March 3, 2020

Impact of Historic Interest Rate Decline on Defined Benefit Plans

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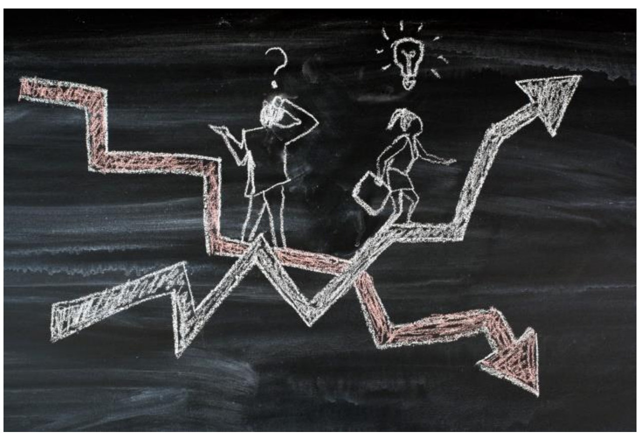
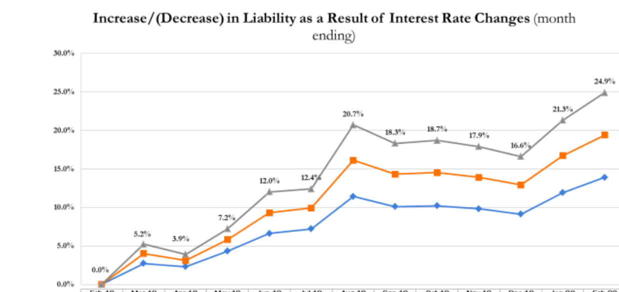
How will defined benefit pension plans be impacted by historic year-to-year interest rate declines? The U.S. has experienced over a 100 basis point decrease on 30-year treasury rates and significant decreases across treasury bonds of all durations from year-to-year. After a slight uptick in rates during the fourth quarter of 2019, interest rates have plummeted in the first quarter of 2020. The low interest rate environment, coupled with recent volatility in the market arising from concerns over the Coronavirus, has pension plan sponsors, CFOs, and actuaries alike, taking an in-depth look at the financial impact.



How Will Your Company be Impacted by Historic Interest Rate Decline?

Under U.S. GAAP and International Accounting Standards, pension liabilities are typically valued using a yield curve of corporate bond rates (which have a high correlation to Treasury bond rates) to discount projected benefit payments. Current analysis shows that the average discount rate has decreased approximately 100 basis points from the prior year using this methodology.

Due to the long-term benefit structure of pension plans, their liabilities produce higher duration values than other debt-like commitments, that are particularly sensitive to movement in long-term interest rates. The general rule of thumb is for each 1% decrease in interest rates, the liability increases by a percentage equal to the duration (and vice versa). The chart below, produced using *Findley's Liability Index*, shows the percentage increase in liabilities for plan's with varying duration values since the beginning of 2019.



	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
Short	0.0%	2.7%	2.3%	4.3%	6.6%	7.2%	11.4%	10.1%	10.2%	9.8%	9.1%	11.9%	13.9%
Medium	0.0%	4.0%	3.1%	5.8%	9.3%	9.9%	16.1%	14.3%	14.5%	13.9%	12.9%	16.7%	19.4%
Long Duration	0.0%	5.2%	3.9%	7.2%	12.0%	12.4%	20.7%	18.3%	18.7%	17.9%	16.6%	21.3%	24.9%

Assuming all other plan assumptions are realized, the larger liability value caused by the decrease in discount rates will drive up the pension expense and cause a significant increase in the company's other comprehensive income, reflecting negatively on the company's financial statements.

Considerable Growth in Lump Sum Payment Value and PBGC Liabilities

Additional consequences of low treasury bond rates include growth in the value of lump sum payments and PBGC liabilities. Minimum lump sum amounts must be computed using interest rates prescribed by the IRS in IRC 417(e)(3) which are based on current corporate bond yields. PBGC liabilities are also determined using these rates (standard method) or a 24-month average of those rates (alternative method). For calendar year plans, lump sums paid out during 2020 will likely be 10-20% higher for participants in the 60-65 age group, than those paid out in 2019. For younger participants, the increase will be even more prominent.

In addition, if the plan is using the standard method to determine their PBGC liability, there will be a corresponding increase in the liability used to compute the plan's PBGC premium. In 2020, there will be a 4.5%

fee for each dollar the plan is underfunded on a PBGC basis. Depending on the size and funding level of the plan, the spike in PBGC liability may correspond to a significant increase in the PBGC premium amount.

What If We Want to Terminate our Pension Plan in the Near Future?

For companies that are contemplating defined benefit pension plan termination, there will be a significant increase in the cost of annuity purchases from this time last year. The actual cost difference depends on plan-specific information; however, an increase of 15-25% from this time last year would not be out of line with the current market. This can be particularly problematic for companies who have already started the plan termination process. Due to the current regulatory structure of defined benefit pension plan terminations, companies must begin the process months before the annuity contract is purchased. The decision to terminate is based on estimated annuity prices which could be significantly different than those in effect at the time of purchase.

Actions You Can Take to Mitigate the Financial Impact

Contributions to the plan in excess of the mandatory required amount will help offset rising PBGC premiums since the premium is based on the underfunded amount, not the total liability. Additional contributions would also help offset the increase in pension expense.

The best advice we can offer at this time is to discuss these implications internally and with your service providers. Begin a dialogue with your investment advisors about the potential need to re-evaluate the current strategy due to market conditions. Contact your plan's actuary to get estimated financial impacts so you can plan and budget accordingly. If your plan has recently begun the plan termination process, you may need to reconvene with decision-makers to make sure this strategy is still economically viable.

Questions? For more information, you can utilize *Findley's Pension Indicator* to track the funded status of a variety of plan types each month. This will be especially informative with the recent fall from market peaks.

To learn more about how falling interest rates may impact your plan specifically contact your Findley consultant or Adam Russo at *adam.russo@findley.com* or *724.933.0639*.

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