Aon Hewitt
Retirement and Investment

Back to the Future

How the Future of Pension Risk Management Will Differ from the Past

June 2015

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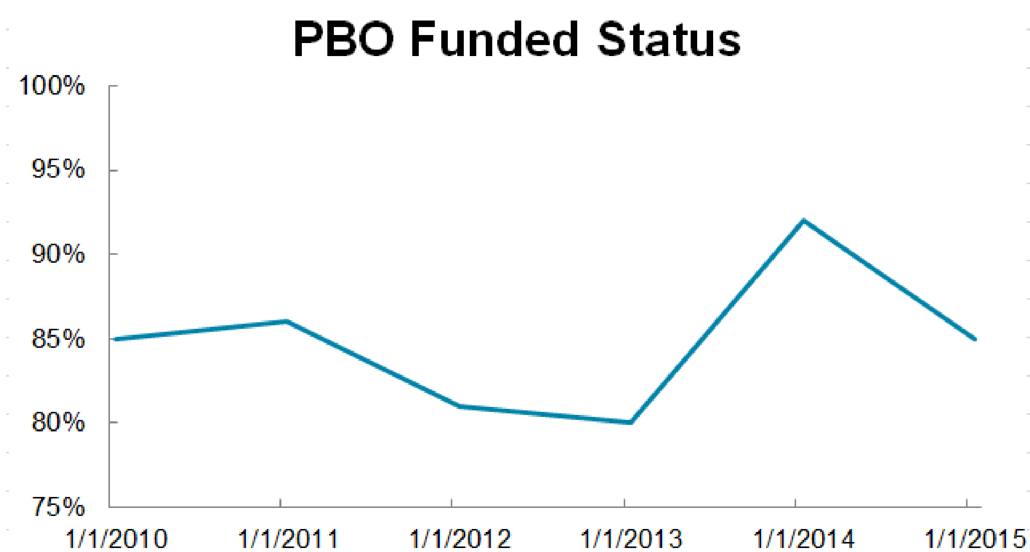
Executive Summary

- In aggregate, average pension plans are no better funded today than at the beginning of 2010.
- During the past five years, equity markets have more than doubled; however, the favorable impacts of this move have been offset by interest rates reaching record lows and mortality updates increasing liabilities.
- On a forward-looking basis, we see a continued stream of headwinds against improving funded status, such as higher PBGC premiums and lower contributions due to funding relief.
- In the future, plan sponsors will likely need to broaden their toolkits to achieve the return goals necessary to close the funding gap, including becoming more market-aware when implementing within asset classes as well as potentially expanding the investment strategies considered.
- Plan sponsors' level of sophistication and ability to manage complexity should influence which strategies are most appropriate, and we outline several possible strategies and the governance needed to implement them successfully.

Introduction

The funded status for the average U.S. pension plan is nearly identical to what it was five years ago, hovering near 85% at the beginning of both 2010 and 2015[1], though the market environment has changed significantly. How should the risk management strategies developed by plan sponsors several years ago be adjusted to reflect today's circumstances?



[1] Source for historical funded status figures: Aon Hewitt's analysis of annual data from the 10-K reports of companies in the S&P 500 with 12/31 fiscal year-ends and reporting U.S. pension financials.

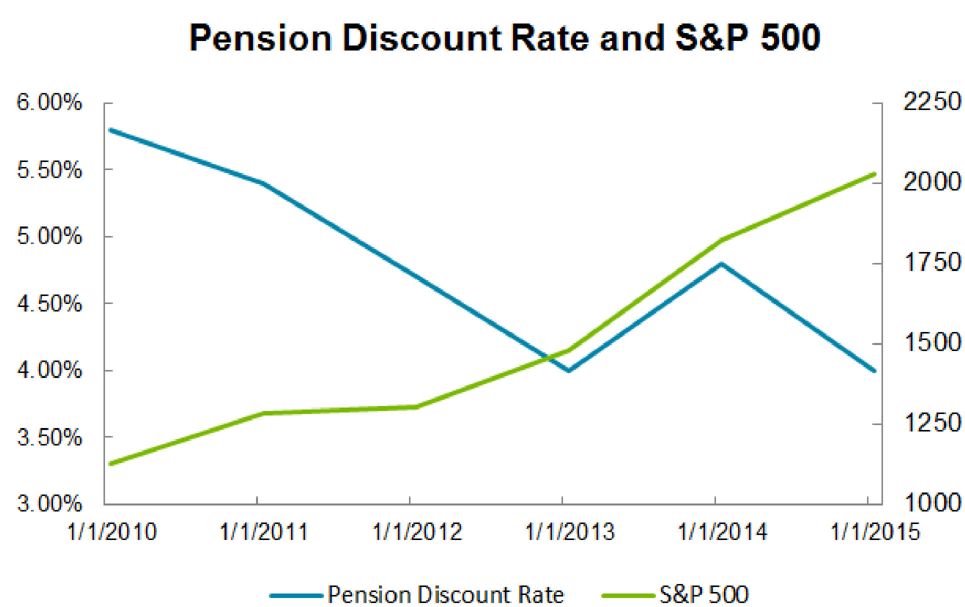
Let’s hop into our time machine and head back to 2010 to remind ourselves from where we came.

At that time, the wounds from the 2008 market crash were still fresh, even though the equity market had rallied significantly during 2009. Many sponsors of private defined benefit plans started crafting de-risking programs, saying “never again” did they want their pension plans to experience an event like 2008. The new, stronger funding requirements from the Pension Protection Act had recently become effective, and plan sponsors were expecting to get to full funding over roughly the seven-year amortization period in that law. Their de-risking programs typically included glide paths that reduced risk as funded status improved, so they expected to ratchet up their funded statuses as they locked in gains and protected new contributions.

The dominos were set up for plan sponsors to move toward full funding and maintain that level. If you asked most plan sponsors at that time about the likelihood of their funded status stagnating during the ensuing five years, most would have said it was slim. If you asked them the likelihood of their funded status stagnating while there was an extended run in the equity market, they probably would have laughed. So what actually happened to create this identical scenario?

There were many factors, including:

- Multiple pieces of legislation that slowed required contributions[2]
- Discount rates dropping to historical lows, driving up liabilities[3]
- Mortality improvements that increased liabilities by about 7% for the average plan



2 Includes the Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010, Moving Ahead for Progress in the 21st Century Act of 2012 (MAP-21), and the Highway and Transportation Funding Act of 2014 (HATFA).

3 Source for discount rates in the graph above: Aon Hewitt’s analysis of annual data from the 10-K reports of companies in the S&P 500 with 12/31 fiscal year-ends and reporting U.S. pension financials. S&P 500 levels are shown at each year-end and are available from S&P.

Equity markets have roughly doubled and bonds have gotten much more expensive—and the typical pension plan funded status has gone sideways. The last five years didn't pan out as plan sponsors expected, and now they need to refine their strategies for the future.

Additional Challenges for the Future

Three major changes in the pension environment have made the challenges facing plan sponsors today quite different than they were five years ago.

First, the multiple layers of funding relief over the past few years mean that minimum contribution requirements will be less effective in driving plans to full funding in the near term. Further, the IRS has yet to require that the new mortality study be used in calculating contribution requirements; our best guess is that this will be required effective for plan year 2017, and even then plan sponsors will have an extended period to fund the liability increase.

Second, PBGC premiums have increased significantly. The flat rate premium based on headcount is nearly doubling, from $35 per person in 2012 to an estimated $64 per person in 2016, and the variable rate premium based on underfunding is more than tripling, from 0.9% in 2013 to 3.0% in 2016. This means that not only are the penalties for maintaining an underfunded plan substantially increasing, but there also is a greater obstacle to transitioning from underfunded to fully funded. This changes the pro-con analysis for plan sponsors considering contributions above the minimum, as well. While the required contributions are lower over the next few years due to legislative changes, the economic benefits of avoiding variable rate premiums may compel plan sponsors to fund well above minimum requirements.

And third, there are weaker prospects for funded status improvements driven by the investment returns of traditional strategies. As a result of the multi-year bull market in equities and declining yields on fixed income, Aon Hewitt's forward-looking capital market return assumptions have declined for many asset classes, as illustrated in the following table:

	10-Year Expected Return as of January 1, 2010	10-Year Expected Return as of January 1, 2015	Change
U.S. Large Cap Equity	8.1%	6.5%	-1.6%
Non-U.S. Developed Equity	8.2%	7.1%	-1.1%
U.S. Long Credit Fixed Income	5.7%	4.0%	-1.7%
U.S. Core Bonds	4.4%	2.6%	-1.6%

Although there is also a possible tailwind to push funded status—the potential for interest rates to rise more than what has been priced into today's steeply-sloped yield curve—in aggregate, however, we believe the net headwinds slowing plans from becoming fully funded are stronger than they were five years ago. Yet plan sponsors continue to want to develop medium- and long-term plans to get to a well-funded, lower-risk position. What toolkit should plan sponsors utilize for the next five years of pension risk management?

Three Levels of Governance Sophistication

The preferred toolkit and approach for a plan sponsor will depend on its level of governance sophistication and the amount of complexity it can manage, either executing in-house or with assistance from an outside party. We group plan sponsors into three categories.

Governance Sophistication	Description
Strict Funded Ratio-Based	▪ Prefers the simplest approach possible. ▪ Wants a plain vanilla dynamic de-risking strategy based on funded ratio. ▪ Does not want to invest the time in complicated strategies. ▪ Wants to retain decision making in-house rather than delegate authority to outside advisors. ▪ Prefers not to deviate from targets, even if market conditions change significantly. ▪ Requires a governance structure that includes regular monitoring of funded status and the ability to execute on de-risking triggers when thresholds are met.
Market-Aware	▪ May want to be opportunistic if there are meaningful changes to markets such as substantial changes to interest rates, credit spreads, or equity markets. ▪ Will still include allowable ranges to maintain discipline and risk control. ▪ Requires a more developed governance structure than Strict Funded Ratio-Based, including the ability to monitor markets under consideration and implement moderate tilts to implementation based on a risk-controlled framework.
Opportunistic	▪ Includes Market-Aware approach. ▪ Broadens the opportunity set to include investment strategies that are new and unique. This could include alternative assets that may be particularly appealing at a point in time due to special market circumstances. ▪ Will also use bounded levels of discretion to maintain discipline and risk control. ▪ Requires the most sophisticated governance structure to allow opportunistic consideration of strategies outside the standard policy benchmarks.

Toolkit for Strict Funded Ratio-Based

Strict Funded Ratio-Based implementations are the simplest, and typically haven't changed much in the past several years.

Tool 1a: De-risking glide path. This is simply the schedule of asset allocations at each funded ratio level, which should be well defined in the investment policy statement to provide clarity and discipline. It includes not just increasing the liability-hedging portfolio, but also being thoughtful about how the return-seeking portfolio should be designed at each point on the glide path. The de-risking glide path tool is just as relevant as it was a half-decade ago, as it helps plan sponsors gradually de-risk, capture gains from favorable investment returns, and recognize the asymmetry of taking investment risk for well-funded plans. Successful implementation requires monitoring funded status regularly and having a decision-making structure in place to buy and sell assets when de-risking triggers are met.

Tool 1b: Customized liability-hedging portfolio. Customization means being intentional about the amount and types of interest rate and credit spread exposure in the liability-hedging portfolio. This is not necessarily the same as precisely matching the term structure of the liability. For example, some products designed to allow precise matching of the liability cash flows also have undesirable characteristics, such as excessive issuer concentration, poor liquidity, and high trading costs. Further, some of these products charge fees similar to active management, but have little potential for positive active returns due to the limits of the opportunity set and high trading costs, creating a drag on performance.

The optimal hedging program is not necessarily an attempt to perfectly match the actuarial representation of the liabilities—which is impossible—but to thoughtfully determine which aspects of the liability risks should be hedged, and in what way, rather than simply using an off-the-shelf benchmark. Implementing this successfully requires the plan sponsor to create a “fixed income glide path,” detailing how the fixed income mandate will evolve along the glide path and making sure its managers are capable of executing the strategy effectively.

Toolkit for Market-Aware

Market-Aware plan sponsors should include the tools of Strict Funded Ratio-Based plan sponsors, while also allowing themselves to be more market-aware when adjusting the asset allocations.

Tool 2a: Hedge path. A hedge path allows plan sponsors to more dynamically manage their interest rate exposure, especially when interest rates remain historically low. It augments a glide path by including interest rate triggers so the plan has shorter-duration fixed income when interest rates are low, and then a lengthening duration when fixed income markets are offering greater yields. This is often implemented by putting a formal plan in place to document the intended hedge ratio at each funded status and level of interest rate, regularly monitoring interest rates along with funded status, and having a decision-making structure in place to adjust the portfolio as needed. The use of simple derivative instruments such as futures and swaps can make this strategy more effective to deploy. This type of strategy is more attractive now than it was five years ago, as today’s low-rate environment offers greater opportunity for funded status improvement from rising rates.

Tool 2b: Credit flexibility. It’s well known that credit spreads are impacted by factors other than default risk, including liquidity, taxes, rating agencies, and industry-specific factors affecting banks and insurance companies (which are large players in the fixed income market). So it can make sense to allow flexibility within the fixed income allocation to adjust the exposure to credit spreads. To implement this effectively, plan sponsors need to monitor the fixed income market regularly or rely on a third party. This can be accomplished to some extent with active fixed income managers, but plan sponsors may want more flexibility than they usually are afforded, in which case the plan sponsor would need to direct some of the rotation between government and credit by adjusting the guidelines or benchmarks given to managers.

Tool 2c: Medium-term views on asset allocation. A groundbreaking finding that influenced the 2013 Nobel Prize in Economics is that forward-looking expected risk premiums for different asset classes vary over time. That is, the expected risk-reward tradeoff for an asset allocation varies based on the market environment. This supports having an investment policy with flexible glide path and hedge path targets, allowing medium-term views on asset classes to adjust the asset allocation within a bounded range. Implementation can be achieved through tactical tilts between asset classes or rotation between active manager styles. Effective implementation requires a robust asset allocation team that reports on results regularly, as well as creation of an execution framework to allow the decisions to be implemented in a timely manner.

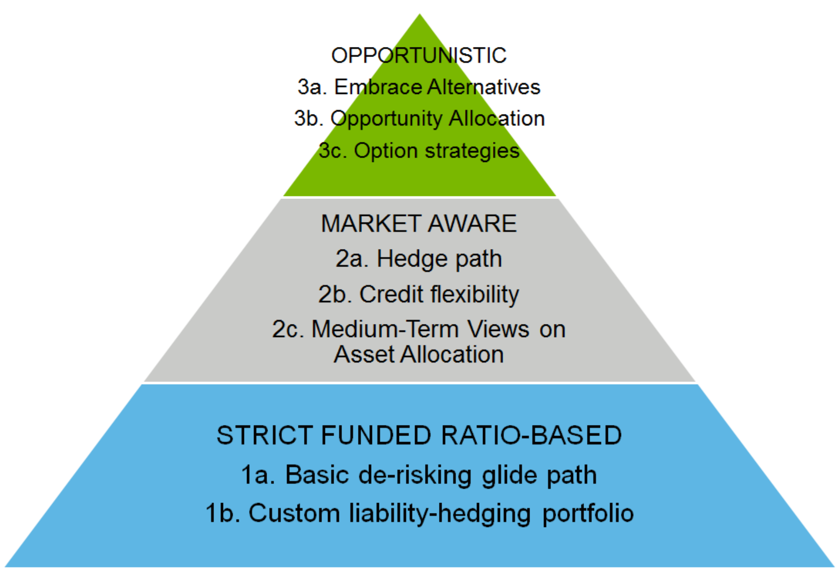
Toolkit for Opportunistic

Opportunistic expands on Market-Aware, using a broader opportunity set of possible investments. This could include alternative investments and strategies that don't fit neatly into the plan's existing standard asset class buckets.

Tool 3a: Embracing alternatives. Opportunistic broadens the return-seeking bucket to allow alternative assets that are different from plain vanilla public equities, such as hedge funds, real estate, and private equity. The seminal paper "Go Big or Go Home: The Case for an Evolution in Risk Taking" (Sebastian, 2014) advocates that investors well suited for alternative investments should have high allocations to them. The benefits are driven by greater breadth and flexibility, aligned compensation structures, and wider return dispersion among the best and worst performing managers, allowing for more opportunity. These strategies can provide diversification that decreases exposure to traditional equity beta without necessarily reducing expected returns. Adoption of some or all of these strategies varies based on investors' risk tolerance and liquidity needs. Successful implementation requires a deep research team that understands the strategies, ensuring that the risk exposures are acceptable.

Tool 3b: Opportunity allocation. This is a go-anywhere bucket, typically capped at 5%–10% of the portfolio, to augment the glide path. Kumar and Penter (2013) have written about the advantages of these structures—namely to create more flexibility to incorporate investments that don't fit neatly into a standard asset class category—and how to implement them. This can be an opportunistic way to implement alternative assets or a well to tilt portfolio beta exposures.

Tool 3c: Option strategies. Option strategies are a way for investors to profit on market expectations for volatility. The pricing of options is directly related to the implied volatility in markets, effectively making "volatility" an asset class that can be bought and sold. While a simple option structure can buy or sell protection, more sophisticated strategies can capitalize on structural mispricing of volatility. For example, Hrad and Cantillon (2014) have written about equity option strategies that generate return because the options market has a persistently higher implied volatility than realized. We expect this type of strategy could have an expected return similar to equities, but with two-thirds the volatility.



Conclusion

First-generation dynamic investment policies have helped investors design policies to quickly react to changes in their funded status—which affects their circumstances and risk tolerance—and the next generation of these solutions creates a better way to give investors the flexibility to more effectively react to changes in their capital market expectations.

Plan sponsors that have the sophistication and tolerance for complexity, or have access to it through their advisors, can use combinations of solutions from the Market-Aware and Opportunistic toolkits to improve upon the Strict Funded Ratio-Based dynamic investment policies typically in place today—recognizing that the market environment now is far different from that of a few years ago.

While your funded status may not have changed much over the past five years, the strategies you use to manage it might benefit from reconsideration. That is, the evolution of dynamic investment policies will make them even more dynamic. We will be encouraging our clients to consider and embrace the broader opportunity set as we move into the future.

References

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