The investment return assumption should be appropriate for the purpose for which it is being used. Different liability measures have different durations. The return assumption should reflect the period of time that assets will be invested or, equivalently, the period of time over which benefits are expected to be paid from the plan. You may wish to discuss this issue with an investment consultant.

This principle may be illustrated, for purposes of selecting a FAS discount rate, by comparing retiree medical benefits with pension benefits. Retiree medical liabilities, in the absence of a cap on employer costs, are indexed for medical inflation. As a result, payouts far in the future may have a significant effect on liabilities, giving the APBO a longer duration than the PBO would have. This difference may suggest using longer-term fixed income yields for the FAS 106 discount rate than for the FAS 87 discount rate. On the other hand, if the employer has significant liabilities for benefits before age 65 – where claims are usually 3-5 times higher than after age 65 and the start of Medicare – the APBO may have a shorter duration than the PBO would have. In addition, to the extent that underlying inflation affects both interest rates and medical inflation, retiree medical liabilities may actually be very insensitive to changes in inflation and therefore much less interest sensitive than pension liabilities. In practice, however, the FAS 106 discount rate is often set equal to the FAS 87 discount rate; we find that auditors are unlikely to question such a relationship. Whatever discount rates you choose, you should be prepared to justify the relationship.

In some instances, actuaries will introduce elements of conservatism in deriving the investment return assumption because of specific factors such as ability of plan sponsor to deal with adverse fluctuations in funding requirements.

Finally, the Pension Practice Council issued a Practice Note in May 2001 on <u>"Selecting and Documenting Investment Return Assumptions"</u> to assist actuaries in applying ASOP No. 27. The Practice Note expands on issues covered in this sub-section and illustrates the derivation of the investment return assumption through two case studies

## **B.** Inflation Assumption

Inflation is used explicitly under the building-block method above, or determined implicitly as a rate consistent with the internal rate of return on the hypothetical bond portfolio used under the cash flow matching method. In selecting the inflation assumption, the following may be used as a guide:

- CPI-U (or CPI-W)
- Implicit price deflator (IPD)
- Inflation forecasts, including those provided by Social Security
- Yields on government securities of various maturities (net of the expected real rate of return)
- Yields on inflation-indexed securities

experience rates. This generates a net loss since employees in this group have much greater average liability than employees with less than three years of service.

As a general note, the actuary preparing the study should ensure that the experience rates developed are consistent with the experience gains/losses that occurred during the study period. If they are not, then the assumption format is likely not appropriate.

Adjustments were made to smooth the termination rates. The experience rates were first compared to published standard termination tables (using rates from standard tables is a useful smoothing technique). After comparison against several tables, the actuary noticed that the ultimate experience rates closely matched 90% of the Vaughn table's ultimate rates – thus the new ultimate assumption was defined as 90% of the Vaughn ultimate rates. No such match was found for the select rates, however, so the actuary made ad-hoc adjustments that introduced either uniform differences among the rates or differences that tend to increase or decrease over time. Here is the final table:

**Final Termination of Employment Rates** 

	Select			
Age	Year 1	Year 2	Year 3	Ultimate*
22	.48	.44	.40	.15
27	.38	.34	.30	.10
32	.32	.28	.24	.08
37	.27	.22	.18	.06
42	.22	.17	.13	.05
47	.18	.13	.10	.05
52	.14	.10	.08	.04

<sup>\* 90%</sup> of Vaughn table's ultimate rates