

# BCG Retirement News Roundup

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Boomershine Consulting Group (BCG) has launched this monthly news roundup of highlighted significant articles from the retirement industry – for clients and friends. Retirement plan news has become increasingly pertinent for many audiences these days, including:

- Retirement Plan Sponsors – addressing both private and public sector issues
- Employers – dealing with complicated decision making for their plans
- Employees – educating the Boomer generation that is nearing retirement
- Industry Practitioners - helping to understand and resolve today's significant challenges

We review numerous industry news services daily and will include a collection of timely and significant articles each month concerning compliance, actuarial plan costs (including assumption debates), plan design change issues and benefit trends, as well as other related topics.

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## Public Sector/Government Plans

### Cincinnati Issue 4: Voters say loud no to pension reform

CINCINNATI -- Cincinnati voters overwhelmingly rejected Issue 4, a major overhaul of the city's troubled pension system, in Tuesday's election.

The vote was 78 percent against and 22 percent for.

Peter McLinden, Cincinnati-area Regional Director at AFSCME Ohio Council 8, released this statement:

"Today's vote will be heard beyond Cincinnati and sends a message for those on the ideological extremes who think it is ok to impose their agenda on an entire city. Had this passed, outside money and political extremists would have cost Cincinnati taxpayers more money, with less services. ... That said we all are dedicated to working together moving forward to fix the pension system in a way that is in the best interest of Cincinnati public employees and taxpayers."

A private group known as the Cincinnati for Pension Reform Committee gathered enough signatures last summer to place a charter amendment on the ballot.

The amendment would have required the city to pay off its \$872 million unfunded liability in the current pension system within 10 years.

If the payoff couldn't be achieved under existing budget conditions, the amendment would have required Cincinnati officials to create new revenue or find cost savings so the goal could be met.

In addition, the amendment would have:

- > Changed City Hall's public pension plan for newly hired employees from a defined benefit plan to a defined contribution plan.
- > Imposed contribution caps for the city and made cost of living adjustments compatible with actual increases in the Consumer Price Index, with a cap at 3 percent annually.

Workers and retirees at City Hall have been covered under the Cincinnati Retirement System, which is a defined benefit plan administered by the city.

Cincinnati's pension plan has a large unfunded liability, due mostly to the economic crash of 2008 that affected the system's investments, along with rising healthcare costs.

An unfunded liability occurs when pension obligations to retirees must be paid out of current income rather than from a separate fund that has been contributed to over time.

The group pushing the charter amendment had three members – Dan Lillback, Bill Moore and Burr Robinson - and ties to the tea party movement. It was similar to pension reform efforts that have been tried by the tea party in other states.

In a rare show of unity, the Democratic, Republican and independent members of Cincinnati City Council opposed the amendment. The proposed reforms would actually worsen the city's financial situation, they said.

That's because the problems with the pension system stem from benefits paid to retirees, not current employees.

Raising enough cash to pay off the liability in a decade would require steep cuts to city services or an increase in taxes, opponents said. Most tax increases would need voter approval, however, causing a quandary if the measures were rejected.

Further, city workers aren't covered by Social Security. If the benefit for workers isn't large enough under the proposed system, the city might lose its Social Security exemption and be forced to start paying into it, opponents said.

Supporters said the fears were unfounded.

The Social Security exemption may be retained if contributions from the city and an employee total at least 7.5 percent of the employee's salary, supporters said.

Despite the pension reforms made by City Council in 2011, the unfunded liability increased from \$728 million in 2011 to \$862 million in 2012.

The debt has one over-riding cause, supporters said: In the early 2000s, City Council promised lucrative retirement benefits to employees and failed to pay for them.

City leaders are either unwilling or unable to make the difficult choices needed to solve this problem, supporters added.

Cincinnati's \$2.1 billion retirement system covers 4,400 retirees or surviving spouses; there are about 2,900 active employees who pay into the system.

## Six reasons that a frozen pension plan is different

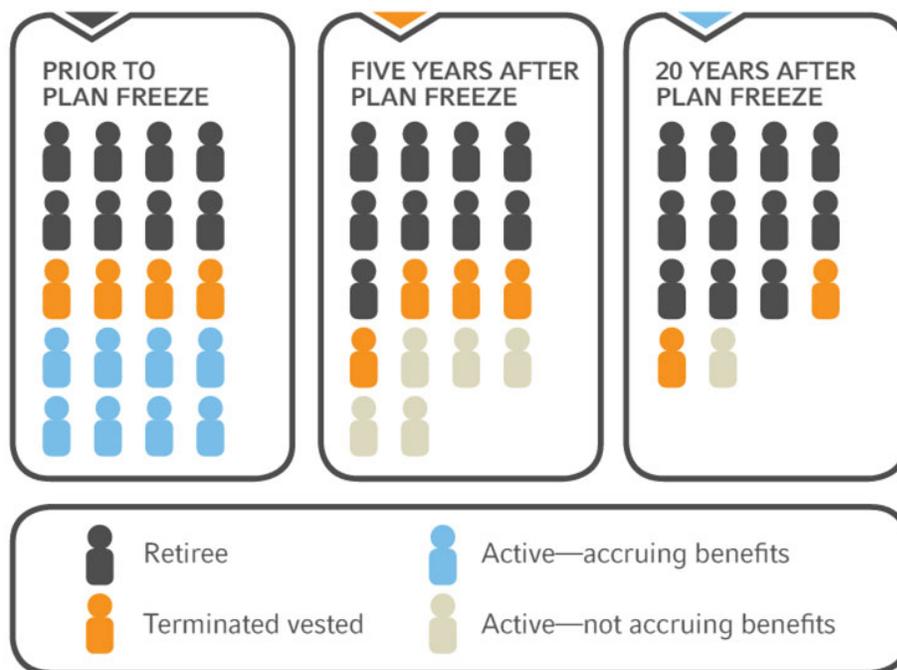
A frozen pension plan is different from an open plan, and it needs to be managed differently. Jim Gannon, Justin Owens and I have just completed a new handbook on that subject, describing the background, funding and investment implications of freezing a plan.

Here are some of our observations:

### #1. Demography takes over.

Freezing a plan gives it a finite life span. The dynamics of plan demography change (see graphic below): the participant base inevitably ages; the time horizon for investment shrinks; there are no new benefit accruals or accompanying contributions to absorb the effects of the ups and downs of experience. And the act of freezing a plan creates greater distance from the sponsoring corporation; the plan can still cost money but it plays a reduced role in benefits policy.

The changing demographic profile of a frozen plan



### #2. Less funding flexibility for a frozen plan.

Investment experience is uncertain. For an open pension plan, future contributions can be adjusted either up or down in response to investment experience. For a frozen plan, the upside can be capped by the threat of trapped capital (contributions cannot be reduced below zero) while the downside is made more painful by the shorter time

horizon that the plan now has. Funding decisions are normally less flexible for frozen plans.

#3. Trapped capital and liability-responsive asset allocation (LRAA).

While a frozen plan does not want to find itself short of assets, neither is a surplus necessarily as good as it sounds: it can be difficult to get money out again once it has been put in. This risk of trapped capital is one reason for the popularity of LRAA de-risking glide paths among frozen plans.

#4. Think ahead.

Certain features of the plan's asset and liability profile – the growth and shrinking of asset values and changing demographic profile – are known in advance. Investment policy needs to reflect not just what the plan is today, but what it will be in the years to come. This affects investment decisions in areas such as the use of illiquid assets, the complexity of the management structure, cash flow management and more.

#5. "Fully funded" is a higher target for a frozen plan.

Fully funded for the purposes of statutory contribution calculations, or for the purposes of corporate accounting, may not be enough to ensure that a frozen plan will be able to completely take care of all of its liabilities without additional capital being injected. The plan termination liability may be some 110% to 120% of the projected benefit obligation (PBO) accounting liability.

#6. A frozen plan is on the path to a known endgame.

The journey to eventual termination has been started by more than 8,000 U.S. pension plans. While the early stages of the path are well-trodden, the later stages are not. The transfer of risk—through the payment of lump sums or the purchase of annuities – is just beginning to become commonplace. Plan termination itself is a demanding and time-consuming exercise; the timeline typically exceeds two years at present (the majority of the time being taken up on the administrative process). Only a handful of plans have reached the natural conclusion of the journey, but it is only a matter of time.

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## Dillon: Retiree health care, not pension shortfall, a core reason for Detroit bankruptcy

Former Michigan Treasurer Andy Dillon said Tuesday that Detroit's retiree health care commitment was a core reason why the city filed for bankruptcy and that the city's pension shortfall wasn't the "driving factor."

Despite a bitter dispute over whether Detroit emergency manager Kevyn Orr can reduce pensions, Dillon testified during Detroit's bankruptcy trial that the city's nearly \$6 billion unfunded retiree health care liability was more concerning.

Dillon — who provided financial oversight to the city and helped hire the city's restructuring consultants — defended his role in recommending the city's July 18 bankruptcy filing, saying he didn't see any way unsecured creditors would agree to steep concessions.

But in a July 10 e-mail that was shown in court, Dillon expressed concern that the filing "looks premeditated" and argued that the state needed to do a better job of explaining why it was necessary.

"I don't think we are making the case why we are giving up so soon to reach an out-of-court settlement," Dillon wrote.

Creditors who have objected to Detroit's bankruptcy portrayed Dillon's assessment as evidence that the city rushed into court. If they can prove the city negotiated in bad faith, Judge Steven Rhodes could dismiss the city's bankruptcy filing, forcing Orr back to the bargaining table.

Still, Dillon, who was treasurer until last week, insisted that bankruptcy was a "last-resort option," echoing earlier testimony in the trial by Gov. Rick Snyder.

"It was a topic of conversation" as early as March 2012, Dillon said. "But even the thought at that time was we wanted to get to a consent agreement. Chapter 9 was always out there as an issue, but it wasn't front and center."

Dillon testified for nearly two hours and will return to the stand when the bankruptcy trial resumes at 9 a.m. Thursday.

Also Tuesday, Rhodes refused to delay a hearing to consider the Detroit retiree committee's request to block Orr's plan to cut retiree health care benefits.

- **Related:** [Live blog: Day 7 of Detroit bankruptcy trial](#)

The city agreed to delay cuts to retiree health care insurance for those not covered by Medicare until the end of January, a month later than they were to take effect, city lawyer Heather Lennox said.

Lennox — an attorney for Jones Day, which is representing Detroit — said the city will delay any changes by a month because of the problems with the Affordable Care Act website and confusion about the insurance changes.

The city requested a two-week delay on a hearing that is scheduled for Friday on whether Rhodes should block Orr's health care plan. Lennox argued the city's time and

efforts would be better spent negotiating the cuts in mediation instead of conducting a court hearing.

But Rhodes said a delay is “really not necessary and not fair to the retirees.”

Still, the hearing may get pushed back until next week because the eligibility trial — which will determine whether Detroit’s bankruptcy can proceed — is taking longer than expected and Rhodes plans to complete it before hearing arguments on the injunction.

Day 7 of the trial started with more testimony from Steven Kreisberg, director of collective bargaining for the American Federation of State, County and Municipal Employees, the city’s largest union. He testified that he had preliminary thoughts on a potential counterproposal to the city of Detroit in July. But AFSCME never made an official proposal on how to address the city’s financial woes.

Kreisberg and UAW general counsel Michael Nicholson testified that they would not agree to retiree pension cuts because the Michigan Constitution protects public pensions from reductions.

“In our view, it would be a violation of law for us to do that,” Nicholson said.

Nicholson said the UAW, which represents fewer than 200 Detroit Public Library employees and fewer than 200 city retirees, was willing to negotiate potential retiree health care cuts because “we live in the real world.”

But he accused the city of refusing to enter proper negotiations, describing meetings with Orr’s team as lectures.

“I have never, ever been involved in any negotiation where one side speaks,” Nicholson said.

Nicholson also testified that UAW President Bob King took a special interest in Detroit’s bankruptcy.

“He asked me to personally lead our effort despite the small number of retirees we had because we care deeply about the city of Detroit, its citizens and its retirees,” Nicholson said. “It’s our home. He said, ‘Let’s do everything we can to protect the retirees and let’s play a constructive role in trying to bring a resolution to this.’ ”

Unions and retiree groups argue that the city did not negotiate in good faith, one of the key legal criteria required to enter municipal bankruptcy.

But the city says its creditors failed to respond to its attempts to negotiate and instead turned to lawsuits, forcing the city into bankruptcy.

After Dillon's testimony, Rich Baird, a top adviser to Snyder, is expected to take the stand.

The trial is expected to wrap up as soon as Friday, but Rhodes isn't expected to rule until later this month.

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## Chicago Has Credit Rating Cut 3 Steps by Fitch on Pension

Chicago, the third-most-populous U.S. city, had its credit rating lowered three steps on more than \$8 billion of debt by Fitch Ratings, which cited the city's growing unfunded pension liability.

Fitch cut the rating on \$8 billion of Chicago's general-obligation bonds to A- from AA-, the New York-based company said today in a statement. It also took the same action on \$500 million of debt backed by the Windy City's sales taxes.

It's the second three-step rating cut for Chicago since July, when Moody's Investors Service lowered its grade to A3, the fourth-lowest investment-quality category, citing pension burdens and the costs of crime. Mayor Rahm Emanuel, a 53-year-old Democrat, has proposed raising the city's cigarette sales tax by 75 cents a pack to help close a deficit of \$339 million.

Chicago, a city of more than 2.7 million residents, is projecting a budget deficit of as much as \$1 billion in 2015 unless the Illinois legislature restructures the public-pension system, which is a state creation. Lawmakers adjourned their fall session yesterday without taking any action.

Sarah Hamilton, a spokeswoman for the mayor, didn't immediately respond to an e-mail seeking comment on the Fitch downgrade sent after normal business hours.

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## Pew Study Outlines Impact State, Federal Cuts Had on Cities

In some places, cuts in intergovernmental aid played a particularly significant role in causing budget strain.

By now, the fiscal stress facing cities has been well-documented. Though the recession began in late 2007, cities felt the impacts more slowly than the states and feds largely because they rely so heavily on property taxes.

Property taxes made them especially susceptible to the downturn in the real estate market, but it also impacted when the recession hit American cities. That's because there's a delay between when property values start to decline and when cities' assessments and ultimately taxes reflect those declines. It's also the reason why cities' recovery has happened more slowly.

A new study from the Pew Charitable Trusts reveals another way the recession uniquely impacted cities.

Researchers looked through the financial reports of the country's 30 largest cities and revealed how each of them was affected by and responded to the recession. One of the most fascinating findings was just how significant an impact the cuts to intergovernmental aid had on cities.

In nine cities, cuts to intergovernmental aid -- money cities get from the state and federal governments -- drove their post-recession revenue declines, according to Pew. "Intergovernmental aid is an important revenue source for all 30 cities, but in nine—Baltimore, Boston, Cleveland, Houston, Las Vegas, Minneapolis, Philadelphia, Phoenix, and the District of Columbia—reductions in these receipts primarily drove falling revenue," according to the report.

Researchers found that more than half of Cleveland's post-recession revenue decline, for example, was due to intergovernmental aid cuts. While local officials have long bemoaned the impact of intergovernmental cuts, the study may play a significant role in helping to quantify their impact.

The retrospective look at cuts would also seemingly bolster the case for 2009's stimulus bill. "For many of these cities... a key component of their recovery came from increases in intergovernmental aid," said Kil Huh, director of Pew's State and Local Fiscal Health project, on a conference call with reporters.

## Private Sector

### SEI Research: A Switch To Mark-To-Market Accounting Has Little Impact On Key Financial Metrics

#### Analysis Finds a Change in Pension Accounting Has No Negative Effects on Companies

OAKS, Pa., Nov. 19, 2013 – SEI (NASDAQ:SEIC) today released research analyzing the impact that transitioning to a mark-to-market accounting method in valuing pension liabilities might have on companies' investors, equity research, credit ratings, and management compensation programs. The research reviewed 23 major U.S. companies that implemented mark-to-market accounting for their defined benefit plans over the past two years, and found that such a switch had little substantive change on these key corporate constituencies.

“While there has been much discussion in the industry regarding the pros and cons of transitioning to mark-to-market accounting for pension plans, our research suggests that the reaction by key stakeholders and the subsequent impact on corporate finances is generally negligible,” said Thomas Harvey, Director of Advice for SEI’s Institutional Group. “Plan sponsors that might have previously been hesitant about such a change should potentially re-evaluate their pension accounting options.”

Many U.S. plan sponsors currently use a multi-year smoothing method in calculating their pension liabilities, which is designed to help decrease year-to-year volatility of pension expense, but can create a drag on future earnings. Mark-to-market accounting removes this smoothing method and realizes gains or losses immediately as they occur, providing a more accurate view of the current results of the organization’s pension plan. Mark-to-market accounting is used on a more global basis by International Accounting Standards.

Below are a few key findings from SEI’s analysis:

- Returns on share price in the period surrounding the earnings announcement showed no statistically significant abnormal return values.
- Financial analysts’ reports and quarterly earnings calls showed very few questions and no direct criticisms of the mark-to-market implementations by the companies.
- Ratings agencies such as S&P, Moody’s, and Fitch were already using mark-to-market accounting as part of their longstanding practices.

- Internal management received the benefit of removing drags on earnings, while ultimately gaining more favorable earnings per share without the penalty of past poor performance.
- Non-generally accepted accounting principles (GAAP) adjustments to earnings generally removed the mark-to-market effect in investor calls, analyst reports, and management compensation program.

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## Retirement Plans: Year-End Planning

Here are a few reminders of the retirement plan administrative matters that should be reviewed and managed on or before January 1, 2014:

- Plan design changes for 2014: If you are considering changing the design of your retirement plan, you should speak with your third-party administrator as soon as possible to discuss the options available to you. For example, if you sponsor a 401(k) or 403(b) plan, do you want to add a Roth feature so employees can make Roth contributions? Do you want to automatically enroll employees to improve your nondiscrimination testing and automatically escalate their deferrals each year? Some notices need to be provided to employees on or before December 1, 2013 based on the type of plan design, so time is of the essence. See below under "Required annual notices." Also, plan documents need to be amended usually before the first day of the new plan year where the change will be effective.
- Implement 2014 retirement plan cost of living adjustment (COLA) limits: The IRS has recently published the 2014 retirement plan COLA limits. Please see our COLA limits chart on our website. If you calculate any matching contributions, you may need to adjust the compensation limits. We recommend you speak with your providers about the new limits.
- Auto escalation in a 401(k) or 403(b) plan: If your plan currently contains a provision where employees are automatically enrolled and their deferral election increases each year, often those automatic increases are required to be made at the beginning of each plan year. You should review your automatic enrollment and escalation provisions in your plan and make sure the escalations will occur in your payroll system.
- Required annual notices: The following annual notices should be provided to employees and in some instances terminated participants at least 30 to 90 days before the beginning of the next plan year.

- 401(k) safe harbor notices: If you sponsor a 401(k) safe harbor plan, a notice should be provided to your employees no later than December 1, 2013 informing them that the plan is a safe harbor plan in 2014. If the plan operates on a non-calendar year basis, the safe harbor notice should be provided no later than 30 days prior to the beginning of the next plan year. For most safe harbor plans, terminated participants do not need to receive this notice. For plans that must inform participants whether they are making the safe harbor contribution or not for 2013, you should send the 2013 safe harbor information to terminated employees who are eligible for the 2013 safe harbor contribution.
- 401(k) or 403(b) automatic enrollment notices: If you automatically enroll employees in the 401(k) or 403(b) plan, you must provide a notice to employees at least 30 days prior to the beginning of the next plan year, December 1, 2013 for a plan operating on a calendar year basis. Terminated participants do not need to receive this notice since automatic enrollment does not apply to them.
- Qualified default investment alternative (QDIA): For defined contribution plans where employees are allowed to direct their investments, most fiduciaries have selected a default investment for participants who fail to make an investment selection in their account. Selecting a default investment that is appropriate for the plan and the employees, reduces potential fiduciary liability for investing those participants' money. The notice provides information about the default investments selected by the plan and must provide certain information, as required by the existing regulations. This notice should be provided no later than December 1, 2013 for calendar year plans, or no later than 30 days prior to the beginning of the next plan year for non-calendar year plans. Terminated participants with account balances should receive the notice.
- Participant 404a-5 investment and fee disclosures: Starting in 2012, 401(k) plans that allow participants to direct their investments were required to provide investment and fee disclosures which are required to be distributed every 12 months. In order to align the timing of the safe harbor, auto-enrollment or QDIA notices with the annual investment and fee disclosures, employers were going to have to distribute the participant investment and fee disclosures twice in 2013. Responding to industry calls to eliminate the need to send required plan notices twice this year, the Department of Labor (DOL) has provided guidance to allow for the annual investment and fee disclosure notices to be posted 18 months after the last notice was distributed. If you already provided the disclosures in the summer of 2013, you do not need to provide them until the fall of 2014 along with any other annual notices such as the safe harbor, auto-enrollment or the QDIA notices. If you did not provide the disclosures this past summer, you can provide these on or before December 1, 2013 of this year along with your other notices, however you should not distribute them later than 18 months after the date you distributed the disclosures in 2012. Terminated participants with account balances should receive these disclosures. See our article about the notices at: <https://www.tri-ad.com/events/AllNewsltr.aspx?NLID=25>

- Required minimum distributions: Terminated employees with account balances in the plan who are age 70½ or older and more than 5% owners of a business must receive a minimum distribution on or before December 31. For those individuals just turning 70 ½ in this year, they may delay their first minimum distribution until April 1, 2014. You should check with your service providers to ensure they are calculating and distributing these required distributions where applicable.
- Plans that must be amended every 5 years: If you sponsor an individually designed plan (a plan that is not pre-approved by the IRS), and your Employer Identification Number (EIN) ends in a “3” or an “8,” you will need to fully update your plan document and submit the document to the IRS no later than January 31, 2014. Also, governmental plans who did not take advantage of a one-time opportunity to submit a determination letter application during Cycle E (ended January 31, 2011), are required to update and submit their documents by the end of January, 2014.
- Defined contribution plans that must be amended every 6 years: Most defined contribution plans are pre-approved by the IRS such as volume submitter and prototype plans. If you currently sponsor a pre-approved plan, the document must be fully updated every 6 years. Starting next year, most plans will need to be updated for the Pension Protection Act of 2006 (PPA) and subsequent legislative and regulatory guidance. Generally, plan sponsors will have two years to fully update their plan documents for PPA, the two year timeframe ends in 2016. Your document providers should be reaching out to you in 2014 to start the process. Defined benefit plans will start this 6 year amendment cycle in a couple of years.

There may be other requirements for your particular retirement plan so we recommend you discuss your plan with your service provider. TRI-AD will ensure that our clients' plans will comply with all administrative requirements before the end of 2013. Give your Client Service Manager a call if you have any questions with this information.

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## Funded Status of U.S. Corporate Pensions Rises to 91.8% in October

Strong equity and fixed income returns in October contributed to rising assets for corporate defined benefit plans, public defined benefit plans, and endowments and foundations in the U.S., according to the BNY Mellon Investment Strategy & Solutions Group (ISSG). The funded status of the typical U.S. corporate plan rose 0.8 percentage points to 91.8 percent in October, ISSG said.

Corporate plans led the three groups as public equities outperformed alternatives in October. However, public pension plans and endowments and foundations in the U.S. also exceeded their targets during the month, ISSG said.

"Corporate plans continue to benefit from rising equity markets, although Aa corporate bond yields fell for the first time since July, leading to higher liabilities," said Jeffrey B. Saef, managing director, BNY Mellon, and head of ISSG. "Still, assets for corporate plans rose 2.6 percent, outpacing the 1.7 percent increase in liabilities. With the funded status of these plans continuing to move higher, we see growing interest from plan sponsors in strategies that can lower exposure to market volatility."

On the liability side for corporate plans, the Aa corporate discount rate in October 2013 fell 11 basis points to 4.70 percent, leading to the higher liabilities. However, the rate remains 98 basis points higher than in October 2012, ISSG said. Year to date, the funded ratio for corporate pension plans is up 14.7 percentage points, according to the BNY Mellon Institutional Scorecard.

Plan liabilities are calculated using the yields of long-term investment grade bonds. Lower yields on these bonds result in higher liabilities.

On the public side, the typical defined benefit plan in October posted a 1.8 percent excess return over its annualized 7.5 percent return target, ISSG said. Public plan assets must earn at least 0.6 percent each month to keep pace with the 7.5 percent annual target.

For endowments and foundations, the net return over spending and inflation was 1.4 percent as plan assets increased 1.9 percent. Endowments and foundations have benefited from low inflation for the past year, but ISSG notes that an increase from current levels could make it more difficult for them to achieve their return targets.

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## Possible extension of MAP-21 interest rate stabilization

November 08, 2013

Lawmakers in Washington have a budget problem, and a small part of the solution being considered is, as we understand it, an extension of interest rate stabilization relief under 2012's "Moving Ahead for Progress in the 21st Century Act" (MAP-21). The proposal is to extend the MAP-21 25-year average floor at the 90% level through 2016.

We thought it would be useful, in this context, to review where we are with MAP-21. We begin with a discussion of the (current) basic MAP-21 rules. Then we discuss MAP-21 rates and non-MAP-21 PPA rates for 2012, 2013 and 2014. Finally, we discuss how the

extension of MAP-21 relief currently under consideration would affect plan valuations and (indirectly) funding.

### Background

Interest rates matter for ERISA minimum funding because, under the Pension Protection Act (PPA), the amount an employer must contribute to a plan is (oversimplifying somewhat) the present value of plan liabilities minus plan assets (the funding shortfall) amortized over seven years. Generally, under PPA, valuation interest rates are determined using a corporate bond yield curve, averaged over 24 months and then broken down into three segment rates – short-, medium- and long-term. (Pinning down the "PPA rate" can get complicated, because the sponsor can elect to use a 24-month period ending on any of 5 months. For purposes of this article, we are simply going to use August as the ending month for all purposes.)

MAP-21 put a "floor" under the PPA rates, equal to the average of rates for the 25-year period ending in September of the preceding calendar year, multiplied by a percentage, as follows:

#### MAP-21 'phase-down'

Year	MAP-21 'floor' -- 25 year average times
2012	90%
2013	85%
2014	80%
2015	75%
After 2015	70%

The calculation of the 25-year average is more complicated than it looks -- it is actually a 25-year average of 24-month averages. And (to add more complexity), IRS used one method to calculate the average in 2012 and changed that method for years 2013 and after. To keep it simple (or at least simpler), in this article we're just going to use the 'bottom line' numbers. (Note: because of the way MAP-21 rates are calculated, we already know rates for 2014.)

The MAP-21 floor allows sponsors to use higher interest rates than they would be able to under the PPA. Higher interest rates = lower liability valuations = lower minimum

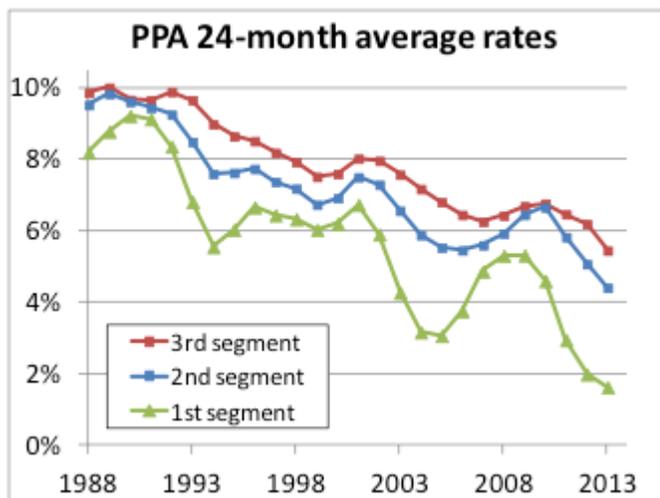
required contributions. MAP-21 was included in last year's transportation bill as a 'pay-for' because reduced minimum contribution requirements = lower contributions = lower tax deductions = more revenues. Hence the continued appeal of proposals to relax funding in the larger context of the federal budget.

### MAP-21 'dynamics'

Let's note a couple of things about the way the MAP-21 interest rate floor changes. First, it changes once a year, unlike PPA 24-month average rates, which (in effect) change every month. Second, the floor will go down (in effect, be less of a floor) each year for the foreseeable future. There are two reasons for this. First, every year the 25-year average 'moves forward' one year, and as a result a very high interest rate year (from the late 1980s) is subtracted from the 25-year average, and a very low interest rate year (e.g., 2013) is added. Second, until 2015, the percentage multiplier goes down.

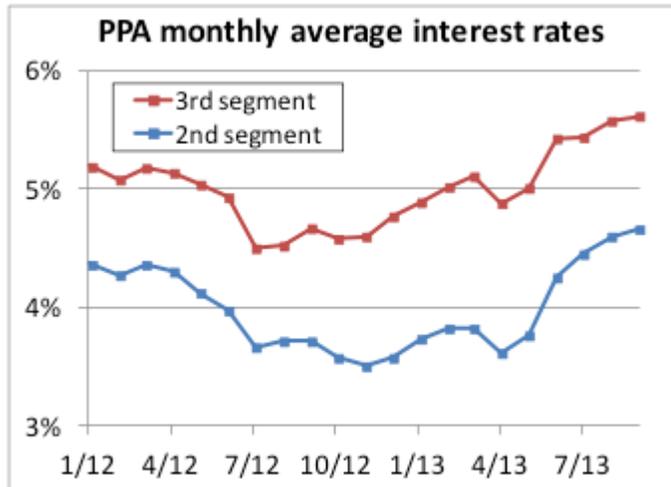
### Interest rates for the last 25 years and since 2012

To get a feel for what's going on with the MAP-21 floor, it's worth taking a look at where interest rates have been. The following chart shows the 24-month average segment rates under PPA over the past 25 years:



Looking at this chart, it's pretty obvious why averaging interest rates over 25 years provides a 'floor' (relative to a 24-month average). Interest rates have trended down for most of those 25 years.

The next chart shows interest rates for 2012-2013 – the period MAP-21 has been in effect – looking at the monthly average for the key PPA second- and third-segment rates:



Looking at this chart we can see that, over the past year, interest rates have gone up about 1%. As rates go up, the MAP-21 ‘floor’ becomes less significant. But remember, this is a floor relative to a 24-month average – 24-month average rates have not (because they are an average) gone up the way these spot rates have. As we noted in our recent article MAP-21 and DB plan finance – Looking ahead to 2014, the MAP-21 floor will still be significantly reducing liability valuations (relative to pre-MAP-21 rules) in 2014.

2012, 2013 and 2014 rates -- current (PPA+MAP-21) rules

Looking at short-, medium- and long-term segment rates under the PPA and MAP-21 is a little awkward. It's easier to understand what's going on with MAP-21 by looking at ‘effective’ rates. For the table below we blend segment rates to create a single rate that would apply to a plan with typical, ‘medium duration’ demographics – 5% short-term, 60% medium-term and 35% long-term. With this approach we can compare a single PPA rate to a single MAP-21 rate and show the difference.

**PPA and MAP-21 floor effective rates (medium duration plan) 2012-2014**

Year	PPA	MAP-21	Relief
2012	5.46%	7.02%	1.56%
2013	4.86%	6.30%	1.44%
2014	4.27%	5.77%	1.50%

As this table shows, while the MAP-21 floor has gone down over the period 2012-2014, so has the PPA 24-month average. As a result, relative to the valuation interest rate this typical plan would have been using under the PPA, MAP-21 has increased the valuation

rate by around 150 basis points in each of the three years 2012, 2013 and 2014. That increase generally reduces the value of liabilities by around 18%.

For example, assume this plan has \$100 million in liabilities and \$79 million in assets under the PPA rules without the MAP-21 floor. Under those rules this plan would be 79% funded and subject to all the restrictions, etc. that apply to a plan less than 80% funded. Applying the MAP-21 floor, this plan will be 96% funded (\$79 million divided by \$82 million (\$100 million minus 18%) = 96%).

#### Extension of MAP-21

The proposal being discussed as part of a package to end the shutdown would, as we understand it, revise the 'phase-down' schedule as follows:

#### **Proposed MAP-21 'phase-down'**

<b>Year</b>	<b>MAP-21 'floor' -- 25 year average times</b>
2012	90%
2013	90%
2014	90%
2015	90%
2016	90%
2017	85%
2018	80%
2019	75%
After 2020	70%

The table below shows the effect of using a 90% MAP-21 multiplier for years 2012, 2013 and 2014 (years for which we have actual rates).

## PPA and proposed 'extended' MAP-21 floor effective rates (medium duration plan) 2012-2014

Year	PPA	MAP-21 'extended'	Relief
2012	5.47%	7.02%	1.55%
2013	4.86%	6.67%	1.81%
2014	4.27%	6.48%	2.21%

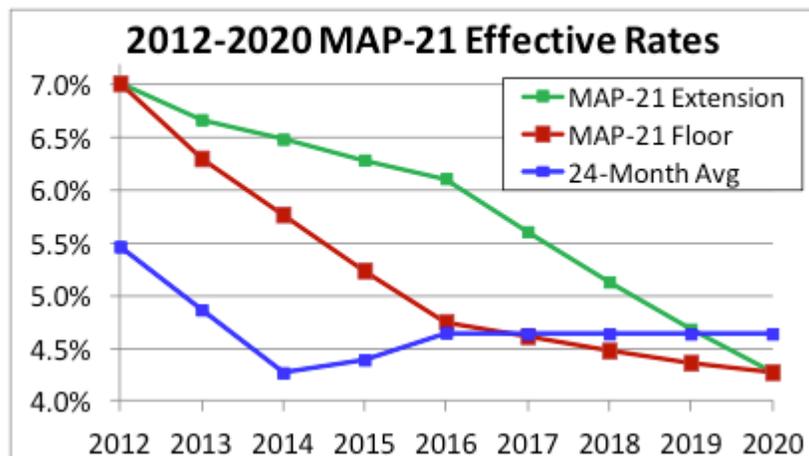
Over the period 2012-2014, the difference between the PPA rate and the MAP-21 rate actually goes up significantly. The 222 basis point increase in 2014 reduces liabilities, for our typical plan, by 27%. So the plan goes from being 79% funded (under the pre-MAP-21 rules) to being 108% funded (\$79 million divided by \$73 million [\$100 million minus 27%] = 108%).

### Projection

We already know what 2013 and 2014 would look like under the proposed extension of MAP-21. Let's consider what may happen beyond 2014.

The following chart calculates a single effective rate for our typical pension plan through 2020 based on (1) PPA 24-month average rates, (2) the current MAP-21 floor and (3) the proposed extension of MAP-21 rates. (Our projections are based on rates through October 2013, assuming no future change in rates).

### Projected 24-month average, MAP-21 and proposed MAP-21 rates -- typical 'medium duration' plan



Projected 24-month average, MAP-21 and proposed MAP-21 rates -- typical 'medium duration' plan

Under these projections, current MAP-21 interest rate relief dwindles after 2015. The extension is expected to provide an additional three years of relief, through 2018. Of more immediate significance, however, is the additional relief sponsors would enjoy over the next few years (2013-2015).

\* \* \*

Clearly, the proposal would provide significant additional interest rate relief -- and greater funding flexibility for sponsors -- for the period 2013-2019. Of course, unless interest rates increase, this sort of relief only defers funding. At some point, the shortfall in funding will have to be made up. Under the proposal, during the period 2013-2019, the plan will 'look,' for ERISA minimum funding purposes, more well-funded than it actually is (based on market interest rates). But, unless those actual, market interest rates go up significantly, by 2020 (when, in effect, the floor will go away) the real shortfall will remain and will have to be funded.

The situation in Washington remains unclear, with another potential budget showdown set for January. Whether extended MAP-21 interest rate relief as part of a bargain, grand or small, is anybody's guess. But such an extension is in the Congressional budget 'toolkit' as a politically viable 'pay-for.'

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## 2012 Asset Allocations in Fortune 1000 Pension Plans

Asset allocations in defined benefit (DB) plans strongly affect overall asset performance, funded status and funded status volatility as well as the sponsor's cash cost and accounting expense over time. For participants, creditors, investors and regulators, asset allocations are central to a plan's risk exposure and long-term cost. The Financial Accounting Standards Board began requiring more detailed disclosures in 2009, and Towers Watson has been analyzing asset allocations ever since. These analyses identify asset allocation trends and patterns over time.

This fourth analysis looks at pension allocations by asset class and valuation level. To enable investors and others to assess the way fair value is measured, companies must disclose a valuation level for each major asset category:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities (typical for Treasury securities and the common stock of large U.S. companies)
- Level 2: Unadjusted quoted prices for similar assets in active or inactive markets, or other observable inputs (common for corporate debt)
- Level 3: Unobservable inputs supported by little or no market activity, such as an expert appraisal of a real estate holding<sup>1</sup>

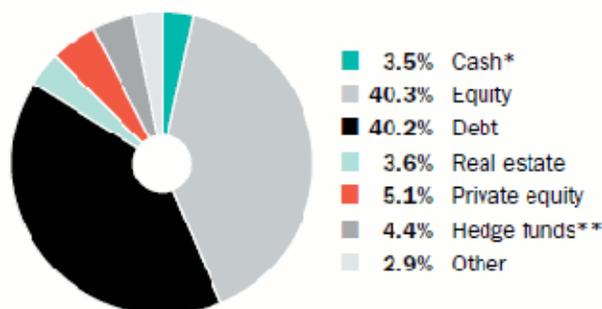
The analysis is performed on both an aggregate- and average-sponsor basis as well as by plan size, funded status and the ratio of pension assets to corporate assets. Additionally, we compare asset holdings from 2009 through 2012 for a consistent sample of sponsors. Finally, we examine the prevalence and amount of pension assets invested in company securities.

## 2012 asset allocations

Towers Watson's analysis of 2012 asset allocations takes a detailed look at 556 Fortune 1000 U.S. pension plan sponsors' disclosures. Figure 1 summarizes aggregate asset allocations weighted by plan size (i.e., plan assets). As of year-end 2012, these companies held more than \$1.7 trillion in pension assets, composed of cash, public equity, debt, real estate, private equity, hedge funds (alternative investments) and other.

Among these sponsors, the total allocation to equity was 40.3%, and the total allocation to debt was 40.2%. Private equity and hedge funds held 5.1% and 4.4% of assets, respectively. Of the asset valuations, 55.7% was done at Level 2 and 31.6% was done at Level 1. At 12.7%, however, Level 3 valuations were also significant, often used for private equity, hedge funds and real estate.

**Figure 1. Aggregate distribution of pension assets by class and level at year-end 2012 (\$ thousands)**



Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.7%	1.8%	0.0%***	3.5%
Equity	24.3%	15.6%	0.4%	40.3%
Debt	4.9%	34.6%	0.7%	40.2%
Real estate	0.3%	0.3%	3.0%	3.6%
Private equity	0.0%***	0.2%	4.9%	5.1%
Hedge funds**	0.1%	1.7%	2.6%	4.4%
Other	0.3%	1.5%	1.1%	2.9%
<b>Total %</b>	<b>31.6%</b>	<b>55.7%</b>	<b>12.7%</b>	<b>100.0%</b>
<b>Total assets</b>	<b>\$549,579,009</b>	<b>\$969,725,766</b>	<b>\$222,500,197</b>	<b>\$1,741,804,972</b>

\* Cash includes cash equivalents and money market instruments.

\*\* Hedge fund assets include derivatives, insurance contracts and interest rate swaps.

\*\*\* Values are less than 0.1%.

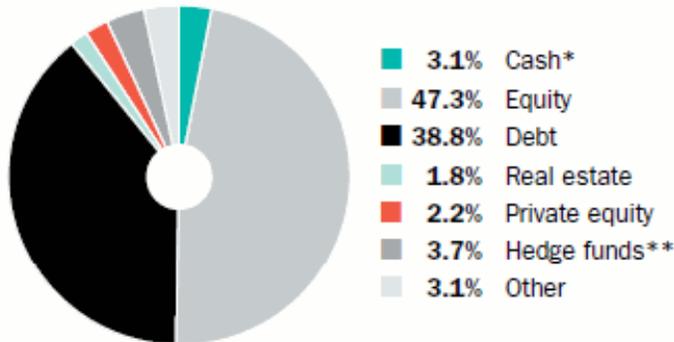
N=556

Source: Towers Watson

Figure 1. Aggregate distribution of pension assets by class and level at year-end 2012

Figure 2 depicts average asset allocations (not weighted by plan assets) for the same companies. The average Fortune 1000 pension plan sponsor in the analysis held around \$3 billion in pension assets at fiscal year-end 2012. There are some differences between the average and aggregate results shown in Figures 1 and 2. The average pension allocation to equity was 47.3%, while the aggregate allocation was 40.3% — larger plans were less likely than smaller plans to hold public equity. Average allocations to debt, real estate, private equity and hedge funds were smaller than aggregate allocations. On average, less asset valuation was done at Level 3 — only 7.2% — and more at Level 1 — 37.8%.

**Figure 2. Average distribution of pension assets by class and level at year-end 2012 (\$ thousands)**



Asset class	Level 1	Level 2	Level 3	Total
Cash*	2.0%	1.1%	0.0%***	3.1%
Equity	24.9%	21.8%	0.6%	47.3%
Debt	9.8%	28.5%	0.5%	38.8%
Real estate	0.3%	0.5%	1.0%	1.8%
Private equity	0.0%***	0.3%	1.9%	2.2%
Hedge funds**	0.1%	1.3%	2.3%	3.7%
Other	0.7%	1.5%	0.9%	3.1%
Total %	37.8%	55.0%	7.2%	100.0%
Total assets	\$988,452	\$1,744,111	\$400,180	\$3,132,743

\* Cash includes cash equivalents and money market instruments.

\*\* Hedge fund assets include derivatives, insurance contracts and interest rate swaps.

\*\*\* Values are less than 0.1%.

N=556

Source: Towers Watson

## Asset allocations by plan size

Figures 3a and 3b show aggregate and average asset allocations for small, medium and large plans (as defined by the plan asset thresholds of three groups with the same number of companies). Small plans held less than \$407 million in pension assets, medium plans held between \$407 million and \$1.7 billion, and large plans held more than \$1.7 billion (the largest plan had assets worth \$92 billion).

**Figure 3a. Aggregate asset allocations by plan size at year-end 2012**

Asset class	Smallest plans (less than \$407M)	Midsize plans (\$407M – \$1.7B)	Largest plans (\$1.8B – \$92B)
Cash*	2.7%	2.2%	3.7%
Equity	50.2%	47.4%	39.3%
Debt	38.2%	40.5%	40.2%
Real estate	1.4%	1.5%	3.9%
Private equity	0.7%	1.6%	5.6%
Hedge funds**	3.7%	4.0%	4.5%
Other	3.1%	2.9%	2.8%
N	185	186	185
Total assets	\$34,336,080	\$167,873,666	\$1,539,595,226

**Figure 3b. Average asset allocations by plan size at year-end 2012**

Asset class	Smallest plans (less than \$407M)	Midsize plans (\$407M – \$1.7B)	Largest plans (\$1.8B – \$92B)
Cash*	4.0%	2.0%	3.2%
Equity	50.3%	47.8%	43.8%
Debt	37.0%	40.5%	39.1%
Real estate	1.3%	1.4%	2.8%
Private equity	0.5%	1.5%	4.4%
Hedge funds**	3.5%	3.9%	3.7%
Other	3.4%	2.9%	3.0%
N	185	186	185
Total assets	\$185,600	\$902,547	\$8,322,136

Source: Towers Watson

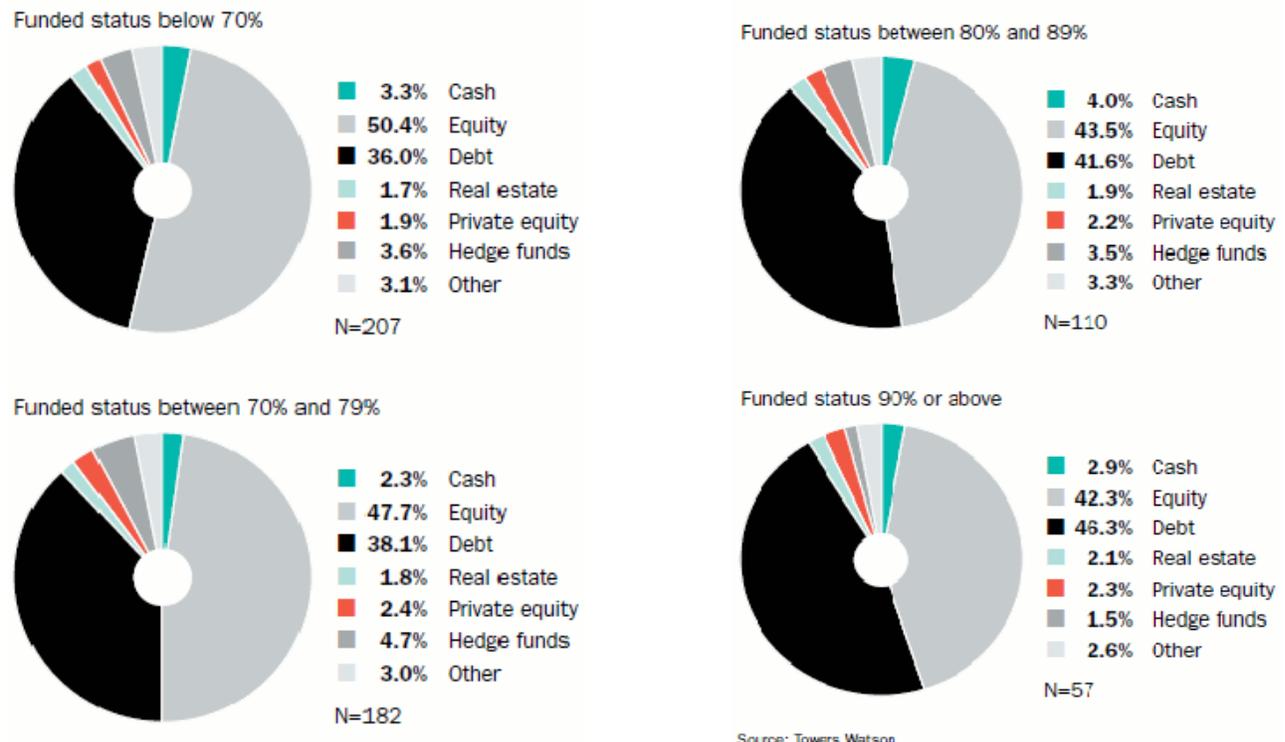
Equity allocations declined as plan size increased and averaged 43.8% for the largest plans versus 50.3% for the smallest. This confirms the results shown in Figures 1 and 2, where public equity holdings were lower when the results were weighted by plan size. While larger plans allocated less to public equities, they allocated more than small and midsize plans to other return-seeking investments, such as real estate, private equity and hedge funds.

When weighting the small, medium and large plan groups by plan assets (Figure 3a) — which puts an even greater emphasis on very large plans' asset holdings<sup>2</sup> — differences in investing behavior between small and very large plans become even more pronounced. These very large plans now hold less public equity and more fixed income (cash + debt) and other return-seeking assets compared with the smaller plans.

## Asset allocations by funded status

Figure 4 groups plans by funded status:3 less than 70%, 70% to 79%, 80% to 89% and 90% or above. Plans that were less than 70% funded were relatively more aggressive investors, generally allocating more to public equities and less to debt. Plans whose funded status exceeded 90% invested somewhat more conservatively, allocating more than any other group to debt.

**Figure 4. Average asset allocations by plan funded status at year-end 2012**



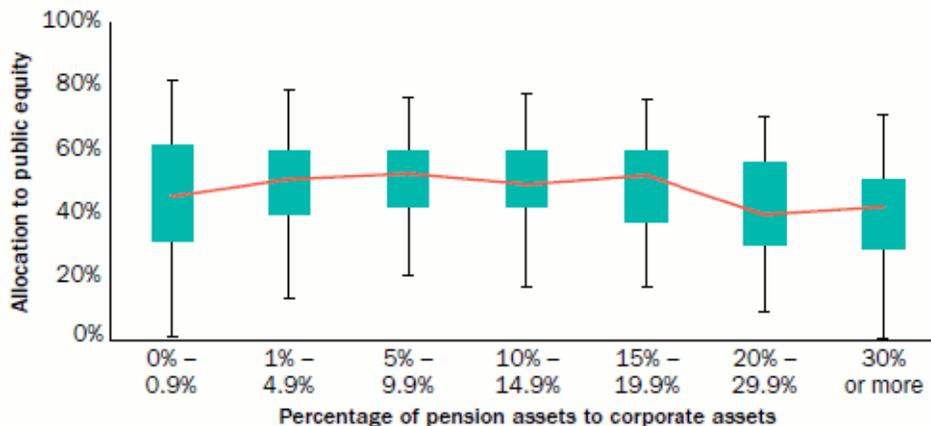
Only 5% of these plan sponsors explicitly stated in their annual disclosure that their future target allocations will depend on the plan's funded status, which is often called a glide path strategy. Such a strategy reduces funding volatility by shifting assets from equities to debt as funding levels improve, thereby safeguarding gains by reducing risk, albeit lessening opportunity as well. Despite the small number of sponsors whose annual reports specified a glide path (such disclosures are not required), this approach is becoming more widespread in pension investing. According to a recent Towers Watson survey on pension risk,<sup>4</sup> 37% of DB plan sponsors implemented a glide path for

their pension asset mix before 2013, and an additional 24% plan to have one in place by 2015.

Equity and alternative investment allocations by ratio of pension assets to corporate assets

Figure 5 examines equity distributions by the ratio of pension plan assets to total corporate assets. Among sponsors whose plan assets were less than 20% of corporate assets, equity distributions were roughly similar. However, in plans where pension assets were 20%, 30% or more of corporate assets, allocations to equities declined. Over recent years, many plan sponsors have been trying harder to reduce pension risk, so it makes sense that sponsors with a higher pension-assets-to-corporate-assets ratio are allocating less to equity. At the other end of the spectrum, sponsors of smaller pensions relative to company assets might be willing to take on more pension risk/opportunity.

**Figure 5. Equity distributions by ratio of pension assets to total assets, 2012**



Number of plans	42	152	106	64	58	57	77
Median equity percentage	46.4%	50.3%	53.1%	50.1%	52.3%	41.9%	42.7%
Median alternatives*	4.9%	5.5%	7.4%	6.9%	7.4%	9.4%	11.6%

\*Alternative investments for this figure represent hedge funds, real estate, private equity and other investments.  
Source: Towers Watson

### Asset allocations 2009 – 2012

The 2009 – 2012 asset allocation studies include a consistent sample of 338 companies. Figures 6a and 6b show asset allocations for these companies on an aggregate and average basis over those four years. From 2009 to 2010, overall asset allocations were relatively stable, but between 2010 and 2011 — a period of poor stock market performance — average allocations to equity dropped from 51.4% to 46.7%, while average allocations to debt rose from 35.0% to 38.7%. There was little change in overall asset allocations between 2011 and 2012.

**Figure 6a. Aggregate distributions of pension assets by class and level for consistent sample, 2009 – 2012 (\$ thousands)**

**2009**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	2.2%	2.6%	0.0%***	4.8%
Equity	29.0%	15.4%	0.8%	45.2%
Debt	4.2%	29.3%	1.9%	35.4%
Real estate	0.2%	0.4%	2.5%	3.1%
Private equity	0.0%***	0.0%***	4.8%	4.8%
Hedge funds**	0.0%***	0.6%	2.0%	2.6%
Other	0.4%	1.9%	1.8%	4.1%
Total %	36.0%	50.2%	13.8%	100.0%
Total assets	\$427,852,230	\$595,802,104	\$165,889,181	\$1,189,543,515

**2010**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.7%	2.3%	0.0%***	4.0%
Equity	28.6%	15.5%	0.3%	44.4%
Debt	4.0%	29.5%	0.9%	34.4%
Real estate	0.3%	0.2%	2.9%	3.4%
Private equity	0.0%***	0.2%	5.6%	5.8%
Hedge funds**	0.1%	1.7%	3.3%	5.1%
Other	0.4%	1.4%	1.1%	2.9%
Total %	35.1%	50.8%	14.1%	100.0%
Total assets	\$462,293,488	\$668,806,295	\$186,266,455	\$1,317,366,238

**2011**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.7%	1.9%	0.0%***	3.6%
Equity	24.1%	13.8%	0.4%	38.3%
Debt	4.7%	34.9%	0.8%	40.4%
Real estate	0.3%	0.2%	3.1%	3.6%
Private equity	0.0%	0.1%	5.6%	5.7%
Hedge funds**	0.1%	1.8%	3.5%	5.4%
Other	0.2%	1.5%	1.3%	3.0%
Total %	31.1%	54.2%	14.7%	100.0%
Total assets	\$421,782,489	\$729,658,265	\$198,487,914	\$1,349,928,668

**2012**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.8%	1.7%	0.0%***	3.5%
Equity	24.0%	15.3%	0.4%	39.7%
Debt	4.4%	35.1%	0.6%	40.1%
Real estate	0.3%	0.3%	3.4%	4.0%
Private equity	0.0%***	0.1%	5.2%	5.3%
Hedge funds**	0.1%	1.6%	2.9%	4.6%
Other	0.3%	1.5%	1.0%	2.8%
Total %	30.9%	55.6%	13.5%	100.0%
Total assets	\$443,340,552	\$800,595,051	\$194,838,979	\$1,438,774,582

N=33R

\* Cash includes cash equivalents and money market instruments.

\*\* Hedge fund assets include derivatives, insurance contracts and interest rate swaps.

\*\*\* Values are less than 0.1%.

Source: Towers Watson

**Figure 6b. Average distributions of pension assets by class and level for consistent sample, 2009 – 2012 (\$ thousands)**

**2009**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	2.6%	1.8%	0.1%	4.5%
Equity	29.5%	20.8%	0.8%	51.1%
Debt	8.7%	24.7%	1.2%	34.6%
Real estate	0.2%	0.3%	1.0%	1.5%
Private equity	0.0%***	0.0%***	1.4%	1.4%
Hedge funds**	0.0%***	0.8%	2.1%	2.9%
Other	0.8%	1.7%	1.5%	4.0%
Total %	41.8%	50.1%	8.1%	100.0%
Total assets	\$1,265,835	\$1,762,728	\$490,796	\$3,519,359

**2010**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.9%	1.3%	0.1%	3.3%
Equity	28.3%	22.5%	0.6%	51.4%
Debt	8.4%	26.1%	0.5%	35.0%
Real estate	0.2%	0.3%	1.0%	1.5%
Private equity	0.0%***	0.2%	2.1%	2.3%
Hedge funds**	0.1%	1.0%	2.4%	3.5%
Other	0.5%	1.4%	1.1%	3.0%
Total %	39.4%	52.8%	7.8%	100.0%
Total assets	\$1,367,732	\$1,978,717	\$551,084	\$3,897,533

**2011**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	2.1%	1.2%	0.1%	3.4%
Equity	24.6%	21.5%	0.6%	46.7%
Debt	8.6%	29.6%	0.5%	38.7%
Real estate	0.3%	0.4%	1.2%	1.9%
Private equity	0.0%***	0.1%	2.2%	2.3%
Hedge funds**	0.1%	1.2%	2.4%	3.7%
Other	0.5%	1.4%	1.4%	3.3%
Total %	36.2%	55.4%	8.3%	100.0%
Total assets	\$1,247,877	\$2,158,752	\$587,242	\$3,993,871

**2012**

Asset class	Level 1	Level 2	Level 3	Total
Cash*	1.6%	1.1%	0.0%***	2.7%
Equity	23.9%	22.7%	0.5%	47.1%
Debt	8.2%	30.0%	0.5%	38.7%
Real estate	0.3%	0.5%	1.3%	2.1%
Private equity	0.0%***	0.2%	2.0%	2.2%
Hedge funds**	0.1%	1.4%	2.5%	4.0%
Other	0.7%	1.5%	1.0%	3.2%
Total %	34.8%	57.4%	7.8%	100.0%
Total assets	\$1,311,658	\$2,368,624	\$576,447	\$4,256,729

N=338

\* Cash includes cash equivalents and money market instruments.

\*\* Hedge fund assets include derivatives, insurance contracts and interest rate swaps.

\*\*\* Values are less than 0.1%.

Source: Towers Watson

## Pension assets held in company securities

In 2012, 11% of DB plan sponsors held pension assets directly in the form of company securities, down from 13% of sponsors in our 2011 analysis. Among these companies, such allocations averaged 4.0% of pension assets, dropping to 2.2% when weighted by end-of-year assets. The weighted average is lower than the simple average because larger plans allocated lower percentages to company securities than smaller plans.

Of the 63 sponsors that held company securities, only two explicitly mentioned contributing company securities for plan year 2012. This investing/funding behavior has seemed to slow over recent years. According to a recent Towers Watson survey on pension risk,<sup>5</sup> only 1% of survey respondents plan to contribute company stock to their pension plan by 2015.

In most of the plans in this analysis, employer securities made up less than 4% of assets for 2012 (Figure 7). Company securities were more than 10% of plan assets in only a handful of companies, and those cases likely reflect fluctuations in asset value, rather than higher allocations to employer securities.<sup>6</sup> In this analysis, the highest percentage of company securities as a share of plan assets was roughly 13%.

**Figure 7. Allocations of company stock with positive holdings in 2012**

Percentage of companies



N=63

Source: Towers Watson

## Conclusion

Pension asset patterns remained fairly constant from 2011 to 2012, possibly because strong returns in the stock market during 2012 drove up equity holdings ever so slightly. Over the last few years, sponsors have been moving out of equity and into other investments to reduce risk. While pension plan de-risking has become increasingly important to plan sponsors, the trend toward more conservative asset allocations is

most pronounced among sponsors of relatively well-funded plans. Among companies with high ratios of pension assets to total corporate assets, we continue to see a wider distribution, with overall lower holdings in equities, increases in debt and greater diversification.

As was true for 2011, most DB plan sponsors did not hold company securities as pension assets at year-end 2012.

Equity allocations have declined significantly over time. Stricter and more market-sensitive accounting and funding requirements — as well as investment losses during the financial crisis — have likely encouraged sponsors to better hedge their pension liabilities.

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