

# Coverage and solidarity: theory, country experience and options

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Pension Systems: The International Experience  
Santiago, Chile, 15 May 2006

# Coverage and solidarity: theory, country experience and options

- 1 The objectives of pension systems
- 2 The simple economics of pensions
- 3 Approaches to coverage
- 4 Strategic policy directions

The reasons why a welfare state is necessary will not go away; its institutions are robust and responsive; in forms that will continue to evolve, it remains a continuing twenty-first-century challenge (Barr, 2001, p. 272).

# 1 The objectives of pension systems

- Individual
  - Consumption smoothing
  - Insurance
- Government
  - Poverty relief
  - Redistribution

# 2 The simple economics of pensions

2.1 Methods of organising pensions

2.2 Common errors in pension analysis

## 2.1 Ways of organising pensions

- Pay-As-You-Go (PAYG): pensions are paid out of current income
- Funded pensions: pensions are paid out of a fund built over a period of years from its members' contributions

# The simple economics of pensions

- 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. 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
- **Key message: what matters is output**

## 2.2 Common errors in pension analysis

# Error 1: Considering one objective in isolation

- The problem: ignores the fact that pension systems have multiple objectives
- Examples:
  - Excessive focus on consumption smoothing (e.g. DC pensions), understating poverty relief
  - DC with earlier mandatory retirement age for women than for men – a double whammy
- **Key message: pensions should be considered as a system**

# Error 2: Improper use of first-best analysis

- The problem: inappropriately assumes a world with perfect information, no distortions, and no transactions costs
- Examples:
  - Uncritical advocacy of competition, despite major consumer information problems with complex pension products
  - Uncritical assumption of ‘rational’ response to incentives, e.g. the argument that DC leads to high compliance. Ignores
    - Imperfect information, e.g. about rates of return
    - High marginal rates of time preference
    - Imperfect capital markets, so that some people are liquidity constrained
  - Ignores frictions, in particular administrative costs

# Error 3: Improper use of steady state analysis

- The problem: improperly compares pension systems in steady state; this is inappropriate if the question being analysed is a move from one steady state to another, e.g. PAYG to funded
- Example: comparing the simple stock market return with the rate of growth of the wage bill in comparing rates of return to funded and PAYG pensions

# Error 4: Ignoring distributional effects of different reforms

- The problem: ignores the fact that any pension reform has distributional consequences.
- Example: a move from PAYG to funded means that today's workers contribute more or pensioners consume less so that tomorrow's workers can contribute less or pensioners consume more; this redistributes from today's workers/pensioners to tomorrow's, which may or may not be good policy

# Error 5: Focussing on financial flows rather than resource flows

- The problem: loses sight of fact that PAYG and funding are both ways of organising claims on future output
- Examples:
  - Arguing that funding necessarily assists adjustment to demographic change
  - Arguing that an actuarial relationship between contributions and benefits is possible only with a funded system, ignoring the option of NDC (China)

# Error 6: Taking a narrow approach to targeting benefits

- The problem: excessive emphasis on income testing, ignoring indicator targeting
- Examples:
  - Arguing that benefits are well-targeted only if they are income tested
  - Arguing that a universal pension is necessarily badly targeted

# 3 Approaches to coverage

The strategies (no attempt to be exhaustive) are for the following first tier pensions

- Flat-rate, tax-financed citizen's pension
- Flat-rate, tax-financed pension with affluence test
- Flat-rate, contribution-financed PAYG pension
- Earnings-related contribution-financed PAYG pension
- Funded Defined Contribution pensions
- Notional Defined Contribution pensions

# 3.1 Flat-rate, tax-financed citizen's pension

# New Zealand, Netherlands

- First tier: flat-rate, tax-financed citizen's pension
  - Level: NZ 2/3 of average net wage; Netherlands €15,000/year
  - Coverage: good coverage for fragmented careers, women, self-employed, informal sector
  - Example of indicator targeting
- Second tier:
  - Voluntary DC (NZ) (in 1997, in an 80 per cent turnout, 91.8 per cent of voters rejected a proposal to mandate savings)
  - Mandatory DB (Netherlands)
- Thus
  - Poverty relief mainly via citizen's pension
  - Consumption smoothing: mainly via second tier
  - Insurance: against uncertain lifetime income; annuity element; against uncertain financial market outcomes (Netherlands)

# South Africa

- First tier: flat-rate, tax-financed pension at 65/60
  - Level: about half of average household income – large relative to the low incomes of most Africans
  - Coverage: includes the informal sector and rural elderly
- Second tier: voluntary DB, mainly middle class
- Thus
  - Poverty relief mainly via universal pension
  - Consumption smoothing: via voluntary DB
  - Insurance: against uncertain lifetime income; annuity element
- Administration
  - Urban: banks and post offices
  - Rural: patchy but innovative: ATMs

- Comments
  - Fiscally parsimonious version of New Zealand
  - Size, non-contributory nature and comprehensive coverage make the scheme unusual
  - Example of system which reaches the rural elderly effectively and is well-targeted (often via grandma)
- Another example of indicator targeting to promote solidarity: family allowance in South Africa

# Brazil

- FUNRURAL pays a pension about equal to the minimum wage at 60/55 to people who worked in agriculture, fishing, mining
- Financed by tax on rural output and cross-subsidy from contributions of urban workers
- No test of inactivity, encouraging participation by older workers
- Administration: scope for systematisation
- Brazil also pursues solidarity via a family benefit

## 3.2 Flat-rate, tax-financed pension with affluence test (Australia)

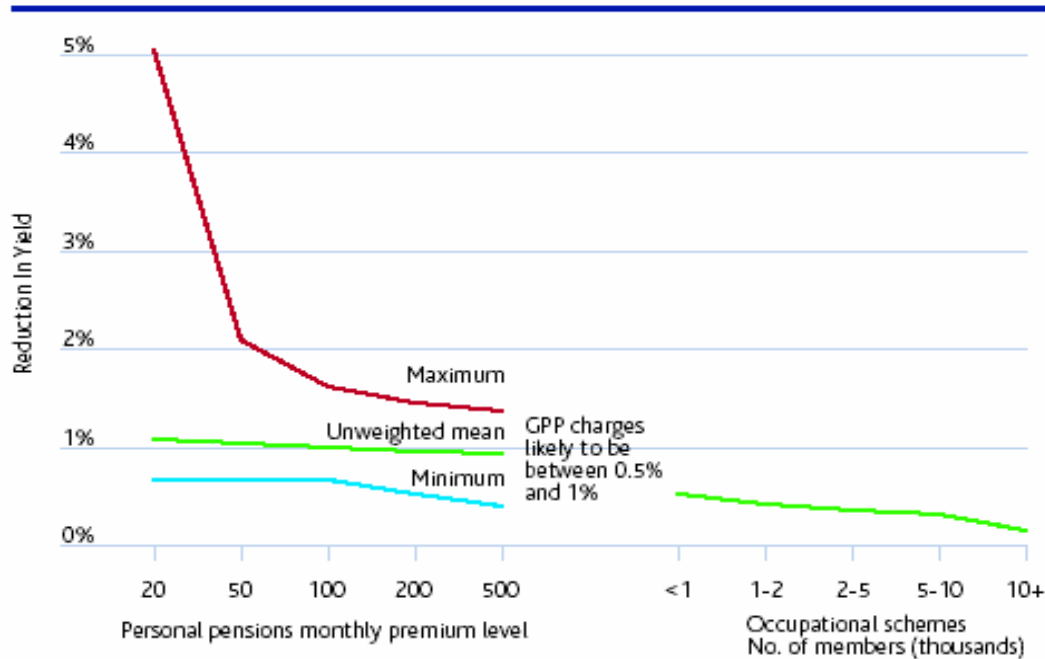
- First tier: flat-rate, tax-financed pension, subject to affluence test (i.e clawed back at high income)
  - Level: about 40% of average earnings
  - Coverage: all the advantages of New Zealand, Netherlands
  - Example of indicator targeting with some income testing
- Second tier: mandatory private DC
- Thus:
  - Poverty relief: mainly the first tier
  - Consumption smoothing: mainly the second tier
  - Insurance: against uncertain lifetime income; annuity element; but worker faces risk of stock-market turbulence in second tier

# 3.3 Flat-rate, contribution-financed PAYG pension (UK)

- First tier: flat-rate contributory PAYG pension
  - Level: the basic pension is below the poverty line; thus nearly 40% of pensioners currently receive an income-tested supplement
  - Coverage problems for fragmented careers, women, self-employed, informal sector
- Second tier:
  - Complex; mandatory choice of earnings-related PAYG state pension, or employer DB or DC pension, or individual DC accounts
  - Note that Pensions Commission rejected mandatory saving
- Thus:
  - Poverty relief: basic pension plus income-tested supplement
  - Consumption smoothing: mainly second tier
  - Insurance: first tier + supplement offer insurance against incomplete contributions; annuity element

# Strategic problems

- Example of error 1:
  - Lack of strategic grasp of multiple purposes of pensions
  - Inadequate focus by successive governments (but not by Beveridge) on the poverty relief function of pensions
- Example of error 2: high administrative costs of individual DC pensions
- Example of error 6: excessive use of income testing
  - Short-run benefit of targeting scarce fiscal resources, but
  - In short-run high compliance costs and high administrative costs
  - Creates labour-supply disincentives which cut against the drive to raise participation by older workers
  - Creates major and continuing disincentives against saving, cutting against the drive to increase saving

**Figure 6.9** An Estimate of the Overall Cost Curve: Reduction in Yield

Source: Personal pension data from FSA comparative tables.  
 Occupational pensions from GAD survey 1998.  
 GPP estimates based on discussion with the industry.

*Pensions: Challenges and Choices: The First Report of the Pensions Commission, London: TSO, 2004 , Fig. 6.9*

## 3.4 Earnings-related contribution-financed PAYG pension (USA)

- State pension: contributory PAYG, higher for higher earners, but not proportionately
  - Level: above poverty line
  - Coverage: problems when contribution record incomplete (fragmented careers, women, self-employed, informal sector)
- Private pensions: mix of
  - Employer schemes (voluntary as far as the firm is concerned)
  - Voluntary DC schemes, e.g. 401(k)

- Thus:
  - Poverty relief: PAYG pension
  - Consumption smoothing: some in PAYG pension, some in private pensions
  - Insurance: some insurance against uncertain lifetime income; annuity element in state pension; DC private pensions leave workers facing financial market turbulence; and annuitisation is voluntary
- The Thrift Savings Plan
  - Highly constrained choice of portfolio (avoids Error 2: assumption of perfect information)
  - Centralised record keeping plus wholesale fund management (avoids Error 2: assumption that world is frictionless)

## 3.5 Funded Defined Contribution (Chile, other Latin America)

- Funded DC: coverage
  - Problems of principle: patchy work histories, design issues (20 contribution years to qualify for guarantee; lower retirement age for women)
  - Problems in practice: inability to enforce contribution conditions
- Thus
  - Poverty relief: guarantee + social assistance
  - Consumption smoothing: DC pensions
  - Insurance: annuity element, but no other insurance

# Strategic problems

- Example of error 1 (single objective): as in UK, limited focus on the poverty relief objective
- Example of error 2 (first best): argument that DC leads to good coverage via incentive effects
- Example of error 3 (comparison of steady states): 25 years after the start of the reforms, the system is still running a deficit of 5% of GDP

## 3.6 Notional Defined Contribution (Sweden; also Poland, Latvia)

- First tier: in some ways Sweden is a PAYG analogue of Chile
  - NDC with guarantees, e.g. caring responsibilities.
  - Combination of (a) high institutional capacity (to ensure contributions) and (b) wide-ranging guarantees, leads to good coverage
- Second tier: small contribution to individual DC account; over 700 such schemes

- Thus:
  - Poverty relief: NDC + guarantee
  - Consumption smoothing: NDC + DC
  - Insurance: guarantees offer insurance against uncertain lifetime income; annuity element; NDC protects workers from financial market turbulence
- Strategic problem
  - Example of error 2 (first-best world): choice from 700 funds immobilising; 90% of new workers end up in default fund

# 4 Strategic policy directions

- What is the general problem?
  - Birth rates: lower
  - Life expectancy: higher
  - Age of entry to labour market: later
  - Age of exit from labour market: earlier
- Specific concerns in Chile
  - Coverage
  - Incentives
  - Affordability

# Thus seek a strategy which

- Encourages saving, addressing concerns about incentives and affordability
- Encourages work effort, particularly among older workers to reflect rising life expectancy, again to strengthen incentives and assist affordability
- Offers a high level of coverage

# Policy direction 1: Encourage saving

## The right objective?

- Yes in a country where saving is too low – as generally in Latin America
- But not always the right objective; in China saving, if anything, is inefficiently high
- Issues to consider
  - Savings and imperfect consumer information
  - Annuities and uncertainty

# Savings and imperfect consumer information

- Problems
  - Poor consumer information: 50% of Americans were not clear about the difference between a stock and a bond
  - High administrative costs (over a working life a 1% charge costs 20% of a person's accumulation)
  - Exposure to stock market turbulence
- Result: rabbit in car headlight, e.g. in Sweden almost all new entrants opt for the default fund
- Desirable to have a savings instrument which is
  - Simple, to assist understanding and to contain administrative costs
  - Safe, so that people trust it over the long term
- Example: US Thrift Savings Plan

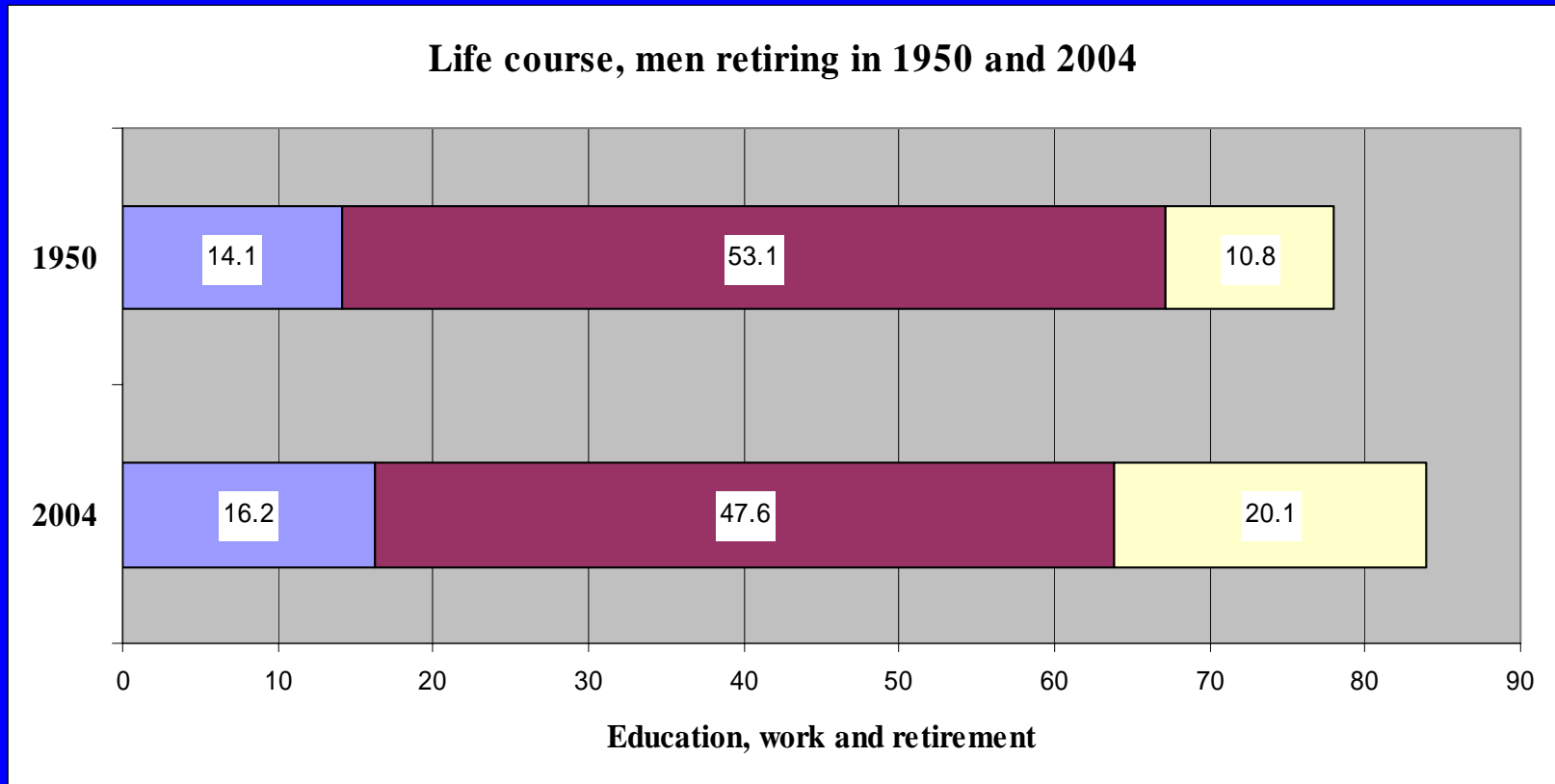
# Annuities and uncertainty

- Is life expectancy a risk or an uncertainty?
- Uncertainty creates uninsurable costs
  - These can fall on the annuitant through missing markets, poor value, or rising pensionable age
  - Or costs can be shared with the taxpayer: the state could provide annuities (Sweden) or could issue bonds linked to longevity (cf indexation beyond the limit of limited price indexation)
- Potential solution: share the longevity uncertainty
  - During working life – the worker, via pensionable age
  - In retirement – the taxpayer

# Policy direction 2: Later and more flexible retirement

- Compared with the past
  - Working life starts later because of longer education
  - People retire earlier
  - People live longer healthy lives
    - More people reach retirement age
    - Life expectancy at retirement age is higher
- In the limit, a constant retirement age is unsustainable

# The life course in the UK



# Later and more flexible retirement

- There is no ‘ageing problem’
  - People are living longer – not a problem but a triumph
  - People do not live too long; they retire too soon
  - However, this creates problems of pension finance
- Solution 1: containing costs
  - Pensionable age should rise fairly steadily as life expectancy increases
  - Better to pay a non-means-tested pension at a later age
- Solution 2: enhancing individual choice
  - There should be increased flexibility over the choice about when to retire and whether fully or partially
  - Desirable if state pension allows partial retirement (Sweden)

# Principles for raising retirement age

- The rules should relate to date of birth not date of retirement, otherwise there will be a wave of retirement just before any reduction in the generosity of benefits
- Changes should be made annually, to avoid large changes in benefits across nearby cohorts
- Rules for changing benefits should be explicit to give individuals greater predictability

# What have countries done?

- USA is raising normal retirement age to 67
- Norway has raised retirement age to 67
- UK has legislated to raise women's pensionable age to equalise it with men's (see principles in previous slide)
  - Announced in 1990
  - No change for anyone born before 6 April 1950, i.e. no change for anyone then aged 40 or more
  - Pensionable age rises by one month for each month a person is born after 6 April 1950; thus for women born after 6 April 1955 pensionable age will be 65, the same as for men
- UK is currently debating raising state pensionable age beyond 65 for men and women

# Policy direction 3: A solidarity pillar

## Ideal characteristics

- An incentive structure that encourages work and saving, i.e. minimises moral hazard
- Universal coverage

# Improving incentives

- Avoid large thresholds such as the 20 year minimum contribution condition to qualify for guaranteed pension
- Avoid means testing:
  - Means testing has short-run benefit of targeting scarce fiscal resources
  - But
    - In short-run leads to incomplete coverage, high compliance costs and administrative costs, and stigma
    - Creates labour-supply disincentives which cut against the drive to raise participation by older workers
    - Creates major and continuing disincentives against saving, cutting against the drive to increase saving

- Instead of means testing, consider other targeting devices:
  - Age
  - Affluence test
- Examples:
  - New Zealand and Netherlands: only an age test
  - Australia: an age test and an affluence test

# Universal coverage

- Strategic question: should the solidarity pillar be contributory?

# Arguments for contributory pensions

- Microeconomic: an explicit representation of the insurance principle
- Macroeconomic: augments tax base
- Political economy:
  - Link to employment can help to maintain middle class support
  - Universal pension may end up not being universal, i.e. goes to urban middle class but not to rural poor

# But

- Coverage will be incomplete, in particular for fragmented careers, women, self-employed, informal sector, and in the face of compliance problems
- The system can be regressive, e.g. if the system requires many years of contributions to qualify for any pension
- Administration may be costly or ineffective

# Arguments for non-contributory solidarity pillar: feasibility

- Solidarity pension can be adjusted to taxable capacity without an income test via
  - The level of the pension
  - Targeting devices such as
    - Age
    - Affluence test

# Arguments for non-contributory solidarity pillar: desirability

- Capable of near-universal coverage
  - History has not sustained the argument that with a contributory system coverage would grow
  - The tide is turning as the world moves towards more flexible labour markets; need a system fit-for-purpose in 21st century
- Adequacy:
  - Capable of offering significant poverty relief alongside the consumption smoothing and insurance elements of the system
  - But low enough to be fiscally sustainable and to maintain incentives to contribute to the consumption smoothing element
- Broader social benefits
  - Some early evidence that contributes to family solidarity
  - Can improve access to other services, e.g. health

# A solidarity pillar designed to extend coverage and improve incentives

- Non-contributory: extends coverage, avoids regressivity
- Flat rate
  - Earnings-related pensions require a contributory system
  - Lack of means test improves incentives
- Perhaps with affluence test
- Awarded at age  $X$ 
  - $X$  is chosen in part to reflect fiscal sustainability
  - $X$  could rise slowly with life expectancy, e.g. by 6 months for every year by which life expectancy increases

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