



# Pensions & Investments

## Pension funds are marking to myth

By Ronald J. Ryan

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If pension funds were to mark to market their assets and liabilities, corporations would show a deficit of more than \$500 billion (based on Form 5500) and public plans would show a deficit of more than \$1.5 trillion (according to the National Bureau of Economic Research in Boston). Given that pension funds tend to hire the finest brains as accountants, actuaries, consultants and money managers, how could this group of intelligence have such difficulties? Blame it on inappropriate accounting rules that misinform and misdirect the pension asset allocation.

### Corporate plans

Corporations are earnings led and not liability led. There's nothing wrong with this until you understand and connect how pension assets affect earnings. The real villain of this story is the return-on-assets assumption. The Financial Accounting Standards Board allows corporations to forecast the ROA for pension assets instead of using actual returns. Because pensions are an expense item for corporations, they can hurt earnings. The offset is the return on pension assets. Because corporations know with high certainty the pension costs for the next fiscal year, they also know the ROA needed to wash out this expense. Because the FASB allows corporations to forecast the ROA, why not forecast a high enough ROA that converts pension expense into pension income? Such pension income creates phantom corporate earnings. According to Credit Suisse, about 10% of the earnings from corporations that have defined benefit plans are phantom earnings. In 2006, when Lucent Technologies Inc. was sold to Alcatel, Lucent reported that pension income was 92% of reported earnings. Put a price-earnings multiple on these phantom earnings and you have quite a sizable complaint on the quality of corporate earnings.

When I testified before the ERISA Advisory Council Working Group on Defined Benefit Funding in Washington in 2003 — with Enron Corp. and Worldcom Inc. fresh on people's minds — I urged that the accounting and pension rules require the use of market valuations for pension assets and liabilities. I urged that the discount rates used be real rates that you can buy to defease liabilities. In other words, tell the financial truth so we can understand the problem at hand and solve it. Smoothing and amortization techniques combined with inflated ROAs and higher-than-market discount rates distort economic reality. As the Society of Actuaries recommended in their October 2004 research ("Principles Underlying Asset/Liability Management"), pension plans need to create a set of economic books that mark to market assets and liabilities on an accurate and frequent basis so assets can be managed and monitored correctly vs. liabilities.

This ROA has to be validated by an auditor based upon an asset allocation that supports the ROA assumption. Pension consultants usually are in charge of the asset allocation. Rather than base the asset allocation on the true economic funded ratio (assets/liabilities), consultants are normally required to base their models on validating the ROA. Such models use historical returns for every asset class but bonds to support the ROA assumption. Bonds go into these models at their current yields. When bond yields went below the ROA assumption in the late 1980s, they became a drag and made it harder to validate the ROA. This meant that asset allocation models had to skew their weights away from bonds to validate the ROA. Given a trend to lower rates starting in 1982, asset allocation models continued to reduce their allocations to bonds to support the ROA and create phantom earnings.



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As a result, when pension plans had the game won in the late 1990s with funded ratio surpluses, they did not change their asset allocations to more bonds to match liabilities and secure their victory. When the equity correction happened in 2000 through 2002, pension assets got hard hit because of their increased allocation to non-bonds. What few pension executives realized or were told in their accounting reports is that pension liabilities behave like long bonds and they grew significantly in present value as interest rates trended downward for the last 26 years but especially in the years 2000 and 2002, when long interest rates dropped by about 100 basis points each year.

### **Public plans**

Cities and states are budget or cost oriented. The pension liability is usually the largest liability of any municipality and the major expense item of their budgets. According to the Government Accounting Standards Board, pension asset valuations are smoothed over five years and liabilities are priced at the ROA as the discount rate. This means that assets and liabilities have the same projected growth rates and the only way to cure a deficit is through higher contributions. Indeed this is the public pension crisis of today: spiking higher contributions.

These improper valuations misinform as to the plans' true funded ratio. Public pension plans are told that if their assets don't perform at the ROA rate they face higher contributions. Not true. The true mission is for asset growth to match or exceed liability growth, not the ROA. If assets grow at 20% but liabilities grow at 30%, the plan loses; and if assets grow at 0% and liabilities at -12%, the plan wins. However, asset allocations today are skewed to validate the ROA, just like in the private sector. Unfortunately, many pension plans were told that they were fully funded when they had massive deficits and they behaved accordingly by raising benefits and decreasing contributions when they could not afford to do so. Currently, smoothing of assets overvalues assets by about 24%. Using the ROA as the discount rate for liabilities undervalues liabilities by 40% to 60%. How the ROA as a single and static discount rate could ever represent a yield curve of monthly benefit payments stretching out over 30 years is hard to believe. More importantly the ROA has nothing to do with liabilities; it is an asset forecast. Liabilities behave like a portfolio of bonds (one bond for each benefit payment) and should be priced as bonds. The bonds that should be used as discount rates are zero-coupon bonds because they are the only bonds with a known future value. And the only risk-free zero-coupon bonds available are government securities. Municipalities should be fully aware that to prefund (defease) their municipal bonds they must use government zeroes by accounting rules. In the same way, to defease pension liabilities you need to buy government zeroes that match each future benefit payment. Accordingly, the discount rates used to value liabilities should be the rates that can defease liabilities. If you can not buy the discount rates used, it is an improper valuation and should be disregarded to measure the true funding ratio.

### **Solutions**

As the Society of Actuaries recommended, a set of economic books is needed for asset/liability management to function correctly. Once assets and liabilities are marked to market frequently, asset allocation can then function effectively by focusing on the economic funded ratio. A pension plan with a large deficit should have a different asset allocation from a plan with a surplus.

Given the inappropriate accounting rules, pension plans need to protect themselves and understand the true economic realities of their situation. Imagine if a doctor were given the wrong blood work and X-rays: I would hate to have surgery based on this information. Well, until the pension doctors (consultants, CFOs, trustees) are given the proper valuation of assets and liabilities their work suffers accordingly. Pension plans need to create a set of economic books that use market valuations to determine their funded ratios, asset allocations, asset management and performance measurement. They all link to managing and monitoring assets vs. liabilities using market valuations.

*Ronald J. Ryan, CFA is CEO of Ryan ALM Inc., New York, an asset-liability management firm.*