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STRATEGIES FOR A SECURE RETIREMENT℠

How Does Retirement Planning Software Handle Post-Retirement Risks?

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May 2009

Reorienting Retirement Risk Management

Agenda

- Context and background
- Results of 2003 study: Sondergeld et al
- Results of 2009 study: Turner and Witte

Two studies of retirement planning software

- Focus is post-retirement risk and how handled
- 2003 study – SOA, LIMRA, InFRE
- 2009 study (forthcoming) – SOA, Actuarial Foundation
- Types of software
  - Consumer and professional
- New study focuses on reasons for differences

Methodology

- Both studies use scenarios to test software
- Scenarios represent a wide range of situations, selected with help of planners
- Results are provided overall, and do not identify individual software
- 2003 study focused on range of results, experiences in using software, types of input and outputs
- 2009 study uses paired comparisons to understand rationale for differences

Key Findings from 2003 Study

- Programs are generally not developed to address retirement risks. They mainly mask risk.
- Programs varied greatly in inputs and treatment of different situations. Example: housing
- Wide range of results. Direct comparison very difficult if not impossible.
- Where possible, better if users use multiple programs
- Programs are tools and there is no right answer.

2003 results still valid in 2009, but there have been some improvements since 2003

Range of results – 2003 study

- Case 1 – all consumer programs ran out of assets and 7 out of 10 professional programs ran out of assets –
  - Earliest date 2006 and latest date 2034
- Case 6 – 3 out of 6 consumer programs ran out of assets and 2 out of 10 professional programs ran out of assets
  - Earliest date 2007 and latest date 2014
- Case 4 – all programs ran out of assets but time varied from 2003 to 2019

Research Findings: Key Retirement Risks

- Short term thinking
- Longevity
  - Not top concern, often underestimated
  - Variability not understood – planning usually for set number of years
  - Family history and health key factors
- Inflation risk
  - Top concern of retirees in 2007
  - Linked to health care
  - Problem of misunderstanding of time value of money

Research Findings: Key Retirement Risks

- Health and long-term care
  - Two of top three risks
  - Many buy supplemental health but fewer long-term care – misunderstandings
  - Pre-65 problem
  - AARP study looked at health risk and software
- Investments
  - Big misunderstandings
  - Repeated in many studies

2009 Study: Social Security Poorly Measured

- For most people, Social Security is the most important source of retirement income.
- Financial planning software examined in this study generally does a poor job of obtaining information on Social Security benefits.
- Some programs estimate benefits based on a single year of earnings.
- Some programs allow or require the user to provide an estimate, but studies have shown that many people do not know within a reasonable range what their benefits will be.
- One program uses a flat amount

Housing Market Risks

- Financial planning software does a poor job of dealing with housing market risk.
- Some programs do not permit the user to enter the expectation of future price depreciation.
- None of the programs studied deal with variable rate mortgages.
- None of the programs studied treat housing risk in a stochastic framework.

Rates of Return

- Many of the programs, particularly deterministic programs, do a poor job concerning the choice of rates of return that are used for investments.
- Some allow users to enter expected rates of return. Studies show that many people overestimate future rates of return.
- Some ignore investment fees and use gross rates of return.
- Some permit rates of return of 10% or 15% in a deterministic setting.
- Lack of reasonableness checks.

Life Expectancy and Planning Period

- Programs generally do a poor job of dealing with life expectancy.
- Some programs permit users to enter their life expectancy. Studies have shown that people tend to underestimate life expectancy.
- Some programs use the same life expectancy for everyone the same age and gender, not recognizing very large differences across demographic groups.
- Some use a planning period to a specified age.

Behavioral Risk

- The usefulness of the results are limited by the quality of the inputs.
- If people underestimate their life expectancy and overestimate their expected rates of return, they will underestimate the amount of savings they need.
- Other factors could offset that bias, such as possibly using replacement rate targets that are too high.

Software and the Financial Crisis

- Stochastic modeling – viewed as better approach
  - But unclear if it works with tail events
  - May have pushed people into equities
- Crisis generates need to re-plan, plan longer turn
- Crisis reinforces importance of housing
  - But much software does not treat housing well
  - None of software tested explores alternatives for using housing values
- Working longer/Social Security claiming key issue
  - Software mixed in treatment of this issue

Positives

- Despite these negative comments, financial planning software has improved in major ways over the past six years.
- One of the major improvements is that the use of Monte Carlo simulations has greatly increased, so that is now standard as an option among the professional software we examined.
- Financial planning software encourages longer term thinking and makes it easy to look at different scenarios.

Conclusions

- While financial planning software has improved considerably, notably in the greater use of Monte Carlo simulations, it can be improved further in some basic areas.
- Greater attention needs to be given to obtaining better information about Social Security benefits, life expectancy, and expected rates of return.
- In addition, attention needs to be given to incorporating housing market risk.

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