The optimal mix of the first and second pension pillar

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Comments
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Question paper

• Trends
  – Maturing capitalism => lower return funding
  – Ageing population => lower return payg

• NLD discussion: Reset mix of payg and funding?

• Paper:
  – What is the optimal – new - mix in NLD?
  – Portfolio Approach tradition
  – Evaluation with ALM simulations
  – Aaron rule in stochastic framework
Portfolio approach

- 100% funding
- 100% payg
- 50% payg & 50% funding
- 100% payg
Portfolio approach

What is the impact of
1 Maturing capitalism
2 Aging Population

Still 50% payg and 50% funding to be preferred?
Analysis paper

• Paper performs an ALM simulation study

  – Pension system with fixed contribution rates (17.2% both systems)
  – Evaluation full lifetime of now 25 yr old
  – Horizon of 95 years, # scenarios 2000
  – Economic risks
  – Mortality risks
  – Sensitivity analysis shocks in longevity and equity risk premium
Main findings paper

• Preferred mix is age-dependent

• YOUNG: 50-50 mix remains attractive in low-returning environment

• No reset mix is needed

• Fundamental policy choice with 50-50 mix => translation lower returns in either higher contributions or lower benefits

• ELDERLY prefer a switch to more paygo
Preference for mix reset is age-dependent

Elderly prefer always more paygo....

Doubtful as to implementation

Moderate risk averse young prefer still 50-50

Mix of payg to funding
Doubtful as to implementation more paygo

- “An increase in the first-pillar contributions immediately increases the benefits for current retirees, and reduces the benefits from the equity premium for currently working cohorts”
Evaluation

First reading paper convincing,

Nice and creative use of portfolio approach,

but...

1. Reality check first pillar NLD

2. Beyond portfolio approach and individual preferences
   => “Optimal Mix” from additional perspectives
Modeling of First Pillar

- Modeling first pillar is questionable

- PAPER: 1st pillar is paygo DC, fixed contribution
  - “Bismarckian-like”
  - Middle income balance between contributions and benefits
  - No political blocks for relatively large size first pillar

- NLD: 1st pillar is paygo DB: flat rate benefit,
  - “Beveridgean-like”
  - Strong redistribution from high and middle incomes to low incomes
  - Political majority for small size first pillar
Table 2: Effective contribution rate to public pension programs in OECD countries 1995 (Source: Disney 2004)

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Labour supply

• Contribution rate funded plan is seen as savings

• Contribution rate paygo plan is perceived as taxation
  => More paygo => Less labour supply

• Search optimal mix should incorporate impact on labour supply
Taxation

• NLD has EET taxation rule

• More or less pension savings impacts on distribution of tax deferral and tax revenues over time

• Search for the optimal mix should also incorporate impact on distribution taxation over time
Savings on macro level

• “Optimal mix” may also be answered from perspective of right level of macro savings

• Netherlands now combines high savings with high mortgage debt

• Mortgage debt will fall relatively because of annuity mortgages

• Do we need to save less and so more paygo to maintain net savings level?
Grafiek 2: Uitzonderlijk lange balans huishoudens in 2011, % bbp

GROSS DEBT (Mortgages) vs Pension savings
Final

• Q: What is the optimal mix of paygo and funding in NLD?

• Nice and creative application of portfolio approach

• Analysis need additional perspectives:
  1. Realistic modelling 1st pillar
  2. Impact on labour supply
  3. Impact on allocation of tax revenues over time
  4. Impact on total savings level

• Optimal mix may not need to be 50-50
Extensions

- NLD: First pillar is payg-DB and not payg-DC
  => Still 50-50 the preferred solution?

- Now partial analysis as to “What is Optimal mix”? 

  1. Labour market => higher payg tax reduces labour supply, more savings not

  2. EET taxing rule and future tax income

  3. Pension system public servants
Extension: Mix and labour market

Graph of impact paygo tax on labour supply
Extension: Median voter theorem

- Young may be overruled by the elderly
Extension: Taxation

• Impact of EET taxation rule on optimal gross saving level and government debt
Countries overview
Portfolio approach

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