ANNA RAPPAPORT CONSULTING

STRATEGIES FOR A SECURE RETIREMENT[SM]

Risk Sharing Alternatives for Pension Plan Design

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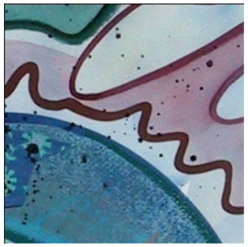
Key ideas covered in paper

- Framework for risk sharing: ideas woven together
  - Risks defined
  - Methods of risk sharing
  - How different types of plans manage key risks
  - Principles
  - Thinks about different stakeholders
- Builds on research
- Important ideas for new risk sharing designs
  - Sustainability, self-adjusting systems, multiple entity arrangements
- Two case studies
- Ideas for the future



Research foundation

Retirement for the AGES

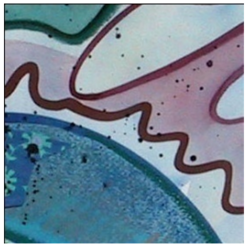
- Alignment
- Governance
- Efficiency
- Sustainability

Retirement 20/20

- Aligning skills/interests
- Self-adjusting systems
- Risk-sharing designs

Melbourne Mercer Index

- Changing retirement ages
- Working longer
- Providing lifetime income



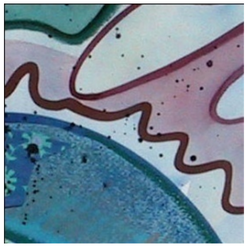
Major risks in retirement plans

- Investment
- Interest rate
- Inflation
- Longevity
- Employment
- Business
- Poor choices
- Fiduciary
- Solvency
- Public policy

General methods of sharing risks (Table 3)

Strategy	Description
Plan design	Defines benefits and obligations of parties
Financial structure	Who pays for benefits and how cost shared
Self-adjusting systems	Adjusts benefits and/or contributions based on circumstances
Risk pooling	Spreads risk over participant groups
Multiple entity arrangements	Single plan for multiple employers
Third party guarantees	Includes insurance
Backup guarantee funds	U.S. examples: PBGC, FDIC

These ideas weave together – consider combinations



Methods for managing key risks (Table 5)

Risk	Plan Sponsor Risk Management	Participant Risk Management
Investment	• Move from DB to DC plan • Use liability-driven investments • Manage investment mix, diversification, etc. • Transfer to insurance company	• Transfer to financial institution • Manage investment mix and investments • Use advice • Note: If lump sum paid, totally up to participant after that
Longevity	• Move to DC plan • Pay out lump sums • Index retirement ages • Adjust benefits for longer life • Choose assumptions for DB plan valuation that build in enough mortality improvement • Use financial instruments to manage this risk	• Use lifetime income payout • Spend only investment income • Select withdrawal rate that is hoped to be safe (only partially manages risk) • Retire later • Set long planning horizon

Illustrative examples: Table 5 also includes inflation & interest rate risk

Ideas which may be overlooked

- What are the risks?
  - Don’t forget about business risk, risk of poor decisions, solvency risk, fiduciary risk, public policy risk
- Participant risk in (noncontributory) DB plans
  - Post-retirement inflation
  - Plan will be modified or terminated
  - Early employment termination
- Plan sponsor risk in DC plans
  - Fiduciary risk if plan not managed properly
  - Employees will be unable to afford to retire
  - Workforce management challenges.
- Small employer challenges

Case study: New Brunswick Shared Risk Pension Plan

- Introduced July 1, 2012 – available to public and private sector entities
- Defined principles (examples) (See Table 1)
  - Require robust risk management targets and independent governance for benefit security, sustainability
  - Plan must be affordable, equitable, transparent
  - No sudden shocks
  - Consistent treatment of all employees
- Two tiered DB plans
  - Base benefits and ancillary benefits
  - Adjustments to ancillary benefits – up or down based on situation
- All parties share risk; diverse stakeholder worked together for implementation/adoption by parliament

Case study: Retirement InSight™

- DC plan (with self adjusting features)
- Auto-enrolled: contribution set using a target benefit calculation
- Modeling tool permits employee to reset contribution seeing projected income
- Contribution updated regularly
- Contributions much higher than most auto-enrolled plan
- Default distribution is income payout (but not guaranteed)

The future: regulatory structure should

- Align stakeholder interests
- Require a sustainable financial model and effective governance
- Permit multiple design options: DB, DC and Hybrids
- Provide plan sponsors with risk sharing tools and pooling options, allowing a modification of traditional DB designs
- Encourage self-adjusting systems
- Encourage later retirements
- Encourage pooling of longevity risk and appropriate management of other risks
- Provide good mechanisms for small employers to band together

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