Ageing and Pensions

Lectures 5 and 6

Le Grand, Propper and Smith (2008): Chp 4
Barr (2004): Chp 9
Tresch (2008): Chp 12
Outline

• Pensions and Ageing
• Efficiency and Intertemporal Allocation
• Pensioner Poverty
• Pensions and Private Markets
• Pensions and Govt Intervention
• www.thepensionservice.gov.uk
Pensions and Ageing

- Pensions and population ageing
  - Life expectancy and ↑ longevity
  - Ageing of the “baby boomers”
  - Low and falling birth rates
  ⇒ Rising cost of pensions

- NB component of govt provision

- What to do?
  - ↑ Savings
  - ↑ Taxes
  - ↑ Retirement age
  - ↓ incomes in retirement

<table>
<thead>
<tr>
<th>Country</th>
<th>Birth rates</th>
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<tbody>
<tr>
<td>Ireland</td>
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<tr>
<td>France</td>
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<tr>
<td>UK</td>
<td>1.74</td>
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<tr>
<td>Germany</td>
<td>1.37</td>
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<tr>
<td>Spain</td>
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<tr>
<td>Italy</td>
<td>1.32</td>
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<tr>
<td>Greece</td>
<td>1.27</td>
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Pensions and Govt Policy I: Efficiency

• Efficient level of pension provision: consumption smoothing
  – Provide income in retirement
  – How to accumulate resources to finance spending in retirement
  – Resources available in retirement compared with working life

• How to allocate resources over a lifetime?
  – Income variability
  – Retirement is anticipated

• Maximise total lifetime welfare
  – Period 1: employed and receive earnings
  – Period 2: retired; no earnings
  – Total lifetime welfare: the sum of benefits in the 2 periods
Solving the Intertemporal Allocation Problem

- Trade-off between 2 periods: diminishing marginal benefit of consumption

- Deferred utility can ↑ total benefit

- Efficient outcome
  - Current spending v saving for retirement

<table>
<thead>
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<th>Units consumed</th>
<th>Total benefit</th>
<th>Marginal benefit</th>
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<tbody>
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<td>1</td>
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<td>10</td>
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<td>2</td>
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<tr>
<td>10</td>
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</table>
The Intertemporal Allocation Problem Modified

1. Consumption Variability at different life stages
   - ↑ consumption needs in period 1
   - ↑ leisure in period 2 → spending indeterminate

2. Future consumption discounted
   - Heavier weighting in favour of current costs and benefits

3. Returns to Saving
   - Foregoing consumption today will ↑ consumption tomorrow

• Deferred resources → pension
Distinct Features of Pensions

• Tax treatment

• Lock-in

• Annuity
  – Reduce spending sprees
  – Efficient outcome when timing of death is uncertain
  – Risk-aversion and guaranteed level of income

→ Role of Pensions
  – A form of savings (consumption smoothing)
  – A form of insurance (against mortality risk)
Pensions and Govt Policy II: Equity

• Explicit objective to reduce **pensioner poverty**

• Pensioner poverty defined
  – Household income below 60% of the median
  – Equality between young and old

• Policies to combat pensioner poverty entail
  – A redistribution of resources between generations
  – A redistribution of resources within generations
  ...but no adjustment for spending needs
  – Index linked v a pensioner price index?
  – Pro-cyclical variation in pensioner poverty
Pensions and the Market System I: Equity

• Consumption smoothing v low lifetime incomes
  – Insufficient funds for retirement

• What to do?
  – ↑ Retirement age

• Govt provision of pensions based on
  – Income in retirement?
  – Lifetime earnings?

⇒ Tension
  – Re-distribute to the poor based on current income
  – Fair treatment according to lifetime income
Pensions and the Market System II: Efficiency

• Consumption smoothing and optimality
  ...but potential market failures

• 1. Information problems
  – Lack of information
  – Complicated and opaque charging structures
  – Financial providers
    ⇒ barriers to saving for retirement

• Systematic under-saving v ill-health?

• Automatic enrolment (opt out) v conscious enrolment (opt in)

• 2. Aggregate or Social Risks
  – Pooling of risk v same risk
  – eg unexpected increases in life expectancy, inflation
Govt Intervention I: Direct Provision

• 1. Means-tested benefits
  – Income and wealth eligibility criteria
  – Cost-effective in targeting limited resources on poor
  – Moral hazard problem

• 2. Pay-as-you-go (PAYG)
  – Insurance based pension
  – Eligibility criteria: contributions into a fund for a specified nr of years
  – Taxes of working population pay current pensioners
  – Social risks are spread across generations
  – Under pressure by ageing populations

• 3. Funded System
  – Insurance based pension
  – Working population contributions invested for future retirement
  – Higher return, greater choice
PAYG or Funded Pensions Scheme?

• Is a funded system the solution to the ageing population?

• 1. Financing
  – Hard choices also relevant for funded systems
  – Transition from a PAYG to a funded system painful

• 2. Rate of return (ROR) and choice
  – PAYG: return = rate of wage growth
  – Funded: historically, stock market returns > wage growth
    ...but ↑ investment risk
  – Funded: > choice to invest savings in a wide range of assets
    ...but information asymmetries

• 3. Aggregate risks
  – PAYG: aggregate risks are spread across generations
Pension Provision: an International Comparison

- **UK**
  - First tier: basic state pension: flat-rate, minimum amount, PAYG
  - Eligibility criteria: sufficient years of contributions
  - Index-linked to inflation
  - Second tier: S2P

- **Germany**
  - Single state scheme
  - Earnings replacement
  - Roughly proportional to labour income over a lifetime
  - PAYG

- **Australia**
  - Flat-rate means-tested: Age pension
  - Eligibility based on income and assets
  - Superannuation guarantee: additional mandatory contributions
Govt Intervention II: Regulation

- Market failures
  - Are consumers rational, well-informed agents?
  - Complex decisions and opaque charging structures
  - Financial advisers
  $\Rightarrow$ Govt regulation of financial market

- Process regulation
  - Purchase and sale of financial services

- Product regulation
  - Stakeholders pensions: individual plan above basic level of pension provision
  - Policy of informed choice

- National Pensions Saving Scheme
  - Simplified, low-cost vehicle to save for retirement
  - Automatic enrolment
  - Stops short of compelling people to save
Govt Intervention III: Subsidies

- Tax system treats pensions favourably
  - Income tax relief on contributions paid into personal private pension
  - Up to 25% of savings tax free
  ⇒ subsidy for pension saving

- Tax Incentives and the ambiguous effect on savings
  - Tax relief → ↑ return on saving → ↑ saving
  - Tax relief → ↑ consumption → ↓ saving

- Locked-in
  - Desirable from govt perspective

- Regressive
  - Caps?
  - Tax relief limited to basic tax rate for everyone
  - Matched pension saving: National Savings Plan
Summary

• Benefits of social insurance: consumption smoothing

• Costs of social insurance: moral hazard

• Govt intervention justified
  – Individuals too poor to save
  – Private markets cannot insure against aggregate risk
  – Decisions on complicated financial products

• Govt provision
  – Means-tested benefits
  – System of social insurance

• Social insurance
  – UK: minimum basic pensions and additional private saving (via subsidies or automatic enrolment)
  – Germany: generous system, but costly (ageing population)