



BETWEEN THE TIDES

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Designing pension systems for the twenty-first century: Lessons from economic theory and international experience

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1 Introduction

The objectives of pension systems

- For the individual
 - Consumption smoothing
 - Insurance
- Additional objectives of public policy
 - Poverty relief
 - Redistribution

Key principles of analysis

- It is essential to think of the different parts of a pension system as a *system*
- There is no single best system for all countries

Sound principles of design, but no single best pension system

- Objectives: consumption smoothing, insurance, poverty relief, redistribution
- Constraints include
 - Fiscal capacity
 - Institutional capacity
 - Political sensitivities
 - Empirical value of behavioural parameters
 - Shape of the income distribution
- No single best system because
 - Policy makers attach different relative weights to the different objectives
 - The pattern of fiscal and institutional constraints differs across countries
- Thus
 - What is optimal will differ across countries and over time
 - Pension systems look different across countries; this is as it should be

Optimisation: no perfect answers

‘Designing a White House staff, like designing an aircraft, involves trade-offs. If you want speed of decision, you must narrow the number of those involved in the decision—thus sacrificing breadth of information and depth of debate. If you demand single-minded devotion to yourself, you will probably choose people who lack other career options—which is to say, people who are less than supremely able. If you want to recruit the best and the brightest, you will have little choice but to end up with people of strong wills, big egos and intense principles, who may put their beliefs before your interests. The problem of designing an effective political organisation cannot be solved, it can only be finessed.’

David Frum, ‘They stood by their man,’ *Prospect Magazine*, Issue 148, July 2008, pp 12-13

2 Pension design: Useful policy directions

- A pension system that addresses the major objectives and recognises population ageing could involve four policy trends
 - 1) Non-contributory pensions: mainly address poverty relief
 - 2) Redefining retirement; this element addresses fiscal sustainability and has other benefits
- The other elements address consumption smoothing and insurance
 - 3) Simple, cheaply-administered savings and annuities
 - 4) A partially funded notional defined-contribution (NDC) pension; this is a public scheme but may include private fund management

2.1 Relieving poverty: A non-contributory basic pension

- Definition: a public pension paid at a flat rate, on the basis of age and residence rather than contributions
- Why?
 - The contributory principle assumed workers with long, stable employment, thus coverage would grow
 - History has not sustained this argument

The world then

- Social policy in Europe and North America in 1950 was based on a series of assumptions
 - Independent nation states
 - Employment generally full time and long term
 - Limited international mobility
 - Stable nuclear family with male breadwinner and female caregiver
 - Skills once acquired were lifelong
- Though not true even then, true enough to be a realistic basis for policy

What has changed?

None of these assumptions hold today. In particular:

- More diverse patterns of work: thus there are problems for coverage of contributory benefits tied to employment
- Changing nature of the family
 - More fluid family structures
 - Rising labour-market activity by women
 - Thus there are problems basing women's benefits on husbands' contributions

Arguments for non-contributory basic pensions

- Strengthen poverty relief in terms of coverage, adequacy and gender balance
- Improve incentives relative to income-tested poverty relief
- Provide good targeting (age is a useful indicator of poverty)
- Robust in the face of shocks because shares risk widely, thus responding to the economic crisis
 - Shares risk across current taxpayers
 - Through government borrowing, can also share risk with future taxpayers

Containing costs

Adjusting to match budgetary constraints (i.e. sustainability): three instruments

- The size of the pension
- The age at which the pension is first paid, addressing demographic change
- Perhaps also an affluence test

Country examples

- UK: illustrates problems of coverage, hence
 - Reduced contribution requirements, i.e. move towards a non-contributory basic pension
 - Discussion of introducing *de facto* non-contributory pension from 2015
- OECD countries with non-contributory basic pensions include
 - The Netherlands
 - New Zealand
 - Australia (with an affluence test)
 - Canada (with an affluence test)
 - Chile
 - South Africa

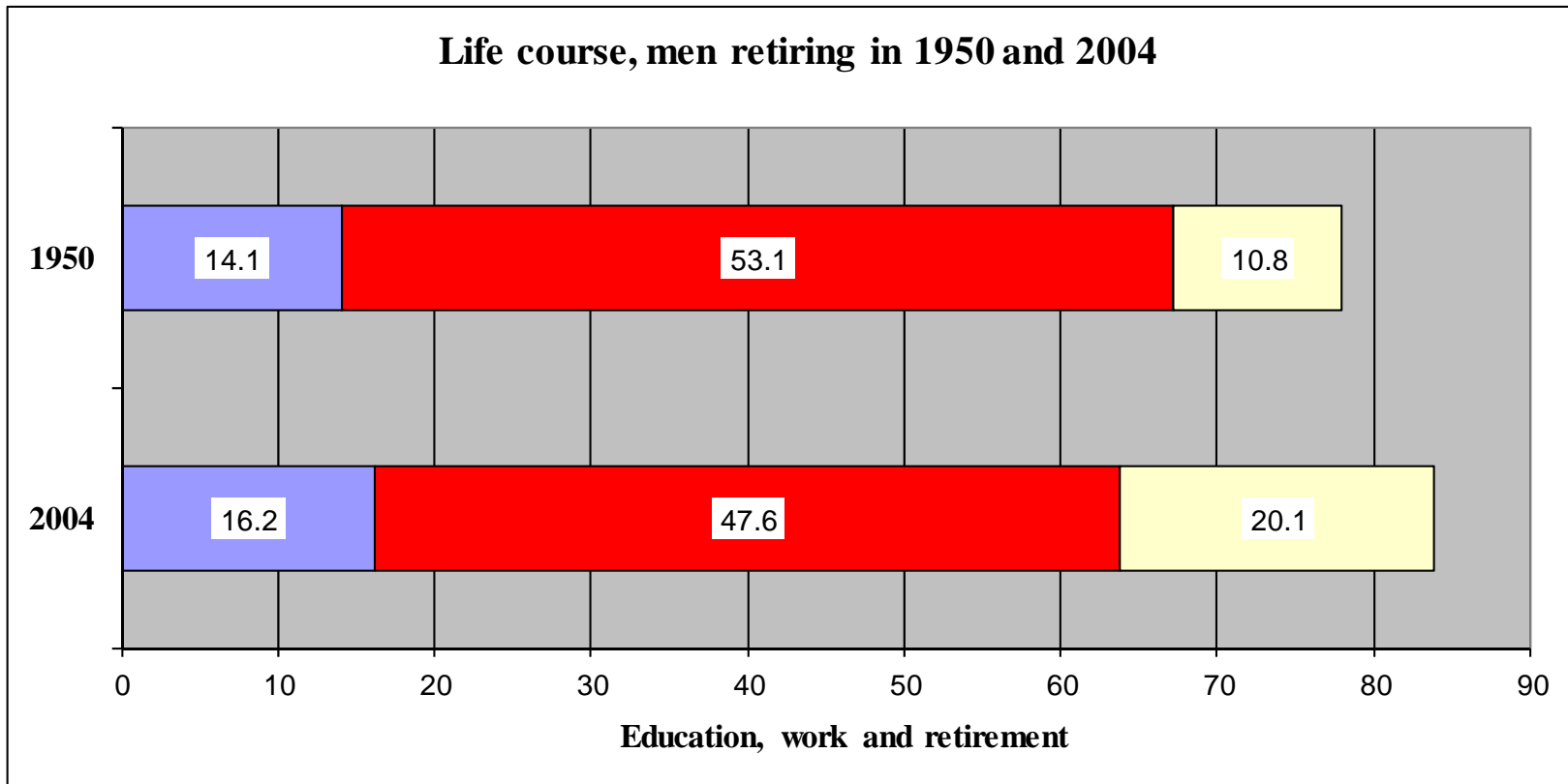
2.2 Redefining retirement: Later and more flexible retirement

- If there are problems in paying for pensions there are four **and only four** solutions
 - Lower monthly pensions
 - Later retirement at the same monthly pension
 - Higher contributions
 - Policies to increase national output
- These are statements of logic, not political statements

Later retirement: Why?

- Longer healthy life + constant or declining retirement age creates problems of pension finance
- The solution: pensionable age should rise in a rational way as life expectancy increases
- Most work is less physical than in the past
- The ‘lump of labour’ fallacy
- Response to the crisis: another way of sharing risk; if they have to bear some of the cost, many pensioners would prefer a shorter duration of retirement to lower living standards in retirement

The UK as an illustration



Later retirement: How

- Changes should be announced a long time in advance
- Rules should relate to date of birth, not date of retirement
- Changes should be made annually (or monthly), to avoid large changes across nearby cohorts
- The rules should be explicit

Also more flexible retirement

- Mandatory full retirement made sense historically, but no longer
- Increased choice about when to retire, and whether fully or partially is desirable
 - To promote output growth
 - As a response to individual preferences (and thus desirable for its own sake, irrespective of problems of pension finance)
- Widens options for individuals in the wake of the economic crisis

Country examples

- USA: age for full pension of 65 (men and women) rising over time to 67
- UK: state pensionable age of 65 will rise to 66 in 2020 and thereafter by one year each decade (men and women)
- Norway: retirement age is already 67 (men and women)
- Retirement age is now a proper topic for polite society, at least in the UK

3.3 Consumption smoothing 1: Simple savings and annuities

- Why? Lessons from
 - The economics of information
 - Behavioural economics

Useful to start with discussion of bad arguments and bad policy design

- Bad argument 1: funded pensions help adjustment in the face of economic turbulence or demographic change
 - Economic turbulence: a move to funding *increases* public spending during the transition phase, which can be long (Chile)
 - Demographic change: Barr 1979(!!!)
- Bad argument 2: competitive pension provision is beneficial: lessons from the economics of information and behavioural economics

Lessons from information economics

- 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
 - Virtually nobody realises the significance of administrative charges for pensions

Lessons from behavioural economics

- What conventional theory predicts
 - Voluntary saving to maximise lifetime utility (consumption smoothing)
 - Voluntary purchase of annuities (insurance)

What actually happens

- Procrastination: people delay saving, do not save, or do not save enough
- 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
 - Conflicts and confusion lead people to behave passively (rabbit in car headlight)
 - Impossible to process information about 700 different funds (90% go into Swedish default fund)

Why? Recent 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

Clinical measurement of brain activity

- Two parts of the brain
 - Mesolimbic: old part of brain: impatient – ‘eat now, won’t last’
 - Prefrontal cortex: newer part of brain: patient and rational – this is rational economic man and woman
- Clinical measurement (experiments while person is in scanner) shows that 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
- Examples: start dieting tomorrow; give up smoking tomorrow; but when tomorrow comes ...
- Results call into question the simple model of long-term rationality

Implications: pension design that gets it right

1. Use automatic enrolment
2. Keep choices simple
 - Highly constrained choice is a deliberate and welfare-enhancing design feature
 - But one of the options could be to allow individual choice (Marks and Spencer or Saville Row)
3. Design a good default option which includes life-cycle profiling
4. Decouple fund administration from fund management
 - Centralised administration
 - Fund management: wholesale, competitive

Individual DC: the US Thrift Savings Plan

The system (www.tsp.gov)

- Initially voluntary for federal civil servants, now auto-enrolment
- Workers choose from five funds
- Centralised account administration
- Wholesale fund management
- No mandatory annuitisation

Individual DC: the UK National Employment Savings Trust

The system (www.nestpensions.org.uk)

- Automatic enrolment into NEST or other occupational scheme
- When fully phased in, minimum contribution be 8% -- 4% from worker, 3% from the employer and 1% in tax relief
- Choice from small number of funds
- Centralised account administration
- Wholesale fund management
- A participant's savings are fully portable. And more than one employer can contribute to a member's savings pot
- Mandatory annuitisation of most of a worker's accumulation

Country examples: collective DC plans (the Netherlands)

- In this approach workers may be required to belong to a DC scheme organised by their employer or industry
- If well-designed and administered effectively this type of arrangement addresses important problems, including excessive consumer choice and high administrative costs

Collective career average DB pensions

- Final salary schemes are problematical
 - Impediments to labour mobility
 - Tend to be regressive
- A well-designed career average scheme avoids these problems
- In any move from final salary to career average the following aspects are central
 - Protecting accrued rights
 - The choice of accrual rate during working life
 - Well-designed indexation of pensions in payment

Assessment

- All these approaches respect the lessons from the economics of information and behavioural economics
 - Simplify choice for workers
 - Auto-enrolment or mandatory
- Keep administrative costs low
- But DC plans have a major downside: being fully funded, they can share risk only between current participants
- Career-average DB has the option of partial funding, hence may be able to share risks more widely.
- A public NDC scheme has wider options for risk sharing

2.4 Consumption smoothing 2: NDC pensions

How NDC pensions work

- Mimic individual funded accounts, but on a Pay-As-You-Go basis, i.e. actuarial Pay-As-You-Go
- Workers' contributions this year pay this year's pensions
- The government keeps a record of individual contributions, each year attributing a notional interest rate to each worker's accumulation
- When the worker retires, his/her notional accumulation is converted into an annuity
- In a pure NDC system benefits are actuarial; the system can also incorporate redistribution, e.g. minimum benefits or pension credits for caring activities

Advantages of NDC

- Simple from point of view of the worker
- Administrative advantages
 - Centrally administered, hence low administrative costs
 - Does not require the institutional capacity to manage funded schemes
- People may not want to save in individual accounts (or saving may be the wrong policy, e.g. China)
- Advantages in terms of risk sharing
 - Avoids much of the risk of funded individual accounts, since avoids volatility of capital markets
 - Shares risk more widely than individual accounts, making the system more robust in the face of the economic turbulence
 - A large buffer fund offers further options for risk sharing
- Flexibility
 - NDC can be combined with a non-contributory pension
 - Can approach NDC in an evolutionary way, e.g. Germany
 - NDC can be the basis for a future move to partial or full funding as economic circumstances evolve

Country examples

- Sweden
- Poland
- Latvia
- Italy

A partially funded NDC system

- In contrast with a fully-funded DC system, an NDC system with a large buffer fund
 - Has greater capacity for smoothing; thus in Sweden the immediate cuts after the 2008 crisis were much smaller than in a fully-funded DC pension
 - Can share risks more widely than current participants
- Ideally, a partially-funded NDC should be able to smooth over cyclical turbulence, adjusting only to long-term trends such as demographic change
- Fund management
 - Sovereign wealth fund (e.g. Norway)
 - Private sector: wholesale, competitive

Simple DC or partially-funded NDC?

- DC pensions
 - Transparent about how risks shared and thus less prone to interference
 - BUT all risk falls on current participants
- Partial funding in NDC or public or occupational DB plan
 - Allows risks to be shared more widely, with short-run shocks accommodated through longer-run adjustments rather than large immediate changes
 - BUT likely over time to require discretionary action by government, hence potentially prone to government failure. If so, the potential benefits of wider risk sharing may be offset by the costs arising from sub-optimal behaviour
- Thus there is a choice between
 - Stronger defence against government failure but less risk sharing
 - Wider risk sharing, but with less defence against government failure
 - The right answer depends, inter alia, on (a) the weight policy makers give to wider risk sharing and (b) an empirical view of the quality of government

3 Conclusion

- No single best system for all countries
- Four and only four policies to fix problems of pension finance
- Reform strategically and with a long time horizon
- Addressing demographic change: any solution that does not include later retirement over the medium term will fail
- Addressing the economic crisis
 - Greater emphasis on poverty relief
 - Greater emphasis on risk sharing

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