Comments to the Senate Finance Committee

in re Defining the Current Liability
in the Context of Pension Funding

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Using the Treasury Yield Curve to Measure the Current Liability of ERISA Defined Benefit Pension Plans

Recommendation

I propose that the ERISA Current Liability be computed using discount rates that are directly and simply related to the Treasury yield curve. I identify two possible formats: i) a constant "spread" above the Treasury yield curve, expressed in basis points, e.g., the Treasury yield curve plus 50 basis points; or ii) the Current Liability may be set equal to a constant percentage (a "multiplier factor") of the principal value determined using the Treasury yield curve with no spread, e.g., 90% of the principal value computed using the curve.

These two formats are similar in substance and effect. A 50 basis point spread is approximately equal to a multiplier that is between 90 and 95%.

Although ERISA rules for funding and for lump sum payments to individual participants have been linked historically by their common reference to the 30-year Treasury bond, my commentary addresses the issue of the Current Liability (a funding measure) only. I would be happy to comment on lump sum payments at another time.

Structure and Level

Almost all of my recommendation deals with issues of **structure**. These are distinct from what I call issues of **level**. I mention below several objective criteria for **structure**; basing the Current Liability on the Treasury yield curve meets these criteria, while basing it on corporate rates or annuity purchase rates does not. With the economically sound building blocks provided by the Treasury curve, legislation may allow for pragmatic adjustment of the **level** of the Current Liability. For example, legislation could specify that the Current Liability is the discounted value based on the curve plus 50 basis points, or that it be 90% of the discounted value based on the unadjusted Treasury yield curve. For a given set of underlying cash flows, a high value (a high level) for the Current Liability is produced by a *strict* standard; a low value or level is produced by a *lenient* standard.

Although many of those who offer testimony in this matter are primarily concerned with issues of level, they will argue in terms of both level and structure. Thus, for example, one may recommend Treasury rates because the Treasury market is very liquid (a structural matter) or because Treasury rates are low (i.e., a strict level). This is unfortunate because we can gain a great deal by a careful separation of these issues. The long-term rationality and efficiency of the pension system is highly dependent on a well-defined structure. The immediate needs, however, of all constituent parties are closely related to the strictness of the Current Liability measurement. A strict standard will immediately stress the pension plans that are weakly funded by weak sponsors. A lenient standard may help weaker companies and their sponsors over the near term, and may be necessary in these difficult times. Over the long run, lenient standards burden today's strong companies and threaten the plan participants, taxpayers and the PBGC of tomorrow.

The structural basis of the Current Liability is the mechanical process that turns market rates and measures into the discounted liability value. A sound structure will incorporate three critical features: transparency, objectivity and hedge-ability. The present statutory basis fails on all criteria.

Current Liability and the Treasury Yield Curve

Defined benefit pension plans promise future cash flows to participants. At any time, some of these promises have already been earned by participating employees (accrued benefits). The Current Liability is defined by ERISA as a measure of the value of these accrued benefits. This measure entered ERISA via OBRA '87, a public law, was amended by RPA '94, and by JWCCA '02. The liability cash flows are discounted to arrive at their present value. For 2002 and 2003, the discount rate is no greater than 120% of a weighted average of real and virtual 30-year bonds over a four year period. This definition is complicated, out of touch with current market values of similar promises, opaque, and generally not hedge-able.

Despite the shortcomings of the measure, the concept of a Current Liability representing the value of accrued benefits is very important. When we compare the market value of plan assets to a market-based valuation of the Current Liability, we have taken the <u>single most important</u> measure of the financial status of that pension plan. This single measure can provide valuable information to plan participants, investors in the corporation that sponsors the plan, and to the public – especially to the PBGC who must underwrite the financial health of the plan in order to protect the participants.

The market-based measure of the Current Liability, in the context of the PBGC guarantee, can best be accomplished using the Treasury yield curve. Although there are some practical problems with every potential measure[1], the problems associated with other measures dwarf those of the Treasury yield curve. The shortcomings of other measures are discussed briefly below.

The Treasury yield curve is visible every day in markets all over the world. These markets (particularly those open in the U.S. during working hours) are extremely liquid and transparent and objective. Numerous other securities including interest rate derivatives, swaps and corporate bonds are priced in relation to the Treasury yield curve. This means that the cash flows that underlie the Current Liability may be measured and hedged with great accuracy.

The importance of hedge-ability

The importance of transparency, liquidity and objectivity offered by the Treasury yield curve (in comparison to all other potential measures) should be obvious. The importance of hedge-ability may be less obvious. Many of my fellow actuaries have limited appreciation for this issue. Actuaries use statistical models to develop distributions of possible future outcomes. Among the variables whose outcomes they analyze in this fashion are future asset values and interest rates. Actuaries often argue that they need to use artificial (i.e., non-market) asset values and liability discount rates so that the (artificially-measured) funding status is rendered more predictable than the underlying uncontrolled market values.

Thus actuaries strive for predictability in the face of volatile markets. They have yet to appreciate this: "volatility is a property of markets; it is not a disease for which actuarial and accounting treatment is the cure."

Modern finance has taught many of us that hedging is the far far better way to cope with such volatility. Whereas artificial actuarial values paper over volatility, hedging allows the risk bearer to accept, dispose of or otherwise manage risk exposure and its impact.

As pension accounting becomes more transparent, as it must and will in the near future, hedging will be the mechanism of choice for managers of corporate pension plan exposures. As the statutory basis for funding becomes more transparent, as it must in the near future, hedging will be the mechanism of choice for managers of corporate pension plan exposures. The old approach, wherein the actuary smoothed over the financial realities, shall pass.

The "spread" or the "multiplier factor"

The primary thrust of my comments is aimed at the structure of the current liability measure. Thus I stress transparency, objectivity and hedge-ability. While the structure may be of great importance in the long run (a good structure promotes market efficiency, fairness among plan sponsoring companies, and rational management of pension risks), the level of the Current Liability is of the utmost importance today; it will have an immediate impact on the solvency of the PBGC, the cash flow obligations of plan sponsors and the public's sense of how well we have all dealt with what some refer to as a "crisis."

To protect the virtues of good structure for the long run, we must separate the level issue from the structure. Many of the participants in the current debate have sacrificed structure in order to abet their arguments in re level. Those who have suggested averaging rates, annuity measurement schemes, and the use of corporate bonds (rather than Treasuries) make structural arguments but their motivation is often based on level.

Level is important and urgent. I recommend a system that allows Congress to address the level issue directly and transparently. I propose that the measurement system incorporate only one level setting dial. This dial may be effected in one of two fashions:

1) Built on the solid structure of the Treasury yield curve, we can add a constant "spread" in interest rates. A strict standard would incorporate a small spread, perhaps 25 to 50 basis points. A more lenient standard could use a greater spread. The effect of the spread is to lower the current liability and thus allow for any level of minimum funding desired. Those who favor the use of double-A corporate bonds might achieve the same general level by using the Treasury curve plus 100 basis points. While I would like the spread to remain constant (i.e., set by statute), a workable system could delegate the regular determination of the spread to the regulatory agencies. The Treasury curve with a spread remains objective, transparent and hedge-able.

2) Using the Treasury curve with a zero spread, we can multiply the resulting principal value by a "factor" designed to accommodate valid concerns about the level of the measure. Roughly speaking, a factor of 90% to 95% would have about the same impact as a spread of 50 basis points. This approach remains objective, transparent and hedge-able.

Although it is possible to compound the effects of a spread and a multiplier factor, the simpler the system is, the more benefit we will get from the soundness of the structure. Each adjustment tool - each degree of freedom - weakens the structure. We must be able to address the issue of level, but we should do it with the minimum number of minimally invasive tools. That minimum number is one. Use a spread or use a factor. Resist the temptation to fine tune the process with compound control mechanisms.

Undesirable alternative measures

The current system is undesirable in at least two ways – failure to use the whole curve and averaging over time. The four-year averaging of 30-year bonds was adopted to reduce market volatility and to make the resulting measure more "predictable" in the actuarial sense. In a financial world that is progressively more transparent and market-oriented, this averaging is self-defeating. It renders hedging (and rational risk management) impossible.

The use of a corporate yield curve, while far superior to the current system, is inferior to the Treasury-based recommendation that I have made. Corporate bond measures are always more subjective and less transparent than Treasury measures. Many corporate bonds are issued with call provisions that are inappropriate for the measure of pension liabilities; adjustments to neutralize such provisions are always technical, complicated, and at least slightly subjective. Additionally, promises made by the PBGC are backed (in spirit if not in statute) by the U.S. government. Promises made by the U.S. government and its agencies are more highly valued by the capital markets than are the promises made by any corporation.

The private annuity market for pension plan terminations is an exceptionally poor basis for statutes relating to the funding of pension plans covered by PBGC guarantees. Whereas Treasury securities trade in the hundreds of billions of dollars every day, the private annuity closeout business amounts to less than two billion dollars annually. In the last several months the PBGC has acquired liabilities representing a decade of transactions in the private annuity market. The market for any such closeouts in excess of ten million dollars consists of an oligopoly of mildly motivated competitors. The "sweet spot" for such placements is in the neighborhood of one hundred million dollars; a handful of transactions may reach this size annually. In this range, a moderately competitive group of companies will offer effective rates that might exceed Treasury rates. For smaller placements, much lower (after expenses) rates apply.

Annuity pricing is also problematic in that insurance companies combine their gross interest rate with assumptions concerning mortality, retirement ages, etc., as well as with loadings for profit and expenses. These demographic assumptions are commonly much stricter than those used by the plan actuary under ERISA. Combining an insurer's gross interest rate with the plan's regular actuarial assumptions will severely understate the annuity purchase price.

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Timing

Despite my admonitions, the issue of level is critical today and we must be willing to compromise to avoid jolts to the system that may be so damaging in the short run that any long run structural benefits are lost.

It will be necessary to allow a transition to any new standard. I suggest two possible ways that this might be accomplished:

1) Commence with a large yield spread (or a low multiplier) for the year 2004. If, for example, 2004 used The Treasury yield curve plus 200 basis points, 2005 might use the curve plus 150, 2006 curve plus 100, 2007 and thereafter curve plus 50. A similar result might be obtained using the Treasury curve with no spread and a multiplier of 65% in 2004 increasing to 95% for 2007 and thereafter.

2) Blend the ultimate approach with the current system. In 2004, compute a value based on the same rule as 2003. Compute as well a value based on the Treasury curve (perhaps plus 50 basis points). The Current Liability for 2004 would be 75% of the first value and 25% of the second. In 2005, after similar computation, the Current Liability would be 50% of the first and 50% of the second value. By 2007, we would use the Treasury curve.

Some have contended that actuarial computer programs may have difficulty implementing a yield curve approach. With all the technology available today, this is something of a red-herring. No actuary or firm serving substantial clients would be unable to implement the yield curve approach for 2004. Once the future cash flows based on accrued benefits are known, the liability may be computed in less than 15 minutes using a spreadsheet program and a published yield curve. Nonetheless, it is possible that actuaries serving only small clients may have some difficulty. Certainly a deferral of application until 2005 may be accommodated for pension plans with fewer than 100 participants.

Thank you

Thank you very much for the opportunity to express my views. I would be happy to respond to questions or to provide additional material and discussion upon request.

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[1] In the Treasury yield curve case we can note that some benefit cash flows occur after the longest outstanding Treasury securities mature and that liquidity premiums differ between "on-the run" and "off-the-run" issues.