Accounting for Pensions

Pensions and other post-employment benefits can be thought of as promises of future benefits to workers in return for labor today. Thus, as promises, they are part of an entity's liabilities and as compensation for services rendered they are in the nature of an expense. When the going gets murky and arguments fly thick and fast, it helps to keep these basic facts in sight. There are two main issues in pensions plans: computing the pension expense and computing the minimum pension liability to be shown. We will take each up in turn, but first some basics.

Any liability must be shown on the company's balance sheet. However, for pension plans, the liability cannot be entirely unfunded, i.e., consist of nothing more than management's promise to pay. Prudence and law require companies to set aside some money every year in an separate investment fund so that when benefits have to be paid there will be a lower likelihood that the company will find itself short of funds with which to pay for the benefits. The net upshot is that we will have (a) a pension expense, (b) a pension liability and (c) a pension asset in the books.

To get at pension expense we first have to understand benefit obligations. A benefit obligation is the present value of the expected benefits to be paid to an employee. The projected benefit obligation (PBO) is the present value of expected benefits based on the expected terminal wages of the employee (i.e. based on the wages that the employee is expected to earn at the retirement date). The actuarial benefit obligation is the benefit obligation based on employees' current earnings levels (and thus is generally less than the PBO for most healthy companies). Finally the VBO is the ABO for all those employees whose retirement plans have vested (usually this means for all employees who have worked for the employer for a number of years, ranging from 2 years to 5 or more). Thus, in general, PBO > ABO > VBO.

The pension expense itself consists of five elements: (1) the current service cost obtained from actuarial computations, plus (2) amortization of prior service cost over the service period of the relevant employees plus (3) interest on beginning balance of the PBO less (4) return from pension assets and plus or minus (5) any unrealized holding gains [subject to corridor rules]. Each year the pension expense is computed and charged to income and a corresponding liability is created.

Next, the amount in the liability account is computed by taking the initial balance, adding the expense, subtracting any investment income and any disbursements. The ending balance is the liability. Similarly, the balance in the plan assets account is computed as the beginning balance plus the expected income from plan assets minus any asset liquidations.

Curiously, however, as far as the US rules for GAAP-compliant financial statements are concerned, neither the plan assets nor the plan liabilities are accounted for directly in the financial statements. Rather, every year, the *difference* between (1) the pension expense and (2) the amount of cash paid to the plan trustee is treated as a liability (accrued pension cost) if the payment is less than the pension, i.e. the plan is "under-funded", or as an asset (prepaid pension cost) if the payment is more than the pension, i.e. the plan is "over-funded." If there is a liability/asset on the books from past years, subsequent over/under-funding results in changes in the amount of the liability. Finally, the pension liability shown on the balance sheet cannot be smaller than the difference between the ABO and the fair value of the plan assets. Hence sometimes, one has to check to make sure that the firm records an additional pension liability (APL, more on this later).

In sum, what the US rules do is to keep the pension liability and the corresponding assets off the books and only show on the books the unfunded or over-funded part of the plan. The reason this works out ok is that if the plan is under-funded then in future years, the pension expense will be larger since element (3) of the pension expense (interest on beginning PBO) will be less than element (4), the expected return on plan assets. And then if that (larger) pension expense is not fully funded in later years, then an additional pension liability will have to be provided in those years [and so on …]. This treatment makes some sense if the pension liabilities and assets are so large as to dwarf the operating assets and liabilities of the firm (think GM).

This leaves us with two more complications surrounding the US accounting rules for pensions having to do with the links between unamortized prior service costs (UPSC) and the APL and second having to do with investment gains and losses on plan assets (the corridor rule). We discuss each in turn..

First the link between UPSC & APL. Note that UPSC is the portion of prior service costs not yet expensed. Recall further that prior service costs (PSC) are the costs of granting credit for years of service before the adoption of the plan [e.g. a firm adopts a pension plan in 2004 that promises a pension to anyone who works for the firm for 20 years or more and also tells employees that they will be given credit for up to five years of service at the date of adoption of the plan. Then the cost of the benefits attributable to the years of service credited to each employee on the plan adoption date is the PSC]. Normally, the PSC is written off over the service period of the employees. Thus at any time before the PSC has been fully written off, if the firm needs to also provide an APL (because the fair value of the plan assets has fallen below the ABO on that date), the firm can recognize an intangible deferred pension cost asset to the extent of the UPSC [the remainder of the APL is charged to OCI].

Note: This point is quite jargon laden and confusing. But it is important and needs to be understood. So here is a simple example: Suppose (somehow) we know an APL of $100 is needed. If UPSC is $75, then we will credit APL with $100, recognize an "Intangible Asset – Def. Pension Cost" of $75 and debit the remaining $25 to OCI. If however, UPSC is $110, we simply debit "Intangible Asset – Def. Pension Cost" with $100 (and credit APL with $100). (see also E20-12)

Second, if investment gains or losses on the plan assets are less than 10% of the plan assets, we ignore all gains and losses in fair value of plan assets. If the gains/losses exceed 10% of plan assets, the excess is amortized over the service period starting in the year after the year in which the gains/losses occur. Thus if plan assets are $1000 and the unrecognized gain/loss <u>in 2003</u> were less than $100, we would ignore the fluctuation and element (5) of the pension expense would be zero. If the gain or loss were larger, say $115, then <u>starting in 2004</u> we would amortize $15 [excess of actual loss $115 over 10% of plan assets or $100] over the service period (assume this to be 15 years for convenience). (see also E20-20)

Finally note that for OPEBs (other post-employment benefits, particularly health care costs) we simply book an OPEB expense on a cash basis. Footnote disclosures work much the same way as Pensions, but when it comes to accounting for the expense OPEBs are much simpler.