April 3, 2006

Mr. Robert Herz, Chairman
Financial Accounting Standards Board
401 Merritt 7
P.O. Box 5116
Norwalk, CT 06856-5116

In re: Accounting for Defined Benefit Pensions

Dear Mr. Herz:

Russell Investment Group supports FASB’s initiative to update accounting rules for pensions and post-retirement benefits. The initiative actively addresses an important criticism, that existing pension accounting rules make the provision of defined benefits appear less costly than they are in fact, and allows sponsors to obscure poor results until plans are underfunded to a worrisome degree.

Conversely, FASB must address the argument that its currently proposed standard, which includes marked-to-market plan surplus directly on sponsors’ balance sheets, makes the opposite mistake—overstating risk to better-funded plans. While the ability to obscure costs and risks under current rules leads some sponsors to over-promise and underfund benefits, a standard that overstates risks to well-funded plans provides a new reason for sponsors to freeze accrual of defined pension benefits altogether, accelerating a trend that is well-established already, to the detriment of large numbers of American workers.

One possible solution is to characterize the pension plan for accounting purposes as what it is in economic reality: a contingent obligation, which only will draw additional resources from the sponsor in some circumstances but not others. Well-established theory exists concerning the valuation of contingent obligations, and provides a clear model on which to base sound accounting principles. A contingent obligation-based method of accounting for pension plans would reconcile the conflicts and remedy the deficiencies in current and proposed simple mark-to-market pension accounting standards: It would produce automatically smoothed results for well-funded plans. It would apportion increased risk to sponsors of under-funded plans. Finally, it would adjust the reported pension liability automatically and objectively for risks taken by mismatching pension assets and liabilities.

The Contingent Nature of the Sponsor’s Pension Obligation

That contingent claims are implicit in defined benefit pension plans has been noted in the theoretical finance literature since the 1970’s.¹

Corporate DB plans must meet stringent legal funding requirements. As a result, all are substantially funded—even those at risk to be taken over by the Pension Benefit Guaranty Corporation. (Even 60% funding is substantial, if far from complete). There is some chance that even a deeply under-funded plan will earn enough returns on its assets to meet its obligations to participants without further contributions from its sponsor. Conversely, a plan in surplus—i.e., with assets worth more than promised benefit payments—may yet experience returns poor enough to necessitate additional sponsor contributions in order to make good on benefit promises. Thus, it is simplistic to represent a pension plan for accounting purposes as the difference between the market value of assets and some calculated value of benefits owed.

What matters to the sponsor and its stakeholders is what we’ll refer to for brevity’s sake as “expected contributions”—by which we’ll mean, more precisely, the present value of expected future contributions; i.e., contributions the sponsor can expect to have to make to enable the plan to pay all promised benefits. Considering a few examples, it becomes intuitively obvious that the difference between a pension’s assets and the value of benefits owed is in most cases a poor measure of expected contributions, so defined.

Let’s look first at the case of an over-funded plan, invested in a generic 60%/40% stock/bond portfolio. We ignore future benefit accruals, which we assume will be funded as they occur. The most likely case is that assets will be sufficient to fund all future benefit payments without increasing expected contributions from the sponsor. There are some low-probability yet plausible scenarios in which the value of benefit payments balloons or asset values decline to the point where expected contributions will increase. Expected contributions, as we have defined them, equal the present value of the additional amount the sponsor would have to pay in to make promised benefit payments in a given scenario, times the probability of scenario occurring, summed across all scenarios. In an over-funded plan, they are small, but material.

What impact will dollar change in the value of plan surplus have on expected contributions? The change in expected contributions must be far less than a dollar. A dollar increase in surplus will be useful only in the most extreme adverse scenarios, in which the rest of the surplus has already been eroded. A dollar decline in surplus erodes trivially a substantial cushion that is likely already larger than necessary to meet plan needs in all but the direst (and least probable) of outcomes. Thus, an accounting standard

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that would change shareholders’ equity dollar for dollar with changes in plan surplus represents fluctuations in the net value of the pension plan as a far greater risk to the sponsor than is actually the case.

Suppose now that the over-funded plan invests the bulk of its assets in a dedicated Treasury bond portfolio, which throws off exactly the cash flows needed to make anticipated benefit payments. The left-over assets are invested in a diversified portfolio of risky securities. Although the market values of the dedicated bonds and the calculated liability will move in tandem, surplus can still change as a result of actuarial surprise or volatility in risky asset prices. Yet these changes will have a completely negligible impact on expected contributions, which are in any event very close to zero. The probability distribution of actuarial surprise is very narrow relative to the size of plan surplus; fluctuations in the value of the risky portfolio will have no impact, ceteris paribus, on the plan's ability to meet its obligations. In the case of an over-funded and fully cash flow-dedicated sponsor, changing the sponsor’s shareholder equity by a dollar for a dollar change in plan surplus overstates the impact on shareholders by something close to a dollar.

Next, consider a plan with assets substantially equal to the value of benefits owed. The plan invests its assets in a 60%/40% mix of stocks and bonds. Because there is no cushion of surplus assets to absorb the impact of market value fluctuations, there are many reasonably-probable scenarios in which asset values fall below the amounts necessary to make anticipated benefit payments. Thus, expected contributions are greater than zero, even when plan assets equal the present value of anticipated benefit payments.

A realized dollar change in surplus is more likely to have an impact on expected contributions larger than in our first example. Yet, there are many scenarios in which a dollar loss is recovered, or a dollar gain lost, with no net impact on expected contributions. In a plan that is just fully funded, the odds of either outcome are roughly equal, at least in the short run. Thus, a dollar change in surplus has an impact on expected contributions of meaningfully less than a dollar, perhaps somewhere in the neighborhood of fifty cents.

As we did in the first example, let's now consider the just-fully-funded plan that uses virtually all its assets to build a default risk-free, liability-matched bond portfolio. The only volatility in surplus results from actuarial surprise and is quite modest. Expected contributions are greater than, but much closer to zero than they would be were assets invested in a diversified stocks and bond portfolio.

Finally, consider a plan that is meaningfully under-funded, with assets invested in a 60%/40% stock/bond portfolio. This plan’s surplus climbs out of negative territory only in extremely favorable, low-probability scenarios. In all unfavorable scenarios, surplus declines. Because of this asymmetry, the difference between asset value and the present value of anticipated benefit payments slightly understates expected contributions. However, the degree of understatement is fairly small. A dollar
change in surplus in either direction changes expected contributions by only slightly less than a dollar.

The under-funded plan lacks sufficient assets to create a dedicated liability-matching portfolio, but can use derivatives to completely eliminate interest rate risk. This pushes expected contributions closer to the value of the (negative) surplus, and the impact on expected contributions of a dollar change in surplus closer to a dollar.

Thus, an accounting standard that places marked-to-market surplus directly on the sponsor’s balance sheet most closely describes the economic reality of an under-funded plan. Since the focus of anxieties about current accounting conventions is its tendency to paper over problems with underfunded plans, it is easy to see why such an accounting standard is seen by many as an improvement over the status quo.

The graph in Exhibit 1 summarizes the relationships discussed in the examples above. The vertical axis shows expected contributions, expressed as a percent of the present value of anticipated benefit payments. The horizontal axis shows the funded ratio of the plan—the ratio of asset value to present value of anticipated benefit payments—in percentage terms. The exhibit presents two curves: The magenta assumes that the plan invests in a portfolio that carries a substantial risk of fluctuation in surplus value, say, a 60/40 portfolio. The blue assumes that the plan dedicates or hedges as necessary to offset liability interest rate sensitivity. The curves shown are not based on precise modeling, but drawn simply to illustrate the general relationships we have just discussed.

Modeling the Pension Plan as a Contingent Claim

Expected contributions in Exhibit 1 vary little with funded ratio when the latter is materially above 100%. Sensitivity starts to rise as the funding ratio falls through 100% and approaches a one-for-one relationship for a deeply under-funded plan. At no point do expected contributions go negative; at best they asymptotically approach zero as funded ratio rises to very high levels. At all funded ratios depicted in the exhibit, expected contributions are higher than the difference between liabilities and assets. For any level of funding ratio, expected contributions are higher for the plan invested in a portfolio of risky assets than one that is dedicated (and/or hedged).

Those familiar with option price behavior will recognize that Exhibit 1 looks very much like the value diagram of a put option. The resemblance is not accidental. The essence of the contingent pension obligation is that, if pension assets become inadequate to pay promised benefits, participants in effect have the right to “put” those assets to the sponsor and demand a check for the full amount of the benefits owed. The sponsor has sold this put option, together with any amounts it has contributed previously to the plan, to the participants in partial payment for their labor.
A vast body of theory and experience has accumulated over the past thirty or so years, which has been used to describe even fiendishly complex contingent obligations with rigor, and estimate their value with a high level of accuracy. Techniques used include closed-form analytical models like Black-Scholes and related models, binomial lattice models and their variants, and Monte Carlo simulations. Properly applied, all should converge on very similar valuations of a given pension plan and reveal similar sensitivities to variations in surplus value, and other model inputs.

The pension plan, modeled as a contingent obligation by any of these means, will have the following characteristics:

- The contingent pension obligation is defined as the present value of future contributions that the sponsor can be expected to make to enable the plan to pay out promised benefits.
- The value of the contingent pension obligation can approach zero but never become negative; i.e., the pension plan can never become a net asset. An increase in surplus serves to drive the contingent pension obligation toward zero.
- The contingent pension obligation nearly always will be larger than the difference between the present value of anticipated benefit payments and pension assets. That obviously will be the case when the plan is in surplus since the liability cannot become negative. It will also be true when the plan as a zero or negative surplus. This component of the contingent pension liability's value is analogous
to the time value component in the price of any exchange-traded option. All else being equal, the greater the mismatch in the characteristics of assets and the stream of anticipated benefit payments (i.e., the higher surplus volatility is), the larger the time value component of the contingent pension liability becomes.

The most important characteristic of the contingent pension obligation is this:

- **The value of the contingent pension obligation is less volatile than surplus.**
  - A contingent pension obligation when a plan is in surplus will be much less volatile than the surplus itself.
  - The contingent obligation for a plan that is fully funded (zero surplus) will be roughly half as volatile as the surplus itself.
  - Only when a plan is substantially under-funded will the contingent pension obligation be nearly as volatile in value as the surplus itself.

The accounting representation of pension plans should reflect these characteristics.

**From Model to Accounting Representation**

What accounting conventions will enable sponsors to represent their pension plans accurately as contingent obligations on their financial statements? The central rules necessary to do so would be quite simple:

- The contingent pension obligation is always a liability for accounting purposes, recorded at its modeled value as of the statement date;
- An increase (decrease) in this pension liability is included as expense (income) on the sponsor’s income statement;
- Contributions to the plan are an expense in the period the sponsor makes them. They are offset in part by the resulting decline in the value of the pension liability.

Net pension expense or income could be broken down into a number of sub-components in a footnote to the income statement, to reveal the marginal impact of individual factors on the overall change in the reported pension liability:

- Sponsor contributions to the plan
- Actual market return on assets
- Changes in liability value due to changes in market interest rates
- Change in liability value due to actuarial surprise
- Change in liability value due to passage of time (e.g., interest expense accrual)
- New benefit accruals
- Changes in expected surplus volatility due to changes in assumed market volatility
- Changes in expected surplus volatility due to changes in asset allocation

Mr. Robert Herz, Chairman
April 3, 2006
Page 6
We will discuss the impact of these factors on the sponsor’s financial statements in the next section, “Advantages of the Contingent Obligation Approach to Accounting for Pension Plans.”

Naturally, it will be necessary to determine on which definition of the pension cash outflows, accrued only or projected, the reported pension liability should be based. Let’s tilt at that particular windmill in an Addendum to this letter. The key observation for our immediate purposes is that we can base a contingent liability measure of the pension plan on any definition of pension benefits owed.

Transition rules would be desirable to eliminate gross discontinuities created by implementing a contingent liability-based accounting standard. Most notably, the pension liability in a contingent obligation framework is likely to be larger than mark-to-market surplus (and especially for sponsors with positive surplus who would report a net pension asset under FASB’s proposed Phase 1 rules). Creating an intangible asset to offset this upward restatement of the pension liability, to be amortized to the income statement over a number of years and disappearing thereafter, would mitigate this problem.

More subtly, because the pension liability is higher when surplus volatility is greater, an opportunistic sponsor could raise the risk of its asset allocation just before moving to a contingent obligation-based accounting standard, pumping up the reported pension liability and intangible asset values. By subsequently lowering the risk of the asset allocation, this sponsor could artificially inflate reported income in the period after implementation of the new standard. Adjusting the intangible asset during the transition period to offset the effects on the contingent pension liability of changes in asset allocation, rather than allowing them to flow directly through the income statement, would blunt the impact of this sort of tactic.  

Advantages of the Contingent Obligation Approach to Accounting for Pension Plans

There are four principal advantages to accounting for pension plans as contingent obligation of the sponsor, rather than simply as the net of assets and liabilities:

Appropriate smoothing. As emphasized in the previous section, the most important advantage to accounting for a pension plan as a contingent obligation is that doing so would smooth the impact of volatility in the value of plan surplus on earnings and

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4 This component could be done away with by establishing a conventional sequence in which impact of various events are evaluated for accounting purposes.

5 Even without accounting provisions to discourage it, manipulating the asset allocation for the benefit of the sponsor violates the exclusive benefit principle implied by ERISA and expose the sponsor to charges of breach of fiduciary responsibility.
Mr. Robert Herz, Chairman
April 3, 2006
Page 8

shareholder equity, automatically varying the degree of smoothing to reflect the actual
degree of risk to which the plan exposes the sponsor. The over-funded sponsor, having
amassed a surplus cushion to insulate its plan from adverse outcomes, would rightfully
report little balance sheet or income statement impact from fluctuations in the value of
assets or benefits owed. The sponsor with no surplus cushion, or a funding gap, would
find that surplus volatility was reflected in its financial statements to a much greater
extent.

Automatic adjustment of value for risk. In a contingent obligation framework, the size
of the reported pension liability is in part a function of the volatility of surplus. The
degree of mismatch between assets and the present value of anticipated benefit payments
determines surplus volatility for the most part. Thus, a plan with an aggressive asset
allocation will report a larger pension liability than a similarly-funded plan with a more
conservative asset allocation and lower volatility of surplus. This eliminates an oft-cited
flaw in FAS 87, treatment of asset risk premiums as though they were earned with
certainty.

Accounting relationships that support appropriate contribution policy. Under FAS
87, pension expense is not affected by whether or how much the sponsor contributes to
the plan. In a contingent liability framework, the sponsor’s contribution to the pension
plan will affect recognized pension expense, but by an amount that will vary with the
funded status of the plan. The reason for this is that both contributions to the plan and
changes in the pension liability flow through the income statement. While the
contribution is fully expensed, its result is reduction of the pension liability, which
partially offsets the expensed contribution. In an under-funded plan, the contingent
liability is relatively sensitive to changes in funded ratio, whether from asset returns,
growth in anticipated benefit payments, or new contributions. A dollar in contributions
might result in a 70 cent decline in the contingent liability, resulting in a net expense of
only 30 cents. In an over-funded plan, the contingent liability is relatively insensitive to
the impact of new contributions. Consequently, a dollar contribution to the already over-
funded plan might change the contingent liability value by only 30 cents, resulting in a
net expense of 70 cents. In accounting terms it is inexpensive to contribute to an
underfunded plan and increasing expensive to contribute to an already over-funded plan,
an intuitively appealing outcome.

The attractiveness of contributing to an under-funded plan is increased further by the
relatively large reduction in future financial statement volatility that results. This benefit
diminishes at the margin as the plan becomes better funded, again making contribution to
an underfunded plan more attractive and contribution to an already over-funded plan
relatively less attractive.

Consistency with the public interest. A pension for life is an asset that should be prized
by those in a position to earn it and recognized as a bulwark against financial insecurity
by policy makers. The cost to participants of insuring an equivalent benefit against their
Hi, George,

Thank you for the opportunity to continue my discussion about the benefits and opportunities presented by the current economic environment and the need for innovative solutions to the problems we face. Russell is very happy to be part of the team and to be able to work with such a talented group of professionals.

I look forward to our meeting next week to discuss the possibilities for further collaboration on the project.

Best regards,

[Signature]
Addendum
Defining Liability Cash Flows

Stakeholders in companies that sponsor defined benefit pension plans are best served by adopting an accounting measure of benefits owed that is based on accrued, rather than projected benefit obligation cash flows. The distinction arises when the benefit formula includes years worked times final average pay. The accrued benefits approach is to measure benefits by plugging years worked to date times current average pay into the benefit formula. The projected benefits approach plugs into the benefit formula current years worked and an estimate of the final average pay the employee would earn if he or she worked until retirement. FASB's first-phase revision of pension accounting rules requires use of the projected benefit obligation in calculating the net pension liability or asset. Here are four reasons an accrued benefit approach is more appropriate, whether in the standard FASB appears to be moving toward or in a contingent liability framework:

1. **No legal obligation exists beyond what has accrued.** Sponsors voluntarily offer employees the opportunity to earn pension benefits. At any time before the employees fulfills the requirements for earning the benefits, the sponsor may withdraw its offer by freezing or terminating its plan. The projected benefit obligation lumps together benefits the sponsor is contractually obligated to pay with those employees have not earned and which the sponsor can decide at will no longer to offer. In recent months the trend toward freezing DB plans has accelerated dramatically, underscoring the voluntary and easily-revocable nature of the defined benefit offer.

2. **Recognition and economic event are best synchronized at the time of accrual.** Again, the event that makes a pension promise binding is the employee completing a period of work at some level of pay. The fact that the increment earned is a product of years worked and current pay means that the benefit the employee is eligible to earn becomes bigger each year for a typical employee receiving an annual raise. That does not mean that the economic event converting the promise into an obligation did not occur entirely in the period the participant actually worked to earn the benefit. It is specious in the extreme to argue that the presence of cumulative past service in the benefits formula make it into a time machine that transports future work into the past.

3. **Conservatism: In whose eyes?** The strongest argument in favor of a projected benefit approach is that accounting principles demand conservatism. Traditionally, this has meant conservatism from the perspective of shareholders: stating assets at the lower of cost or market, and stating liabilities at a larger rather than smaller value if there is reasonable ambiguity. Typically, a projected benefit obligation will be larger than the corresponding accrued benefit obligation in an ongoing plan. However, in the case of pension plans, shareholders are not the only ones to read accounting statements. The plan's position matters equally to participants and regulators. A measure of the pension obligation that includes some portion that can be withdrawn by the sponsor at its discretion deserves participants in the same way that an inflated measure of assets would deserve shareholders.
4. The choice has no implication for regulatory funding policy. The accounting profession's priority must be to portray firms' economic values as objectively, transparently, consistently, and accurately as possible. Its decisions with respect to pensions need have no impact on the objectives of regulators or public policy, who may wish to encourage funding ahead of accruals, minimize the exposure of the PBGC, etc. A revision to ERISA regulations can define the liability or minimum funding requirement differently than generally accepted accounting principals to accomplish these objectives. This does not make using ABO as the building block of a pension accounting standard any less correct or useful.