Revisiting Defined Contribution Payouts in Multipillar Pension Systems

November 6, 2019

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Pensions Core Course
Agenda

• Payout options
• Life annuity issues
  – Advantages and disadvantages of life annuities
  – Pre-requisites for life annuity market
  – Annuity pricing considerations
• Policy issues in payout design
Payout Options

• Lump sum
• Periodic withdrawals
• Annuities
• Combinations of above
Payout Options

• Lump-sum
  – Paid by pension fund
  – All money received at one time
  – No future payments
  – Amount equal to account balance at time of retirement

• Periodic withdrawals are NOT insurance
  – Paid by pension fund
  – Funds remain invested
  – Payments are based on account balance and payout period
  – Payout period can be fixed at time payments begin or may be periodically recalculated
Payout Options

• Life annuities
  – Regular monthly payments guaranteed until death
  – Transfer longevity and/or investment risk to insurance company
  – Fixed life annuity, variable annuity, participating annuity

• Period certain annuity
  – Not life annuity
  – Regular monthly payments received over specified period, then no further payments
  – Period can be fixed number of years, or can be related to life expectancy
  – Payments may be level or vary from year to year
Payout Options

• Annuities may be paid by:
  – Life insurance company (best option)
  – First pillar administrator
  – Special annuity company
  – Pension fund (worst option)

• If pension fund provides annuities, must be regulated as a life insurance company

• Annuity only company is far riskier than company that sells both annuities and life insurance

• First pillar lacks expertise to price and manage annuity risk. Possible exception for NDC approach as in Poland
# Payout Options: Risk Sharing Arrangements

<table>
<thead>
<tr>
<th>Product</th>
<th>Interest</th>
<th>Longevity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lump-sum, periodic withdrawals (not insurance)</td>
<td>Not transferred</td>
<td>Not transferred</td>
</tr>
<tr>
<td>Period-certain annuity (not a life annuity)</td>
<td>Transferred</td>
<td>Not transferred</td>
</tr>
<tr>
<td>Fixed life annuity</td>
<td>Transferred</td>
<td>Transferred</td>
</tr>
<tr>
<td>Variable life annuity</td>
<td>Not transferred</td>
<td>Transferred</td>
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<tr>
<td>Participating life annuity</td>
<td>Shared</td>
<td>Shared</td>
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Annuity Issues: Advantages of Life Annuities

• Assures lifetime income (can’t outlive assets)
• Protects against risk of living too long (opposite of life insurance)
• Guarantees rate of return on accumulated assets (fixed annuities)
• Each payment consists of:
  – Return of principal
  – Investment income
  – “Survivorship credit”
Annuity Issues: Disadvantages of Life Annuities

- Lack of liquidity
- Dependence on interest rates at time of retirement
- Possibility of “big losses” if die early
- Bad deal for those in poor health
- Unattractive pricing
- Inability to leave an inheritance
- Inflation fears
- Insurance company solvency fears
- Lack of understanding (complex product)
Annuity Issues: Pre-requisites for Annuity Market

• Reliable financial sector: Insurance company, banks, capital markets, etc.
• Strong legal and regulatory environment
• Deep and liquid capital market in medium to long-term government and corporate bonds
• Reliable mortality statistics
• Sufficient supply and demand for product (competition and information for informed decision making)
• Informed public
Annuity Pricing Issues

• Pricing parameters
  – Expected mortality: today and in future
  – Investment return
  – Marketing, asset management and administrative expenses
  – Provision for adverse experience
  – Provision for profit

• General rules
  – Lower mortality $\rightarrow$ lower annuity
  – Lower interest rates $\rightarrow$ lower annuity
Policy Issues in Second Pillar Design

• Mandatory versus voluntary annuity purchase
• Allowing choice in starting date of second pillar distributions
• Allowing choice in timing of annuity purchase
• Unisex versus sex distinct mortality
• Level versus indexed annuities
• Spousal protection
• Types of annuities that are mandated/permitted (joint annuity, price-indexed annuity, variable annuity, etc.)