A Towers Perrin Proposal for Pension Funding Reform

In just under 12 months, temporary funding relief for defined benefit plans — now in its third year — will expire. As consulting actuary to many of the employers who sponsor these plans, **Towers Perrin urges plan sponsors, the administration, Congress and the PBGC to work together to permanently resolve the regulatory framework governing pension funding.** Failure to do so threatens the survival of a voluntary system that provides lifetime financial security for millions of U.S. workers. This paper is the first in a series outlining our recommendations.

Between 2000 and 2002, sharply declining investment returns and low interest rates converged to push pension plan assets down and liabilities up, sending funded ratios to their lowest levels in decades. Congress responded by enacting temporary (two-year) funding relief in 2002 in the Job Creation and Workers Assistance Act. A second temporary relief measure — the Pension Funding Equity Act — was signed into law in 2004 and is set to expire at year-end.

While stock market performance has been more favorable in the last two years than in the prior three years, pension financing issues haven't gone away. Interest rates remain low relative to historical levels, and many plans are still substantially underfunded. Pension expense and contribution requirements continue to be volatile (and produce unpleasant surprises) in many organizations, and volatility is likely to increase if new accounting rules take effect.

In fact, the overall climate for defined benefit plans is as stormy now as it was a couple of years ago. In recent months, for example, financial pressures have prompted several high-profile employers to terminate plans with large unfunded liabilities — with resultant burdens on the PBGC, plan participants and remaining plan sponsors. Continuing uncertainty over the future of cash balance and other hybrid plans has further clouded the picture.

While we strongly support clarification of the design issues surrounding cash balance plans, our goal here is to underscore the importance of resolving critical funding issues as soon as possible and to put forth a suggested regulatory framework. Absent timely and thoughtful action, more and more employers may move away from defined benefit plans.

This paper is the first in a series we will publish as the debate on pension funding reform unfolds. In the pages that follow, we'll lay out six core principles that we believe provide a sound basis for a new and workable approach to pension funding. Our second installment will focus on specific provisions for determining minimum funding requirements and tax-deduction limits. We'll also review options for change at the PBGC, including the calculation of premiums, PBGC financial reporting requirements and policies affecting terminating plans. Our third installment will cover possible approaches to facilitating the transition from the current to the new rules.

SIX CORE PRINCIPLES

We believe a new approach to pension funding based on the six core principles outlined below will successfully address — and balance — the interests of participants, plan sponsors, governmental entities, shareholders and other stakeholders.

- A single measure of plan solvency — one that is simple, transparent and market-based — should drive the minimum funding rules, tax-deduction limits, PBGC premiums, all pension plan disclosures and other pension regulations.
- The intent of the funding rules should be to maintain solvency over time, with the long-term funding target set at 100% of the solvency measure.
- To ensure that funding requirements are understandable and produce predictable and stable results, we must eliminate the discontinuities and cliffs associated with current funding requirements and develop new actuarial smoothing techniques and amortization rules.
- As we transition to a new system based on this funding target, sponsors that relied on prior funding rules in good faith must be protected from immediate large, unexpected funding increases.
- Increasing the minimum funding target will increase the likelihood that funds in excess of those needed to provide benefits will accumulate over time. If we expect employers to maintain plans that are fully funded on a solvency basis, we must provide more ability to use surplus funds for other purposes.
- Permanent funding reform should be designed to balance the needs of all plan sponsors, the concerns of the government and the taxpayers, and the security of pension promises in the U.S. over the long term for as many plan participants as possible. The immediate threat that pension funding requirements pose for specific employers in certain financially troubled industries should be addressed as a separate issue and should not drive a long-term funding solution.

In addition to greatly simplifying the current pension funding rules, a new regulatory framework built on these six principles will:

- enable plan sponsors to better manage the financial risks associated with defined benefit plans
- make it easier for plan participants, regulators and other stakeholders to measure and assess the financial health of a pension plan and the security of the pension promise
- reduce the incidence of underfunding, thus reducing the need for government bailouts.

PRINCIPLE ONE: A SINGLE, SOLVENCY-BASED LIABILITY MEASURE

Under current rules, the size of the liability associated with a particular pension plan depends on who wants to know and why. Minimum funding rules and tax-deduction limits are determined based on two separate measurements of liability. PBGC premiums are determined on the basis of another measure of liability, while yet another measure triggers special PBGC disclosure requirements. Myriad other measures come into play depending on whether an employer needs to convert annuity benefits into lump sums, demonstrate compliance with the nondiscrimination rules, calculate FICA tax amounts for nonqualified deferred compensation payments, prepare plan financial statements or determine benefit amounts payable on termination of an underfunded plan.

What's more, *none* of these "definitions" of liability requires a market-based measurement of the value of benefits accrued to date. In our view, this measure is the best available indicator of plan solvency — one that is simple, transparent and market-based. We believe it should govern the minimum funding rules, tax-deduction limits, PBGC premiums, all pension plan disclosures and other pension regulations — and we have shaped our proposal accordingly.

The measure of current liability introduced in the Pension Funding Equity Act of 2004 provides a good starting point. This legislation measures current liability by discounting expected future cash flows for currently accrued benefits (based on demographic assumptions that presume an ongoing company and pension plan) at an interest rate based on the yield on high-quality corporate bonds.

In responding to concerns about potential volatility, the framers of the Pension Funding Equity Act specified that liabilities were to be measured based on a weighted average of bond yields over a four-year period. We believe this approach, though well-intentioned, is counterproductive. Instead, we think the funded status of a pension plan as of a particular date should reflect the difference between the market value of plan assets on that date and plan liabilities calculated as of the same date. Requiring measurement on any other basis provides a distorted view of funded status.

Consider a plan sponsor that would like to invest a portion of plan assets in a way that "matches" the value of its liabilities, so that funded ratios and contribution requirements become more stable. If the expected cash flows that comprise its liabilities were discounted based on corporate bond yields on the valuation date, the sponsor could invest some portion of plan assets in corporate bonds whose value would rise and fall in tandem with its liability measurement. Under current rules, however, liability measurements are based on a weighted average bond yield. Because there are no assets available whose values rise and fall with the movement of a weighted average yield, the sponsor has little ability to implement an investment policy that would stabilize its funded ratio and contribution requirement.

The conflicts created by multiple definitions of liability also make it very difficult for plan sponsors to address and manage financial risks in any meaningful way. Different liability measurements respond differently to changes in interest rates and other capital market conditions. A sponsor that decides to "match" investments with any one measurement of liability will therefore, by definition, create a mismatch with other measures.

PRINCIPLE TWO: A 100% FUNDING TARGET

From a public policy perspective, it's hard to argue for any funding target other than 100% funding on a solvency basis, because a lower target increases the risk that plans will have insufficient assets over time to meet their obligations. If a financially distressed plan sponsor terminates such a plan, there is an increased risk that the PBGC will have to step in. Nonetheless, current rules set the funding target for current liability at 90% — largely for two reasons.

- While solvency liability measurements assume that 100% of the assets are in fixed-income investments, a diversified pension investment portfolio may produce a higher return than that necessary to maintain the required level of funding, increasing the likelihood that the plan will become overfunded in the future.
- The rapid amortization requirements that apply to unfunded current liability often create significant increases in contribution requirements. The 90% (and 80%) thresholds that exist today are intended to give plan sponsors some relief from the full burden of these increased contributions.

Because we believe full funding on the basis we're proposing is a desirable outcome, we would reset the funding target to 100% to drive plans to full solvency over time, assuring that they will have sufficient assets to provide the promised benefits. We recognize that a mandate for rapid full funding on a market-value basis could create serious issues for some plans, and our third principle addresses those issues.

PRINCIPLE THREE: RATIONAL CONTRIBUTION REQUIREMENTS, STABLE AND PREDICTABLE RESULTS

Plan sponsors are not likely to accept the volatile and potentially large minimum funding requirements that could be triggered by rapid funding toward the 100% target — something that is most probable during a business downturn. In the absence of smoothing techniques and reasonable amortization periods, an asset allocation strategy weighted heavily in favor of fixed-income investments could be the only option for employers seeking to mitigate contribution volatility in these circumstances.

Unfortunately, such a strategy could also add significant long-term costs to the plan if, over time, the equity markets provide a higher overall return than the bond markets. There are risks associated with the possibility of higher returns through investments in equities, of course. The real question is whether plan sponsors would be willing to assume those risks *and* the risk that they might have to meet a large and unexpected funding requirement.

We believe that actuarial smoothing techniques are clearly needed to allow plans to move gradually toward full funding without being subject to extreme volatility in funding requirements. We also believe the smoothing techniques currently in place are unnecessarily complex and ineffective. Under existing pension funding requirements, for example, unfunded pension liability can be measured using a “smoothed” value of assets that spreads the impact of favorable and unfavorable investment returns over time. The two separate liability measurements that are used to determine funding requirements are similarly smoothed. One (the “actuarial liability”) is measured using an interest discount based on the long-term return expectations for the fund. The other (the “current liability”) is measured using an interest discount based on four-year weighted average bond yields.

Amortization of unfunded pension liability under current rules is also ineffective at achieving full funding. Unfunded actuarial liability is divided into as many as seven different categories, some with multiple components. Each component has its own amortization period for determining the necessary minimum payment toward the unfunded liability. Not surprisingly, the resulting net amortization amount may have no logical connection to the plan’s unfunded liability amount. For example, unfunded amounts may actually grow (at least temporarily) as a result of the way the unfunded amount is divided into its component parts.

The amortization of unfunded current liability is just as complex and questionable. In theory, the sponsor is required to make a single payment based on the unfunded amount (without regard to separate categories and amortization bases); in reality, the many discontinuities and cliffs in the rules often produce different results. Amortization payments can be skipped entirely if funded status in past years meets certain threshold requirements. While amortization amounts are set to a 100% target, the contributions required to meet that target are cut off when a 90% threshold is reached.

Credit balance provisions under the current funding rules can also create problems. In an attempt to encourage plan sponsors to fund more than the minimum required amount and assist them with cash flow planning, ERISA’s minimum funding rules call for maintenance of a historical record of payments made to the plan in excess of the minimum funding requirements and allow plan sponsors to apply these credits to meet future funding requirements.

In effect, a credit balance — which never expires and is credited with an assumed rate of return until it is used — allows sponsors of underfunded plans to “unfund” the amount of “prior overpayment” instead of contributing toward the current unfunded amount. We recognize that many sponsors are willing to fund in excess of required amounts because the resulting credit balance does, in fact, facilitate cash-flow planning, and that some sponsors will be less inclined to fund beyond minimum requirements without this incentive. Nonetheless, we believe that the ability to meet current funding requirements by using credit balances should be subject to limits.

So how can we target 100% funding of a market-based solvency liability and still protect sponsors from unpredictable and unstable funding requirements? Possibilities include the following:

- Instead of separately smoothing asset values and the interest rates used to measure liabilities, we recommend that market-based funded ratios be determined before results are smoothed over a number of years. Our analysis indicates that this approach can dampen volatility in contribution requirements as effectively as the approaches in use today, while eliminating the need for multiple asset and liability measurements that aren't connected to the capital markets. Smoothing within a market-based framework would make it easier for plan sponsors to use investment strategies to hedge against the risk of large unfunded solvency liabilities — something that's impossible to do under current rules.

- Because pension plans represent long-term financial commitments, we believe that a move to a market-based funding measure and a 100% funding target must be accompanied by longer amortization periods than those that now apply to current liability. Failure to do so would produce highly volatile contribution requirements or force plan sponsors to make greater use of fixed-income investments that would increase the expected long-term cost of their plans.
- While we would retain the credit balance concept to encourage sponsors to fund their plans, we would impose limits — allowing sponsors to maintain balances for a specified period, for example, or expressing minimum funding requirements in terms of payments made over a period of several years instead of separate annual payments.

Appendix I (page 9) shows projected contribution requirements and solvency funded ratios under different scenarios for a typical final pay pension plan that:

- is initially 90% funded when liabilities are measured against a market-based solvency standard (roughly matching the situation for today's typical large plan)
- employs a typical investment strategy, with 60% of assets in equities and the remaining 40% in market-duration bonds.

We modeled minimum funding requirements and funded ratios under the current rules and under alternative rules based on the principles we outlined above (i.e., 100% solvency liability as the funding target, smoothing of funded ratios over time and a reduced amortization rate for unfunded liabilities).

Our modeling produced the following results:

- Average contribution requirements under the revised rules are slightly higher than under current rules.
- The range of potential future outcomes is narrower under the revised rules, which eliminate the largest contribution requirement and the lowest funded ratio outcomes.
- The revised rules reduce the incidence of large year-to-year increases in contribution requirements.

We also validated our premise that the approach we outlined above allows the sponsor to more closely match fixed-income investments and liability values, further reducing the risk of large contributions and low funded ratios, and reducing the year-to-year volatility of contribution requirements.

PRINCIPLE FOUR: A THOUGHTFUL APPROACH TO TRANSITION

We strongly believe that plan sponsors that funded plans in good faith under prior rules must be protected from large, unexpected funding increases as we transition to a new system.

The credit balance concept helps illustrate this point. Earlier, we suggested that it would be reasonable to limit the growth of a credit balance and the time period over which it can be used under the new regulatory framework we've outlined. But some plan sponsors have already been funding at significantly above-minimum levels for the express purpose of generating a credit balance and making future contribution requirements more predictable. We believe it would be unfair to impose new limits on credit balances that were generated in good faith, for good business reasons, under existing law.

It also makes sense to consider opportunities to phase in a new regulatory framework. For example, we might begin the transition with an interim minimum funding requirement, setting it somewhere between the old and the new levels (but quickly moving toward the new level for the sake of simplicity and transparency).

PRINCIPLE FIVE: ACCESS TO PENSION SURPLUS

While an investment portfolio of high-quality corporate bonds would generate returns sufficient to fund projected benefit payments under a market-based liability standard, most plan sponsors invest heavily in equities in the hopes of higher returns. Thus, a requirement to fully fund a solvency-based liability will probably create pension surpluses at some point, as we illustrate in Appendix II (page 11). Our simplified analysis indicates that for the plan in question, a typical 60/40 investment portfolio is likely to produce returns in excess of the liability growth rate, and thus raise expected funded ratios above 100% over a period of years. If future outcomes are more favorable than expected, surplus assets reach levels that would be difficult for a plan sponsor to use for the sole purpose of providing pension benefits. Under current law, however, sponsors have little ability to access and use surplus pension assets for anything other than providing future pension benefits.

If the funding target is increased to 100% on a solvency basis, we believe plan sponsors must be able to use surpluses generated by favorable investment returns and/or higher interest rates that reduce liabilities if we expect them to continue providing benefits. Failing to allow for the use of excess funds will impair plan sponsors' willingness to proactively fund their plans, and their rationale for setting effective investment policies. The possible consequences — reduced plan solvency and higher long-term costs — could prompt some sponsors to reconsider whether they should be providing pension benefits at all.

Simply put, if Congress moves to a higher, solvency-based funding target under a voluntary pension system, it must provide sponsors with the ability to use surplus funds.

PRINCIPLE SIX: A FOCUS ON THE GREATER GOOD WHILE BEING SENSITIVE TO CERTAIN INDUSTRY ISSUES

The capital market turbulence of recent years has resulted in a number of major plan terminations involving large unfunded pension liabilities — typically in companies in financial trouble. Many observers are concerned about the possibility of additional terminations in cases where cash-flow problems make it difficult for plan sponsors to meet immediate funding requirements. If we don't want these sponsors to terminate their plans, it may be necessary to grant deferrals of funding requirements that go beyond those generally available under current law.

In order to avoid a significant increase in PBGC obligations, we encourage the government to explore alternative funding arrangements for companies that will face severe business problems if they have to meet minimum requirements. Any such arrangements should be worked out on a company-by-company or industry basis, however. By contrast, a new regulatory framework for pension funding in the U.S. can't succeed unless it addresses — and balances — the current and future needs of the widest possible number of plan sponsors and their participants.

As we noted earlier, we've modeled the financial impact of a new set of funding rules, based on the six principles we've outlined, on a variety of pension plans (see pages 9 and 10). In our next paper, we'll share more results of our analysis and identify specific approaches for determining funding requirements and deduction limits. We'll also review options for change at the PBGC, including the calculation of premiums, PBGC financial reporting requirements and policies affecting terminating plans.

Appendix I: Testing Our Funding Proposal

To test the potential effects of our proposed framework, we simulated minimum contribution requirements and solvency-based funded ratios under a possible funding structure developed in line with the principles discussed in this paper. We then compared these results to those produced under current funding rules for a traditional pension plan with the characteristics, funded status and investment policy typically found in large plans today.

Using forecasts that simulated the effects of varying future capital market conditions over the 10-year forecast period, we examined:

- the level of required contributions, and the predictability of these requirements from year to year, if the sponsor funds based on minimum requirements
- the extent of improvements in funded status under the new rules we've proposed, and the frequency with which funded status on a solvency basis falls below certain thresholds, if the sponsor funds at minimum required levels.

If our proposed regulatory structure can improve funded status without creating burdensome and problematic contribution requirements, many would judge it successful. But success also hinges on the ability of plan sponsors to deploy an investment policy designed to improve financial results. Thus, we also tested the impact of a simple investment policy change that might be expected to improve the plan's risk/reward performance — a switch in the duration of the plan's 40% fixed-income component from "market duration" to longer-duration bonds.

Contribution Results (% of pay)	**Current Rules**	**Revised Rules**	**Revised Rules With Longer-Duration Bonds**
Average contributions	7.4%	8.6%	7.7%
10th to 90th percentile range of contributions	0%–21%	0%–16%	0%–15%
Probability of contribution exceeding 20% of pay	11%	4%	2%
Probability of annual contribution increase of 10% of pay (or more)	7%	4%	3%
Funded Status Results (solvency basis)	**Current Rules**	**Revised Rules**	**Revised Rules With Longer-Duration Bonds**
Average funded status	90%	98%	99%
Probability of funded status below 75%	14%	5%	2%

The results over a 10-year forecast period are summarized in the table above, followed by some observations.

- On average, minimum required contributions are only slightly higher under the revised rules than they are under current rules, especially if longer-duration bonds with higher longer-term expected returns replace the current investments in "market duration" bonds.

- The range of contribution requirements is smaller under the revised rules than under the current rules. In other words, the likelihood that contributions will be significantly higher than expected has been reduced.
- The expected funded status of the plan over the 10-year forecast period is higher under the revised rules.
- The range of simulated funding percentages over the forecast period is smaller under the revised rules than under the current rules. In other words, the likelihood that the funded ratio on a solvency basis will be significantly lower than expected has been reduced, especially if longer-duration bonds, whose value changes in tandem with the solvency liability measurement, replace current investments in "market duration" bonds.

Appendix II: Using Surplus Assets

Towers Perrin believes that funding rules should be designed to move plans closer to 100% funded on a solvency basis at all times, and that liabilities should be measured for this purpose using interest rates based on high-quality corporate bond rates.

Under this approach, the value of plan assets could grow over time to an amount far larger than plan liabilities. To illustrate, consider a plan that is currently fully funded on a solvency basis, with assets exactly equal to liabilities. To isolate the relative growth of the assets and the liabilities, assume the plan is frozen (with no new benefits accruing) and that no new contributions will be made. Plan assets are invested in a traditional mix — 60% equities and 40% fixed income.

Using Towers Perrin's capital market assumptions and our pension forecast software, we projected funded status outcomes for this plan. In the chart below, funded status results from the 10th to 90th percentile are depicted in the "floating bars" for five and 10 years out. The mean (average) ending funded status for all trials is shown on the top of the floating bars that depict the range of results. On average, the plan becomes 107% funded after five years and 114% funded after 10 years. There is also a meaningful possibility that the plan will be even more significantly overfunded in 10 years. More specifically, there is a 10% probability that assets will be 150% of liabilities within 10 years, and a 25% chance of a 30% surplus in that same time frame. Of course, it is also possible that the plan would become less than 100% funded without additional contributions (for example, there is a 10% chance that the plan would be less than 80% funded after 10 years). Naturally, under these circumstances, the employer would be required to make contributions under funding rules consistent with our basic principles.

We believe that sponsors shouldn't be asked to fund toward 100% solvency unless they're able to make alternative use of any surplus assets that might be generated in the future by the funding framework. Failing to allow for the use of excess funds will impair plan sponsors' willingness to proactively fund their plans and undermine their rationale for setting effective investment policies. The possible consequences — reduced plan solvency and higher long-term costs — could prompt some sponsors to reconsider whether they should be providing pension benefits at all. Thus, allowing employers to access pension surpluses is a core component of our proposed regulatory framework.

Projected Solvency Funded Ratio for Plan With Typical Investment Portfolio