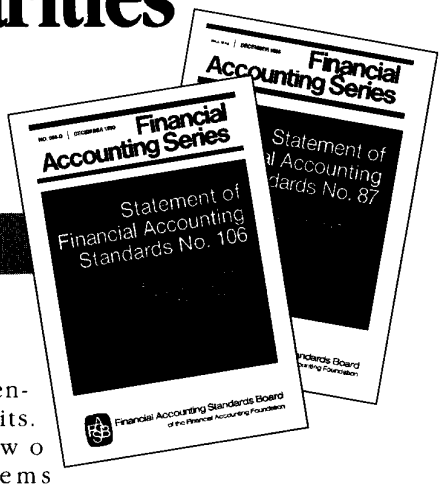
Learn both standards by comparing them to each other.

Pension and Other Postretirement Benefits: Accounting Similarities and Differences



By Jack L. Smith

By using a simple example, the author walks us through the requirements of both SFAS 87 and SFAS 106, pointing out their similarities and differences. The result is a better understanding of both pronouncements.

With the issuance of Statement of Financial Accounting Standard (SFAS) 106, *Employers' Accounting for Postretirement Benefits Other than Pensions* in December 1990, the Financial Accounting Standards Board (FASB) has completed its long-term project on postretirement benefits. The first half of the project, SFAS 87, *Employers' Accounting for Pensions* was completed in December 1985. Due to the complexities involved, in 1984 the board divided postretirement benefits into two separate projects.

While the broad issues addressed in both projects are identical and the resolution of these issues very similar, there are significant differences in accounting for the two.

Projected/Expected Benefit Obligations

With both pensions and postretirement benefits other than pensions (OPEB), the accounting is based on a company's promise of postretirement benefits in exchange for employee service. These employee benefits result in a cost and resulting liability to the sponsoring company.

In pension accounting, the total estimated cost of the benefits promised as of the balance sheet date is called the projected benefit obligation (PBO). It is the actuarial present value, using the salary level at retirement age, of the benefits earned to date by the employee. An example will illustrate the measurement of the PBO and the other basic postretirement elements. The example is of a company providing pension and health care plans for its one employee. The various assumptions for the two plans are summarized in *Table 1*.

The PBO is measured considering the projected salary base at retirement age (the projected salary), $150,000 in the example and computing the earned benefit for the 12 years of service (from age 26 to age 38) using the 2% provided for by the pension plan for each year of service, or $36,000 ($150,000 x 12 years x 2% per year), for each of the estimated 15 retirement years (age 65 to age 80) commencing 27 years hence (age 38 to age 65).

The present value of this ordinary annuity of $36,000 is discounted further for 27 years using a discount rate (8% in the example) that would reflect the rates at which pension benefits could be settled effectively. Employers can also look to rates of return on high-quality fixed income investments currently available for the determination of this rate. In our example, the present value of an annuity of $36,000 for 15 years discounted at 8% ($308,141) is further discounted at 8% for 27 years resulting in a PBO of $38,575.

A somewhat similar measurement element is the expected postretirement benefit obligation (EPBO) for OPEB accounting. This is the total cost of future benefits. Two items prevent the PBO and the EPBO from being identical in concept. These differences are—

1. The measurement of the PBO at the balance sheet date is limited by the number of years of service to date, (in the example above this is 12 years, or 24%) whereas the EPBO is measured at full expected value of the health care cost to be paid in each retirement year. When the PBO is measured at age 65 it will be at full value (78%, 39 total years of service at 2% per year credit) and consequently, identical in concept to the EPBO, but for the fact that—
2. Retirement payments are defined in the pension plan, whereas, OPEB benefits depend on what covered health care needs the retiree has.

The EPBO is measured by determining the estimated future claims in each retirement year and computing the present value of those claims in the year of the financial statements. For our 38-year old employee, annual health care costs are an estimated $2,500. These annual costs will amount to $53,312 in the first retirement year assuming a 12% annual rate of change in the cost of health care benefits (the health care trend rate). Discounting the $53,312 for 27 years at the 8% discount rate would result in a $6,674 present value. The computations of each year of the estimated retirement period of 15 years are added together resulting in an EPBO of $130,733.

Accumulated Benefit Obligation

The accumulated benefit obligation (ABO) for pensions is the actuarial present value, using current salary levels, of the benefits earned to date. Our 38-year old employee is currently earning $30,000, so the annual retirement benefits earned to date based on the current salary level would be $7,200 ($30,000 x 12 years x 2% credit per year). The ABO computed at the present value of this 15 year ordinary annuity commencing 27 years hence would be $7,715. This is equivalent to 1/5 of the PBO, since the current salary ($30,000) is 1/5 of the projected salary ($150,000).

For OPEB accounting, the accumulated postretirement benefit obligation (APBO) is somewhat different. It is that portion of the EPBO earned to date. In the example the 38- year-old employee will be fully eligible for OPEBs at age 55, 17 years hence (age 38 to age 55). With 12 years of past service, the employee will serve a total of 29 years before becoming fully eligible. The APBO would be 12/29 of the EPBO or $130,733 x 12/29 = $54,096.

At retirement age the accumulated benefit obligation will equal the projected benefit obligation since the current salary would equal the projected salary at age 65. At the date of full eligibility the accumulated postretirement benefit obligation will equal the expected postretirement benefit obligation since 29/29 of the health care benefits would be earned.

Measuring Periodic Expense

The net pension/postretirement benefit cost consists of six components, which are—

- Service cost;
- Interest cost;
- Actual return on plan assets;
- Amortization of plan amendments (including initiation of a plan);
- Gains and losses to the extent recognized; and
- Amortization of the transition obligation.

Service Cost. Service costs for both pensions and OPEBs are the portion of the PBO or EPBO attributed to employee service for that period. The calculations follow: PENSIONS: $ 38,575 x 1/12 = $3,215. HEALTH CARE: $130,733 x 1/29 = $4,508.

Note that the use of 1/12 for pensions is merely a short cut method. The theoretical method is to compute the present value of the increase in benefits earned during the period (2% x $150,000 or $3,000). However, since we have already computed the present value of the benefits earned to date ($36,000), it is merely necessary to take 1/12 ($3,000/$36,000) of the PBO of $38,575. However, for OPEBs the calculation is made using a denominator of 29, the total years of service to full eligibility.

Interest Cost. As with other obligations, the amount of the liability grows each year by an interest factor. For postretirement accounting the interest component is measured by applying the discount rate to the beginning balances of the PBO for pensions and the APBO for other postretirement benefits. The beginning values are found in *Table 1.* In the example the interest cost would be:

PENSIONS:	$32,741 × 8% = $2,619
OPEBs:	$42,568 × 8% = $3,405

Return on Plan Assets. For both pensions and other postretirement benefits, the return on plan assets is the increase (or decrease) in the fair value of the plan assets from the beginning to the end of the year adjusted for contributions and benefit payments.

In the example, the contribution to the pension plan for the current year was $5,000. Since our single employee is not retired, no pension benefits were paid. Thus, the actual return was $1,500 determined as follows:

Plan assets December 31, 1992	$31,000
Plan assets January 1, 1992	24,500
Total increase in fair value	6,500
Less: contribution	5,000
Actual return on plan assets	$ 1,500

As is common with most companies today, other postretirement benefit plans are not funded. Consequently, there is no actual return on plan assets.

TABLE 1
PENSION AND HEALTH CARE PLAN ASSUMPTIONS

	1980 Date of Hire 12/31	1991 Previous Year 12/31	1992 Current Date 12/31	2009 Date of Full Eligibility 12/31	2019 Retirement Date 12/31	2034 Date of Death 12/31
Age	26	37	38	55	65	80
Salary			$30,000		$150,000	
Pension contribution			5,000			
Plan assets		$24,500	31,000			
Health care cost			2,500		53,312	
Projected benefit obligation		32,741	38,575			
Accumulated benefit obligation			7,715			
Expected benefit obligation		135,575	130,733			
Accumulated post-retirement benefit obligation		42,568	54,096			
Percentage credit for year of service			2%			
Discount rate			8%			
Expected rate			10.2%			
Health care trend rate			12%			

Amortization of Plan Amendments. On January 2 of the current year, the example company increased the benefits in both the pension and healthcare plans. The cost of plan amendments is assigned to future periods in a manner that is similar to the units of output depreciation method. For example, if on the date of the amendment it was determined a workforce would provide a total of 1,000 man-years of service and the workforce expended 85 man-years in the current year, 8.5% of the amendment cost would be assigned to the current year. To reduce the complexity of the computation, use of the straight-line method is allowed as an alternative.

TABLE 2
1992 NET PERIODIC COST

	Pension Plan	HealthCare
Service cost	$ 3,215	$ 4,508
Interest cost	2,619	3,405
Actual return on plan assets	(1,500)	-0-
Amortization of plan amendment	104	213
Gains and losses:		
Adjustment to expected return	(1,000)	-0-
Amortization of unrecognized loss	8	-0-
Amortization of transition obligation	105	1,577
Total net periodic cost	$3,551	$9,703

In the example, the cost of the pension and health care plan amendments are $2,816 and $3,615 respectively. Since the example company has only one employee the "units output" method and the straight-line method result in the same amortization.

For the pension plan, the cost should be assigned over the period of time until retirement, i.e., 27 years (age 38 to age 65). Thus, the pension amendment amortization will be $104 per year ($2,816/27).

The amortization period for the health care plan is much shorter. The amortization period extends only to the date of full eligibility, or 17 years in the example (age 38 to age 55). Therefore, the health care amendment amortization will be $213 per year ($3,615/17).

Amortization of Gains and Losses

Gains and losses are changes in the projected/accumulated postretirement benefit obligation, or plan assets resulting from experience different from that assumed or from changes in the assumptions themselves.

The gain or loss portion of periodic pension expense generally consists of two components, which are—

- The difference between the actual and expected return on plan assets, and
- The amortization of the unrecognized gain or loss from previous years.

It is assumed that the example company has been following the provisions of the pension standard since January 1, 1989, and has elected to follow the new postretirement standard as of January 1, 1992, the current year.

For the pension plan, a return on plan assets of $2,500 was expected. This was determined by applying the 10.2% expected long-term rate of return on plan assets to the $24,500 January 1, 1992, plan assets. When compared to the actual return of $1,500, a loss of $1,000 must be recognized.

As of January 1, 1992, an unrecognized loss from 1989, 1990, and 1991 of $3,490 had accumulated. The procedure for allocating this loss is to amortize over the remaining service life (27 years) that amount of unrecognized loss that exceeds 10% of the larger of the beginning balance of the projected benefit obligation or the market-related value of the plan assets. The market-related value of the plan assets is a value that recognizes changes in the fair value in a systematic and rational manner over not more than five years. The fair value may be used in lieu of the market-related value.

The projected benefit obligation at January 1, 1992 is measured at $32,741 and exceeds both fair and market-related values of the plan assets. Thus, a

TABLE 3
RECONCILIATION SCHEDULE

Pension Plan	
Projected benefit obligation	$(38,575)
Plan assets at fair value	31,000
Funded status	(7,575)
Unrecognized net loss	3,482
Unrecognized prior service cost	2,712
Unrecognized net obligation	2,830
Prepaid pension cost	$ 1,449

Health Care Plan	
Accumulated postretirement benefit obligation	$(54,096)
Plan assets at fair value	-0-
Funded status	$(54,096)
Unrecognized net gain or loss	-0-
Unrecognized prior service cost	3,402
Unrecognized net obligation	40,991
Accrued postretirement cost	$(9,703)

CALCULATIONS:

Unrecognized Net Loss		
Pension		
Unrecognized net loss	Jan. 1, 1992	$ 3,490
1992 amortization recognized		(8)
Unrecognized net loss	Dec. 31, 1992	$ 3,482
Unrecognized Prior Service Cost		
Pension		
Unrecognized prior service cost	Jan. 1, 1992	$ 2,816
1992 amortization recognized		(104)
Unrecognized prior service cost	Dec. 31, 1992	$ 2,712
Health care		
Unrecognized prior service cost	Jan. 1, 1992	$ 3,615
1992 amortization recognized		(213)
Unrecognized prior service cost	Dec. 31, 1992	$ 3,402
Unrecognized Net Obligation		
Pension		
Unrecognized net obligation	Jan. 1, 1992	$ 3,145
1990, 1991, 1992 amortization recognized		(315)
Unrecognized net obligation	Dec. 31, 1992	$ 2,830
Health Care		
Unrecognized Net Obligation	Jan. 1, 1992	$42,568
1992 amortization recognized		(1,577)
Unrecognized Net Obligation	Dec. 31, 1992	$40,991

"corridor" of $3,274 (10% x $32,741) exists. Any unrecognized gains or losses in excess of this amount must be amortized. For the example company, the unamortized loss of $3,490 exceeds the "corridor" by $216 ($3,490−$3,274) and must be amortized over the 27 remaining years of service, or $8 per year ($216/27).

The procedures described above also apply to the health care plan. But since the health care plan is not funded, there is neither an expected nor actual return on plan assets. Furthermore, since this is the first year for the health care accrual accounting, no unrecognized gain or loss existed on January 1, 1992.

Amortization of the Transition Obligation. Accounting for postretirement benefits requires that, as of the date either SFAS 87 or 106 is initially applied, the company must determine the difference between the projected benefit obligation (accumulated postretirement benefit obligation) and the fair value of the plan assets adjusted for any unfunded accrued pension costs (postretirement benefit costs) or prepaid pension cost (postretirement benefit cost). This is called the transition asset or obligation.

On January 1, 1989, the date the example company first applied the pension standard, the projected benefit obligation was $18,903 and the fair value of the plan assets was $15,758. No accrued or prepaid pension costs existed at that time, consequently the transition pension obligation is measured at $3,145.

On January 1, 1992, the date the example company first applied the health care standard, the accumulated postretirement benefit obligation was $42,568. The plan is unfunded and was on a cash basis prior to adopting SFAS 106, therefore, no accrued nor prepaid postretirement costs exist. The transition postretirement benefit obligation is thus $42,568.

For the pension plan, the transition obligation must be amortized over the remaining service life of the employees. The single employee had a 30-year remaining service life as of January 1, 1989. The amount of the transition obligation to be recognized as a component of net periodic pension expense over each of the 30 years is $105 ($3,145/30). If the remaining service had been less than 15 years, the Board would allow a 15-year amortization.

The transition obligation of $42,568 for the health care plan can be recognized immediately as the effect of a change in accounting principle, or amortized over the remaining service life of the employees. The example company has elected to amortize the $42,568 over the 27 years of remaining service, or $1,577 per year. Had the remaining service life been less than 20 years, the company could have elected to amortize the transition obligation over a 20-year period.

Table 2 provides a summary of the elements included in net periodic pension (health care) costs for 1992.

Recognition of Additional Liability

The pension standard is balance sheet orientated. This is due to the requirement that an additional liability must be recognized to the extent that the accumulated benefit obligation exceeds the fair value of the plan assets. The example company is not required to report this additional liability since the plan assets of $31,000 exceed the $7,715 accumulated benefit obligation.

A major difference exists between the two standards in this area. Accounting

for postretirement benefits other than pensions does not have such a requirement. It was eliminated from the exposure draft when the final standard was prepared.

The example company would have an additional liability of $44,393 if the additional liability requirement remained. This amount would have been computed as follows:

Accumulated postretirement benefit obligation		$54,096
Less: Fair value of plan assets		-0-
Excess		54,096
Net periodic postretirement cost	$ 9,703	
Less: contribution	-0-	
		9,703
Additional liability		$44,393

Disclosure Requirements

Briefly stated, the following disclosures are required for both pensions and other postretirement benefits:

1. A description of the plan.
2. The amount of the net periodic cost showing separately the—
   a. service cost,
   b. interest cost,
   c. actual return on plan assets,
   d. for OPEB, amortization of the unrecognized transition obligation, and
   e. net total of all other components.
3. A schedule reconciling the funded status of the plan with the amounts reported on the balance sheet (see *Table 3*).
4. The rate of compensation increase for pensions and the health-care trend rate for OPEB plans, the discount rate, and the expected long-term rate of return on plan assets.
5. Amounts and types of employer and related party securities included in the plan assets.
6. For OPEB, the effect of a one-percentage point increase in the assumed health-care trend rate on the accumulated postretirement benefit obligation and the service and interest costs.

The amounts appearing on the balance sheet for the pension plan would be the excess of the $5,000 contribution over the $3,551 net periodic pension cost or $1,449. Prior to the current year, the company funded exactly the amount of the net periodic pension cost. For the health care plan, which is not funded, the first year net periodic cost of $9,703 would appear on the balance sheet as a liability. These are the two amounts appearing on the reconciliation schedule in Table 3.

Differences

While a large portion of the two standards on postretirement benefits are similar in concept and mechanics, there are several important differences. For pensions the retirement benefits are fixed in amount by the terms of the contract and only the term is unknown. The benefits for health care plans are more difficult to estimate since not only is the term unknown, but also the benefits are dependent upon health care costs at the time care is provided.

Amendments for pensions are amortized over the remaining service life of the employees, while for OPEBs amendments are amortized over the period of time until full eligibility, a much shorter time span.

Pension accounting requires the recording of an additional liability when the accumulated benefit obligation exceeds the fair value of the plan assets. OPEB accounting does not have such a requirement.

The transition obligation for pensions is amortized over the average remaining service life of the employees expected to receive benefits, or if this period is less than 15 years, 15 years may be used. For OPEB the transition obligation may be recognized immediately, or it may be amortized over the average remaining service life of the employees expected to receive benefits (or if this period is less than 20 years, 20 years may be used).

Finally, OPEB accounting requires the disclosure of the amortization of the unrecognized transition obligation as a separate component of net periodic cost, the effect of a one percentage point increase in the assumed health-care trend rate on the accumulated benefit obligation, the service cost, and interest cost. No similar requirement exists for pensions. ❑

Jack L. Smith, PhD, is a Professor at the University of South Florida.