SOCIETY OF ACTUARIES

New Actuarial Perspectives on Pension Risk Management

Pension Research Council

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New Perspectives

- The New Perspectives
  - What are they?
  - How do they differ from traditional practice?
- Future directions

New Perspectives

- New perspectives come from actuaries influenced by financial economics
  - Fundamentally, what is the value of the plan to the shareholder?
  - Shareholders want the plan to be risk neutral (vis-à-vis the core business) and transparent
- Traditional actuarial methodology, which smoothes and manages cost, can conflict with risk neutrality and transparency
- Complicated by a confusion of standards with budgeting

New Perspectives

- Challenges from financial economics to traditional actuarial practice
  - Fundamental: discount rate
  - Other challenges center around value of smooth, predictable costs versus transparent market price
    - Actuarial Cost Methods
    - Smoothing assets
    - Use of long-term (rather than spot) rates
    - Amortization

Discount rate

- Traditional: discount rate set based on the underlying assets
  - Higher equity exposure $\rightarrow$ Higher expected returns $\rightarrow$ higher discount rate $\rightarrow$ lower liability
- New perspective: pension promises should be valued using risk-free rates, like any other market securities
  - $1 of stocks and $1 of bonds are each worth $1
  - Stocks have a higher expected return only before risk adjustment; after risk adjustment, they have the same expected return as bonds

Traditional practice: Smooth & predictable costs

- Traditional practice generates smooth, predictable costs for an ongoing plan
  - Cost methods that target ultimate benefit (Projected Unit Credit – PBO)
  - Smoothed assets
  - Smoothed discount rates (long-term expectations not spot rates)
  - Amortize changes over long periods of time
- Model: There's a long time horizon over which to secure the plan: the plan can outlast market fluctuations

New perspective: Transparent market price

- New perspective argues that anything that's not market price distorts the value of the plan
  - Cost method should mimic the benefit accrual pattern (Unit Credit – ABO)
    - Any other cost method misprices the value of the benefit
  - Market value of assets
    - Smoothed values are not transparent
    - Who would pay the smoothed price for the assets?
  - Spot market rates
    - What do actuaries know about future discount rates that isn't already encompassed in the spot market rate?

Transparent market price

- New perspective (continued)
  - Immediate cost recognition
    - Amortizing any change over any period obscures cost
- Model: Nothing is forever; no plan, no company can last forever so stakeholders must always know and the sponsor must always fund toward the market (termination) cost

Where are actuaries?

- The new perspectives are still being discussed by actuaries
  - Are seeing some changes; Market price for assets & liabilities gaining wider acceptance
  - Several concerns
    - Are bonds always a better investment vehicle?
    - By not smoothing aren't we restraining sponsor choice?
    - Could this lead to overfunded plans?
  - Other concern: is smoothing bad, or should we not base standards on actuarial budgeting methods?

Budgeting methods may not be suitable for standards

- Current accounting and funding standards are based on actuarial budgeting techniques
- May have made sense when enacted and the (actual or perceived) risk of the plan was less
- Law of unintended consequences: agents maximize short-term gains, sometimes at the expense of shareholders and employees
  - e.g., FAS 87 allows plans to immediately recognize benefits of aggressive equity investment but defers recognition of losses

Budgeting methods may not be suitable for standards

- May need accounting/funding standards to focus on market costs to ensure proper behavior by plan managers
- This doesn't invalidate actuarial budgeting techniques; it just means they aren't appropriate for standards

Back to the future:
the reemergence of policy contributions?

What can we all do better?

- Plan for the worse
  - Termination scenarios are real
- Balance solvency and stability, particularly in funding standards
- Actuaries can’t do it alone
  - Incentives, accountability for agents
- Let actuaries by actuaries