Periodic Cost of Employee Benefits

Jeremy Gold

Society of Actuaries
Symposium on Financial Economics
and the Pension Actuarial Model
June 24, 2003

“truths to be self-evident”

- financial reporting: assets & liabilities at market
- no smoothing
- compensation expense = value newly earned benefit
- gains, losses, accruals of discount not compensation

“not so evident”

- what is the liability?

- candidates
  - VBO — vested benefit obligation
  - ABO — accumulated benefit obligation
  - PBO — projected benefit obligation

what do we find?

- 1 accounting matches economics?
  — e.g., DC plans
- 2 accounting can be fixed?
  — e.g., exit-cost for DB plans
- 3 benefit design is broken?
  — e.g., health care cliff vesting at 55

candidates

- PBO versus ABO/VBO
- ABO versus VBO

PBO versus ABO/VBO

- why did FASB choose the PBO for pay-related plans?
  - plan benefit depends on future rates of pay
  - measuring value of 1% of (final) pay
  - there is a difference: ongoing & terminating plan
  - difference between 1% of final pay 1% of each year's pay
  - actuarial best estimate — having estimated mean pay increases, gains and losses are expected to be zero

PBO versus ABO/VBO

- what's wrong with those arguments?
  - theory
    - we do not account for future compensation on PBO basis
    - no explicit contract for future pay increase
    - competition implies less difference between final and career average
  - practice
    - charging the PBO (advance recognition) invites employer to capture the (PBO - ABO) when times are tough - CB conversions, plan terminations, etc.

PBO versus ABO/VBO

- case against smoothing and advance recognition
  - dc plans always use exit costing
  - suppose we advance recognize & smooth this dc plan:
    - plan credits $1000/year years 1 - 5
    - $3000/year years 6 -
  - charge $2000/year every year (charge reduces direct pay)
  - Smith (total compensation $50k)
    - sees self as long service — accepts job
    - gets $48k & $1k in plan for five years

PBO versus ABO/VBO

- case against smoothing and advance recognition
  - company is taken over
  - good news: same plan Smith gets $3k contribution
  - bad news: exit cost accounting (normal for dc plans)
  - Smith direct pay drops to $47k, $5k gone for naught
  - lesson: victim of advance recognition
  - with exit costing from t=0, Smith is immune
  - yet such advance recognition normal for db plans

ABO versus VBO

- PBO — needs implicit contract to justify advance recognition
- VBO follows explicit contract - no advance recognition
- ABO requires implicit contract
  - for continued employment only, not for pay increases
- can we split that hair?
- ABO same potential moral hazard as PBO
  - may be de minimis for a five-year cliff
  - what about subsidized early retirement?
  - what about post-employment health care?
  - let’s look at examples:

ABO versus VBO

- five-year cliff for defined benefit pension
  - de minimis? Yes
  - an implicit contract? Probably
  - does contract justify accounting or accounting create the contract?
- the implicit contract:
  - say vested benefit value = $1000
  - employee accepts probability of vesting is, say, 50%
  - because she is risk averse, accepts only $400 charge against her pay
  - costly to employer ($100) — compared to fully vested plan
    - may be justified by contract's retention power
    - allows training that may increase employee productivity.

ABO versus VBO

- the implicit contract (continued):
  - with potential loss if she leaves before vested
    - employee is more likely to stay
    - may accept smaller pay increase in years 3 and 4
    - raises her asking price for competitive employment
  - employee is at some risk of being fired before vesting
    - she is less likely to shirk
  - employer cannot afford to get a reputation for firing non-shirking employees and so honors the implicit contract

- can we justify the ABO treatment?

ABO versus VBO

- age 55 cliff for subsidized early & post-employment health
  - de minimis? No
  - an implicit contract? Probably, but not like FAS 87/106
  - does contract justify accounting or accounting create the contract?
- the implicit contract:
  - nothing substantive before age 45 or so
  - implicit contract allows reduced pay in contemplation of magnet
  - magnet holds employee
  - at 55, big increase in employee wealth
  - after 55, pension/health care asset is wasting, encourages exit

ABO versus VBO

- the implicit contract (continued):
  - a form of Lazear style implicit contract to retain, motivate and sever
  - employer cannot afford to get a reputation for firing non-shirking employees and so honors the implicit contract
  - but too many examples of partial/full reneging
- can we justify the VBO treatment?
  - would immunize employee against firm reneging
  - would require impossible charge against pay at age 55
  - would fail to apprise shareholders of "looming" liability
  - might focus on poorly designed benefits (e.g. risk-creating vesting)

ABO versus VBO

- can we justify the ABO treatment?
  - solves the last 2 VBO problems
  - endangers employees
  - charges young hires, their risk charge costly to employers
  - hides poor designs
- can we design a better explicit contract?
  - graded vesting to mitigate ABO/VBO conflict
  - VBO, no charge before vesting begins
  - for DB, eliminate or vest the early retirement subsidy and/or CB
  - use window plans to encourage severance

ABO versus VBO

- VBO protects against moral hazard
- ABO better informs shareholders in re: “looming liabilities”
- cliff vesting is fragile — creates looming liabilities
- revocable benefits are fragile — invite moral hazard and bad reporting