

Many defined benefit plan sponsors have adopted glidepaths to derisk their pension plans when funded status improves. The discount rate used to value the liabilities (based on long AA-rated corporate bond yields) is typically the most significant driver of funded status movements. However, there are other factors that continue to drive LDI adoption, even if the yields on long AA-rated corporate bonds remain low for a significant period of time.

WHAT IF RATES STAY LOWER FOR LONGER?

- **Rate movements are hard to predict** - Across our business, we employ a duration-neutral approach to managing portfolios, reflecting our belief that attempting to predict rate movements is not a consistent way to add alpha for our clients. However, in the current environment there are a number of reasons to believe that long-end rates could continue to remain low.
- **The Federal Reserve has limited control over long duration rates** - While the Fed has significant control over shorter-duration rates through monetary policy, longer-duration rates are typically driven more by inflation expectations and supply/demand dynamics.
- **Corporate Defined Benefit (DB) pension plan assets exceed the current universe of available long corporate bonds by over \$1.5 trillion¹**- Even a small shift in asset allocations could have a significant impact on long-end dynamics. Many DB plan sponsors employ glidepaths that explicitly commit them to derisking as funded status improves.
- **Long Duration Demand** - While DB plans are by far the largest buyer, life insurance companies also utilize long corporate bonds to aid in asset/liability management and in their growing pension risk-transfer business. Foreign demand for long US corporate bonds has also increased over recent years, as low yields and muted long-end supply abroad have forced yield-based foreign buyers into US markets.
- **Long Duration Supply** - Combining these sources of demand with the potential for reduced supply if M&A activity declines from recent record levels, there are reasons to believe that demand could outstrip supply and help keep long rates near their current low yields.
- **An Anchor on Rising Rates** - In the event that longer-duration rates do start to rise, this supply/demand imbalance could be magnified given increased pension demand would likely not be met with increased supply as higher rates provide a disincentive to issuance.

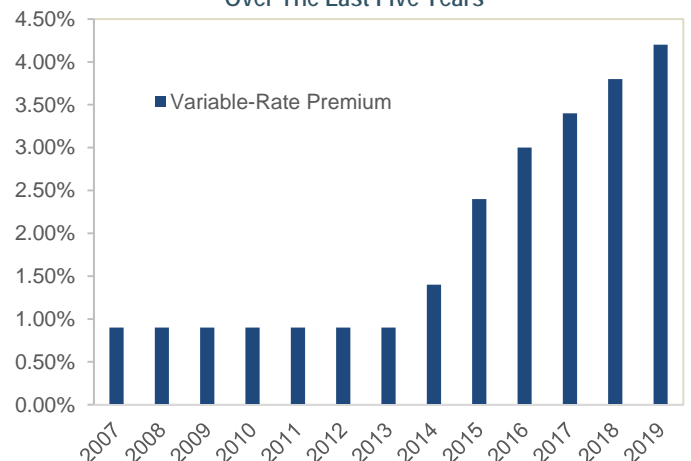
Despite Long Corporate Market Growth, Potential Pension Plan Demand for Long Corporate Bonds Dwarfs Outstanding Supply¹



PENSION BENEFIT GUARANTEE CORPORATION (PBGC) PREMIUMS HAVE GOTTEN MORE COSTLY

- **If we remain in the current low-rate environment** - There are a number of other factors outside of rate movements or equity returns that could lead to funded-status improvements and consequently to increased derisking activity.
- **Sponsor contributions are the most likely source of funded status improvements** - While required minimum contributions for many plans have been lower in recent years, some sponsors have continued to fund at higher-than-required levels to help minimize variable-rate PBGC premiums.
- **PBGC Premiums on the Rise** - The variable-rate premium levied on the unfunded liability of corporate DB plans will triple in the five-year period from 2013 to 2018, and in 2019, it is scheduled to reach 4.2%².
- **High Premiums “Add Value” to Contributions** - Increased premiums have incentivized many sponsors to contribute additional funds into their plans, effectively obtaining an immediate annual return on their contribution at the level of the variable-rate premium they are saving.

Variable-rate PBGC Premiums Have Increased Significantly Over The Last Five Years²



¹Source: Investment Company Institute, Bloomberg Barclays as of 3/31/17

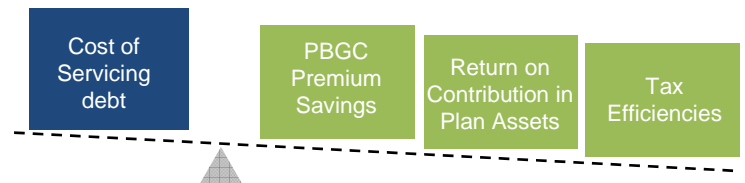
²Source: Pensions Benefit Guaranty Corporation as of 8/31/17

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BORROW-TO-FUND HAS BECOME MORE ATTRACTIVE

- **Borrow-To-Fund** - Plan sponsors who wish to reduce PBGC premiums further may issue debt and use the proceeds to fund additional plan contributions. This process is commonly known as “borrow-to-fund”.
- **Many plan sponsors can issue debt at rates not substantially higher than the PBGC variable-rate premium** - In the current low-rate environment, the annual premium savings will normally offset a large portion of the cost-of-debt issuance, essentially making any return on these contributions within the plan a bonus.
- **Taxable corporations may gain additional efficiencies** - Any returns within the plan are generally non-taxable, while debt payments on the issued debt may be tax deductible.
- **Historically, the number of plans actively pursuing borrow-to-fund strategies has been fairly limited** - The fear of rising rates and a potentially negative view from markets and ratings agencies have made sponsors hesitant to issue debt for this purpose.
- **We have seen an increasing number of sponsors willing to go to market** – Recently, rapidly increasing premiums and the desire to act ahead of potential tax reform have led to a number of large sponsors successfully implementing these strategies. Examples are shown in the table (right).

Conceptually The Cost of Debt Is Offset By The Reduction In PBGC Premiums (Currently 3.4%²), Investment Returns And Additional Tax Savings³



Borrow-to-Fund Deals in 2017⁴

Date	Issuer Name	Size (\$B)	Average Yield at Issue
1/3/2017	FedEx	1.2	4.05
3/9/2017	Delta Air Lines Inc.	2.0	3.30
3/13/2017	Verizon	11.0	4.22
4/27/2017	Du Pont	2.0	1.90
7/31/2017	International Paper	1.0	4.40

REGULATORY REFORMS COULD CHANGE LDI LANDSCAPE

- **Regulatory changes could be an additional driver of derisking** – Regulatory impacts are often the wildcard in predicting sponsor behavior and the impact can be hard to anticipate.
- **Tax Reform:**
 - The current administration has made tax reform a priority, with particular focus on lowering corporate taxes. Sponsor contributions are typically tax deductible; and for taxable sponsors, a reduction in corporate rates could potentially reduce the tax efficiency of payments to the plan.
 - The potential for reduced tax rates could incentivize plan sponsors to accelerate payments into the plan in advance of changes coming into effect. As discussed previously, increased funding would likely lead to further LDI adoption as this would move plans along their glidepaths.
- **Change to EROA for accounting:**
 - In December 2017 updated accounting standards will change how plan sponsors report a number of pension expense items. One in particular, expected return on assets (EROA), will no longer count towards sponsors' operating earnings⁵.
 - Traditionally, some sponsors have been unwilling to derisk their plans as the move to hedging assets typically results in lower EROA assumptions and hence higher pension expenses being reflected in earnings. This change to accounting standards de-emphasizes the EROA number and removes one potential hurdle to LDI adoptions for some plans.

Many sponsors will look to derisk their pension plans as funded status improves. The drivers of those improvements could come through rising discount rates or through some of the other factors discussed above. At IR+M, we work with consultants and clients to help them navigate the unique challenges and opportunities affecting defined benefit plans and their LDI journeys.

²Source: Pensions Benefit Guaranty Corporation as of 8/31/17

³For illustrative purposes only

⁴Source: BofA Merrill Lynch Global Research, company filings and Bloomberg

⁵Source: FASB Accounting Standards Update No. 2017-07 as of March 2017

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