Aging and Pension Reform in a Two-Region World: The Role of Human Capital

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- Overlapping Generations Model
  - Aging society $\rightarrow$ K:L ratio
    - Rates of Return on Capital
    - Wages

- Add adjustments (1) human capital accumulation and (2) open economy.

- Two region model -- capital flows occur between two regions
  - "Old" : US (aging demographic least worst of group), Canada, Japan, Australia, New Zealand, Switzerland, Norway and EU15.
  - "Young" : all other countries
  - Overall demographic trends very similar btw “regions”; although strong level differences.
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• Welfare effects (also Macro Aggregates) under different State pension policy scenarios (pay-as-you-go system).
  – Benchmark Scenarios
    • Constant contribution rate $\rightarrow$ adjust (down) SS payments
    • Constant replacement rate $\rightarrow$ adjust (up) contribution rate
  – Benchmark with Pension Reform
    • Increase Statutory Retirement Age (from 65)
      – Working Longer
      • 1 year increase for every 1.5 increase in life expectancy

• Different Welfare Implications for different age cohorts and future generations
**Focus on Two Key Results**

(1) Human capital accumulation can mitigate some of the negative welfare consequences of an aging society.

(2) Increasing the retirement age has strong positive welfare effects.
   - Regardless of Benchmark Scenario
   - Incentives to invest in HC over the life-cycle because working longer.
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- The Paper’s Implications for US Social Security reform
  1. Don’t increase the disincentives to invest in human capital → Don’t increase payroll taxes
  2. Increase the Full Retirement Age

- (1) Payroll Taxes?
  - Need to consider size of affected population and magnitude of increase – disincentives may not be strong.
  - Option 1: Increase taxable maximum earnings ($106,800)
    - Only about 6% of workers have earnings > tax max and only a subset would experience an increase in marginal payroll tax rate.
    - Not a pure tax – benefit payouts would also increase
    - Liebman and Saez 2006
  - Option 2: Increase payroll tax rate
    - A small increase in payroll tax rate goes a long way: a 4 percent increase (6.2% to 6.45%) closes 25 percent of 75-year shortfall.
The Paper’s Implications for US Social Security reform

1. Don’t increase the disincentives to invest in human capital → Don’t increase payroll taxes
2. Increase the Full Retirement Age

(2) Increasing Full Retirement Age?

– Working Longer is key!
  • Requires desire to work longer and opportunities
    – Policies must address both sides (supply and demand)
  • Could get more responsiveness to FRA change if combined with other supply and demand changes.
    – Increase in FRA explains some of the increase in LFP among men 55-69 (Blau and Goodstein 2010).
• Explore other changes to SS rules to increase work incentives
  – Soc. Sec. more or less neutral w/ respect to work incentives.
Pension incentives to work/retire

Change in pension wealth from working an additional year, between ages 60 and 65, per cent of annual earnings

Source: Pensions at a Glance 2011, OECD (from Edward Whitehouse presentation)
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• Well developed paper with clear explanations of OLG model and modifications (especially for a novice like me).
• Interesting extension of model to pension policy.
• Explore opportunities for intergenerational redistribution
  – Like to see development of “alternative compensation mechanisms...”