

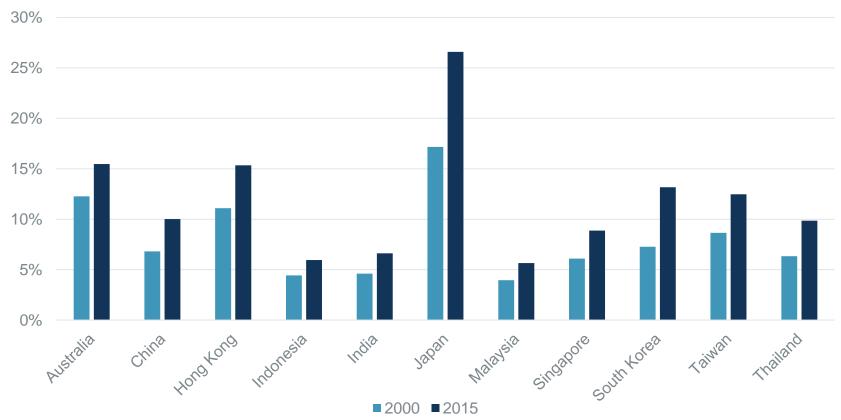


B1: Challenges and Opportunities in the Asian Retirement Space

Richard Holloway and Wade Matterson

Retirement populations across Asia are growing

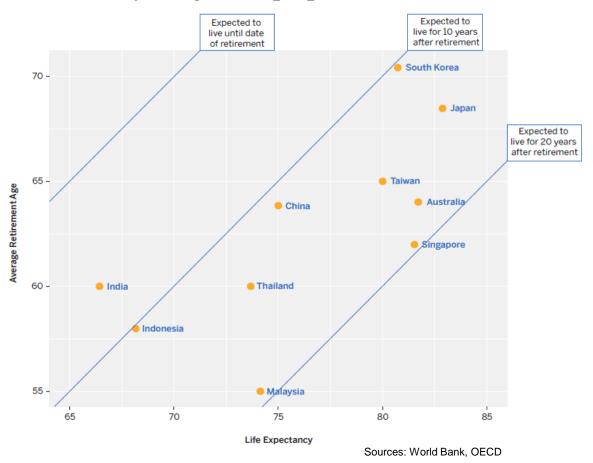
Proportion of population above age 65 by country and year



Source: US Census Bureau

Funding longevity an increasing issue for Asia

Life Expectancy vs Average Age at Retirement



- A tendency to look at the average future lifetime after retirement.
- A need to look at the distribution of future lifetime and the impact on retirement provision.
- Life expectancy also increasing, in some countries dramatically.
 World Bank cites that Asia ageing faster than any other region in the world.

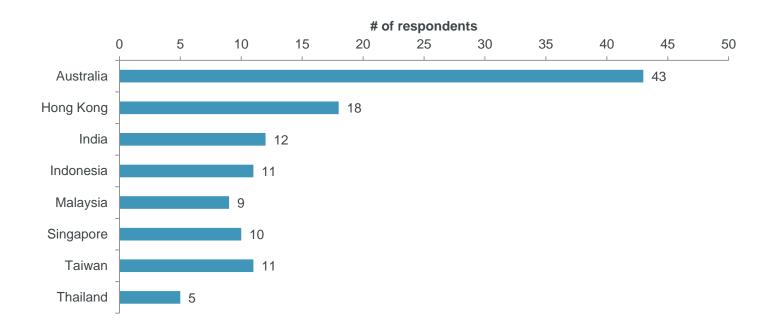
Funding longevity an increasing issue for Asia



- Net Replacement Rate
 ("NRR") is defined as the ratio
 of pension income over the
 average life time earnings of
 the individual, net of individual
 taxation. Rule of thumb is for
 the NRR to be 60-70% of
 preretirement income.
- NRR for Asian countries are visibly lower than more developed countries and for some lower than the OECD34 average.
- A sense that many systems are 'unsustainable' (e.g. a combination of generous benefits, low contribution, ageing populations, low retirement ages, lack of enforceability etc.).

Asia Retirement Survey

 Milliman conducted a comprehensive survey of over 100 insurance companies and financial institutions across Asia. The demographics are as follows:



Source: Milliman Asia Retirement Survey

Asia Survey Findings

Q: 'Are the retirement income provisions adequate?'

Yes, adequate for the majority of the population

Adequate for around 60 to 90% of the population

Adequate for around 30 to 60% of the population

Adequate for less than 30% of the population

No, the provisions are completely inadequate



Q: 'Is the retirement system sustainable?'

> The system needs a complete overhaul in order to survive for the next 20 to 30 years.

Significant changes are required in the next 20 to 30 years.

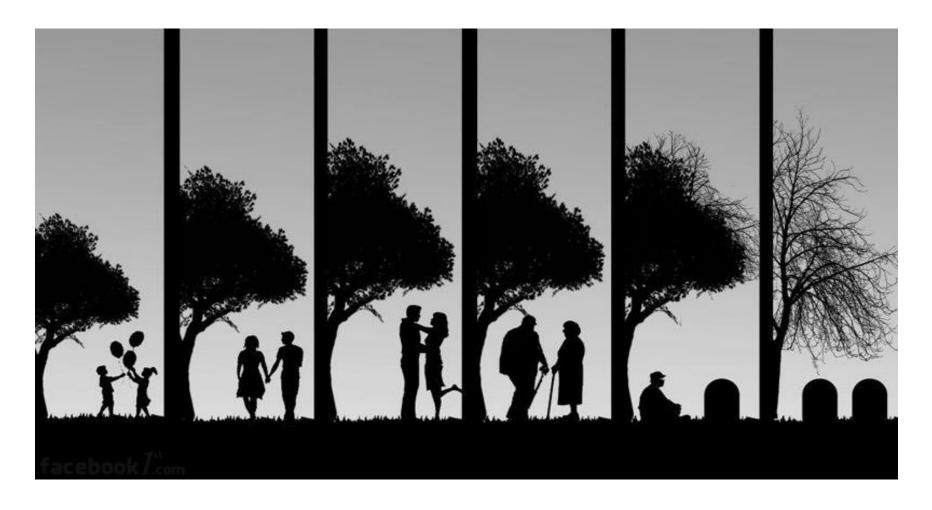
Some small changes may be required, but the system is broadly sustainable in the next 20 to 30 years.

Yes, the current system should be sustainable for the next 20 to 30 years.

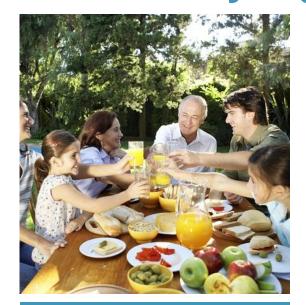


Source: Milliman Asia Retirement Survey results, using weighted average

Life, a perpetual state of transition...



Empowering clients to achieve their lifestyle goals



Confidently



Conveniently

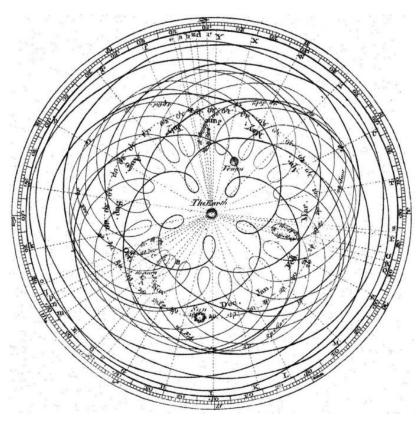


Without Worry

Realignment required

Current business models have evolved based on a environment that is now under threat:

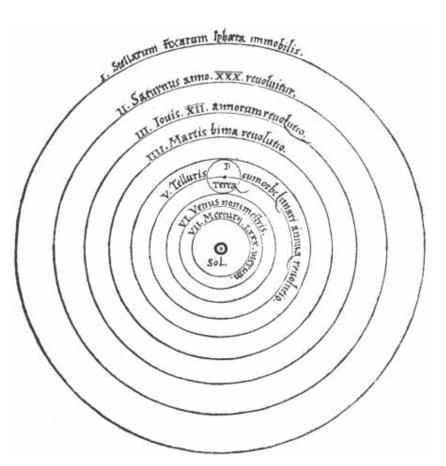
- Accumulation focus
- High levels of disengagement
- Conflicted & commission led advice practices
- Communications and marketing approaches based on product centric business models
- Limited use of technology



Business in the "Age of You"

To truly become a member centric business, pension funds (and life insurance companies) need to become a valued partner:

- Laser focus on member goals
- More sophisticated member segmentation
- Tailored communications, investment strategies & product solutions
- Interactive & on-demand content
- Engagement & education in a format fit for various segments
- Access to advice & support services
- Increasing focus on technology & best of breed business models



Otherwise...

















Developing robust retirement solutions is a three legged stool

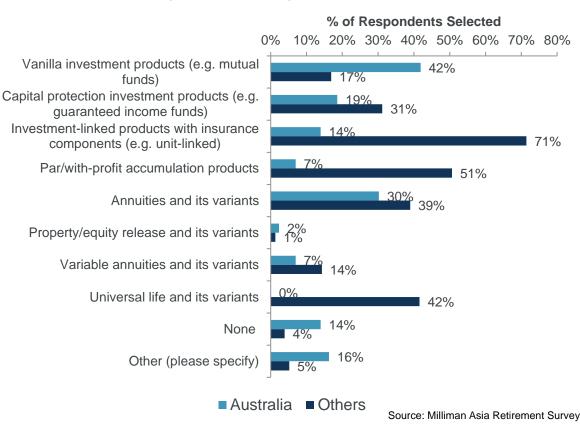


- Product Toolkit
- Analytics, Advice & Education
- Data & Personalisation / Tailoring
- Covered with a sturdy layer of engagement & ongoing communication

Asia Survey Findings: Product Development

- Investment-linked products
 - Australia: 14%
 - Others: 71%
- Annuity products
 - Average 36%
 - Insignificant for Indonesia and Malaysia
- Universal Life
 - Hong Kong (61%),Singapore (60%) andTaiwan (45%)
 - Virtually none in other countries
- Equity release
 - Average 2%

Q: 'What products is your company developing for your country's retirement market?'



Risk management rather than return management?

Retirement outcomes for retirees are driven by the presence of risks, including:

- Adequacy
- Behaviour
- Market
- Inflation
- Longevity
- Liquidity



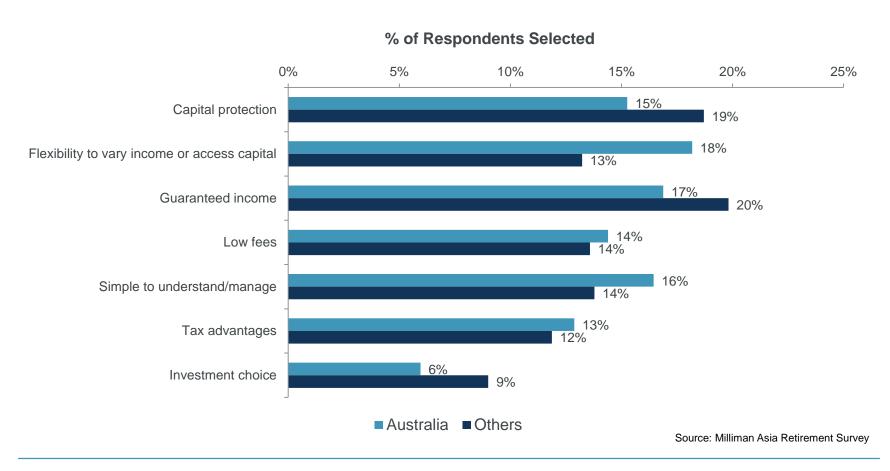
Must begin with a deep understanding of pension dynamics



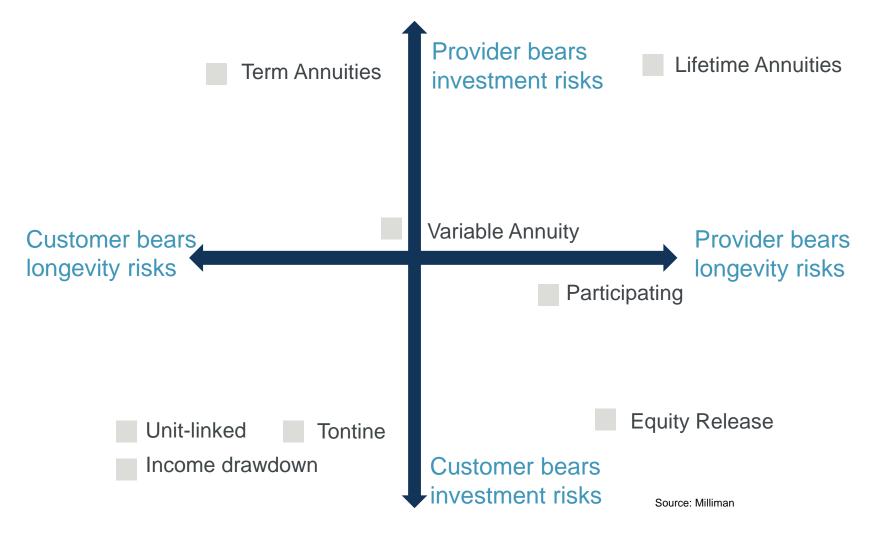
- Government guaranteed
- Indexed
- Lifetime income
- Means tested
- Subject to regulatory risk

Asia Survey Findings

Q: 'What are the most important features in a retirement income product for the consumer?'



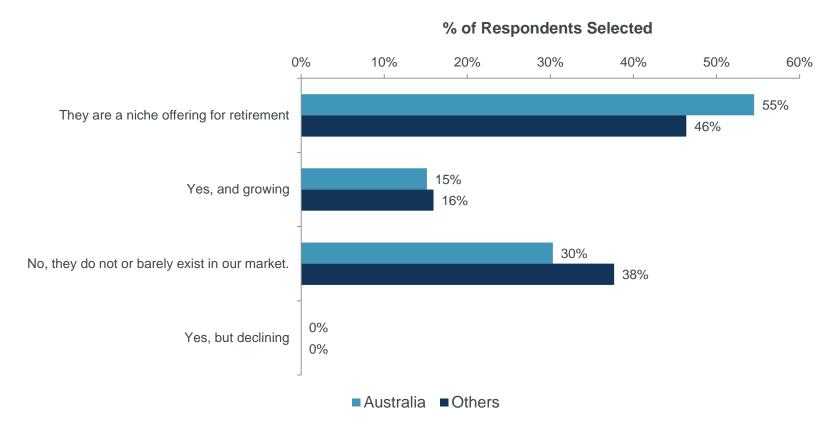
Product Considerations



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Product Considerations

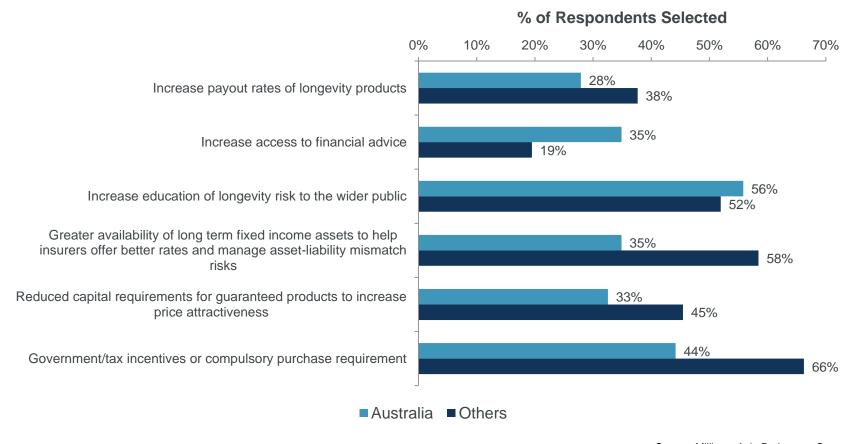
Q: 'Are guaranteed income products (e.g. annuities) successful?'



Source: Milliman Asia Retirement Survey

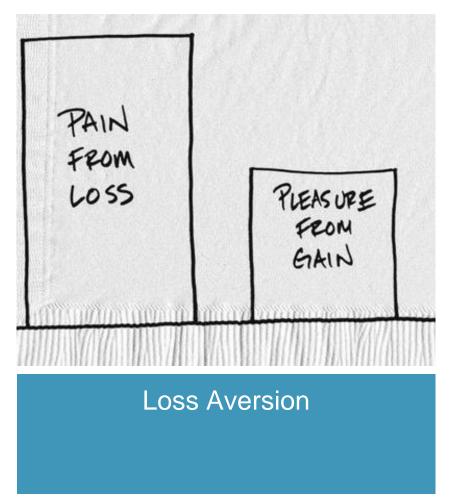
Product Considerations

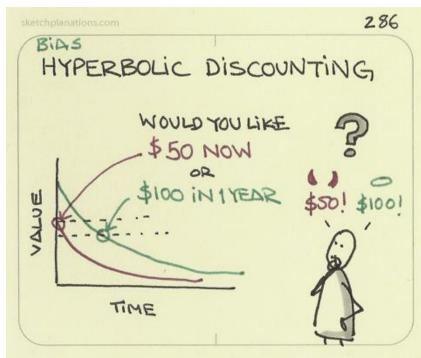
Q: 'What needs to be done to increase the uptake of longevity products?'



Source: Milliman Asia Retirement Survey

The push & pull factors of retirement behaviour





Hyperbolic Discounting

Retirement Products & Services for Individuals

- Term deposits
- Capital protection and risk management solutions
- Annuities & longevity products
- Wider array of ancillary services



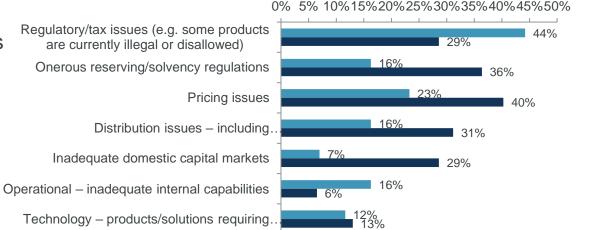
Asia Survey Findings: Impediments to product development

- Regulatory/tax (34%), pricing (34%), and solvency regulation issues (29%)
- Distribution issues (26%)
 - Primarily by respondents in India, Indonesia, and Malaysia
- Inadequate capital markets (21%)
- Inadequate operational capabilities (10%) and technology issues (13%) were highlighted only by a small number of respondents

Q: 'What are the main impediments to your company developing retirement income products?'

% of Respondents Selected

19%



■ Australia ■ Others

Public financial illiteracy

Risk management issues such as uncertainty

on future longevity

Source: Milliman Asia Retirement Survey

35%

36%



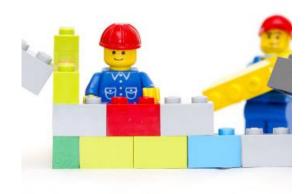
Goals...



The personal financial management challenge is about balancing assets and liabilities (goals) in an uncertain world

- Traditionally, done with relatively simplistic analysis & heuristics
- Technology advancements make personal, real-time ALM analysis feasible
- This is the traditional domain of actuarial firms, such as Milliman
- However, requires range of other skills to engage members, communicate effectively, and provide confidence to act

Advice models



Robo v1.0, 2.0, 3.0...

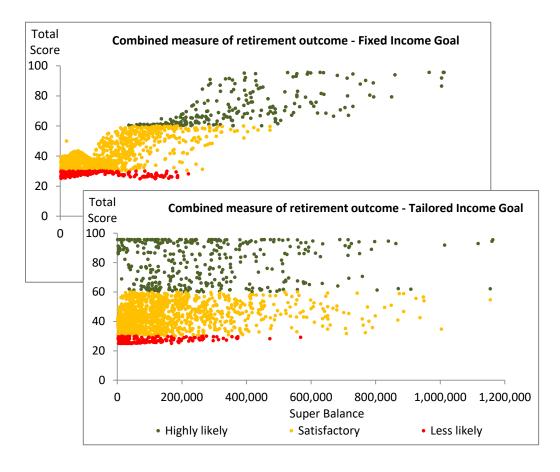


Scaled



Comprehensive & holistic

Digging Deeper



- Assumption of a single income requirement for all customers is problematic
- Moving to better information on customer needs & objectives produces a very different segmentation picture
- Focus on risk of achieving outcomes

Source: Milliman analysis, ABS Household Spending Survey, ASFA Retirement Standards

Big data and open architecture systems offer truly personalised solutions

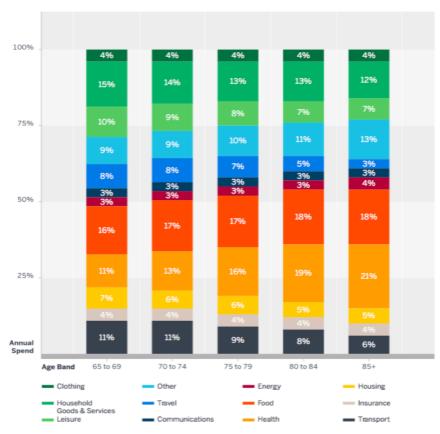
- Open data APIs & FinTech innovation
- Personal financial management software
- Organisations leveraging data or making it more accessible



Big data and open architecture systems offer truly personalised solutions

- Open data APIs & FinTech innovation
- Personal financial management software
- Organisations leveraging data or making it more accessible
- Calibrate goals and spending expectations of retirees
- Target specific solutions based on need

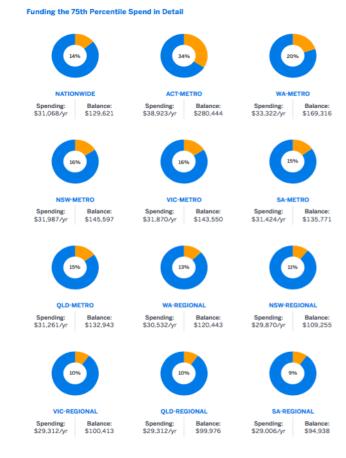
Composition of Spending Basket by Age



Source: Milliman Retirement: Expectations and Spending Profiles, Milliman Australia

Big data and open architecture systems offer truly personalised solutions

- Open data APIs & FinTech innovation
- Personal financial management software
- Organisations leveraging data or making it more accessible
- Calibrate goals and spending expectations of retirees
- Target specific solutions based on need
- Design portfolios & asset allocation, potentially dynamic
- Smart application of annuities for income layering approaches



Source: Milliman Retirement: Expectations and Spending Profiles, Milliman Australia

Putting it together



Investment Bucket
Existing process
Manages inflation risk & long-term returns



- Overlay to protect against short-term volatility & market corrections

Market Risk Bucket



- Protection of long-term income needs

Putting it together



DIFM

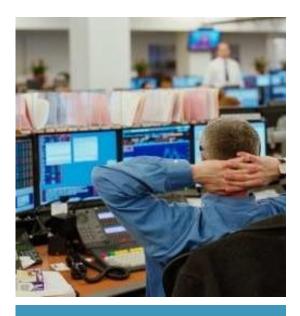
Intelligent default approaches can combine these elements to solve for an individual's objectives

Flexibility to target either a capital value or income



DIWM

Pre-defined models for target member segments or risk / objective profiles can be developed



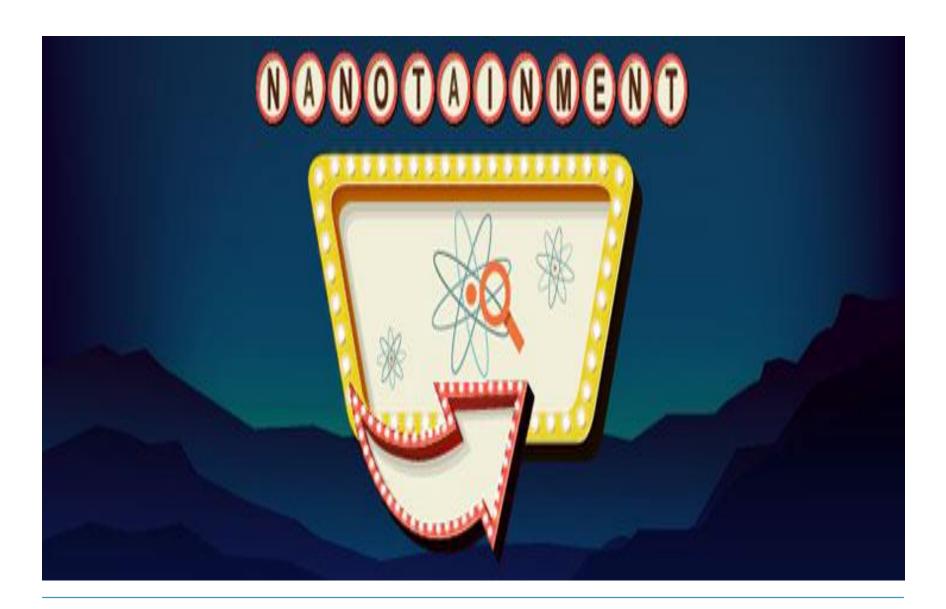
DIY

Members can elect to 'opt-in' to apply these components directly to their account

A Framework

We propose a sample goals-based segmentation framework for pension funds:

- Identify Membership. Can be all members or representative sample
- **Define Objectives**. Must be tailored to membership. Assume or ask?
- **Define Solution Set**. A pragmatic, implementable and communicable universe of possible solutions
- Define Success and Risk. May differ for all funds, depending on trustee objectives and membership needs
- Simulate, Measure & Segment. Consider segmentation based on customer outcomes, not traits
- **Evaluate.** Sensitivity Test & Refine



Questions Comments

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