The strong performance of nearly all risky asset classes during 2009, as well as significant company contributions made during that year, helped the funded status of U.S. pension plans. According to an analysis by Towers Watson, aggregate pension contributions for the 100 largest plans almost doubled last year, from $15.6 billion in 2008 to $30.8 billion in 2009.1 Those contributions, combined with an average 18-percent return on plan investments, brought the average funded ratio for those plans to 81 percent at the end of 2009 from 75 percent at year-end 2008.

Despite this improvement in funded status and potential Congressional relief regarding contributions, many corporate pension plan sponsors still face high contribution requirements. The cash impact of these requirements likely will come in 2011, and it is a powerful reminder that misallocated pension assets and down markets can lead to staggering cash burdens.

Pension risk management should target crisis prevention, not crisis mitigation. This article presents operating principles designed to help plan sponsors improve risk management and avoid another funding crisis in the future.

A New Set of Investment Principles

We advocate adopting an updated risk-management paradigm for pension plans. This new paradigm is based on new assumptions and techniques that together constitute next-generation pension risk management.

Consider each investment strategy in the context of the plan’s liabilities. The returns and risk of each investment strategy alone mean nothing. The returns and risks of each investment strategy relative to the plan’s liability mean everything. The expected risk and return relative to the liability can be derived because we can estimate the liability’s projected cash flows and the rates used to discount them. We then can estimate a given investment’s excess return and risk relative to the liability, as if the liability itself were the least-risk asset class as opposed to cash (see figure 1.) From there, asset allocation and risk budgeting can be performed relative to the liability in surplus space. Risk in this case then would be defined as funded-status volatility, required contributions, or any other metric that is expressed in an asset-liability context.

Pension sponsors should take no more market (i.e., beta) risk than absolutely necessary to meet plan objectives. The crises within the past 10 years have shown us that market risk has proven to be virtually nondiversifiable, given the economic and capital market integration we have seen globally over the past 20 years. Depending on the total risk budget and desired return, an investor can think in the broadest terms of apportioning that risk budget between market risk exposures and risk exposures that come from

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![FIGURE 1: ASSET-ONLY FRONTIER VS. PENSION FRONTIER](source: Mercer Investment Consulting)
active management—in other words, allocating to alpha and beta risk by separating the alpha and beta components of any given strategy’s risk-return profile. We also would note that taking less market risk does not necessarily equate to shifting all assets into fixed income strategies. It simply means that we need to be more judicious in how we employ market risk.

Use a pension glidepath to govern a plan’s ongoing monitoring and asset allocation. Just as a target date fund’s glidepath governs the systematic adjustment of a retirement fund’s asset allocation over time, a pension glidepath governs how a plan sponsor changes the plan’s asset allocation according to well-defined parameters. The difference is that the trigger for asset allocation changes is the change in the plan’s funded status over time. In other words, asset allocation, total risk budget, and composition of risk (i.e., active vs. market, alpha vs. beta) should be adjusted to reflect changes in plan funded status.

Figure 2 shows how the pension glidepath works the same way that target date funds work to reduce investment risk as participants approach retirement age. With a pension glidepath, the total risk taken by the plan (defined in an asset-liability context, of course) is reduced as the plan gets closer to and then exceeds fully funded status. Furthermore, the pension glidepath calls for an increase in active risk and a decrease in market risk as the funded status improves. Active risk among managers typically features lower correlations, which means that risk reduction is possible through diversification. Figure 2 shows that a pension glidepath would have triggered meaningful risk reduction maneuvers as plans became fully and overfunded in 2005–2007.

A pension glidepath is nothing more than an actionable plan for pension risk management. It clearly dictates what a sponsor will do as funded status changes. All plans have well-crafted investment policy statements covering diversification, delegation of duties, and the like, but most seem to lack hard triggers that govern how and when to make meaningful changes to the asset allocation.

It is worth noting that the cash contributions a sponsor can afford year-to-year also govern the total risk that can be taken, but we’ve made the simplifying assumption that the contribution is fixed and that the returns needed in excess of contributions determine the total risk budget.

Sponsors should use the full suite of tools to reposition an investment program for capital market volatility. Puts and collars on funded status, left-tail risk insurance, dedicated Treasury holdings, liability-benchmark portfolios, overlay/portable alpha techniques, and stress-testing using stochastic scenarios and conditional Value-at-Risk calculations are just a few of these tools. We admit that the asset management industry has done a poor job of explaining these strategies. Plan sponsor education about these techniques has been “one great blooming, buzzing confusion,” as the American philosopher and psychologist William James might have characterized it. This is largely because most asset managers speak to features of products they are trying to sell rather than to the benefits of the investment techniques themselves. Liability-driven investing is not just fixed income, and portable alpha is not just overlaying beta on top of hedge funds. When used together for liability hedging and return generation, these techniques form the genesis of an investment solution.

Asset managers and investment consultants must make these techniques more accessible and approachable for plan sponsors so that plan sponsors can fully employ them in the pursuit of plan objectives. That brings us to our final subject.

From Theory to Practice: An Active Approach to Pension Risk Management

Clearly, managing a plan’s investment program within the new paradigm outlined herein calls for a more dynamic and vigilant approach. How do we get there? By changing plan investment oversight, as well as changing the stakeholders involved in the oversight and governance process.

Today’s most vexing and impactful decisions lie with the plan sponsor and the board of trustees or investment committee. Asset allocation and risk budgeting decisions are made incrementally and intermittently, because too often folks are consumed with tinkering or adding to their mosaic of managers.
It’s not the alpha that influences whether returns exceed the liability growth rate in a given year; rather it’s the index-relative alpha that one hopes, when aggregated, translates into the asset pool growing faster than liabilities.

We propose for your consideration a new paradigm of pension plan management: one that forges a three-way strategic partnership among consultant, plan sponsor, and a few well-equipped, globally capable investment managers working to achieve well-defined plan objectives. Each investment manager would manage a portion of the pension assets in an integrated asset-liability management program reflecting a dynamic asset allocation and risk strategy. Asset managers would be empowered to hire and fire their own internal investment teams, because their success or failure would be judged by whether they perform well relative to a set of plan-level objectives, metrics, and benchmarks. Furthermore, working together, asset managers could coordinate and execute the types of plan-level hedging techniques touched on earlier.

Investment consultants would remain the objective watchdogs, overseeing implementation of these strategic mandates and monitoring the strategic partners with a set of parameters that goes beyond simply alpha or information ratios. Asset-liability modeling, risk management, and global multi-asset investment capabilities would take center stage when comparing managers.

Conclusion
Adopting this new paradigm calls for big changes in the way we do business, but these difficult changes are better than the alternative: waves of plan terminations and periodic pension crises that stress sponsoring entities when they can least afford it. Asset managers and investment consultants must facilitate and support sponsors so this transition occurs quickly and with minimal disruption and principal-agency conflict. Defined benefit plans are worth the effort needed to nurture them back to health. An active approach to pension risk management will help plans get funded—and stay funded.

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Endnote

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