

Designing DC plans: Lessons from the good and not-so-good

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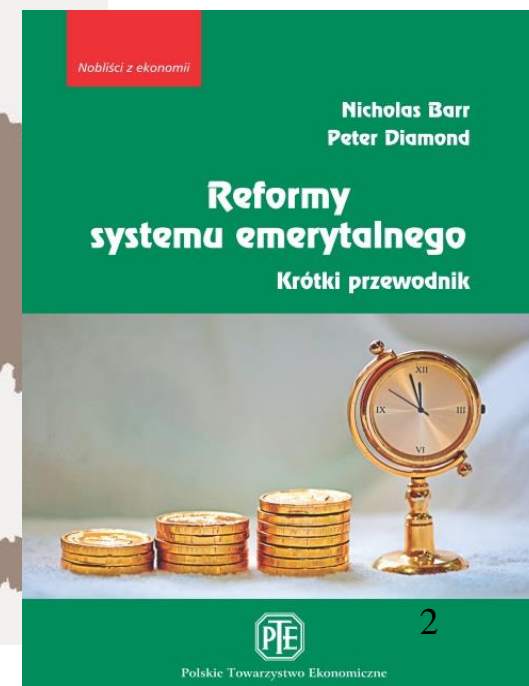
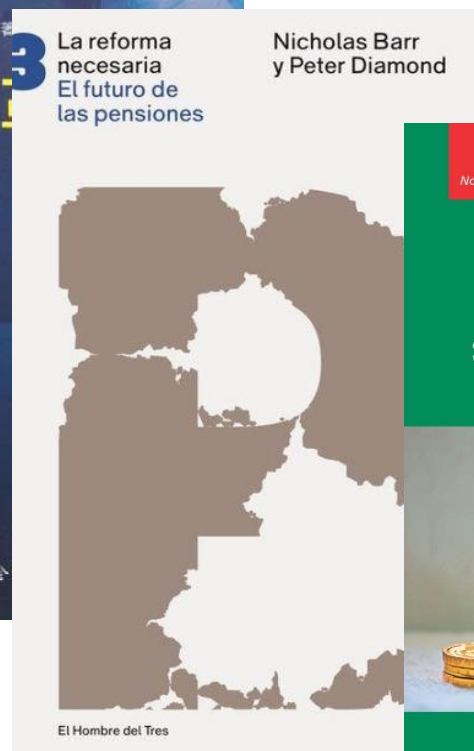
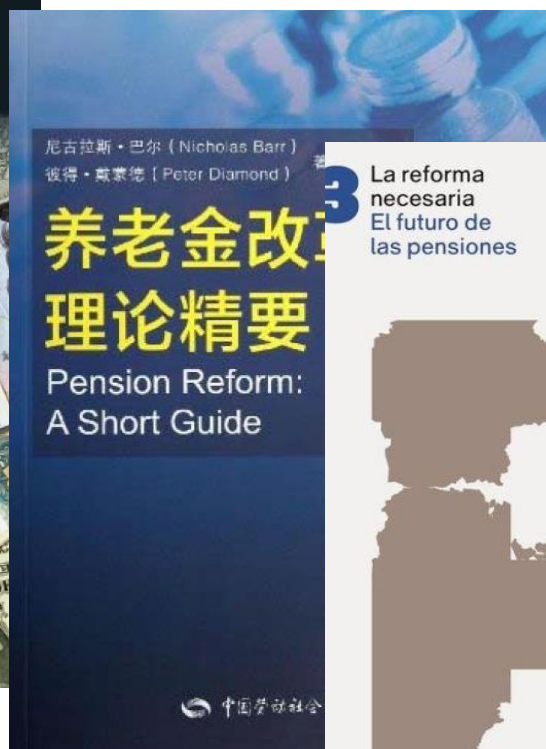
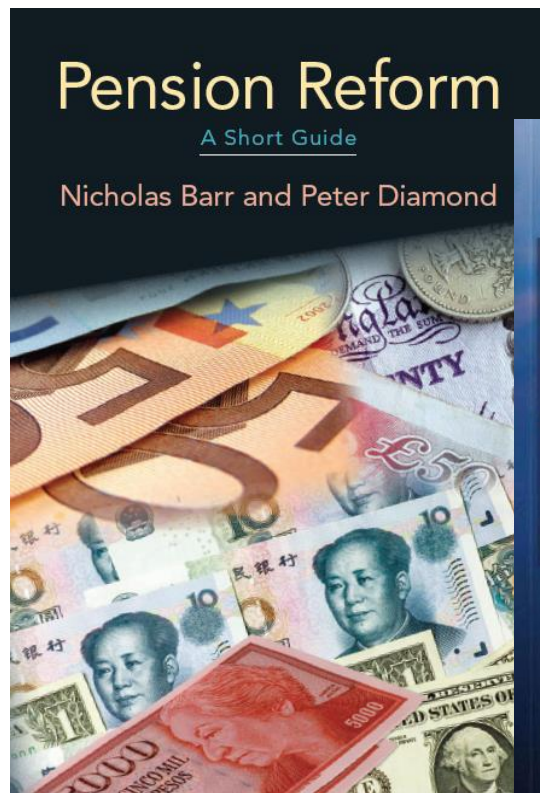
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Designing DC plans: Lessons from the good and not-so-good

1. Lessons from economic theory
2. Good
3. Not so good



Nicholas Barr, October 2020

1 Lessons from economic theory

Simple theory, and some reality

- Simple theory assumes what economists call a first-best world, in which everyone
 - Is well-informed
 - About their future needs and circumstances
 - About financial markets and financial products
 - Is rational, with a long time horizon
- What is needed is what economists call second-best analysis
 - Imperfect information (the economics of information, Nobel Prize 2001)
 - Non-rational behaviour (behavioural economics, Nobel Prize 2002, 2017)
 - Search frictions (Nobel Prize 2010)
 - Incomplete markets, incomplete contracts (Nobel Prize 2016)
 - Distortionary taxation (necessary to finance redistribution; addressed in the literature on optimal taxation, Nobel Prize 1996)
- Thus the simple model is right for an imaginary world but in complex areas is a bad basis for policy design

1.1 Imperfect information and non-rational behaviour are pervasive

Lessons from information economics

- 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: **over a full career an annual 1% charge reduces the worker's accumulation by about 20%**

Non-rational behaviour

- Simple theory predicts
 - Voluntary saving to maximise lifetime utility
 - Voluntary purchase of annuities
- 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 800 different funds (90% go into Swedish default fund)
 - Bounded will-power
 - People do not save, or do not save enough

Why? Lessons from behavioural economics

- Experimental evidence shows high discount rate in short run, much lower in long run
 - Next week's snack: 2/3 chose fruit salad, 1/3 chocolate
 - This week's snack: 1/3 fruit salad, 2/3 chocolate
- Thus people are rational for the future, but not the present; but when the future arrives it is the present, so the short-term wins

Example 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 a bank account 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?
 - don't know?
- 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 of a unit trust (i.e. something that holds a wide range of shares)?

And it gets worse

- Not only people who can't (previous slide), but also
- People who can but don't: behaviour by financially knowledgeable people given time/energy/attention constraints
- Can think of these problems as Can't and Won't

1.2 Implications for policy design

- Lesson 1: Constrained choice is part of good policy design
- Lesson 2: Don't overstate what financial education is capable of achieving
- Lesson 3: Incentives matter – but not as much as people think

Lesson 4: Naïve reliance on choice and competition is misplaced

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

2 Good

The central argument

- Pension design should assist choice by people who wish to make choices about saving and retirement.
- But the pension system should be designed to work well also for people who make no choice – **and making no choice should be an acceptable option**

2.1 Simple saving plans

- The problem: declining birth rates in many countries
- Policy direction: more saving
 - Declining fertility will lead to a smaller workforce
 - A rational response is to make each individual member of the smaller workforce more productive through increased investment in human and physical capital
- To that end, higher saving matters

Key message: Many ways to organise saving

- Funded individual accounts are one way to organise saving, but not the only way
- Within the pension system options include
 - Fully-funded individual accounts from competing providers (Chile, Australia)
 - Simpler, cheaper individual accounts with less choice (US Thrift Savings Plan, UK NEST pensions)
 - Fully-funded industry plans (Netherlands)
 - NDC with some funding to provide a buffer
 - National DB partially-funded on longer-term basis (Canada)
 - Partially-funded DB with risk sharing (New Brunswick)
- Outside the pension system:
 - Government debt
 - Sovereign wealth fund

Implications for DC design

If a country wants to have individual funded accounts as part of its pension system, the argument that naïve reliance on choice and competition is misplaced has important implications

1. **Mandatory or automatic enrolment**
2. **A single default**, with life-cycle profiling if the system requires annuitisation
3. **A simple surrounding choice architecture**: highly constrained choice is a deliberate design feature:
 - Choice within default, e.g. Sweden, or
 - Limited choice additional to the default, e.g. NEST (more below)
4. **Low administrative costs** by decoupling two aspects
 - Account administration: should be centralised
 - Fund management
 - Wholesale, competitive; or
 - Sovereign wealth fund; closest example is Norway

Example: The US Thrift Savings Plan (www.tsp.gov)

- For US federal civil servants
- Auto-enrolment
- Workers choose from five funds, including a life-cycle fund
- Centralised account administration
- Wholesale fund management

Example: UK National Employment Savings Trust (NEST) (www.nestpensions.org.uk)

- Similar design to TSP (in particular, limited choice) for similar reasons, based on the findings of behavioural economics
- If a country wishes to have funded individual accounts as part of its system, the TSP/NEST approach is the way to do so
- The UK offers many examples of how to get things wrong; NEST pensions are an exception
- The plan can be *instead of* or *as well as* other plans
- Key elements
 - Automatic enrolment
 - A simple surrounding choice architecture
 - Centralised account administration
 - Wholesale fund management

Limited choice in NEST: 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

<https://www.nestpensions.org.uk/schemeweb/nest/aboutnest/investment-approach/other-fund-choices.html>

Alongside the default

5 choices of funds

- 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
- Other choices
 - Target date
 - Retirement date

Centralised account administration

- NEST maintains all individual records
- Decides in-house on overall exposure to building block funds and asset classes
 - Manages some funds in house
 - Procures private-sector fund management of others
- Publishes quarterly updates: see <https://www.nestpensions.org.uk/schemeweb/nest/aboutnest/investment-approach/other-fund-choices/fund-factsheets.html>

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)

Assessment

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

- Simple
 - Simplifies choice for workers
 - Auto-enrolment
- Keeps administrative costs low
- Locates competition in the right place
 - The purpose of fund management is to allocate savings to productive investment use
 - More effective with competition in the right place
 - Right: between fund managers and pension plan managers, hence both sides of the market are well-informed
 - Wrong: between fund managers (well informed) and individual workers (generally badly informed)

2.2 Collective individual defined-contribution (CIDC) plans

- A Netherlands proposal, not yet enacted
- Collective individual defined-contribution (CIDC) plan, as opposed to individual defined-contribution (IDC)
- CIDC has the main characteristics of an individual DC plan, but with centralised investment
- Core elements
 - Centralised investment
 - An individual account for each member
 - CIDC design can incorporate varying extents of choice
 - NEST target-date funds are an illustration of the approach
- **Assessment:** broadly the same as in previous slide

3 Not so good

- Earlier discussion identified elements of good design of a DC plan
 - Mandatory or automatic enrolment
 - A single default
 - A simple surrounding choice architecture
 - Low administrative costs
- Unsurprisingly, all the examples below go against those implications

3.1 Excessive costs and charges

- Costs and charges matter
- Fund expense ratio (FER) includes
 - Transactions costs before charges are deducted
 - Annual management charge (AMC)
- In Hong Kong, average FER = 1.39% (June 2016)
- Suppose that FER to worker is zero (e.g. employer pays) and a worker accumulates \$100,000.
- Available to finance consumption after retirement:
 - Zero charge: \$100,000
 - Hong Kong: approx. \$70,000
 - Sweden and target for UK NEST (below): approx. \$93,400

3.2 Too much choice

- Examples
 - Drawdown: UK pension freedom
 - Accumulation: Australia multiple defaults
 - Accumulation: Sweden Premium Pension multiple funds

3.2.1 UK Pension freedom over drawdown

- In 2014, UK government abolished the requirement to annuitise, and allowed unconstrained drawdown
- Predicted problems
 - High charges
 - Misselling and scams
 - Drawing down too fast ('red truck syndrome')
 - Drawing down too slowly
- Right diagnosis, wrong prescription
- Better approaches would be
 - Curated drawdown, or
 - Government-provided annuities (as in Sweden)
 - Or, more radically, longevity bonds

The UK

With the 'right' fee structure mediocre investment managers may become rich as they ensure that their investors cease to remain so.

(Martin Wolf, *Financial Times*, 18 March 2008)

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Pension scams cost £4bn

● TV celebrity among suspected fraud victims ● Third of transfers red-flagged after reforms

TIMES INVESTIGATION

Alexi Mostrous

Pension scams are costing British savers up to £4 billion a year and are the "next big financial scandal", experts have warned.

Mis-selling cases have risen sharply since 2015, when a relaxation of pension rules took effect. Last year at least 100,000 people transferred out of defined-benefit pension schemes. It is now thought that a third of all pension transfers exhibit "red flags", up from one in 19 three years ago.

Celebrities have been caught in alleged frauds. *The Times* has discovered that one of Britain's best-known TV

broadcasters, who cannot be named for legal reasons, moved more than £1 million into an offshore pension scheme that is now feared to have collapsed.

Scams can encompass both criminal fraud and legal attempts to persuade savers to invest in inappropriate or high-risk ventures. This newspaper has identified dozens of cases where savers have been left facing financial hardship, yet the people responsible have had no significant penalty imposed.

In an investigation into pension mis-selling it can be revealed how:

- Two of Britain's best chess players sold a "pension liberation" scheme leaving members with large tax bills yet have faced no sanction;
- Ferraris and private school fees were

bought with pension cash by middlemen who allegedly misappropriated millions of pounds but who have never faced police investigation;

- a scammer who misused £13 million to fund a champagne lifestyle in Spain has yet to be charged despite a judge finding him dishonest 18 months ago;
- the public has been blocked from learning details of an alleged £14 million pension scam after the pension regulator removed a judgment from its website;
- Google is running adverts for firms promising to "release your pension early" through schemes that could lead to major tax penalties.

The value of pension transfers increased from £5.4 billion in 2014 to £33 billion last year. The boom was

caused after George Osborne, as chancellor, reformed the sector to allow savers access to a quarter of their pots tax-free from the age of 55.

While the freedoms have been welcomed, they have also been a boon to scammers who have persuaded huge numbers of savers to pour their cash into high-risk investments such as plantations, storage pods, biomass plants or burial units.

In one case, a former army veteran handed over £34,000 to invest it in truffle-tree farms that were never cultivated. He has yet to see a penny in compensation. In another, an airline pilot who lost £380,000 in a pension scam is being pursued by HM Revenue

Continued on page 2, col 3

UK pensions policy: Strategic incoherence

- Up to age 55: policy is based on the assumption that people cannot be relied on to make good choices, hence nudges like auto-enrolment into NEST
- Age 55+: policy based on assumption that people can be relied on to make good choices, hence pension freedom

Strategic incoherence

‘Unless the government beefs up guidance, new pensions freedoms could undermine auto-enrolment and leave us with a pensions crisis. *If the government was worried about obesity but simultaneously handing out free sweets, you’d have to question either their motives or their competence.*

‘But that’s exactly what the government has done with pensions. Autoenrolment largely exists because we believe that people are either incapable or unwilling to save for their future. At the same time, ‘freedom and choice’ makes the assumption that people are capable of making good decisions about retirement.

‘It doesn’t take a behavioural economist to tell you something’s not right here. The two policies aren’t just contradictory; they are underpinned by diametrically opposed assumptions about the way people think’
Pensions Insight, January/February 2015, <http://www.pensions-institute.org/reports/PI-Top50.pdf>, p. 8, emphasis added

3.2.2 Australia: many funds, multiple defaults

- Many funds, high charges
 - ‘the practice of charging “fees for no service” has been endemic in the financial advice industry’ (Australia Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry 2019, pp. 134-5)
 - Some funds do well but a significant number underperform markedly, and fees remain a significant drain on net returns
- Multiple defaults:
 - As noted (Lesson 4, above), the usefulness of more competition in improving outcomes in markets without widespread informed demand-side engagement should not be overstated
 - Example: workers who – through lack of knowledge or lack of effort – make bad choices, can also worsen outcomes for other market participants by making higher-price and lower-quality options more profitable for suppliers. Thus a good default can benefit workers in the default and also workers not in the default
- Inadequate competition, governance and regulation have led to these outcomes

Barr and Diamond ([2017](#), [2018](#)) recommendations to Australian inquiry

- A single default
- A simple choice architecture within the default
- One account per person to avoid ‘lost accounts’ and reduce administrative costs
- A central administrative agency

3.2.3 Sweden: a mixed bag

- Good:
 - A single, well-designed default
 - A simple choice architecture within the default
 - A central clearing house to channel contributions to pension providers
 - Low charges negotiated by government with private providers as quid pro quo for access to the central clearing house
- Not-so-good:
 - Outside the default, workers choose from over 800 funds
 - Quality assurance is minimal, so that there has been some fraud
 - Barr and Diamond's ([2020](#)) response to a government inquiry supports reducing the number of funds

Conclusion: Mistakes and their consequences

- Mistakes to avoid
 - 1) Not having a central administrative agency
 - 2) Too much choice
 - 3) Insufficiently tight and effective regulation of providers and/or insufficient quality assurance
- Elements (1) and (2) are likely to lead to unnecessarily high administrative costs
- Elements (2) and (3) create a fertile environment for scams
- Designs that uncritically accept the model of choice and competition are adopting Oldthink

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