension



60% aligned default contribution rate with target

75%

Believe members in default investment choice will achieve target

31%

Aligned life stage strategy with annuity choice



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Communication: Who is your “average Joe”

Average member

Vivid & realistic



- Nudge
- Anchor

- Familiar terms
- Just-in-time



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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



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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



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Conclusion

- Link between behaviour & retirement outcomes
 - Human beings
 - Faced with complex decisions
 - Some thrive
 - Other find choice bewildering
- Help members make better choices



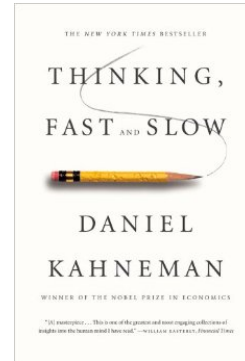
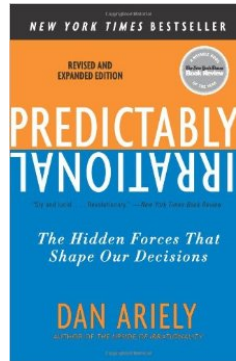
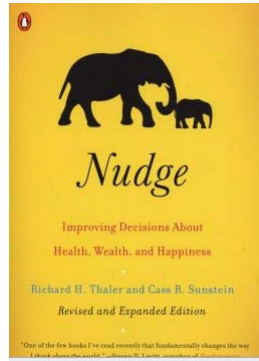
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Further reading



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