

# Designing pensions: Don't overstate the usefulness of consumer choice

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Wake-Up Call: How (and Why) People's Awareness on Pension Issues  
Should Be Raised

Actuarial Association of Europe

19 March 2026

# Designing pensions: Don't overstate the usefulness of consumer choice

1. What's the problem?
2. Don't overstate the usefulness of building a fund
3. Key takeaways

# Pension Reform

A Short Guide

Nicholas Barr and Peter Diamond

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彼得·戴蒙德 (Peter Diamond)

## 养老金改革 理论精要

Pension Reform  
A Short Guide

中国劳动

Noblisci z ekonomii

Nicholas Barr

Peter Diamond

## Reformy systemu emerytalnego

Krótki przewodnik

La reforma  
necesaria  
El futuro de  
las pensiones

Nicholas Barr  
y Peter Diamond



El Hombre del Tres



Polskie Towarzystwo Ekonomiczne

# 1 What's the problem

- Problem 1: increasing difficulty in many countries of financing adequate old-age pensions
  - Two roots (both good in themselves)
    - Declining fertility, not least to protect the planet
    - Increasing longevity
- Problem 2: controversy over analysis and policy
  - Controversial in theory
  - Controversial in policy terms
- Problem 3: many people do not make good choices about pensions and retirement

# How and why people's awareness on pension issues should be raised

- I would rephrase the question
- How should one design pensions in ways that accommodate the fact that many people do not make good choices?

# What makes a good pension system

- Respects multiple objectives
  - Consumption smoothing
  - Insurance
  - Poverty relief
  - Redistribution
- Respects constraints
  - Fiscal
  - Behavioural
  - Institutional capacity
  - Shape of the income distribution

# 2 Don't overstate the usefulness of consumer choice

# 2.1 What do people do

- Consumers often
  - Do not save enough
  - Retire too soon
  - Delay choice or make no choice (Sweden)
  - Choose an unsuitable portfolio
    - Active not passive
    - Inadequately diversified
    - Trading too much or at the wrong time
    - Holding equities too close to retirement
    - Taking insufficient account of family members
    - Not taking account of administrative charges
- Firms exploit asymmetric information
  - High charges, often with little relation to fund performance
  - Biased advice
  - At worst, fraud

## 2.2 Why: Complexity and limited capacity to address complexity

- The simple model (well-informed consumer, rational behaviour, etc.) is a useful benchmark but a bad basis for policy design
- What is needed is second-best analysis, illustrated by the multiple Nobel prizes discussed in session 1
  - Imperfect information
  - Non-rational behaviour
  - Search costs
  - Incomplete markets, incomplete contracts
  - Distortionary taxation

# Imperfect information

- In many areas of social policy the model of the well-informed consumer does not hold
- In the context of pensions
  - A survey, 50% of Americans did not know the difference between a stock and a bond
  - Most people do not understand the need to shift from equities to bonds as they age if they hold an individual account
  - Few people realise the significance of administrative charges for pensions

# Financial literacy is shockingly limited

Lusardi, Annamaria and Olivia S. Mitchell. 2014. "The Economic Importance of Financial Literacy: Theory and Evidence." *Journal of Economic Literature*. 52(1): 5-44.

- Interest: you have \$100 in bank paying 2% interest a year. How much would you have in the account after 5 years:
  - less than \$102?
  - equal to \$102?
  - more than \$102?
- Inflation: suppose that the interest rate on your bank account is 1% a year and that inflation is 2% a year. After one year, with the money in this account, would you be able to buy
  - more than today?
  - the same as today?
  - less than today?
- Risk. True or false? Using \$100 to buy shares in a single company usually provides a safer return than buying \$100 in a wide range of shares?

# Non-rational behaviour: Lessons from behavioural economics

- What conventional theory predicts
  - Voluntary saving to maximise lifetime utility (consumption smoothing)
  - Voluntary purchase of annuities (insurance)
- What actually happens
  - Bounded rationality
    - Procrastination: people delay saving
    - Inertia: people stay where they are; in theory it should make no difference whether the system is opt in or opt out – in practice, automatic enrolment leads to higher participation
    - Immobilisation: impossible to process information about more than 800 different funds (90% go into Swedish default fund)
  - Bounded will-power
    - People do not save, or do not save enough

# Clinical measurement of brain activity

- Two parts of the brain
  - Mesolimbic: old part of brain: impatient – ‘eat now, won’t last’
  - Prefrontal cortex: newer: patient, rational
- Experiments under scanner show short-term decisions are made by the mesolimbic system, longer-term decisions by the prefrontal cortex
- Life is a constant fight between the two parts: start dieting tomorrow; give up smoking tomorrow; but when tomorrow comes ...
- Results call into question the simple model of long-term rationality

# And it gets worse

- Not only people who can't (previous 2 slides), but also
- People who can but don't: behaviour by financially knowledgeable people given time/energy/attention constraints

# An impossible problem

- An impossible problem even for a financial sophisticate; consider a financially literate 30-yr old
- Uncertainty about
  - Needs
    - How long the individual and his/her family will live
    - Duration of marriage
    - Number and experience of children
    - Medical expenses
  - Earnings
    - Opportunities influenced by personal factors and state of the economy
    - Not know in earlier years what earning opportunities there might be in later years
  - Uncertainty about
    - Future asset returns
    - Future annuity prices
    - Future inflation
- Complexity of financial instruments
- A continuing process, not single-event like buying a car

# Conclusion

- Consumer choice in pensions is over-rated

## 2.3 Implications for pension design

- The aim: to design pensions in ways that accommodate the fact that many people make bad choices

# Lesson 1: Choice and competition is the wrong model

- Pensions are complex
- Systems in which workers have to choose from competing private pension providers face information and behavioural problems and have high administrative costs
- Not a condescending attitude; we do not allow people free choice of pharmaceutical drugs; pensions are similar
- Thus the model of choice and competition is the wrong one – uses a first-best model in second-best circumstances

# Lesson 2: Constrained choice is part of good policy design

- Problems
  - Bounded rationality (e.g. not understand present values)
  - Bounded will power
  - Choice architecture is costly
- In the face of those problems, too much choice can be welfare *reducing*
- Policy directions
  - Constrained choice of options
  - Constrained choice about how much to save

# Lesson 3: Don't overstate what financial education is capable of achieving

- Financial education is useful and important, but there are limits to what it can realistically be expected to achieve
- Even for a well-informed person, there are high transactions costs comparing complex options

## 2.4 A case study: Nest pensions in the UK

# The model of choice and competition is the wrong model (reprise)

- Choice has high administrative costs
- Consumers do not do a good job of choosing because of
  - Imperfect information
  - Bounded-rationality
  - Bounded-will power

# Implications for pension design

1. Make pensions mandatory or use automatic enrolment
2. Keep choices simple: highly constrained choice is a deliberate and welfare-enhancing design feature
3. Include a good default option which includes life-cycle profiling if the system requires annuitisation
4. Keep administrative costs low by decoupling account administration from fund management
  - Centralised account administration
  - Fund management
    - Wholesale, competitive; or
    - Sovereign wealth fund; closest example is Norway

# Examples

- The US Thrift Savings Plan (TSP) ([www.tsp.gov](http://www.tsp.gov))
  - Initially voluntary for federal civil servants, now auto-enrolment
  - Workers choose from five funds
  - Centralised account administration
  - Wholesale fund management
- UK National Employment Savings Trust (Nest) ([www.nestpensions.org.uk](http://www.nestpensions.org.uk))
  - Similar design to TSP for similar reasons

# Nest pensions

- The UK offers many examples of how to get things wrong; Nest pensions are an exception
- If a country wishes to have funded individual accounts as part of its system, the Nest approach is the way to do so ([www.nestpensions.org.uk](http://www.nestpensions.org.uk))
- Plan can be *instead of* or *as well as* other plans
- The design is explicitly based on the findings of behavioural economics
- Key elements
  - Auto enrolment
  - Limited choice
  - Centralised account administration
  - Wholesale fund management

# Limited choice: The default

- Workers are automatically enrolled in a simple savings plan
- The default: a target-date fund with three phases
  - Foundation phase (first 5 or so years) is a novelty in pension design. Losses in early years are profoundly discouraging, so the strategy during this phase seeks to avoid reducing the value of the nascent accumulation
  - Growth phase adopts a less conservative approach. Nest's aim (successful thus far) is to produce a long-run average annual net real return of 3 per cent
  - Consolidation phase starts to crystallise the gains

# Limited choice: Additional options

Alongside the default, [5 other choices](#)

- A higher risk fund, i.e. potentially higher growth
- A lower growth (hence lower risk) fund
- An ethical fund
- A Sharia fund
- A pre-retirement fund

# Centralised account administration

- Nest maintains all individual records
- Decides in-house on overall exposure to building block funds and asset classes
- Outsources fund management to the private sector
- Publishes quarterly updates

# Wholesale fund management:

## Composition of funds

Asset class	Investment approach	Fund name	Benchmark	Exposure to asset class*
Global developed equities	Passive	UBS Life World Equity Tracker	FTSE All World Developed Index	34.6%
Global developed equities	Passive	UBS Life Climate Aware World Equity Fund	FTSE All World Developed Index	11.0%
Gilts	Passive	SSGA UK Conventional Gilts All Stocks Index Fund	FTSE Actuaries All Stocks Index	0.1%
UK index-linked gilts	Passive	SSGA UK Index Linked Gilts over 5 Years Index Fund	FTSE Actuaries Index Linked Gilts over 5 years Index	0.1%
Dynamic risk management	Active	NEST Equity Risk Management Fund	N/A	2.5%
Low-risk sterling liquidity	Active	Amundi Money Market Fund - Short Term GBP	SONIA	0.8%
Low-risk sterling liquidity	Active	BlackRock Aquila Connect Cash Fund	Seven-day LIBID	0.7%
Ultra Short Duration Investment Grade Credit	Active	Blackrock Institutional Sterling Ultra Short Bond Fund	GBP 3 Month LIBID	4.1%
Short Duration Investment Grade Credit	Active	Royal London Investment Grade Short Dated Credit	ML 1-5 year Sterling Non-Gilt All Stocks	6.5%
Global ethical equities	Active	F&C Responsible Global Equity Fund**	MSCI World Index	0.2%
Sharia compliant equities	Passive	HSBC Islamic Global Equity Index Fund	Dow Jones Islamic Titans 100	0.1%
Sterling bonds	Active	Royal London UK Corporate Bond Pooled Pension Fund	iBoxx Sterling Non-Gilt All Maturities Index	13.4%
UK direct property	Active	LGIM Managed Property Fund	REF/IPD UK Quarterly Property All Balanced Funds Index	0.0%
Hybrid property	Active	LGIM Hybrid Property Fund (70/30)	FTSE EPRA/NAREIT Global REITS/REF/IPD UK Quarterly Property All Balanced Funds Index	10.2%
Global property	Passive	Global Real Estate Equity	FTSE EPRA/NAREIT Global Developed Real Estate Index	3.6%
Ethical corporate bonds	Active	F&C Responsible Sterling Bond Fund**	iBoxx Sterling Non-Gilt All Maturities Index	0.06%
Emerging markets (alternative index)	Passive	HSBC GIF Economic Scale Index Emerging Markets Equity Fund	HSBC Economic Scale Index Emerging Markets Index	2.3%
Emerging markets (alternative index)	Passive	Northern Trust Emerging Markets Custom ESG Equity Index Fund	MSCI Emerging Markets Custom ESG Index	2.2%
Emerging market debt	Active	Amundi Funds Global Emerging Blended - IE	50% JPM EMBI Global Diversified Hedged Euro/50% JP Morgan ELM I Plus	4.8%
Global high yield bonds	Active	JP Morgan Life High Yield Opportunities Fund	Bank of America Merrill Lynch Non-Financial Developed Markets High Yield Constrained Index (Hedged to GBP)	2.6%
Single Year Gilts	Passive	LGIM Single Year Gilt Funds	N/A	0.0%

# Charges

- **Employers**
  - 100% online platform
  - Employers face compliance costs but no charges
- **Members**
  - Annual management charge 0.3%
  - Temporary 1.8% charge on contribution (level playing field with private sector)

# Performance net of AMC: NEST 2040 fund (March 2023)

- ‘The 2040 Nest Retirement Date Fund, which currently represents the growth phase of the default strategy, has delivered annualised returns (net of the annual management charge) of 7.3% over the past decade, outperforming its objective of 5.8%’ ([Comment by Nest Chief Executive](#) on the 2023 Annual Report)

# A rainy day fund

- NEST is experimenting with a hybrid savings product such that, alongside illiquid retirement saving is an element that can be drawn down for short-term reasons, e.g. a medical emergency or expensive car repair
- Thus pension saving would be invested for the long term, while giving workers access to an amount of liquid savings

# Assessment

The approach respects the lessons from the economics of information and behavioural economics

- Simple
  - Simplifies choice for workers
  - Auto-enrolment
- Competition in the right place
- Keeps administrative costs low
- Plan can be *instead of* or *as well as* other plans
- Can incorporate a liquid element
- Locates competition in the right place

# Nest as a model for communication

- Simplicity – journalists not academics
- See Nest publications for use of simple language, e.g. not ‘annuity’ but ‘pension income’

## 3 Key takeaways

- The usefulness of choice should not be overstated
- Constrained choice can be part of good design
- Financial literacy – desirable but should not over-estimate what it can achieve

# Principles of good design

(see [Barr and Diamond 2017](#))

- If a person wants to make choices about pensions and retirement, the system should assist them; but
- The pension system should work well for someone who makes no choice

# Further reading

- Nicholas Barr (2020), *The Economics of the Welfare State*, 6<sup>th</sup> edition, OUP, Ch. 7
- Nicholas Barr (2022), '[Pensions: How much choice?](#)', CENIE International Centre on Aging  
**In Spanish** '[Pensiones: ¿Cuántas opciones hay?](#)'
- Nicholas Barr (2022), '[Pensions: How much choice?](#)', CENIE International Centre on Aging; **in Spanish** '[Pensiones: ¿Cuántas opciones hay?](#)'
- Nicholas Barr (2023), '[Individual funded pension accounts and the World Bank: evolving views](#)', October 2023
- Nicholas Barr and Peter Diamond (2009), 'Reforming pensions: Principles, analytical errors and policy directions', *International Social Security Review*, 62/2, pp. 5-29  
**Also in French, German, Italian and Spanish.**
- Nicholas Barr and Peter Diamond (2010), *Pension reform: A Short Guide*, OUP  
**In Spanish:** '[La reforma necesaria: El futuro las pensiones](#)', Madrid: El Hombre del Tres, 2012, ISBN 978-84-940161-4-1
- Nicholas Barr and Peter Diamond (2017), '[Designing a default structure: Submission to the Inquiry into Superannuation: Assessing Efficiency and Competitiveness](#)', Australia Productivity Commission