ACTEX Learning

Flashcards

for

RET - Design & Accounting - US

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Approaches to valuing internet sensitive benefits payable lump sums (when IRS does not prescribe specific rules)

Best-estimate approaches

- Match if actual lump sum interest rate at each payment date exactly matches the assumed lump sum interest rate.

Settlement" approaches

- *Annuity Substitution*
- *Individual Implied Lump Sum Rates*
  - *i.* Use lump sum rate equal to the single effective interest rate derived from the annuity cash flows
- *Aggregate Implied Lump Sum Rates*
  - *i.* produces a lower interest cost than other settlement approaches
  - *ii.* Shorter duration and lower equivalent single effective interest rate than the annuity substitution

Approaches to Determining Interest Cost and Year-End Pension Obligation

- Traditional Approach
    - Interest cost = beginning-of-year obligation x discount rate
- Spot Rate Method
    - Interest cost calculated using the same spot rate used to discount the value of that payment.
    - Consistently producing a lower interest cost (attributable to the upward slope yield curve used)

Approaches to Valuing Subsidies for Cash Balance Plan

Conversion using Treasury rates (not higher corporate bond rates)

- calculate cost without reflecting subsidies; include a load
- directly adjust the annuity used in the option form valuation

Subsidies from differences in mortality

- use post-commencement mortality that reflects the lump sum conversion basis
- using expected mortality conversion basis

Interest rate subsidies

- decide whether to reflect the current gap between interest rate bases or reflect a longer-term expectation of the difference.
- To emphasize settlement objectives, use rates inferred from current market conditions
- To avoid anticipated gains or losses, opt for a longer-term expectation.

Basic Principles for a Desirable Pension Plan Model

- Overall economic risk shared fairly current / future members and employers.
- Size matters. - Management efficiencies and investment opportunities
- Collective approach to risk and reward sharing
- Plan design fair to all participants (current and future), with realistic assumptions
- DB and DC plans handle and are affected by these risks in different ways.

Considerations for Selecting Base Mortality Tables

1. characteristics of employees and retirees (e.g. if reasonable to use different assumptions pre and post retirement)
2. size of covered population (e.g. if reasonable to assume no pre-retirement mortality for a small plan)
3. characteristics of disabled lives, considering the definition of disability and/or administration of disability provisions (e.g. if appropriate to use a disabled mortality table)
4. characteristics of different participant subgroups and beneficiaries (e.g. different tables for white- and blue-collar participants)

Approaches when Calculating Joint-and-Survivor Annuities with Pri-2012 Tables

1. Use retiree mortality for all beneficiaries, except use the rates for the beneficiary's gender;
2. Use retiree mortality for the beneficiary (with beneficiary gender, as in Approach 1) while the primary participant is alive and the contingent survivor mortality rates for the beneficiary after the primary participant's death
3. Use contingent survivor mortality rates for the beneficiary both before and after the primary participant's death.

Amount-weighted and Headcount-weighted Mortality Rates

Amount-weighted mortality rates - appropriate to measure plan obligations.

Headcount-weighted mortality rates - more appropriate for applications e.g. measurement for retirement programs with benefit structure less directly correlated with income (e.g. retiree medical plans)

Considerations when selecting Mortality Improvement Assumptions

1. Single or Two-dimensional scales
2. Level of future mortality improvement
3. Disabled participants
4. Static vs. generational mortality improvement projections
    a. For a large diverse group, actuary may decide to use static projection that may produce a reasonable approximation of a more complex generational projection methodology
5. Select and ultimate assumptions when short-term assumption are significantly different from the ultimate assumption

Disclosure and Documentation of Mortality Assumptions

1. Assumptions Used
2. Rationale for Assumptions
3. Any Changes in Significant Assumption
4. Assumptions Not Selected by the Actuary (prescribed by law, reliance on other sources)
5. Subsequent Events
6. Deviation From ASOP Guidance
7. Material Inconsistencies

What Hinders Sponsors from Adding

Retirement Income Solutions

a) Administrative complexity (most common cited at 54%)

b) Fiduciary liability

c) Want to see market evolve

d) Lack of utilization

e) Communications difficulty

f) Portability

g) Cost

Behavior Risks Facing Retirees

Inadequate understanding of need for systematic method to generate lifetime retirement income

- Spend money today
- Risk of savings loss due to mistakes, fraud, or cognitive decline in later years
- Financial losses due to poor or biased financial advice
- Spending on health or long-term care
- Risk of doing it by oneself without guidance or advice (Inability to assess and self-execute decisions to address the above risks)

