



The Impact of Rising Interest Rates on Defined Benefit Plans- The Return to the Overfunded Plan

A WHITE PAPER BY

Pentegra Retirement Services



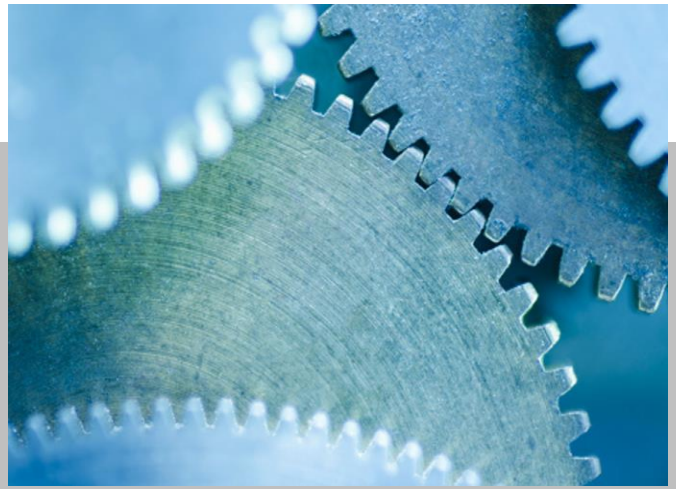


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Executive Summary

Seems as though we've been discussing rising interest rates for the last 10-15 years. The historically low interest rates, which caused Defined Benefit plan liabilities and plan contribution levels to increase every time they dropped, are headed in the other direction. The Federal Reserve finally began to raise rates in December 2015 and again in December 2016. Many are predicting additional increases in 2017. Future increases are likely to be a slow and measured process, but rates are increasing, which is welcome news for Defined Benefit plan sponsors.

Pension Funding Relief

Tracking the steady flow of legislation the past ten years, the Pension Protection Act of 2006 (PPA) introduced the most extensive revision of pension law in over three decades. In large part, this law was created to help protect pension and retirement plan participants, and restoring stability to traditional pension plans. The modeled initiative to increase contribution levels to attain the full funding target over a seven-year period was aggressive and ill-timed however. Effective for Plan Years after 2007, PPA's good intent collided with historically low interest rates and the 2008 financial crisis.

To combat the historically low interest rates and to help plan sponsors maintain their defined benefit plans during this time, Congress enacted several pieces of pension legislation beginning with the Pension Relief Act of 2010 continuing with the Moving Ahead for Progress in the 21st Century Act in July 2012 (MAP-21), the passage of HATFA (the Highway and Transportation Funding Act) and then the Bipartisan Budget Act of 2015, which extended the HATFA smoothing of rates through 2021. Both MAP-21 and HATFA introduced higher interest rates used to value plan liabilities and target normal costs, thus lowering required plan contributions.

Rising Rates and the Impact on Plan Contributions and Liabilities

What is the impact on pension plan liabilities if interest rates increase? Consider this- for every 100 basis points increase in interest rates, plan liabilities are reduced by 12-14%, while Target Normal Cost (TNC), the cost of providing a year's worth of new benefits, is reduced by 14-16%. For a plan with \$10M in liabilities and a TNC of \$500K, rates moving from 5.5% to 6.5% will reduce liabilities by \$1.2-1.4M and TNC will decrease by \$70-80K. Amortizing the liability reduction over 7 years will reduce the employer's Minimum Required Contribution by \$190-220K. The table below illustrates these cost savings at various increases in interest rates.

Interest Rate	Liabilities	Reduced Amortization	Reduced Target Normal Cost	Total Reduced Employer Contribution
1% Increase	\$8.7M	\$200K	\$75K	\$275K
2% increase	\$7.4M	\$400K	\$150K	\$550K
3% Increase	\$6.1M	\$600K	\$225K	\$825K

Many plans are currently overfunded due to the funding relief and artificially high interest rates determined under MAP-21 and HATFA. As real rates rise (even though in the short term minimum required contributions will increase as bond asset values decline but liabilities remain the same), actual pension liabilities will fall, along with real pension cost, and plans are likely to become overfunded **on a current market rate basis**. When plans are overfunded, the surplus is used on a dollar-for-dollar basis to offset required contributions. Plans in the future may have no out of pocket cost except for plan expenses. As many of you may remember, Pentegra's Multiple Employer Defined Benefit Plan went through a long period of zero required plan contributions from 1987 to the early 2000's.

Frozen Plans – Reconsideration

Since 2000, many employers have reduced benefits under their Defined Benefit plans, eliminated new hires from participation or froze their plans altogether (no further benefit accruals for any participant). With real market interest rates beginning to rise, employers may want to consider a new strategy- resuming accruals under the plan. Why? Because **Defined Benefit plans remain the most effective way to provide retirement benefits for your employees.**

Consider this: Millions of workers today may not have enough money to sustain themselves during their retirement years. Studies continue to show that even with 401(k) plans and Social Security; many Americans will not have enough retirement income to meet reasonable lifestyle goals. The causes are multiple—longer lifespans, fewer/lower pension benefits, reliance on defined contribution plans and volatile markets. Add the threat to our Social Security program and the future retirement of our aging population looks bleak. Experts feel we will need 80-90% of our preretirement income to maintain our lifestyles in retirement. The question: Who is going to pay for this shortage in employee retirement income?

Defined Contribution plans, such as the 401(k) plan, were never intended or designed to replace the Defined Benefit plan—they were meant to complement it. 401(k) plans permit access to funds while employed and experience shows that many employees draw on these plans to pay for college education, medical expenses and even home ownership. Couple these limitations with the fact that 401(k) plans place all the investment risk on the employees. We have asked today's employees to not only shoulder the responsibility for their own retirement well-being but to become professional money managers at the same time. Ask the baby boomers, who were planning on retiring in 2008-2010 and relying on their 401(k) plans, how well that worked out. It is simply unrealistic to assume the average American is, or ever will be, an investment expert.

The solution: Defined Benefit plans provide an ideal way to help your participants build a secure future because they provide a known level of guaranteed income at retirement. There is simply no better plan in terms of meeting the goal of income replacement at retirement, particularly when you look at how much participants would have to save on

their own to match the benefits provided by a pension plan. A pension plan provides a guaranteed secure income that participants cannot outlive and it places the responsibility of managing the assets into the hands of professional money managers.

Historically, Defined Benefit plans had been the mainstay of corporate retirement efforts. These plans still provide retirement income to a significant percentage of retirees nationwide. Beyond that, these plans provide important advantages to the employer.

Defined Benefit plans:

- Reduce employee turnover, thereby reducing costs to acquire new talent
- Attract and retain employees
- Provide significant advantages to highly compensated, longer service employees
- Provide lifetime income and may provide inflation protection
- Provide PBGC insured benefits
- Provide more comprehensive benefit coverage
- Offset employer costs by favorable investment performance
- Facilitate orderly retirement and succession by providing participants with the financial ability to retire

A recent case study:

A long standing client, who maintained both a Defined Benefit plan and 401k plan, decided to freeze participation in the Defined Benefit plan to new hires. After several years of operating their Defined Benefit plan in this fashion, they concluded the bank was unsuccessful in attracting and retaining the middle management age group. Their solution, open the plan up to new hires, but at a lower level of benefit accrual than the old plan. This proved to be a win-win situation- they are now attracting those key employees at a cost that is significantly lower than the previously provided level of benefit, yet still providing a meaningful benefit.

Frozen Plans – Ongoing Servicing

When a plan is frozen (no further benefit accrues for any participant) often a misperception arises- some employers think that a frozen plan has no further cost. However, since the plan has not been terminated, it is still subject to annual actuarial valuations (and interest rate fluctuations), paying annual PBGC premiums and reporting. As such, services provided to our frozen plans are nearly identical to services provided to our active plans. Both include the following-

- Comprehensive Fiduciary Relief for many employers
- Plan Design & Document Support
- Administration, Recordkeeping & Actuarial Valuations
- Regulatory Compliance & Government Reporting
- Legal & Technical Support
 - Investment Management
 - Investment Policy Statement
 - Investment Valuation and Selection
 - Ongoing Monitoring of Funds

- Performance Reporting
- Advisor & Plan Sponsor Reporting
- Education & Communication Materials, Benefit Statements

The only differences are that participant statements are provided annually to our active plans and every three years to our frozen plans, and frozen plans are not required to provide updated salaries each year. Resuming plan accruals means statements are sent annually again and employers resume sending us salary data.

Conclusion

If costs were not an issue, most employers would have a Defined Benefit plan as the cornerstone of their retirement program. For the 50-60 years following the Great Depression, Defined Benefit plans were the mainstay of corporate retirement efforts and provided the foundation for a secure retirement future. Why? Because Defined Benefit plans provide a known level of guaranteed income that employees cannot outlive and the benefits produced by these plans for participants are not subject to market volatility. The Defined Benefit plan was, and still is, the most cost-effective program available when it comes to providing income replacement at retirement and for rewarding career oriented employees.

Circumstances began to change over the last 15-20 years as a combination of market conditions, decreasing liability interest rates and pension law modifications (think Pension Protection Act of 2006) all conspired to increase the cost of maintaining Defined Benefit plans. But as interest rates rise, Defined Benefit pension costs will decrease. Remember, a 100 basis point increase in liability interest rates reduces plan liabilities by 12-14%. **Over the next several years it is quite feasible that many Defined Benefit plans will become overfunded again based on real market rates, not the artificial rates determined by MAP-21 and HATFA. In the interim, cost volatility has been reduced due to HATFA and the Bipartisan Budget Act.**

The question again will become, what is the most cost-effective design and method to administer these plans? Cash Balance plan features (where the plan benefits are based on hypothetical account balances and interest credits can be tied to actual plan investment returns) along with contributory pension plans are designs which enable employers to maintain the Defined Benefit plan at affordable levels. For many employers, the answer to plan administration is Pentegra's unique combination of expertise and services: fiduciary relief, economies of scale, simplified administration and financial accounting, and the single source approach to providing all the necessary services required to manage the program. Pentegra provides a truly affordable, top of the line, retirement plan option for employers. This can be a key differentiator for companies seeking to attract and retain top talent, particularly seasoned management level talent.

The future is bright for Defined Benefit plans and Pentegra is well positioned to be at the forefront of its resurgence. Few other providers offer 70+ years of experience as the principal fiduciary and ERISA- named Plan Administrator. And with Boards made up of

participating employers, Pentegra is an independent operation with the sole objective of serving the best interests of our client base.

We will continue providing commentary to reaffirm Pentegra's commitment to the ongoing sponsorship of Defined Benefit plans. We firmly believe the Defined Benefit plan economics are shifting and will afford employers the opportunity for lower funding costs, thereby positioning Defined Benefit plans to once again become one of the most cost effective methods of providing adequate retirement income to your employees.

For more information please contact us at 800-872-8473.

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