A Towers Perrin Proposal for Pension Funding Reform: Part II

With temporary funding relief for defined benefit plans set to expire at year-end, the Bush administration's package of funding reform proposals is an important step toward resolving some of the problems that threaten the survival of our voluntary private pension system. While the proposal would greatly simplify the current funding rules, many plan sponsors are understandably concerned about its potential financial impact in terms of added contributions and PBGC premiums. We believe it's possible to address these concerns while still improving the funded status of the nation's defined benefit plans. In this, our second of three white papers on pension reform, we explain how.

Like the administration and many other participants in the ongoing debate over the pension funding rules, we believe that any new regulatory framework should:

- reduce the incidence of underfunding and thus improve the financial status of the PBGC
- greatly simplify the current rules
- 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.

But we also believe that *reform can't succeed unless we achieve these objectives at a cost that plan sponsors will consider affordable.* Thus, our proposed approach, based on the six core principles outlined in the box, is also aimed at preserving a robust defined benefit system by enabling plan sponsors to better manage the financial risks associated with their plans.

Six Core Principles

In our view, a new approach to pension funding based on the principles outlined below will successfully address and balance the interests of participants, plan sponsors, governmental entities, shareholders and other stakeholders.

- use of a **single, market-based measure of plan solvency** in all pension regulations
- a **funding target** equal to 100% of this solvency measure
- rational contribution requirements that produce **stable, predictable results**
- more tax-effective **uses for pension surplus**
- thoughtful **transition** provisions
- alternative funding arrangements that address the **special needs** of employers in financially troubled industries.

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In this paper, we'll offer specific recommendations on liability measurement, minimum funding requirements and deduction limits, and contrast these with current law and the administration's reform proposal. We'll also propose changes to strengthen the PBGC and expanded participant disclosure requirements. Our third and final installment will cover possible approaches to facilitating the transition from the current to a revised funding structure.

MEASURING PLAN LIABILITIES

As we noted in our first paper, it's difficult for plan sponsors to manage assets and liabilities effectively under a regulatory structure that treats plans as well funded under some measures and poorly funded under others. Under current rules, employers are required to use two different liability measures to determine contribution requirements, another measure to determine PBGC premiums, another for lump sum conversions, another for demonstrating nondiscrimination compliance and yet another to calculate benefit amounts payable upon termination of an underfunded plan. What's more, none of these definitions of liability reflects a true market-based measurement of the value of benefits accrued to date — which most pension experts believe to be the most relevant indicator of the financial health of a plan.

Our proposal would replace the current welter of liability measures with a single market-based measure: *the present value of benefits accrued to date, discounted using an interest rate based on high-quality corporate bond indexes published by established financial services firms*. Other assumptions used in valuing this liability for funding and PBGC premium purposes — that is, the "solvency liability" — would be best estimates appropriate for an ongoing plan.

We support use of a single-point-in-time discount rate because we believe the funded status of a 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.* Unlike the current rules and the administration's proposal, this simple and straightforward liability measure:

- tracks capital market results on an immediate basis, enabling plan sponsors to align investment policies with plan liabilities and thereby reduce volatility in the funded ratio measure used to determine plan contribution requirements

- provides desirable transparency, because the component rates are widely available for public review.

The approach proposed by the administration and the temporary funding rules now in effect also refer to high-quality corporate bond yields, reflecting broad agreement that these yields provide an appropriate measure of pension liabilities. But current funding rules base discount rates on a four-year weighted average of long corporate bond yields, while the administration would replace four-year weighted averaging with a yield curve methodology based on 90-day average yields.

In our view, the problem with four-year averaging — and any other liability measure that doesn't track capital market results on an immediate basis — is that it makes it

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difficult for plan sponsors to invest plan assets in alignment with plan liabilities. By investing some portion of plan assets in corporate bonds whose values rise and fall in tandem with liabilities, a plan sponsor can stabilize its funded ratio and thus its contribution requirements. But there is no way to invest assets to align with liabilities determined based on a four-year weighted average bond yield.

The administration's proposed yield curve methodology is intended to make the measure of liabilities at any point in time more precise by varying the measure based upon the average maturity or duration of a given plan's projected benefit payments. But it isn't truly market-based, because it mandates a 90-day averaging period, and yields can change significantly over 90 days. By developing funded ratios that compare liabilities based on 90-day average yields to the market value of assets on a single day, the administration's proposal creates a systematic "mismatch" between assets and liabilities that can't be hedged in the capital markets. Further, our testing suggests that the potential impact of using a yield curve model rather than a single rate is quite limited. As we explain in more detail in the box on page 4, we believe that any increase in precision is insufficient to outweigh the lack of transparency and increased complexity associated with the use of a yield curve model.

Will Our Approach Work?

We tested our proposed funding structure in order to see how it would perform under a wide range of future economic conditions, comparing it to current funding requirements and to the administration's proposal. We found that:

- Compared to the current rules, our proposal results in higher funded levels, fewer instances of severe underfunding, and more stable and predictable contributions.
- While the administration's proposal improves funded levels even more substantially, it does so through much higher and more volatile funding requirements.

Our modeling also indicates that there is a significant chance that funding to a full solvency target will produce surplus assets over time.

Please see the Appendix for more details.

THE FUNDING TARGET

We propose setting the long-term funding target for all plan sponsors at 100% of the solvency liability described above, using the market value of assets to determine the funded ratio. This 100% target — increased from the target of 90% of current liability under current rules — will direct plans toward full solvency over time.

As explained in more detail in the next section, we also recommend replacing the complex and generally ineffective smoothing techniques now in place with new mechanisms to protect plan sponsors from volatility in their contribution requirements.

Once the funding target is increased to 100% of the solvency liability, a second target based on long-term assumptions becomes essentially irrelevant. Thus, we propose to eliminate the funding requirements based on actuarial accrued liability and the funding standard account, and focus on a single standard related to solvency.

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Why Not Use a Yield Curve?

Under the administration's proposed yield curve model, plan sponsors would value benefits using a series of individual spot interest rates, as opposed to a single long bond yield. They would have to match a plan's projected benefit cash flows against these rates and then discount them, rather than discounting all projected benefits at a single rate. Among our concerns:

- Yield curve development is a subjective — and hardly transparent — process. Because published indexes aren't available for all maturity points, yield curves must be developed based on yields available on actual long corporate bonds. But the yields on corporate bonds — unlike those on Treasury bonds — typically vary widely from bond to bond, even within the same quality rating. Many bonds also include call or put provisions that may affect their market yields. And, because the bond market is relatively thin at the longer maturities most relevant to pension plans, spot rates at the long end of a yield curve are largely developed through judgment calls — and how those calls are made can have a major impact on liability measurements.
- The administration's proposed yield curve model is based on a 90-day average of bond yields that lag the market. Yet the assets that are used to determine a plan's funded ratio are valued at their market value on a single day. This creates a systematic "mismatch" between assets and liabilities that can't be hedged in the capital markets.
- When we tested a yield curve approach over a wide range of time periods and plan liability structures, our results revealed that use of this model rather than a single rate has only a limited impact on liability values — typically in the range of plus 1% to 2% for short duration/retiree-dominated plans to minus 1% to 2% for long duration/active-dominated plans.
- While it would have little impact on liability values, the yield curve approach would make actuarial valuations, and possibly plan administration, much more complicated. Current valuation approaches often don't address the expected timing of benefit payments explicitly in situations where benefit values are considered equivalent. But benefit cash flows can't be projected with certainty, because plan participants may retire at different ages and/or elect different forms of benefits or terminate, die or become disabled before retirement.
- Lump sums and other benefit options available to participants may be determined based on actuarial factors that reflect market interest rates in effect at a participant's future retirement date, which implies that the amounts are interest-sensitive rather than fixed in amount. Thus, the discounted value of expected lump sum payments does not appropriately reflect the duration of these benefit commitments.

MINIMUM CONTRIBUTION REQUIREMENTS

Under our proposal, the annual contribution requirement would equal service cost (the value of benefits earned during the current year) plus some portion of unfunded liability. Companies wishing to fund in excess of minimum requirements would be free to do so (see "Maximum Contributions" on page 6), but there would be no requirement to fund over the solvency target.

While we acknowledge the need to achieve full funding over a reasonable period of years, it is important to do so without subjecting plan sponsors to dramatic swings in funding requirements caused by short-term capital market events. We propose to balance these two objectives by introducing the new actuarial smoothing techniques and amortization requirements outlined below.

- Amortization of unfunded liabilities would be required at rates of 10% to 25% per year (reduced from the 18% to 30% requirement under current rules), depending on the degree of underfunding (10% for funding levels of 90% or higher; 25% for funding levels of 60% or lower).

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- We would determine funded percentages for this purpose on a four-year weighted average basis, i.e., 40% of the current-year funded ratio, 30% of the funded ratio determined at year Y-1, 20% of the funded ratio at Y-2 and 10% of the funded ratio at Y-3. The resulting average would be restricted to a corridor of 80% to 120% around the current year's funded ratio.

When there are plan changes during the averaging period, we would apply the increment to liability for each year in the averaging formula as though the plan amendment had always been in effect.

A full funding override would cap contribution requirements when a plan is in surplus on the solvency basis as of the valuation date. The contribution requirement would not exceed service cost less the amount of plan surplus (plus interest to the contribution date).

The administration's approach to improving funded status is much more aggressive. It essentially eliminates smoothing of asset and liability results, and requires the amortization of unfunded liability amounts over a short period of years. Further, it would base funding targets on the financial health of the plan sponsor, escalating contribution and PBGC premium requirements for "at risk" companies — those rated below investment grade (i.e., below Baa) by all rating agencies — whenever funding levels fall.

Like the administration, we believe that improving the funded status of plans on a solvency basis is a desirable goal. But we also know that employers aren't likely to continue to sponsor defined benefit plans if they can't afford the required funding commitments. Unfortunately, the administration's contribution requirements — coupled with the inability of plan sponsors to access surplus plan assets and the elimination of the "credit balance" that can be used to offset future funding requirements — will likely make its proposal appear extremely costly to plan sponsors, and thus threaten the survival of the private pension system the rules are presumably intended to strengthen. Here's why.

- While we agree that using market-based measures for both assets and liabilities is appropriate, it is important to understand that minimum funding based solely on a point-in-time market-based solvency measurement will significantly increase the volatility of reported funded status results for most pension plans.

- In addition to making contribution requirements unpredictable, the proposal is likely to result in contribution levels that bear an inverse relationship to the business cycle. Periods of economic downturn will typically trigger higher contribution requirements, while favorable economic conditions will likely bring smaller contribution requirements or contribution holidays.

- While employers could continue to fund during good economic times, it's unlikely that they would chose to do so if they're not able to access surplus assets. Full funding on a solvency basis will, over time, often produce assets far in excess of those needed to pay benefits. Without tax-effective ways to make productive use of these surplus funds, the administration's reform package is an "all pain, no gain"

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proposition that will discourage funding at anything other than the lowest permitted level.

- The administration's proposal to eliminate the credit balance that is created under current funding rules when a company contributes more than the minimum required amount will also discourage employers from funding at anything other than the lowest permitted level.

- By increasing funding targets and premium payments for at-risk companies, the administration is asking those companies to pay out more money when they're least able to, likely forcing some of them into bankruptcy and prompting others to freeze their plans.

MAXIMUM CONTRIBUTIONS

We believe plan sponsors should be able to contribute additional amounts to their plans when funds are available, to build up a reserve against the shortfalls that may arise during business downturns. We believe the system should allow tax-deductible contributions in amounts sufficient to fund up to 130% of the solvency liability, along with additional amounts to fund for expected salary increases or expected benefit increases for non-pay-related plans. Because we see no strong rationale for reducing pension funding opportunities for plan sponsors that offer separate defined contribution plans, we also recommend that the defined benefit and defined contribution combined plan limit be eliminated.

CREDIT BALANCES

Under the administration's proposal, employers have little incentive to make voluntary contributions. In many cases, a company contributing excess amounts in one year would see no advantage in terms of a reduced contribution requirement in the following year.

One mechanism to encourage companies to fund above minimum required levels under existing funding rules is the creation of a credit balance when they do so. The credit balance represents the amount of employer contributions in excess of minimum required levels in prior years. Credit balance amounts grow with interest over time and never expire.

While this mechanism encourages employers to fund in excess of required minimums, it can also create situations in which poorly funded plans can forgo minimum required contributions due to unexpired credit balances associated with contributions made in the distant past. The administration's proposal would completely eliminate credit balances. We recommend a middle ground.

- We would allow amounts paid in excess of annual contribution requirements to be recognized as prepayments that could be drawn down over the following four years; any portion remaining after four years would cease to have such treatment.

- We would preserve credit balances existing as of the transition date, but phase these out over time.

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- To avoid double counting, contribution requirements would be determined reflecting asset values net of credit balances.

UTILIZING SURPLUS

The administration's proposal would force plan sponsors to rapidly fund toward a conservatively measured solvency liability in order to ensure that there are sufficient assets to cover a possible plan termination. But full funding on a solvency basis will, over time, often result in the accumulation of assets far in excess of those needed to pay benefits in plans following typical pension trust investment strategies.

By failing to offer plan sponsors any significant access to these surplus amounts, the administration is asking them to bear the risk of poor investment performance in the form of higher contributions and PBGC premiums while offering them little reward for favorable returns, since surplus funds that accumulate over time may become captive within the defined benefit trust and potentially valueless. This could prompt plan sponsors to adopt investment policies driven by short-term funded ratio considerations, thus reducing expected returns in the long run, and raising the long-term cost of operating their plans. It's difficult to see how these plans will survive under such conditions.

This is why we believe it's critical to couple the increased funding requirements with new provisions giving plan sponsors expanded uses for surplus. If employers are able to effectively utilize surplus assets above a certain level, they're more likely to be proactive in funding their plans as business conditions permit, thereby reducing the long-term cost of operating their plans while continuing to foster benefit security.

Thus, we strongly recommend that plan sponsors be allowed to:

- use surplus defined benefit assets over a threshold level, such as 120% of solvency liability, for other benefit purposes (e.g., retiree health care, savings plan contributions) without being exposed to tax

- recapture surplus amounts upon plan termination without an excise tax.

THE PBGC

We believe that PBGC variable premiums should be assessed based on the solvency-based liability measure without exceptions or overrides. Given that plan sponsors would have the ability to fund their plans up to at least 130% of this measure, an exemption based on alternative funding measures seems inappropriate. Such a proposal would eliminate certain complications associated with the current PBGC premium structure.

In order to further protect the PBGC, we also propose the following:

- Constrain plans with funded levels below 70% on the solvency basis from improving plan benefits without immediately contributing amounts at least equal to the value of the additional benefits being earned.

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- Require plans requesting funding waivers to curtail benefit accruals during the waiver period. Any forgone benefit accruals could be restored later if the employer made up all waived amounts plus the value of the restored benefit accruals not previously funded.

Reductions in the level of PBGC coverage for certain unfunded benefit provisions may also be appropriate. The most obvious example is shutdown benefits that are not funded on an ongoing basis.

PARTICIPANT DISCLOSURES

Although current law requires plan sponsors to communicate some pension financial information to participants, these disclosures are insufficient to enable them to assess whether or not their pension benefits are actually secure.

We believe participant disclosures on funded status can be both simplified *and* made more relevant and meaningful by requiring plan sponsors to replace the information now provided in the Summary Annual Report with more timely information on the plan's funded status based on the market-based solvency liability. This would incorporate estimated year-end values (similar to what is disclosed in annual financial reports for accounting purposes) rather than the more exact — but much less timely — figures last reported in government filings. We would also encourage plan sponsors to supplement this point-in-time measure with information that provides additional context, such as historical funded ratios or funded status results based on other long-term assumptions, and require that information about insurance coverage provided by the PBGC be included.

ACHIEVING A WORKABLE BALANCE

We believe the administration's proposal will improve pension funding by:

- reducing the incidence of underfunding and thus improving the financial status of the PBGC
- greatly simplifying the funding rules
- making 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.

However, we're concerned that these improvements will come at cost that plan sponsors will not accept. Addressing plan sponsors' concerns about the level and volatility of costs is essential to preserving a robust voluntary defined benefit system and must be part of any proposal on pension funding reform.

We believe that our proposed approach will produce the positive results noted above and *also* allow plan sponsors to better manage the financial risks associated with their plans. More specifically:

- Replacing the current welter of liability measures with a single solvency-based measure will greatly simplify the funding rules.

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- Our modeling shows that raising the minimum funding target from its current level of 90% to 100% of the new solvency-based liability measurement will improve average funded ratios to levels consistent with the administration's proposal.
- Our approach to amortization doesn't include the volatility relief exemptions in the current rules. Our modeling shows that this will reduce instances of severe underfunding to levels comparable to those under the administration's proposal, thereby reducing the potential need for government intervention.
- Our new approach to actuarial smoothing will make contribution requirements more predictable and stable. This approach is especially effective for managing volatility in funding requirements for sponsors that invest in assets that match liabilities, encouraging them to hedge their plan solvency risks.
- Volatility in contribution requirements is further reduced by allowing more gradual funding of pension deficits than the administration proposes.
- Our proposal encourages sponsors to fund at levels above minimum requirements by expanding the use of surplus assets and instituting a limited version of the credit balance.
- Eliminating exemptions from PBGC variable premiums unless the plan is fully funded on a solvency basis, restricting plan improvements for underfunded plans and curtailing benefit accruals for plans receiving funding waivers will reduce the PBGC's financial risks and improve its financial condition.
- Simplifying plan disclosures and making them more timely and relevant will greatly improve financial reporting to stakeholders.

In summary, few observers would dispute the merits of improving the funded status of the nation's defined benefit plans, but the administration proposes to achieve this goal at a price that employers may be unable or unwilling to pay. Because our private pension system is voluntary, any increase in the financial burden of plan sponsorship is likely to further reduce employer interest in sponsoring defined benefit plans. If plan sponsors conclude that new contribution and PBGC premium requirements will put the financial well-being of their organizations at risk, we should expect more companies to freeze or terminate their plans.

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Congress can avoid this outcome, and preserve a system that contributes to the lifetime financial security of millions of people, by addressing and balancing the interests of plan sponsors with those of participants, governmental entities, shareholders and other stakeholders. This requires a regulatory framework that serves to improve benefit security while remaining sensitive to the financial constraints of plan sponsors. We believe our proposal provides that framework.

Any new legislative structure has the potential to create large unexpected increases in funding requirements for some companies. In our third installment, we'll discuss transition provisions that will help bridge the gap between the current and proposed new requirements for companies that have funded plans in good faith under the prior rules.

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Appendix: Testing the Funding Proposals

We ran a stochastic forecast — simulating results under a wide range of capital market scenarios (for inflation, bond yields, investment returns) — and used the results to assess the current funding rules and to measure the impact of adopting the administration's proposal or our proposed approach. We also modeled the impact our proposed approach would have if we increased the duration of fixed-income assets in the portfolio, as we explain in more detail below.

We simulated the impact of the different sets of rules on various types of plans, including final average pay, fixed dollar and cash balance plans. While the results shown in this appendix are those for the traditional final average pay plan, the results for other types of plans are similar.

The table on page 13 summarizes the metrics we selected to highlight the performance of the various funding standards in a number of key areas.

These include:

- *Contribution requirements* — average contribution amounts, how high contribution requirements rise in any future year and their stability/predictability from year to year
- *Funded status* — the percentage of scenarios in which the point-in-time solvency-based funded status falls below certain thresholds, which implies exposing the PBGC and plan participants to additional risk.

The chart shows that the administration's proposal does in fact achieve higher funding levels over time. Obviously, funding that remains consistently at or above the full solvency level over time would be desirable. But funding requirements that are relatively constant over time are also highly desirable — and the administration's proposal entails a considerable increase in contribution volatility.

By introducing contribution requirements based on the *average* funded ratio over time, our approach reduces the contribution volatility created by the administration's proposal — and in fact reduces contribution volatility to levels comparable to what plan sponsors face today. But our approach also increases the plan's funded status substantially over time, almost as much as the administration's proposal does.

As we noted earlier, a critical goal in developing our proposal was to enhance plan sponsors' ability to optimize financial performance through effective asset/liability management strategies. In the simple example here, we merely increased the duration of fixed-income assets in the portfolio without changing the portfolio's bond allocation — resulting in much greater contribution stability.

In short, our proposed approach:

- substantially improves funded status

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- eliminates the additional contribution volatility created by the administration's proposal
- enables plan sponsors to mitigate financial risks through matched investment strategies.

Forecast Parameters

Plan. Reflects a typical final pay-based formula covering a relatively mature plan population. The plan is initially 90% funded on a solvency (mark-to-market) basis, generally aligned with the typical large plan today.

Forecast scenarios. We generated 100 stochastic scenarios for inflation, interest rates and investment returns. Assets and liabilities were consistently derived under each future scenario (i.e., actuarial assumptions and plan experience were calibrated to reflect capital market conditions in each forecast year).

Asset allocation. Set to 60% equity and 40% fixed income.

- Equity investments are spread over U.S. large and small cap, and international stocks.
- Fixed-income investments are primarily in aggregate/core bonds, with an average duration of about five years.

Asset values. Smoothing of asset values was assumed under current funding rules (25% of investment gains and losses were reflected each year).

Contribution policy. Set to the minimum requirement in each year, with no initial credit balances assumed.

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Contribution Results	Current Funding Rules*	Administration's Funding Proposal (for ongoing plans)	Towers Perrin's Proposed Approach	Towers Perrin's Proposed Approach With Long Bonds
Average contributions (% of pay)	7.1%	9.8%	9.0%	8.2%
10th – 90th percentile range of contributions (% of pay)	0% – 19%	0% – 21%	0% – 17%	0% – 16%
Probability of contribution exceeding 15% of pay	17%	29%	19%	13%
Probability of contribution exceeding 20% of pay	9%	13%	5%	2%
Probability of annual contribution increase of 5% of pay (or more)	12%	19%	15%	13%
Probability of annual contribution increase of 10% of pay (or more)	6%	9%	5%	4%
Funded Status Results (solvency basis)				
Average funded status — all years	89%	100%	97%	98%
Average funded status — after 10 years	89%	103%	99%	100%
10th – 90th percentile range of funded status — after 10 years	72% – 109%	85% – 123%	81% – 121%	83% – 119%
Probability of funded status below 90% (any year)	59%	28%	36%	29%
Probability of funded status below 80% (any year)	29%	8%	12%	8%
Probability of funded status below 70% (any year)	8%	< 0.5%	1%	< 0.5%

*including the temporary interest-rate relief passed as part of PFEA

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