Pension Plan Funding

Sponsored By

Retirement Savings Network &

Senate/House Steering Committee on Retirement Security

Ron Gebhardtsbauer, F.S.A., M.A.A.A

Senior Pension Fellow, American Academy of Actuaries

Topics Covered

- Pension Funding vs. Pension Accounting
- Federal Pension Funding Rules
  - Replacing Treasury rate
  - Other Problems with Funding Rules
- Principles for Reform

- I will just be discussing US Private Sector Defined Benefit (DB) Plans, unless I specifically say government, foreign, or church plans.

Pension Funding vs Pension Accounting

- **Cash contribution improves benefit security (solvency)**
  - PBGC want assets to cover Termination Liability if company insolvent
- **Smooth employer contributions**
  - Flexibility: less in bad years, more in good years
- **Advance fund: pay more now instead of later**
  - Investment income reduces future income
  - Increases National Savings
- **Pension accounting rules allocate cost over period worked**
  - Affects **company books (not cash)** & loan covenants
  - FASB moving toward transparency, mark-to-market
- **Pooling risk and budgetary discipline**
  - Pre-retirement financial risk & Post-retirement mortality risk

Complex Pension Funding Rules

IRC §412 Minimum Contribution:

Normal Cost + Contribution to pay off underfunding over many years*

Sponsor gets a credit for paying off faster, & can use credit to reduce future contributions (this can encourage contributions > minimum)

IRC §404 Maximum Contribution:

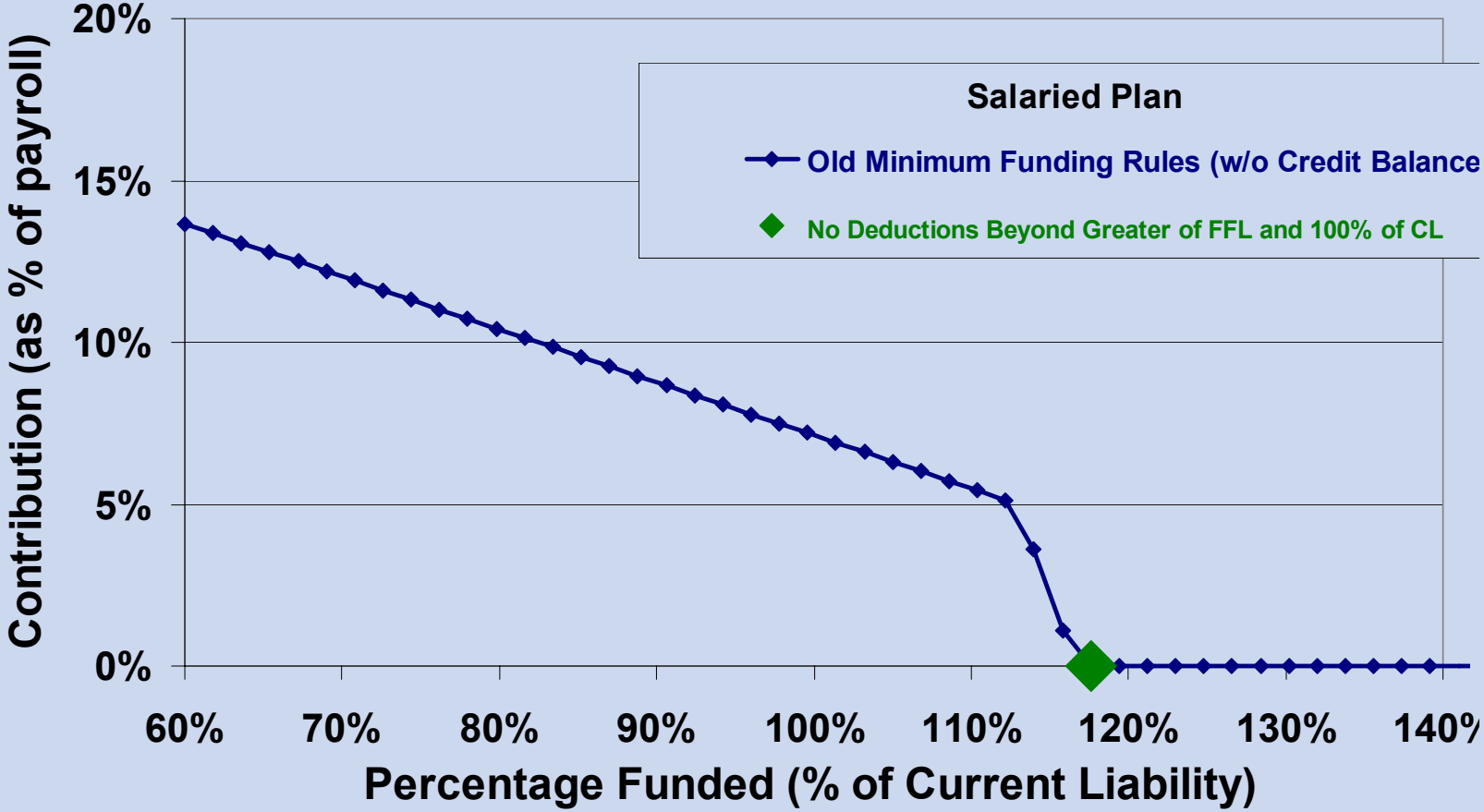
Similar to minimum, but pays off underfunding faster*

Or can contribute up to Current Liability if greater

*** Cannot exceed the Full Funding Limit (FFL) = the ongoing Actuarial Accrued Liability using projected pay. Hourly plans can't project future benefit increases until amendments are adopted.**

Funding Rules

(when current interest rates are low)



There are large cliffs in minimum contributions which makes them volatile and unpredictable. To avoid employers could build up a margin. However, their pension contribution may not be deductible, and m be subject to an excise tax, especially when interest rates are low.

Underfunded Plans

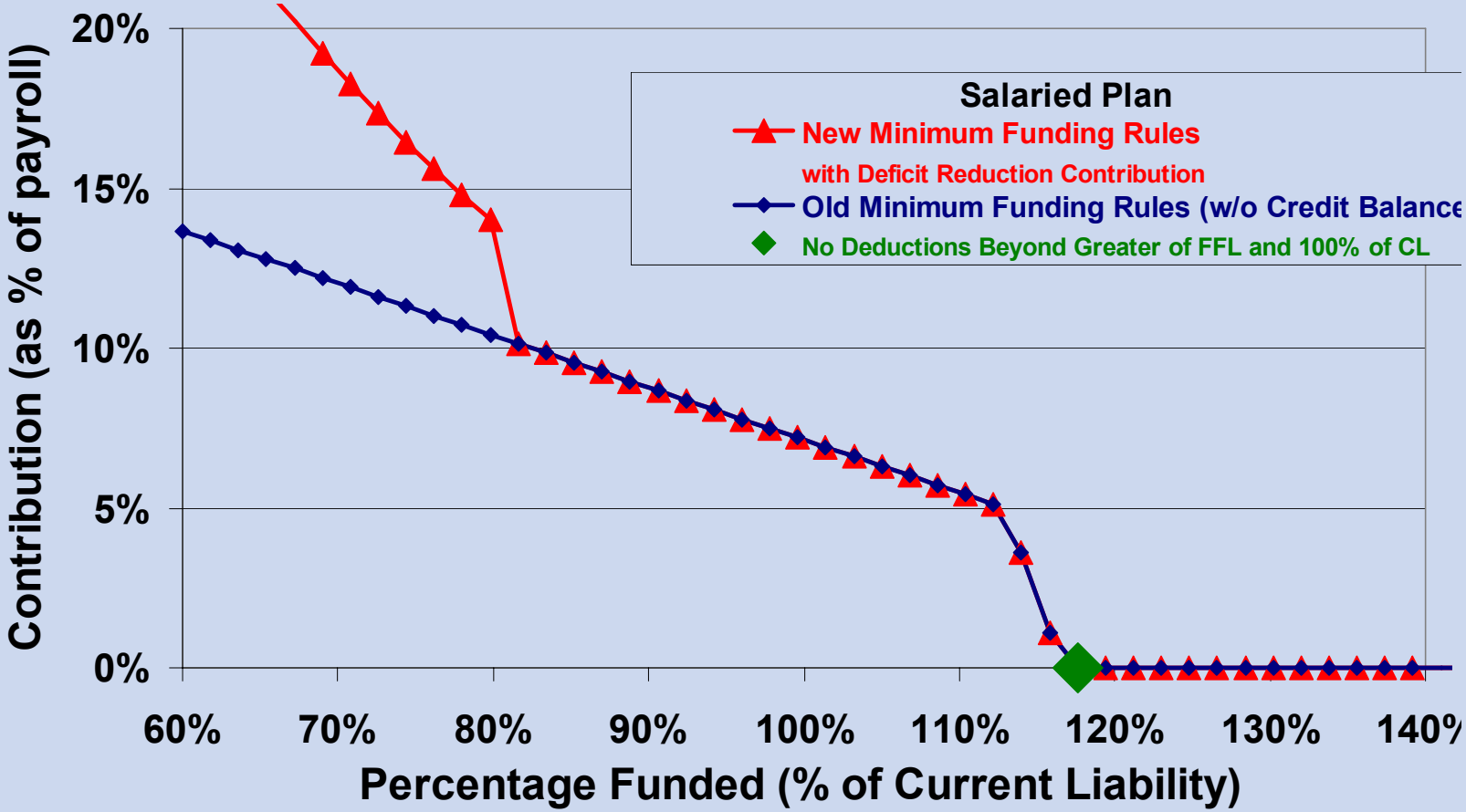
- **Pension plans were still underfunded**
  - Even though they followed all the rules
- **How can there be underfunding?**
  - Past service amendments
  - Poor financial & demographic experience
    - Asset losses
    - More take Early Retirement (if subsidized)
    - More take lump sums (with mandated subsidy)
  - Long periods of amortization

Underfunded Plans

- **PBGC's deficits grew**
- **OBRA '87 and RPA '94**
  - Minimum funding strengthened
    - If plan < 80% funded OR consistently < 90% funded
    - Creates a cliff
  - Unfunded current liability paid off over 3 to 7 years
  - Discount rate based on 30-year Treasury rate
    - 90% to 105% of 4-year average (to approximate group annuity prices)

Funding Rules

(when current interest rates are low)



There are large cliffs in minimum contributions which makes them volatile and unpredictable. To avoid employers could build up a margin. However, their pension contribution may not be deductible, and m be subject to an excise tax, especially when interest rates are low. In 2002 they couldn't deduct up to

More plans affected by DRC now

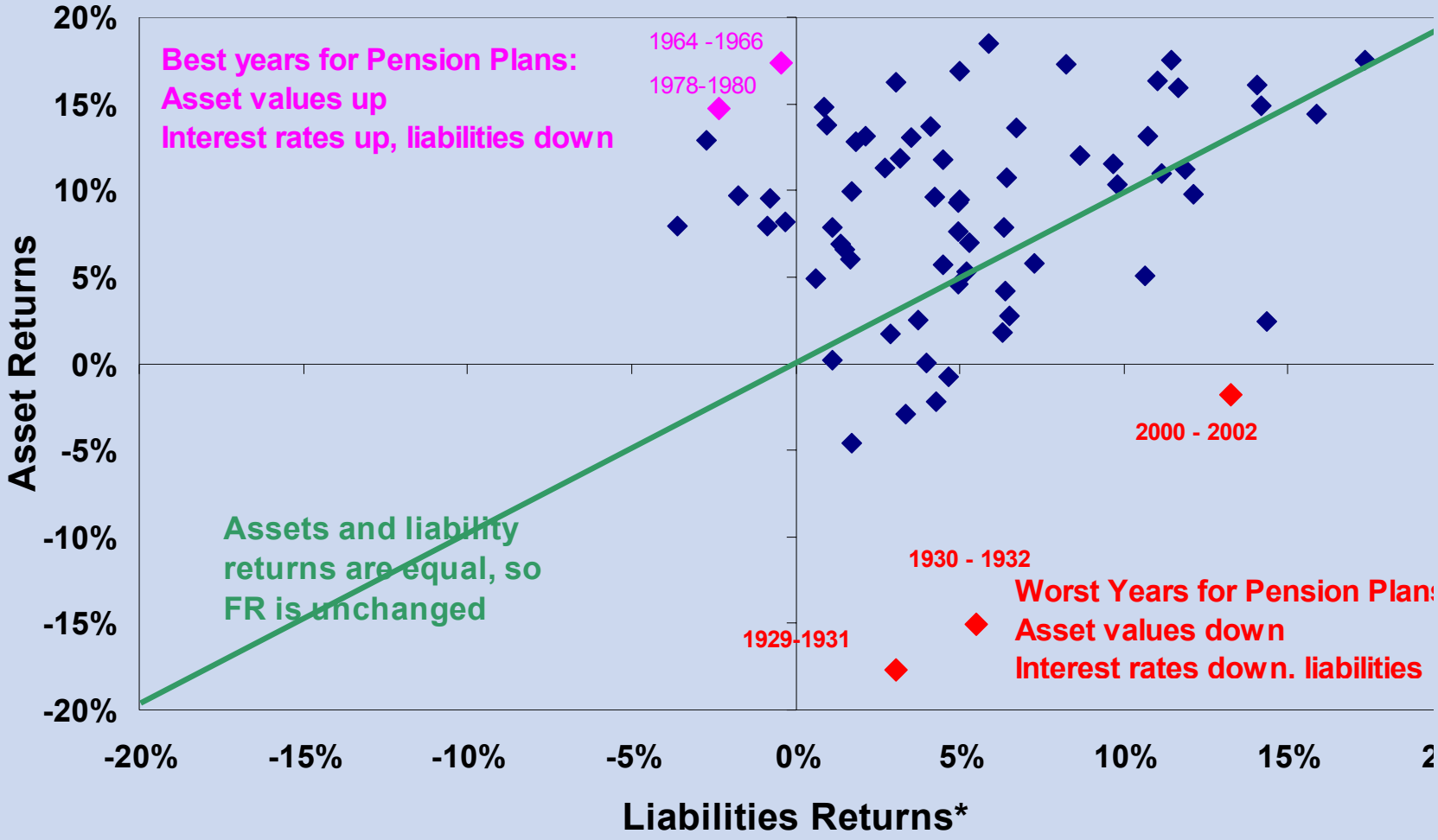
(1) Stock market fell 40%

(2) Treasury rates fell 200 basis points (2%)

- When interest rates fall, low earnings means larger costs
- (1) & (2) could cut funding ratios in half
- Making plan subject to DRC
- Minimum contributions could easily double or triple

(3) When companies were not strong

Asset & Liability Returns (over last 78 years)
3 year averages



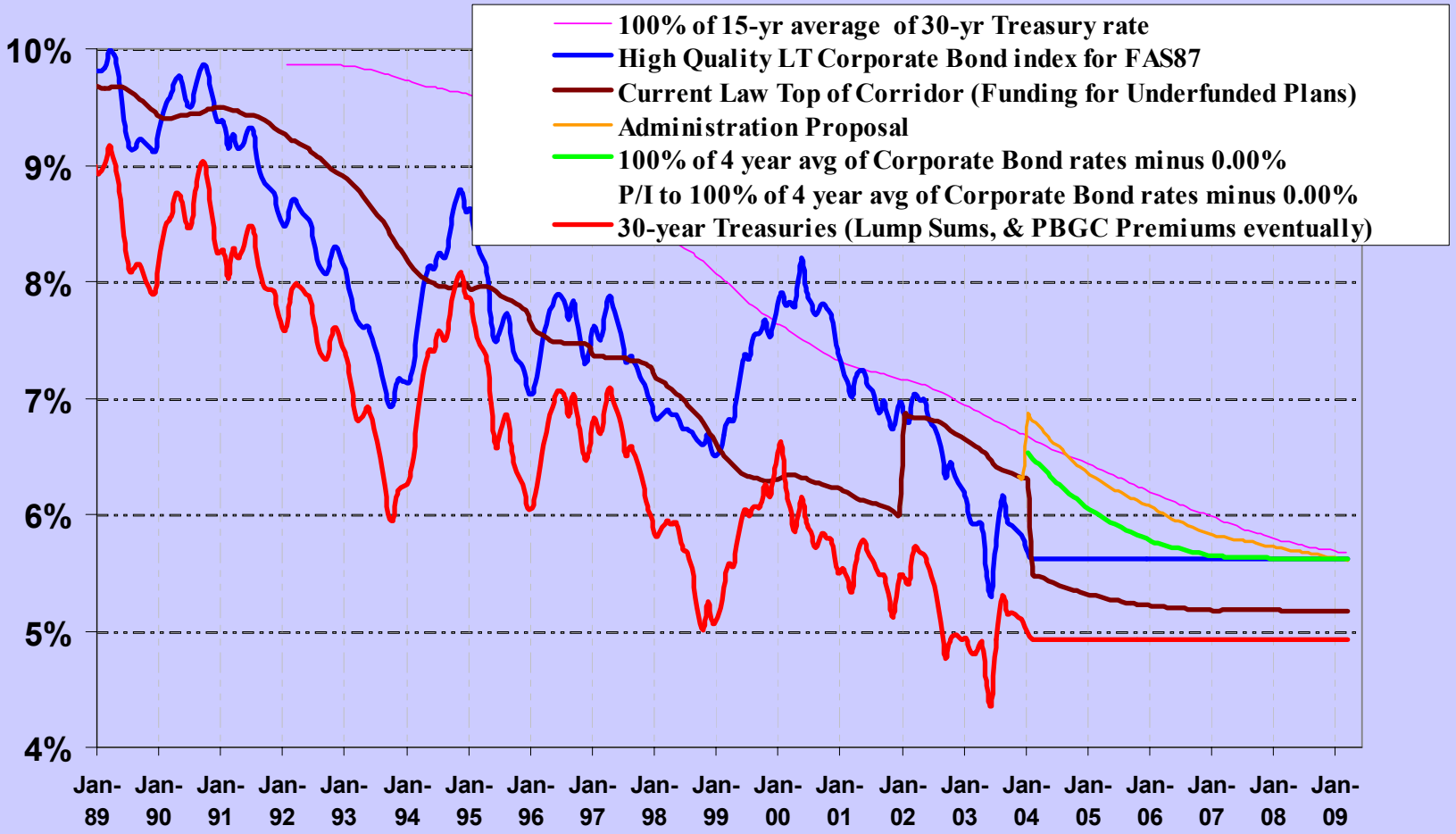
Underfunding "Penalties"

Funded CL <	Then
125%	No §420 transfers for post-ret health Can't use prior year valuation
110%	Lump sum restrictions for top 25
100% Hit to equity if MVA > ABO	Pay variable premiums & quarterly contributions (unless > FFL) Bankrupts can't improve benefits PBGC liens, if over $1M missed contributions Financial Rpt to PBGC, if UVB>$50M Report Events that may concern PBGC
80% / 90%	Additional Funding Contributions (& benefit increases more costly) Notice to employees on funding levels & guaranteed benefits
60%	Security for plan amendments

Replacement of Treasury rate

- Treasury rates fell more than other bonds
  - Creating larger cliff in Minimum Funding Rules
- CL rate fell below group annuity rate (for 3 years)
- The 30-year Treasury bond no longer exists
- Temporary fix for 2002 & 2003 expired
- Employers needed to budget contribution many months ago
- Senate to address this week
  - 100% of HQ LT Corporate Bond rates for min contribution

Choices for Discount Rates (with Projection)



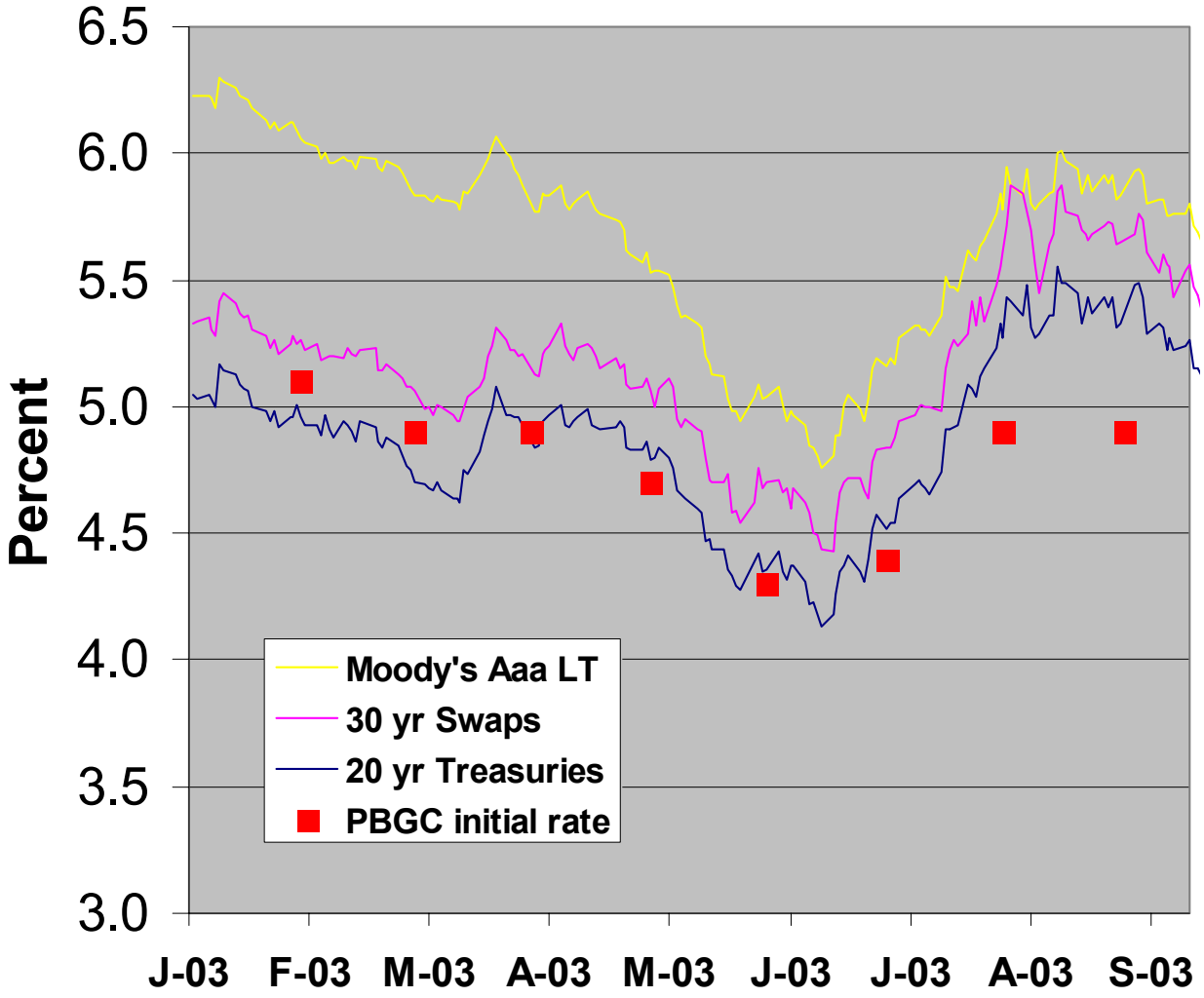
Concerns with Funding Rules

- Employers
  - Contributions are Volatile, Unpredictable, & Cyclical
    - Large in difficult years; Can't deduct enough in good years
- PBGC
  - Unfunded terminations didn't contribute in recent years
  - PBGC's deficit is growing
- Employees with large benefits & PBGC takes over
  - Plan worse funded than expected, so lost some benefits
- Everyone
  - Funding rules too complex; not transparent

Principles for Reform

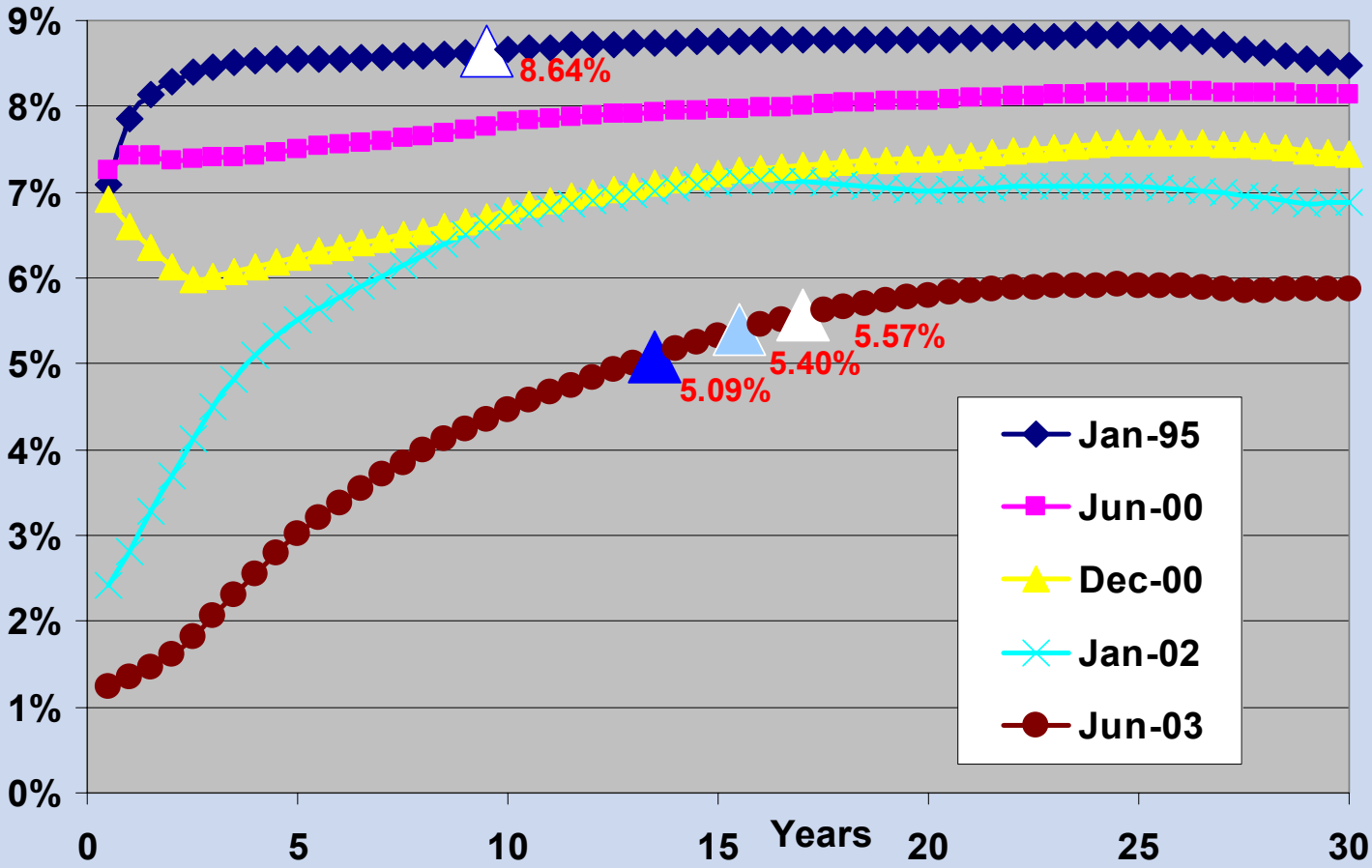
- Improve solvency of plans balanced with
- Contributions more predictable, less volatile
- Greater funding in good years (margins for poor experience)
- More transparent (including improved & timely disclosure)
- Reduce moral hazards (affordable improvements & risk-taking issues)
- Simplify rules
- Smooth transition

Daily Interest Rates



CitiCorp (Salomon) Corporate Bond Yield Curves

(Spot rates at end of month)



This chart shows yield curves at various times. It points out that yield curves can be steep (June 2003 is the steepest in recent history) or flat (June 2000) inverted (December 2000 & January 1995). Treasury yield curves were more inverted in those years & the early 1980's. The inversion after 25 may be du thin markets there and especially above 30. Mature plan liabilities would not be affected much using the top 3 flat yield curves. The chart also shows how have declined from 9% in 1995 down to 6% in June 2003. This has a much more powerful affect on liabilities than the much smaller affects of using yield The triangles show the equivalent rate to the yield curve for a typical blue collar plan, typical plan, & a typical white collar plan.

Ratios of Liabilities

(to those from a combined collar table)