

The role of the public and private sectors in ensuring adequate pensions – theoretical considerations

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1 The backdrop

1.1 Objectives of pension systems

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

1.2 Key principle of analysis

Analysis should be framed in a second-best context

- What economists call first-best analysis (rational economic man/woman) assumes
 - Perfect competition
 - Perfect information
 - Rational behaviour
 - Complete markets
 - No distortionary taxation
- First-best analysis is useful as an analytical benchmark but a bad guide to policy

Failure of the first-best assumptions

- Imperfect information, addressed by the economics of information (for which the 2001 Nobel prize was awarded)
- Non-rational behaviour, addressed by behavioural economics (2002 Nobel prize)
- Incomplete markets and incomplete contracts (for which Peter Diamond's work was cited in the 2010 Nobel Prize)
- Distortionary taxation, which is inherent in any system which includes poverty relief, addressed by optimal taxation (1996 Nobel prize)

2 Economic theory and implications for policy

- Imperfect information and non-rational behaviour are pervasive
- Output is central
- Different pension systems share risks differently
- Transition costs matter
- Administrative costs matter
- Implementation matters
- Sound principles of pension design but no single best pension system for all countries

2.1 Imperfect information and non-rational behaviour are pervasive

- Lessons from the economics of information
- Lessons from 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

Non-rational behaviour

- What conventional theory predicts
 - Voluntary saving
 - 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 700 different funds (90% go into Swedish default fund)
 - Bounded will-power
 - People do not save, or do not save enough

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

Policy implications

- There are limits to what can be done cost-effectively with financial education
- Constrained choice is part of good policy design (more later)
- Choice and competition: the wrong model
 - Pensions are complex
 - Systems in which workers choose from competing private 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 – it uses a first-best model in second-best circumstances
 - The criticism is not of pension funds but of the model

2.2 Output is central

- Two and only two ways of organising pensions
 - Store current production
 - Build a claim to future production
- Pensioners are not interested in money, but in consumption (food, clothing, medical services). Thus the key variable is future output.
- PAYG and funding are merely different financial mechanisms for organising claims on future output
- Thus the difference between the two approaches should not be exaggerated

Solutions to problems of pension finance

- If there are problems in paying for pensions there are four **and only four** solutions
 - Lower average monthly pensions
 - Later retirement at the same monthly pension (another way of reducing pensions)
 - Higher contributions
 - Policies to increase national output
- Any proposal to improve pension finance that does not involve one or more of these approaches is illusory

Policy implications

- Funding is not an automatic solution to demographic change
- Funding does not necessarily increase growth rates. Funding can increase output if
 - It increases saving in a country with a shortage of savings, or
 - Improves the operation of capital markets, thus improving the allocation of saving to productive investment
 - The evidence suggests that funding can have a beneficial effect, but that effect should not be taken for granted nor its magnitude over-stated
 - Funding is only one of the sources of growth

2.3 Different pension systems share risks differently

- In ascending order of risk sharing:
 - In a pure DC scheme, risk of varying returns to a pension accumulation falls entirely in the individual worker
 - In a pure DB scheme, the risk of varying returns falls on the plan sponsor, e.g. in a firm or industry scheme on workers, shareholders and/or customers
 - In a pure public PAYG DB scheme, the risk of rising pension costs falls on current workers
 - In a scheme which includes at least some tax finance, risk falls on taxpayers and hence, via government borrowing, can be shared with past and future taxpayers
- Policy implication: do not reform pensions without considering how risks will be shared

2.4 Transition costs matter

- If young workers' contributions go into individual accounts the cost of honouring promises to older workers and pensioners has to fall somewhere else
- Thus a move to funding typically has a fiscal cost
- Policy implication:
 - Do not ignore transition costs of a move to funding
 - The costs can be large and long-term, e.g. Chile reformed in 1981, but public pension spending in 2008 was 5.2% of GDP
 - Reforms based on over-optimistic fiscal projections face problems (e.g. roll back of reforms in Central and Eastern Europe)

2.5 Administrative costs matter

- With individual accounts, administrative costs are, to a significant extent, a fixed cost per account
- These costs are significant even in large, developed countries with long-established systems
- Considerably higher for small accounts, typically of low earners, in small countries starting a new system
- Policy implication:
 - Pay proper attention to administrative costs
 - **A charge of 1% of assets each year over a 40-year career reduces the worker's accumulation (and hence his/her pension) by nearly 20%**

2.6 Implementation matters

- Good policy design is important; but the best design will not achieve its objectives if financial, political and administrative capacity are lacking
- Policy design that exceeds a country's capacity to implement it is bad policy design
- The importance of implementation is often underestimated. It requires skills that are just as demanding as policy design, and those skills need to be involved when the policy is designed, not as an afterthought

2.7 Sound principles of design but no single best pension system for all countries

- Objectives: consumption smoothing, insurance, poverty relief, redistribution
- Constraints include
 - Fiscal capacity
 - Institutional capacity
 - 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

3 Examples of pension design

- 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

3.1 Relieving poverty: A non-contributory basic pension

- Also called a social pension or a citizen's 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 and now

- Social policy in 1950 assumed (among other things)
 - Employment generally full time and long term
 - Stable nuclear family, male breadwinner, female caregiver
 - Skills once acquired were lifelong
- Today
 - 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

Non-contributory pensions can

- 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)
- Be robust in the face of shocks because share risk widely

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
- Perhaps also an affluence test

Country examples

- UK: illustrates problems of coverage, hence recently reduced contribution requirements
- OECD countries with non-contributory basic pensions include
 - The Netherlands
 - New Zealand
 - Australia (with an affluence test)
 - Canada (with an affluence test)
 - Chile

3.2 Redefining retirement: Later and more flexible retirement

Later retirement

- Longer healthy life + constant or declining retirement age creates problems of pension finance
- The problem is *not* that people are living too long, but that they are retiring too soon
- The solution: pensionable age should rise in a rational way as life expectancy increases
- Most work is less physical than in the past
- Response to the economic 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

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)

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

3.3 Consumption smoothing 1: Simple savings and annuities

- The model of choice and competition is the wrong model because
 - 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
4. Keep administrative costs low by decoupling account administration from fund management
 - Centralised administration
 - Fund management
 - Wholesale, competitive; or
 - Sovereign wealth fund, e.g. Norway

Examples

- The US Thrift Savings Plan (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
- The UK National Employment Savings Trust (www.nestpensions.org.uk)
- Other approaches
 - Cheaply administered, simple individual accounts, e.g. KiwiSaver in New Zealand
 - Collective DC plans, e.g. the Netherlands

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
- A partially-funded public NDC scheme has wider options for risk sharing

3.4 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
- Centrally administered, hence low administrative costs
- Does not require the institutional capacity to manage funded schemes
- A possible response for countries that want to step back from individual funded accounts in good order, e.g. some countries in Central and Eastern Europe
- Wider risk sharing
- Flexibility
 - NDC can be combined with a non-contributory pension
 - Can approach NDC in an evolutionary way, e.g. Germany

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
 - Can share risks more widely than current participants
- Ideally, should be able to smooth over cyclical turbulence, adjusting only to long-term trends
- Fund management
 - Private sector: wholesale, competitive
 - Sovereign wealth fund (e.g. Norway)

4 Pension design and economic development

- The paper gives examples of how, as economic and institutional capacity increases, the range of feasible options widens
- But more complex is not necessarily better; New Zealand has a simple system out of choice, not constraint

5 Conclusion

- No single best system for all countries
- Four and only four policies to fix problems of pension finance
- Mistakes to avoid: a country
 - Should not reform piecemeal and in haste, but strategically and with a long time horizon
 - Should not set up a system beyond its capacity to implement
 - Should not introduce a mandatory, earnings-related pension system until it has a robust capacity to keep records accurately over forty+ years
 - Should not introduce mandatory individual funded accounts until it can regulate investment, accumulation and annuitisation
 - Should not underestimate administrative costs over a long working life
 - Should not underestimate transition costs, hence should not move towards funding if that risks breaching fiscal constraints
- What really matters
 - Good government
 - Output growth

References

For a summary of the issues

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