ISSUE:
With the August 8 enactment of the Highway and Transportation Funding Act of 2014 ("HATFA"), Congress turned again to the matter of interest-rate smoothing in private-sector defined benefit (DB) retirement plans as a generator of tax revenue to fund highway construction and other transportation system projects. HATFA includes an extension of the interest rate corridors introduced in 2012 under the Moving Ahead for Progress in the 21st Century Act ("MAP-21"); the extension is aimed at continuing to lower required contributions which would limit the tax-deductible plan contributions that sponsors make. As the current low interest rate environment lingers, how will HATFA’s extension of the MAP-21 rules affect the way sponsors fund their plans?

RESPONSE:
Though prior versions of funding relief aimed to alleviate reported plan shortfalls in a given year or to ease the burden of shortfall amortizations, MAP-21 and HATFA introduced interest rate stabilization – not only to temporarily decrease the valuation of plan liabilities and shortfalls, but also to reduce the shorter-term volatility of plan liabilities due to changes in market interest rates. What MAP-21 introduced and HATFA extends is flexibility for plan sponsors in choosing how to best fund their plans, as well as a longer period of time for organizing the funding strategy. Under the new regulations, sponsors can choose initially to make the lower required contributions, knowing that higher contributions will likely be due in the future, or, in a potentially more stable approach, they can make contributions in excess of the dampened requirements.

But IRS funding requirements may not be a plan sponsor’s greatest pension economics concern. Pension Benefit Guaranty Corporation (PBGC) variable rate premiums, unchanged by the interest rate corridors under HATFA, are a financial burden that only gets worse as sponsors defer contributing to the plan. Moreover, plans that have adopted de-risking strategies in light of recent funded status improvements will find that HATFA funding levels have become disconnected from mark-to-market measurements. A pension stabilization world offers short-term funding relief, though plan sponsors must assess the impact their contributions and funding policy will have on all aspects of their DB plan, recognizing, for instance, that smoothed funding interest rates should not alter their investment policy decisions.
Background on funding stabilization

Since the implementation of the Pension Protection Act of 2006 (“PPA”) in January 2008, a number of additional amendments to the law have been cited as pension funding relief. Initially, these rulings mostly maintained the integrity of PPA by allowing plan sponsors to make one-time adjustments to “locked-in” elections without receiving prior IRS approval, or to increase the shortfall amortization period – for example, from 7 years to 15, for bases established through 2011. Even though they eased the financial burdens plan sponsors faced shortly after the financial crisis of 2008, the initial funding relief changes did not alter the mark-to-market approach to calculating liabilities and assets that were the basis of PPA. Recently, however, by taking the form of interest rate stabilization through the use of a 25-year average of corporate bond yields and segment rate corridors, funding relief has strayed from PPA’s original premise.

Originally introduced in MAP-21 in 2012, interest rate stabilization created a “floor” and “ceiling” for the discount rates used in calculating funding liabilities, with that corridor gradually expanding through 2016. Basically, MAP-21 inflates discount rates for statutory funding calculations closer to historic levels, drastically decreasing funding liabilities, improving the funded status that is reported and thereby reducing minimum funding requirements. The goal of the expanding corridor was to reduce tax-deductible plan contributions in the short run in order to increase taxable corporate income and therefore create federal revenue. With interest rates remaining near historic lows, the expanded floors imposed by the stabilization in MAP-21 are still in effect for 2014 funding valuations, as are the lower minimum funding requirements.

Welcome to a pension stabilization world

On August 8, 2014, President Obama signed the Highway and Transportation Funding Act into law; the bill included an extension of the MAP-21 interest rate corridors around the 25-year average of corporate bond rates to once again pay for highway construction projects. The table below shows a comparison of the phase-in of the corridors surrounding the 25-year average of corporate bond yields under MAP-21 and HATFA.

### Exhibit 1: Comparison of the phase-in

<table>
<thead>
<tr>
<th>PLAN YEAR BEGINNING IN:</th>
<th>ORIGINAL MAP-21 INTEREST RATE CORRIDORS</th>
<th>HATFA INTEREST RATE CORRIDORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>90%-110%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2013</td>
<td>85%-115%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2014</td>
<td>80%-120%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2015</td>
<td>75%-125%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2016</td>
<td>70%-130%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2017</td>
<td>70%-130%</td>
<td>90%-110%</td>
</tr>
<tr>
<td>2018</td>
<td>70%-130%</td>
<td>85%-115%</td>
</tr>
<tr>
<td>2019</td>
<td>70%-130%</td>
<td>80%-120%</td>
</tr>
<tr>
<td>2020</td>
<td>70%-130%</td>
<td>75%-125%</td>
</tr>
<tr>
<td>2021 and beyond</td>
<td>70%-130%</td>
<td>70%-130%</td>
</tr>
</tbody>
</table>

The impact of HATFA will be immediately recognized by plan sponsors, as the 2014 plan year segment rates will change from 4.43%/5.62%/6.22% to 4.99%/6.32%/6.99%, increasing effective interest rates (“EIR”) by approximately 65 to 75 basis points. Likewise, the extension of the interest rate corridor phase-in through 2020 will extend the inflation of funding discount rates above market rates for the foreseeable future. Exhibit 2, below, shows a comparison of the EIRs a typical defined benefit pension plan will encounter under HATFA with the EIRs that would have been used under MAP-21, PPA excluding the interest rate corridors, and PPA using the full yield curve interest rate election.
Exhibit 2: Comparison of effective interest rates

With the extension of the MAP-21 phase-in, HATFA is expected to produce significantly higher EIRs through 2018, after which time a combination of the widening of the corridors and assumed rising bond yields will ultimately lead to EIR convergence, beginning around 2020. Interestingly, HATFA also reverses the expected interest rate movement trend as illustrated in both the projected EIR excluding interest rate corridors and the full yield curve: over the next few years, HATFA is expected to have downward-trending EIRs, as the 25-year average of corporate bond yields are expected to decrease by 10 to 20 bps annually whereas EIRs under MAP-21 remain relatively flat and EIRs excluding interest rate corridors will likely increase gradually (following current yield curve illustrations). Over time, the bond yield segment rates are expected to increase above the “floors” prescribed in HATFA, effectively eliminating funding relief, although HATFA would continue to provide relief in periods of extremely low interest rates or, in theory, lead to higher contribution requirements if rates were to rise above the 25-year average ceiling.

By resetting the interest rate corridors, HATFA will have a similar effect on funding target liabilities as MAP-21 did when it was introduced in 2012. Initially, the increased EIRs will deflate target liabilities from present measurements, but the convergence of EIRs under the different interest rate methods would eventually lead to the confluence of funding targets.

The impact of interest rates on a plan’s funding target directly influences the annual minimum required contributions. At first, HATFA will, like MAP-21, significantly reduce contribution requirements due to the immediate decrease in funding target liability and therefore funding shortfalls. Second, the new law will defer expected contributions further into the future; contributions under MAP-21 were likely to peak starting from about 2016, when the corridor phase-in was complete, through 2019, whereas contributions under HATFA will likely peak around 2019, before the full phase-in of the corridors, and remain high through 2022. Finally, barring significant asset appreciation or rapid increases in interest rates, HATFA will likely increase total contributions, undiscounted, when compared to MAP-21 over the next ten years. In general, both MAP-21 and HATFA deferred contribution requirements while also increasing the total amount paid by a plan sponsor who makes only the minimum required contribution annually. Exhibit 3 illustrates how contribution requirements under HATFA develop compared to other interest rate elections through 2023, assuming that the plan sponsor makes only the minimum required contribution and that discount rates follow from the above Exhibit 2.
Exhibit 3 depicts the crux of the decision that plan sponsors must make with regard to their contribution policies. Funding is really above all else a timing decision, and in general, lower contributions in the short term inevitably mean higher contributions later, barring strong asset performance, significantly rising interest rates or even a “permanent” funding stabilization law. For example, plan sponsors who elect to use the Full Yield Curve in the example above begin the period with a significant funding shortfall that they must begin to amortize immediately. Eventually, by 2018, minimum contributions combined with a 7% annual asset return and rising interest rates eliminate the shortfall and contribution requirements. MAP-21 provides some funding relief in the near term but greater required contributions from 2016 through 2019, as the return on a lower asset base cannot make up for the increase in target liability from decreasing EIRs. HATFA has an even more exaggerated contribution deferral pattern, since the beginning of the expansion of the interest rate corridor is postponed until 2018.

Funding in a pension stabilization world

When MAP-21 was passed in 2012, it provided plan sponsors with funding relief by creating a mechanism – interest rate stabilization – to defer required contributions, in the hope that increasing interest rates and positive asset performance would help eliminate plan shortfalls. Interest rate stabilization achieves the deferral of contributions by briefly lowering statutory plan liabilities through increased interest rates in order to create the appearance of a plan’s being well-funded. Furthermore, interest rate corridors ensure that interest rates stay level for a period of time to prevent fluctuations in contribution requirements. Though many sponsors took the opportunity to elect to use significantly higher interest rates under MAP-21 beginning January 1, 2012, these sponsors collectively did not, however, opt to reduce the amount of contributions paid to the plan for the 2012 plan year.8

Many plan sponsors currently find that their plans are funded higher than at any point since the 2008 financial crisis, due to the addition of excess contributions, exceptional 2013 equity performance, and stabilized low liability values. With the interest rate corridor phase-in extended even further, HATFA offers an opportunity for stability-seeking plan sponsors to take advantage of their strong current funded situation with a few different funding policies.

Plan sponsors could take advantage of lower initial minimum required contributions, deploying their capital elsewhere within the firm and funding only the minimum required amount to the plan. As illustrated by the contribution projections in Exhibit 3, plan sponsors who elect this funding strategy could find themselves making more contributions overall than MAP-21 would require. The key aspect of this funding policy, though, is that HATFA will postpone the larger required contributions at least five years into the future, giving plan sponsors the opportunity to invest cash in other projects now.

Exhibit 3: Contribution requirements under different interest rate elections

<table>
<thead>
<tr>
<th>Year</th>
<th>Full yield curve</th>
<th>Segmented yield curve (24mo Avg)</th>
<th>MAP-21</th>
<th>HATFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>2,000</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
</tr>
<tr>
<td>2015</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2016</td>
<td>6,000</td>
<td>8,000</td>
<td>10,000</td>
<td>12,000</td>
</tr>
<tr>
<td>2017</td>
<td>8,000</td>
<td>10,000</td>
<td>12,000</td>
<td>14,000</td>
</tr>
<tr>
<td>2018</td>
<td>10,000</td>
<td>12,000</td>
<td>14,000</td>
<td>16,000</td>
</tr>
<tr>
<td>2019</td>
<td>12,000</td>
<td>14,000</td>
<td>16,000</td>
<td>18,000</td>
</tr>
<tr>
<td>2020</td>
<td>14,000</td>
<td>16,000</td>
<td>18,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2021</td>
<td>16,000</td>
<td>18,000</td>
<td>20,000</td>
<td>22,000</td>
</tr>
<tr>
<td>2022</td>
<td>18,000</td>
<td>20,000</td>
<td>22,000</td>
<td>24,000</td>
</tr>
<tr>
<td>2023</td>
<td>20,000</td>
<td>22,000</td>
<td>24,000</td>
<td>26,000</td>
</tr>
</tbody>
</table>

HATFA offers an opportunity for stability-seeking plan sponsors to take advantage of their strong current funded situation with a few different funding policies.
while being able to budget for larger cash contributions to the pension plan in the future. Moreover, plan sponsors would be betting on rising interest rates and strong asset performance early on to ameliorate funding shortfalls that will arise under HATFA when compared to MAP-21 due to falling EIRs, as shown in Exhibit 2, and smaller asset bases during the interim. Indeed, plan sponsors would need to rely on current healthy funded status, asset returns greater than expected, and rising interest rates to make initial savings worth the risk. As displayed in our previous Exhibits, the plan savings of approximately $11.4M through 2018, compared to MAP-21, are outweighed by the roughly $15.5M additional contributions required under HATFA in the final five years.

Plan sponsors can decide to trade the initial contribution savings for the same funding stability MAP-21 offered back in 2012. Though minimum funding requirements will gradually increase as the HATFA funding relief wears away, plan sponsors can contribute a fixed amount annually that is comfortably above the minimum and within their budgets for a number of years in an effort to add true stability to their funding and lessen the peaks of future contributions. Perhaps this amount would not have fully satisfied the minimum for all years under MAP-21, but with the extension of the interest rate corridor phase-in through 2021, plan sponsors now have an opportunity to prolong contribution stability, which has already begun to dissipate under MAP-21. Exhibit 4 illustrates how plan sponsors can smooth their contributions under HATFA from Exhibit 3 by paying more than the minimum required amount during the initial interest rate stabilization phase-in period and then reverting to the minimum beginning in 2018. In this example, by contributing $4M per year through 2017, the plan sponsor has lowered the peak contributions in 2019 and 2020 and has reduced overall contributions during the period by almost $3M as well.

Another benefit to the contribution stability that MAP-21 provided and HATFA extends is that with lower required contributions, it is easier for sponsors to make excess contributions in the short term. Contributing more than the minimum required amount allows plan sponsors to create, keep or add to existing credit balances. These balances can be used to partially or fully cover the future larger required amounts, as well as moderate the potential volatility of future contribution requirements and their timing.

Regardless of the funding policy plan sponsors adopt, pension funding stabilization is the new PPA reality, and plan sponsors need to adapt their funding strategies to align with corporate goals. Pension funding can represent a significant cash draw for corporations, and HATFA can allow DB plan sponsors to either minimize cash outflow or stabilize it. Sponsors do need to recognize, though, that this funding relief will eventually disappear, returning only in periods of low interest rates. Stabilization world is not as temporary as the MAP-21 landscape was, but it is not permanent, either. HATFA gives plan sponsors the ability to take control of their pension funding over the next few years by shielding them from potential market volatilities that might arise in the interim.
Interestingly enough, unlike its predecessor, HATFA did not come loaded with PBGC premium increases.\textsuperscript{9} Whereas legislators included the PBGC premium increases in the MAP-21 bill to offset the effect on the PBGC of weaker funding requirements, such provisions are not required with HATFA, due to the previously approved premium boosts in the Bipartisan Budget Act of 2013.\textsuperscript{10} Interest rate stabilization does not apply to the calculation of unfunded vested liabilities for PBGC variable rate premium purposes, and that creates a further disconnect between liabilities for funding purposes and PBGC premium calculations. If plan sponsors choose to pay just the minimum required contributions under HATFA, they will find themselves more poorly funded on a PBGC premium liability basis, increasing the premiums due to the PBGC. Exhibit 5 below shows the impact of funding under HATFA on PBGC premiums compared to MAP-21, based on the hypothetical funding scenario from Exhibit 3.

**Exhibit 5: PBGC Variable rate premiums by year\textsuperscript{11}**

![Graph showing PBGC variable rate premiums by year](image)

Funding the minimum requirements under HATFA produces greater variable rate premiums than under MAP-21 – nearly 54% more. Though the variable rate premium will eventually reach $0 as the plan funds the vested benefits and the interest rates used for calculating the PBGC premiums ultimately reach the interest rate corridors, the excessive premiums paid initially provide sponsors with another compelling reason to fund their plans more quickly. For some plan sponsors, this may even prove to be the main consideration in driving contribution policy, since some see PBGC premiums as “dead money” or a tax for sponsoring a DB plan.\textsuperscript{12}

**Additional pension stabilization world considerations**

While in the pension stabilization world reported funded levels have again drastically improved under HATFA, the economics of the plan remain the same. That is, the market-based liability measures for non-funding purposes have not changed with HATFA, and the ultimate level of benefits to which a plan sponsor must fund, such as for plan terminations or lump-sum offerings, could potentially be underfunded. Most regulatory agencies and financial institutions will still judge the solvency of the plan based on a mark-to-market basis, meaning that ratings agencies and financial analysts will not give credence to a plan’s AFTAP\textsuperscript{13} when looking to the health of a pension plan.\textsuperscript{14}

Since pension funding stabilization really only applies to a small subset of pension-related calculations,\textsuperscript{15} plan sponsors should consider whether they should dissociate their funding policies from current funding rules, still subject to minimum funding requirements. Smoothing interest rates is relevant only to pension contributions and not in other areas of the plan’s operations, such as in applying the rules of the investment policies many sponsors have chosen to undertake. A recent industry trend among plan sponsors is
adoption of liability-driven investment strategies and dynamic de-risking investment policies, such as liability-responsive asset allocation (LRAA). These strategies rely on market-based yield curve measures to determine funded levels, duration-matching fixed income securities to hedge interest rate risk, and contributions in addition to external factors to improve funded positions.

However, these market-based investment strategies are less applicable in an interest rate stabilization environment, where real-time market movements in interest rates have little bearing on liability calculations. Furthermore, duration matching cannot prevent HATFA-based funded levels from deteriorating over the next few years if EIRs decrease while interest rates rise and fixed income asset values fall. Plan sponsors should realize, though, that the artificial nature of interest rate stabilization does not represent the true cost of the plan nor its interaction with market interest rates.

Overall, a pension stabilization world will give plan sponsors relief from excessive required contributions in periods of low interest rates while also protecting them from potentially volatile interest rate environments. Stabilizing not only interest rates, but also contributions, offers a plan sponsor flexibility in managing the funding strategy and cash requirements of the plan within a moderate time horizon for decision-making. Meanwhile, the interest rate corridors and extension of phase-in detach the plan funding requirements from the real economics of the plan. Although a sponsor is treated to a funding holiday with lower minimum required contributions, the market-based valuations of plan liabilities are not smoothed over time. The sponsor’s investment policy, and potentially the funding policy, should recognize that.

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1 The two main examples are the allowing of plan sponsors to change asset smoothing elections (see The Worker, Retiree, and Employer Recovery Act of 2008 (WRERA) and IRS Notice 2009-22) as well the ability to use any look-back month with a full yield curve election (see the IRS “Employee Plans News” Special Edition from March 2009)
2 Alternative amortization structures were provided in the Pension Relief Act of 2010 (PRA) with specific guidance in IRS Notice 2011-3
3 See Owens, “DB plan funding after MAP-21,” Russell Research (2012) for further analysis of MAP-21
4 Additionally, plan sponsors have the option to apply the narrower HATFA corridors for already completed 2013 valuations changing segment rates from 4.94%/6.15%/6.76% to 5.23%/6.51%/7.16% increasing EIRs by approximately 30-40 basis points.
5 Plan sponsors who have elected the full yield curve cannot apply the interest rate corridors, nor can they elect the 24-month average three segment rates without first receiving IRS approval
6 EIRs are calculated as the median result using the Russell Capital Market Assumptions as of June, 2014, and based on estimated cash flows using Russell’s Standard Cash Flow Generator methodology that produce a $100M funding target under the full yield curve with a liability duration of 12 years. Forecasting represents predictions of market prices and/or volume patterns utilizing varying analytical data. It is not representative of a projection of the stock market, or of any specific investment.
7 Based on a hypothetical open and ongoing plan, using estimated cash flows assuming funding target of $100M under the full yield curve election, annual target normal cost of 3% of plan liability, initial liability duration of 12 years, and initial actuarial value of assets of $85M, and expected return on assets of 7% per annum. The interest rate look-back election is four months and the actuarial value of assets is equal to the market value of assets.
8 See Gannon, Owens, and Barbash, “Did MAP-21 Decrease Pension Contributions?” Russell Research (2013)
9 MAP-21 included increases to the flat rate premium ($35 in 2012, $42 in 2013 and $49 in 2014; indexed with inflation thereafter) and variable rate premium ($9 per $1,000 of unfunded vested liabilities in 2012, $13 per $1,000 in 2013 and $18 per $1,000 in 2014; indexed with inflation thereafter)
10 Flat rate premiums are set to jump to $57 in 2015 and $64 in 2016, with variable rate premiums increasing to $24 per $1,000 in 2015 and $29 per $1,000 in 2016. Discussed in Bob Collie’s post, “Why the latest PBGC premium increases may well speed the DB system to its death bed” in the December 12, 2013, Fiduciary Matters blog
11 See endnotes 6 and 7.
13 Adjusted Funding Target Attainment Percentage (AFTAP). This is the funding percentage certified by the plan’s actuary and disclosed on the Form 5500 Schedule SB.
In fact, even the Department of Labor is still requiring plan sponsors to list the funded status of the plan without interest rate corridors along with the funded status of the plan, with the HATFA corridors on the Annual Funding Notice sent to plan participants so as to inform them of the statutory and unsmoothed funded levels of the plan.

Only pension funding calculations under Internal Revenue Code Sections 430 for minimum funding and 436 for benefit restrictions are impacted by HATFA.
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