

# momentum

investments

## Decision Prosthetics: Combining humans and technology to get more from both

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## Decision Prosthetics

Combining humans and technology to  
get more from both



## What we do...

*We combine innovative*

*behavioural finance,*

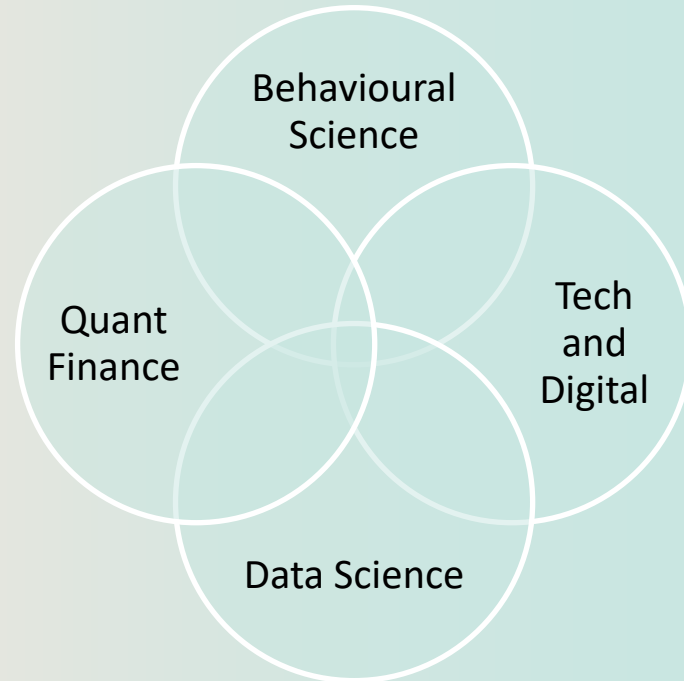
*data science,*

*quantitative finance,*

*and technology*

*to help people make the best financial*

*decisions throughout their lives.*



# Decision Prosthetics

Helping humans  
make better  
financial decisions

## Diagnosis



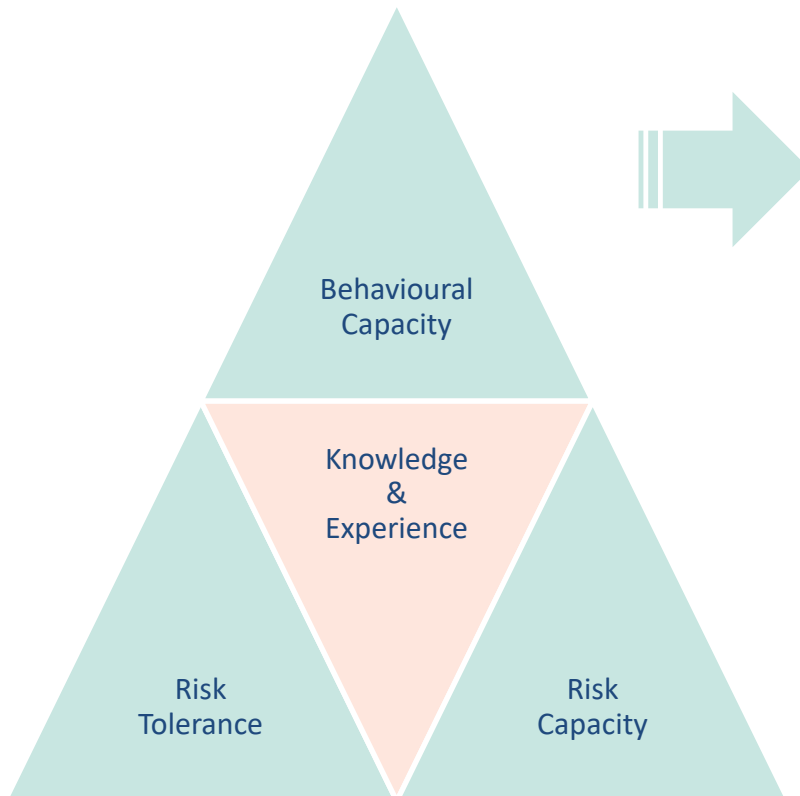
## Prescription



# Holistic Suitability

Holistic assessment of all important aspects of investors

## Suitability Components



## Suitable Risk Level

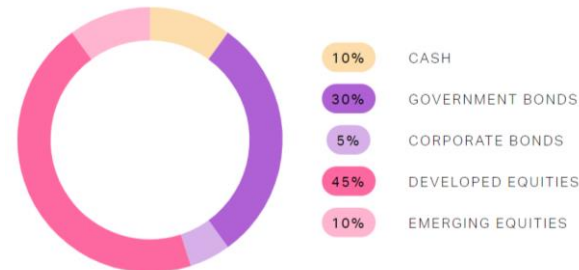


## Investment Risk Range

8 - 12.5%

Risk is defined as the annualised standard deviation of long-term investment outcomes. The annual portfolio returns will be within the expected return plus or minus the risk estimate around two thirds of the time.

## Example Asset Allocation



## How not to do it...

Why choice/gamble based “revealed preferences” profiling doesn’t work

Imagine you bought \$6,000 worth of stock from a now bankrupt company...

Two alternatives to recover your money:

***Would you choose A or B?***

Alternative A

*Recover \$2,000*

Alternative B

*1/3 chance \$6,000 recovered*

*2/3 nothing recovered*

***92% go for A***

***Would you choose X or Y?***

Alternative X

*Lose \$4,000*

Alternative Y

*1/3 chance nothing lost*

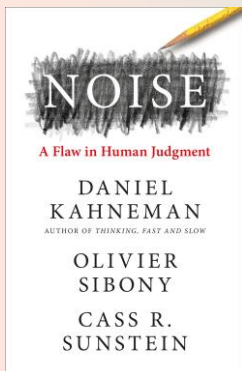
*2/3 chance \$6,000 lost*

***67% go for X***

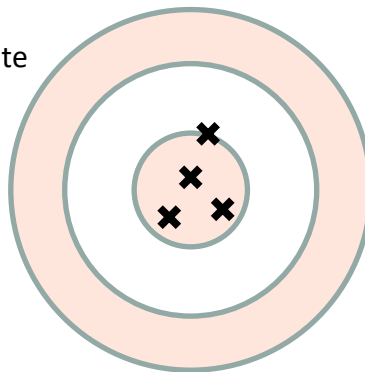
# Noise Audit

## Measuring inconsistency in advice

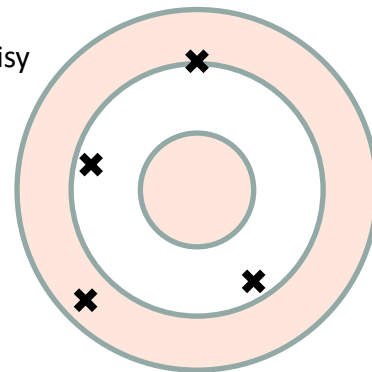
- Solution should depend on the investor, not the adviser
- Consistency of advice is crucial for any firm
- Humans struggle to make reliable decisions with many moving parts and contextual factors



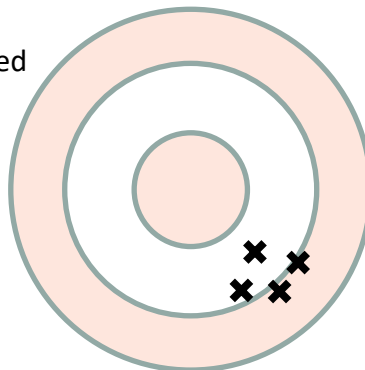
Accurate



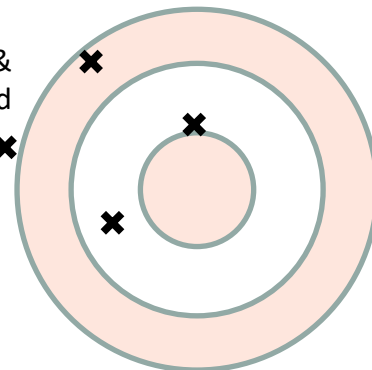
Noisy



Biased



Noisy & Biased



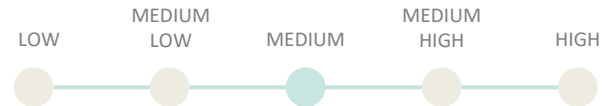


# Suitable Risk Level

Combines holistic circumstances and financial personality

- Risk tolerance: anchor for long-term risk level
- Risk capacity adjusts for financial circumstances
- Suitable risk level reduced temporarily where K&E is low
- Composure score adjusts for low behavioural capacity

Your **suitable risk** level is **medium**. This is derived from a combination of financial personality, circumstances, goals, and knowledge and experience.



Your **risk tolerance** is medium low.



Your **risk capacity** moves your risk level to **high**. Taking high risk with your investible assets would help balance your total net wealth

The risk level has been reduced to account for **limited current knowledge and experience**, and this reduction will release gradually over time



The risk level has been reduced to account for your **composure**; no component of the portfolio should be too far above the risk tolerance category



# Problem

Unemotional investors only exist in textbooks

- Investing is emotionally complex and influenced by many factors
- Timing is crucial
  - otherwise just providing more information would be the answer



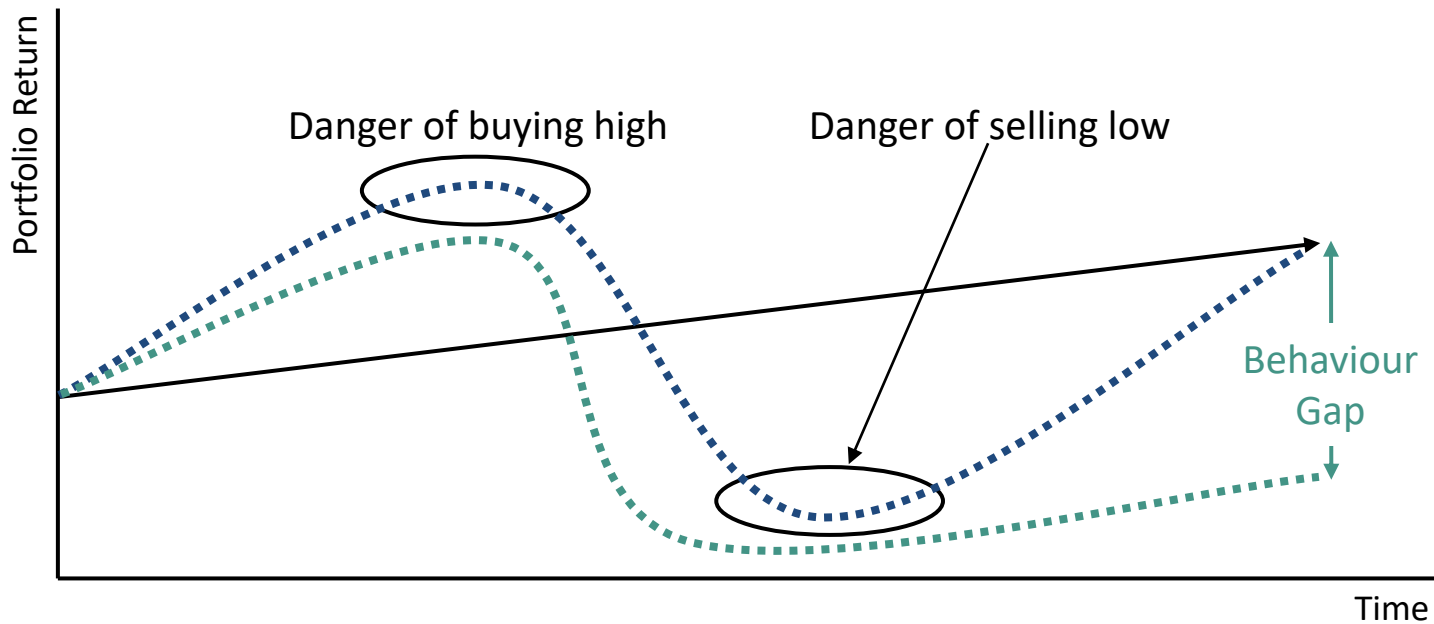
# The cost of being human

The average investor forgoes 3% p.a. for short-term comfort\*

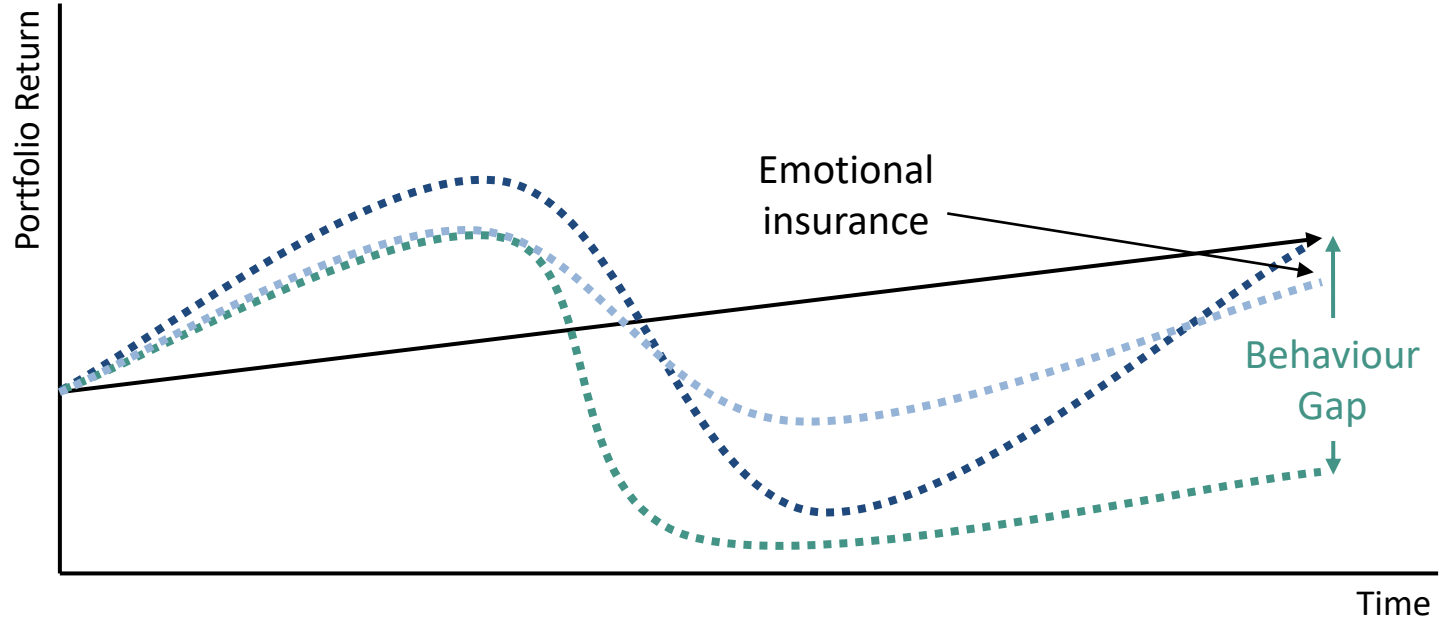


\* Estimate by Oxford Risk based on extensive review of decades of internal and external studies, both academic and industry, of investor behaviour and the costs of suboptimal emotionally lead investing decisions"

# Composure vs Risk Tolerance



# The cost of being human



# Behavioural interventions

To change behaviour, move beyond *nudges* to *engaged choice*

Good decision making requires:

1. Knowledge
2. Engagement
3. Emotional comfort

	Effect on...			<i>Examples</i>
	Knowledge	Engagement	Comfort	
<b>Disclosure</b>	Little, or none	None	None	<i>Caveat emptor</i> <i>Disclaimers</i>
<b>Traditional Education</b>	Little, or none	Little, or none	Little, or none	<i>Seminars</i> <i>Classes</i>
<b>Nudges</b>	None, or negative	None, or negative	Some	<i>Auto-enrolment</i> <i>Defaults</i>
<b>Engaged Choice</b>	Yes	Yes	Yes	<i>Just in time education</i> <i>Gamification</i>

# Financial personality

Robust psychometric  
assessment of  
behavioural attitudes

Anchor

Suitability

Behavioural

ESG

Lending

Risk Tolerance

Composure

Confidence

Impulsivity

Familiarity  
Preference

Financial Comfort

Locus of Control

Comparison  
Tendency

Withdrawal  
Preference

Desire for  
Guidance

Impact Desire

Impact  
Apprehension

Impact  
Trade-Off

Charity  
Orientation

Pride

Accidental Debt

## Example: Composure

What to do  
differently for  
different investors

### Low Composure Investors

DO: Stay in contact and remind them market falls are normal

DO: Focus on portfolio as a whole, rather than individual components

DON'T: Send messages like "Your portfolio has dropped by 10%..."

### High Composure Investors

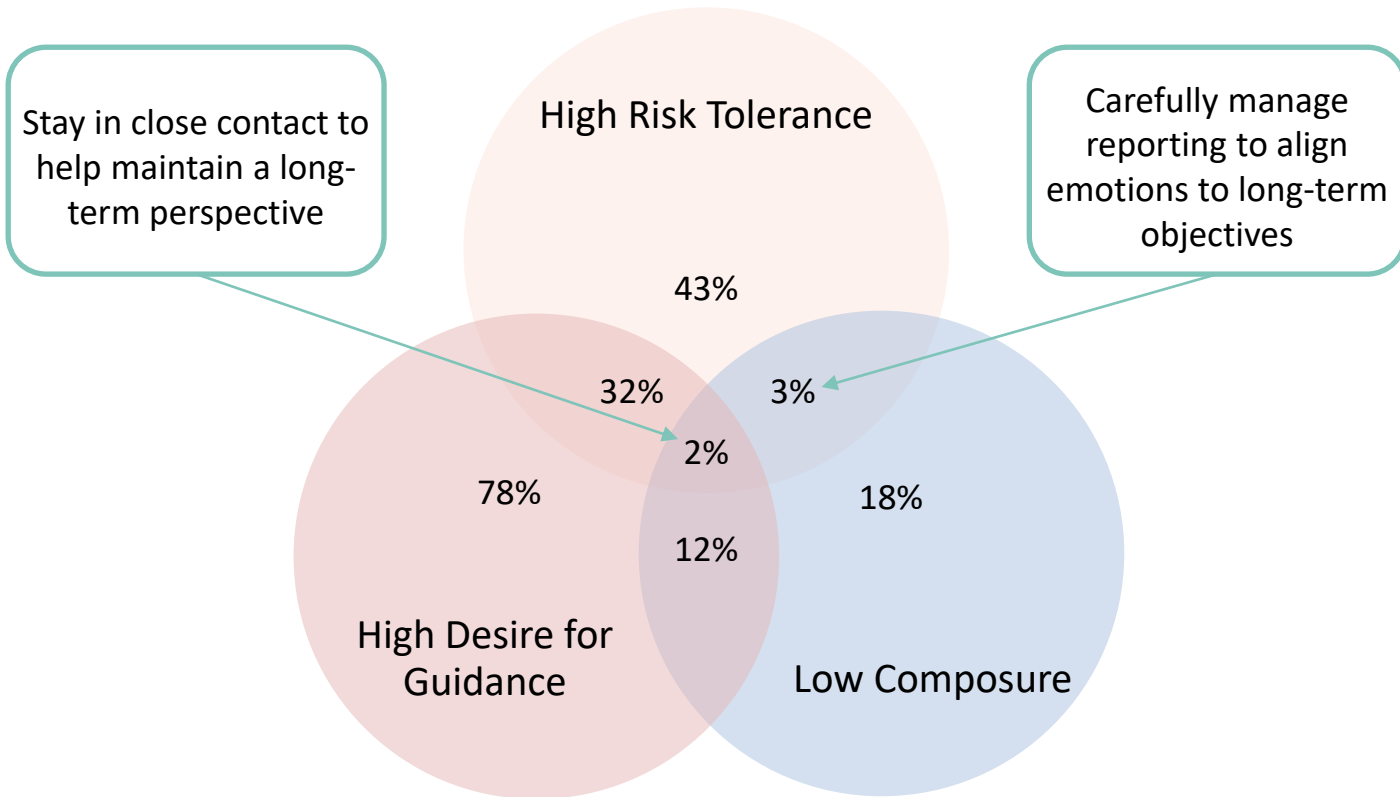
DO: Take advantage of market drops as buying opportunities

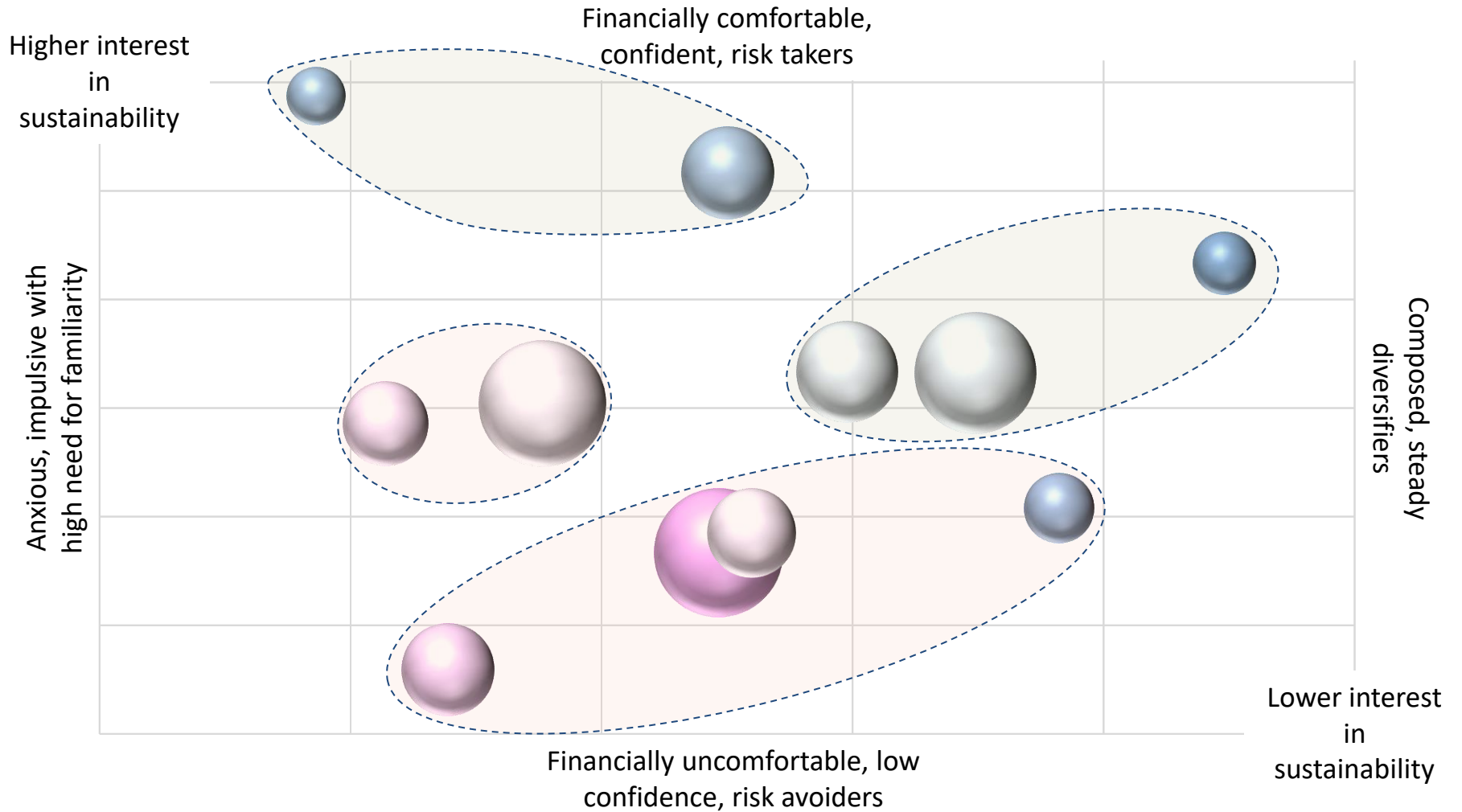
DO: Review the portfolio to check it makes sense as a whole

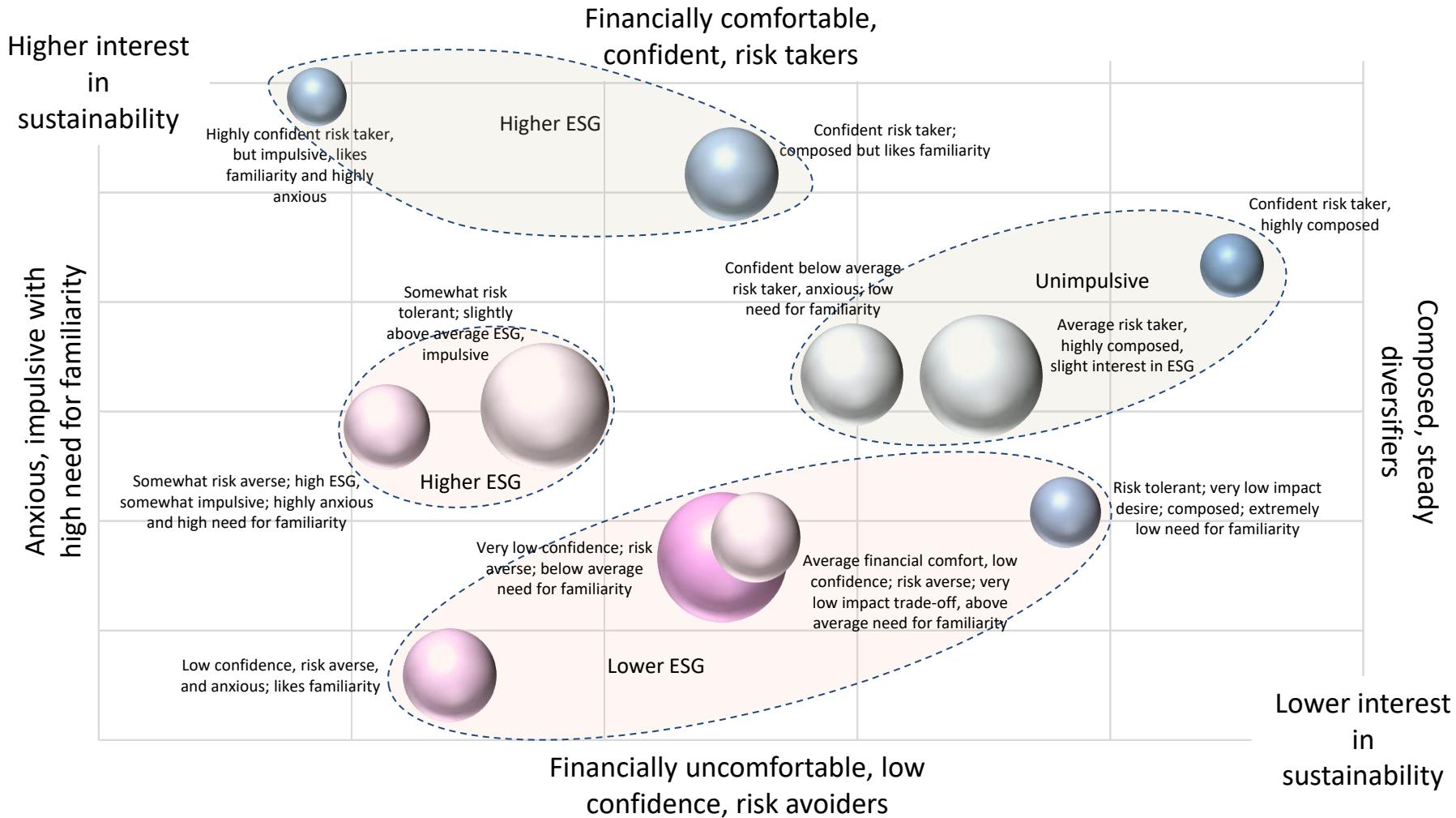
DON'T: Assume they don't need help because they don't seek it



Combinations  
offer valuable  
engagement  
opportunities















## Numerous practical use cases

Running through all use cases is personalisation to get, and keep, clients invested... thus increasing both AuM and client outcomes

	<b>Prospecting</b>	Identifying tailored messages for client prospecting and sign up
	<b>Cash Deployment</b>	Encouraging deployment of unused cash
	<b>Product Selection</b>	Mapping clients to products most likely to resonate with personality
	<b>Handholding</b>	Personalised & timely engagement in times of turmoil
	<b>Client Vulnerability</b>	Enabling closer monitoring and care of those likely to be vulnerable
	<b>Digital Adoption</b>	Using personalisation to encourage regular digital interaction
	<b>Reporting</b>	Tailoring reporting of financial situation for emotional comfort
	<b>Communication</b>	Personalised behavioural content management

# Behavioural levers to encourage cash deployment

Each mechanism can be effective, but which to use should be linked to the Financial Personality of each investor



Home bias, or familiar investments

Benefits of long-term investing

FOMO and past benefits of ideal investing

Specific themes or investment ideas

Past performance of specific investments

ESG and social good

Planned gradual deployment of cash over time

Making use of market dips

Start with lower risk; planned gradual increases

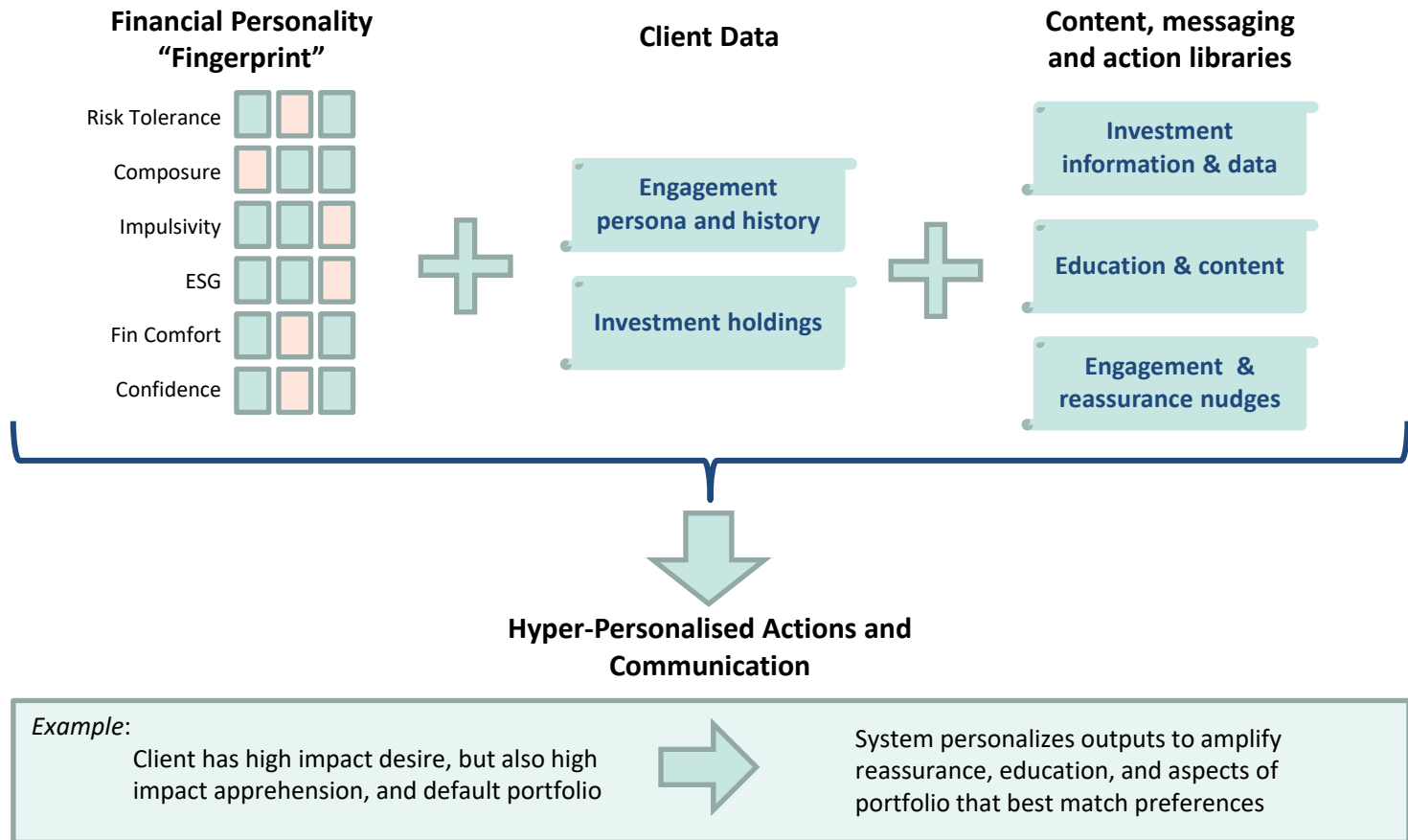
Teaser products and investments

Motivational use of spending goals

Subdividing assets into pots/accounts

# Engagement

Digital hyper-personalisation of content and actions





# Empower humans

Decision prosthetics improve advice



## Increase Efficiency

Digital tools do the heavy lifting and direct advisor effort where most effective



## Grow & Retain AUM

Personalisation differentiates offering increasing conversion and referrals



## Better Client Outcomes

Linked to accurate profiles, digital nudges can improve decisions over the journey

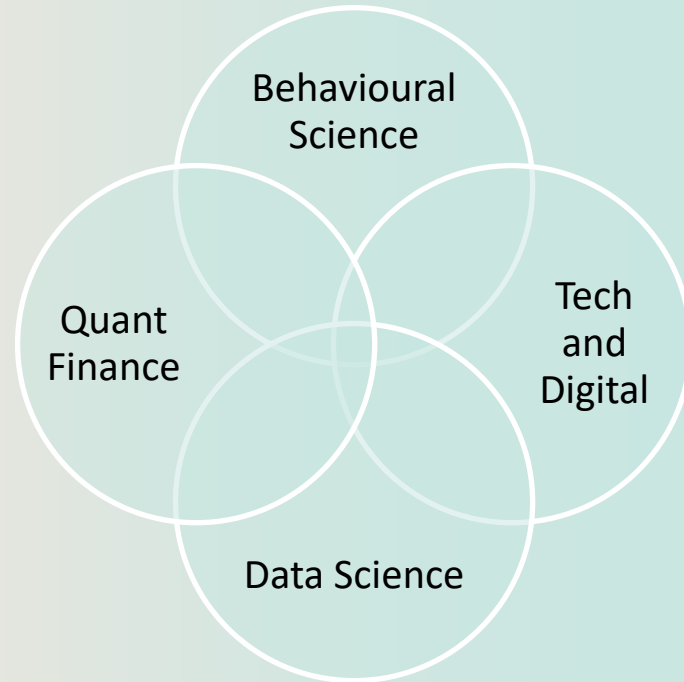


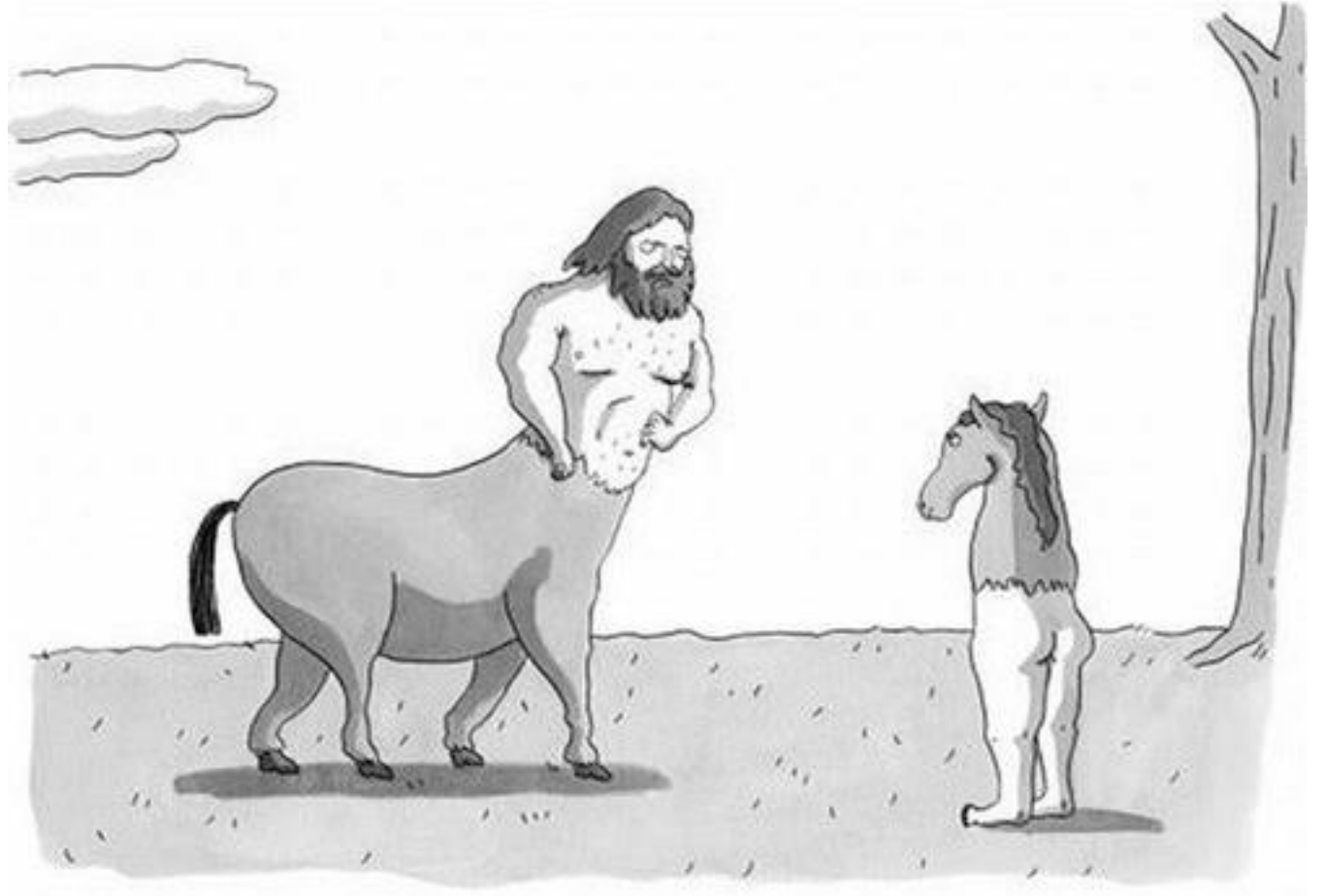
Grant me...

*The serenity to accept what computers do better than people,*

*The courage to let people do what they do better than computers, and...*

*The wisdom to know the difference.*





Technology to power a lifetime  
of financial decisions

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