Pension De-Risking – The Time for Plan Sponsor Action Is Now

In the years since the financial crisis of 2008, defined benefit pension plan risks have become a top priority for U.S. corporate plan sponsors. Following the market crash, plan sponsors diligently worked to reduce balance sheet exposure to pension liabilities through a variety of pension de-risking strategies, including plan redesign (e.g., plan closures or freezes), in-plan strategies such as increased contributions and liability driven investing ("LDI"), and pension risk transfer ("PRT") strategies such as lump sum offerings and annuity buyouts.

Defined benefit ("DB") pension funds have always been an important source of demand for the bond markets (i.e., Treasury and Investment Grade Credit markets). With recent increases in Treasury rates and widening of investment grade corporate spreads, many DB plans are now at or near being fully funded[1]. With the risk of recession on the horizon, and simultaneously falling Treasury rates, the time for plan sponsor action is now.

In this article we attempt to quantify what expected de-risking will mean for demand for Treasury and Investment Grade Credit bonds from both long duration/LDI and PRT strategies. This article, a collaboration between BofA Global Research ("BofA") and BCG Pension Risk Consultants I BCG Penbridge ("BCG"), is designed in three parts:

- **Part I – BCG Analysis:** An analysis prepared by BCG that compares BCG's projected incremental demand for long duration/LDI bonds ("**BCG Estimate**")[2] to a hypothetical scenario that would result if all U.S. DB pension funds moved to a 100% long duration/LDI bond allocation ("**Max Potential Demand**");
- **Part II – Q&A Interviews:** Steve Keating, Managing Director at BCG, interviews BofA's Yuri Seliger (Investment Grade Credit Strategist) and Meghan Swiber (Senior US Rates Strategist) to capture their respective observations of the BCG Estimate and Max Potential Demand analysis, and more importantly why the BCG Estimate is so different from Max Potential Demand. As part of this Q&A, Mr. Seliger and Ms. Swiber will also share their views on where we are in the credit cycle and what the current economic environment suggests for interest rates and credit spreads, important considerations for de-risking activity and pension portfolio construction. Part II also includes BofA questions for BCG to further clarify some of the underlying assumptions used by BCG to establish its estimates; and
- **Part III – Key Takeaways:** This last section provides key takeaways to raise awareness of plan sponsors and advisors that there is a window of time right now to de-risk DB plans under optimal conditions and, importantly, to acknowledge (based on BofA's forecast) that these optimal conditions may not last long.

This article is suggested reading for institutional investors across the investor spectrum, and a must read for senior corporate finance and pension plan decision makers, as well as their advisors, as they navigate these turbulent times.

Key Takeaways

- The funded status of many corporate plans has improved substantially because interest rates have recently risen. Many plans are now fully- or over-funded.
- High funded status provides the plan sponsor latitude to lock in funded status by implementing a LDI fixed income strategy to hedge against falling rates and narrowing spreads or to hedge the cost of risk transfer transactions like lump sums, buy-ins or buy-outs.
- BofA believes the Fed will start lowering rates in 3Q2023. Thus, long-term rates, which anticipate Fed actions, may have already peaked. BofA also expects that Investment Grade corporate spreads will narrow and sees signs of that in the current market. The current interest rate environment suggests that it is a good time to expand LDI implementation and consider de-risking.
- Combining current funded status and current market conditions, BCG expects the current "window" for optimal de-risking to not last long, though many technical impediments to swift action by plan sponsors remain.
- The time for plan sponsor action is now.

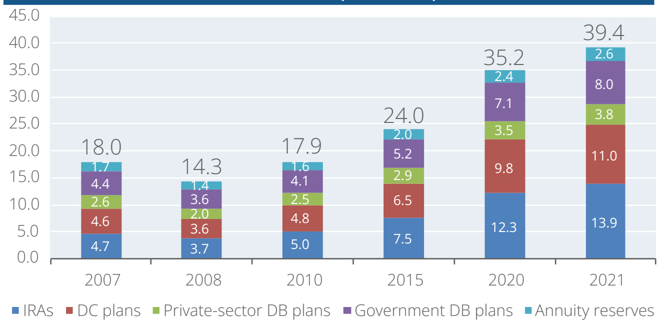
1 The average funded ratio for U.S. corporate pension plans reached its highest point in recent months since before the financial crisis, driven by solid equity returns in 2020 and 2021, followed by a spike in interest rates in 2022. This means that many corporate pension plan sponsors could pay lump sums and purchase annuities for all of their plan's participants (i.e., a plan termination) without needing to contribute much (if any) capital beyond distributing the assets that are already in the plan.

2 The BCG Estimate is subject to many assumptions. Changes in any of these assumptions could yield materially different results and still be considered reasonable.

Building the BCG Estimate of Demand for Long Duration/ LDI Bonds: Data & Discussion

Estimated Demand for Long Duration/LDI Bonds "BCG Estimate"

U.S. Total Retirement Market Assets ($ Trillions)[3]



U.S. Total Retirement Market Assets

Total estimated assets in U.S. retirement plans, split by plan type, across various time periods before and after the financial crisis.

Supply of U.S. Dollar-Denominated Bonds ($ Billions)[4]

	Duration					
Quality	**1 – 3**	**3 – 5**	**5 – 7**	**7 – 10**	**10+**	**Total**
U.S. Gov't	$4,783	$2,777	$2,098	$1,401	$3,243	$14,303
AAA Rated	$13	$17	$10	$4	$61	$105
AA Rated	$128	$120	$68	$75	$266	$656
A Rated	$680	$626	$362	$528	$1,006	$3,202
BBB	$591	$714	$531	$730	$1,368	$3,934
Total	**$6,195**	**$4,254**	**$3,069**	**$2,739**	**$5,944**	**$22,201**

Supply of U.S. Dollar-Denominated Bonds

The total size of the U.S. high grade bond market is $22 trillion, dominated by $14 trillion of Treasury securities. Outside of Treasuries the largest categories by credit quality are BBB-rated bonds ($3.9 trillion) and single-A rated bonds ($3.2 trillion). Long duration (10+yr) bonds total $5.9 trillion. Outstanding levels implied from ICE BofA Index data.

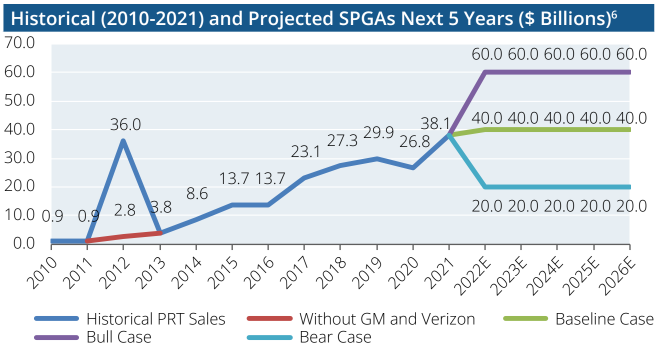
Projected Lump Sum Payments Next 5 Years ($ Billions)[5]

	Terminated Vesteds	Retirees	Actives	Total
Estimated Segment Size	16%	52%	32%	100%
Percent of Segment Targeted	50%	1%	15%	13%
Percent of Lump Sums Executed ("Take Up Rate")	60%	30%	80%	NA
Value of Lump Sums Executed[5]	**$188**	**$6**	**$156**	**$350**

Projected Lump Sum Payments Next 5 Years

Assumptions regarding which participants will be offered a lump sum over the next 5 years, and what percentage of those offered a lump sum will opt to receive the lump sum, split by participant type.

Historical (2010-2021) and Projected SPGAs Next 5 Years ($ Billions)[6]



Historical (2010-2021) and Projected SPGAs Next 5 Years

Summary of the past 12 years' Single Premium Group Annuity ("SPGA") purchases, as well as estimates for potential SPGAs over the next 5 years.

3 Source: Investment Company Institute.

4 As of December 31, 2021; source: ICE Data Indices, LLC, BofA Global Research

5 Segment sizes have been estimated based on observations of Pension Benefit Guaranty Corporation ("PBGC") premium filing information through plan years starting 1/1/2021. Percent of segment targeted and take up rates have been estimated by BCG.

6 SPGAs represents single premium group annuities which consist of pension buy-out and buy-in annuity contracts; source: BCG.

Estimated Demand for Long Duration/LDI Bonds Next 5 Years "BCG Estimate" ($ Trillions)

Plan status is a significant driver of BCG's forecast for the increase in demand for long duration/LDI bonds. While we understand that plan status will not remain static over the next five years, we assume no change in plan status for the calculations in Step 2.

In Step 1

We start with total U.S. corporate pension defined benefit (DB) assets of approximately $3.80 trillion and estimate a current average investment portfolio allocation of 40% to listed equity assets, 59% to fixed income assets and 1% to cash/other assets. This indicates approximately $2.24 trillion of assets are currently allocated to fixed income. Further, we estimate that approximately 56% of the fixed income allocation, or $1.26 trillion, is invested in long duration/LDI strategies.

Step 1[7]		
Total U.S. Corporate DB Pension Assets (12/31/21)		**$3.80**
Total U.S. Corporate DB Pension Liabilities		**$3.91**
Average Funded Ratio (5/31/22)		**97.1%**
Assumed Asset Allocation of U.S. Corporate DB Pension Assets:		
Listed Equity Assets	**40%**	**$1.52**
Fixed Income Assets	**59%**	**$2.24**
Cash/Other Assets	**1%**	**$0.04**
Long Duration/LDI Strategies (as % of Fixed Income Assets)	***56%***	***$1.26***

In Step 2

We estimate the allocation to fixed income will slightly increase over the next five years for both frozen and closed plans as well as open plans. We assume a fully funded status on average within the next five years and no change to the current total liability value of $3.91 trillion (i.e., we did not forecast changes to total liabilities due to interest rates, accruals or benefits paid). But we do assume further lump sum activity will reduce corporate DB liabilities from $3.91 trillion to $3.57 trillion. Following these transactions, we then assume that fixed income will make up 70% of remaining frozen/closed plan assets (of which 75% will be long duration/LDI) and 59% of open plan assets (of which 75% will be long duration/LDI). The result of Step 2 shows our 5-Year projection of corporate pension assets in long duration/LDI strategies after paying lump sums to be $1.70 trillion.

Step 2		
Total U.S. Corporate DB Pension Liabilities in 5 Years		**$3.91**
Lump Sums Paid	–	***$0.34***
Total U.S. Corporate DB Pension Liabilities After Lump Sums	=	**$3.57**
Total U.S. Corporate DB Pension Assets in 5 Years		**$3.57**
Average Funded Ratio		100%
5-Year Projection of Fixed Income and Long Duration/LDI Allocations:		
Frozen and Closed Plans After Paying LS: Fixed Income Assets	70%	$1.01
Long Duration/LDI Strategies (75% of Fixed Income)		**$0.76**
Open Plans After Paying LS: Fixed Income Assets	59%	$1.26
Long Duration/LDI Strategies (75% of Fixed Income)		**$0.94**
5-Year projection of corporate pension assets in long duration/LDI strategies assuming fully funded status:		**$1.70**

In Step 3

Assuming total single premium group annuity (SPGA) activity (i.e., pension buy-outs and buy-ins) of $200 billion over the next five years (baseline case; see chart on bottom right of P. 3), the incremental demand for long duration/LDI bonds from SPGA's alone could be $100 billion (i.e., of the $200 billion being allocated to SPGA's roughly 50% of that is already invested in long duration/LDI bonds under the plan sponsor's oversight), so the 5-year projection of long duration/LDI demand goes from $1.70 trillion to $1.79 trillion.[8]

Step 3		
Total Long Duration/LDI Allocation in 5 Years		**$1.70**
Impact of Annuity Buyouts	+	**$0.10**
Adjusted 5-Year Projection	=	**$1.79**

Calculation of 5-Yr Incremental Long Duration/LDI Demand from SPGA Activity:

$$\text{Total SPGA's Expected Over 5 Years} \times \left[1 - \frac{\text{5-Year Projected Long Duration/LDI Assets for Frozen/Closed Plans After Paying LS}}{\text{Frozen/Closed Plan Liabilities After Paying LS}}\right]$$

$$\$0.20 \times \left[1 - \frac{\$0.76}{\$1.44^{**}}\right] = \$0.10$$

*** This figure represents 40% of plans in a closed or frozen status multiplied by $3.57 trillion (i.e., total U.S. corporate DB pension liability in five years after paying lump sums).*

In Step 4

We arrive at our 5-year forecast of incremental demand for long duration/LDI bonds by subtracting our estimate of assets currently invested in long duration/LDI strategies ($1.26 trillion) from our 5-year projection of $1.79 billion.

Step 4		
5-Year Projection of Long Duration/LDI Manager Opportunities		**$1.79**
Current Long Duration/LDI Allocation	–	**$1.26**
5-Year BCG Estimate for Long Duration/LDI	=	**$0.54**

This makes our 5-year BCG Estimate for long duration/LDI bonds $540 billion.

7 Step 1 assumes a current plan status of 60% Open, 10% Closed and 30% Frozen with no change in plan status when making 5-year projections in Step 2. Average Funded Ratio and Assumed Asset Allocation sourced from 5/31/22 corporate pension plan funding status industry report.

8 While Step 3 indicates that a PRT insurer's allocation to long duration/LDI bonds for SPGA's will consist entirely of publicly held bonds, it should be recognized that a PRT insurer's fixed income allocation to support liabilities assumed via PRT contracts is often more diverse than a typical pension plan due to investment in private placements and mortgage loans that the insurer's originate, as well as CMBS and other securitized products.

Alternate Scenario: All DB Plans Move to 100% Long Duration/LDI Bonds Next 5 Years "Max Potential Demand" ($ Trillions)

In Step 1

No change from BCG Estimate analysis on page 3.

Step 1[9]		
Total U.S. Corporate DB Pension Assets (12/31/21)		**$3.80**
Total U.S. Corporate DB Pension Liabilities		**$3.91**
Average Funded Ratio (5/31/22)		**97.1%**
Assumed Asset Allocation of U.S. Corporate DB Pension Assets:		
Listed Equity Assets	**40%**	**$1.52**
Fixed Income Assets	**59%**	**$2.24**
Cash/Other Assets	**1%**	**$0.04**
Long Duration/LDI Strategies (as % of Fixed Income Assets)	***56%***	***$1.26***

In Step 2

Same as Page 3 but we now assume that fixed income will make up 100% of frozen/closed plan assets (of which 100% will be long duration/LDI) as well as 100% of open plan assets (of which 100% will be long duration/LDI). The result of Step 2 shows our 5-Year projection of corporate pension assets in long duration/LDI strategies after paying lump sums to be $3.57 trillion.

Step 2		
Total U.S. Corporate DB Pension Liabilities in 5 Years		**$3.91**
Lump Sums Paid	–	***$0.34***
Total U.S. Corporate DB Pension Liabilities After Lump Sums	=	**$3.57**
Total U.S. Corporate DB Pension Assets in 5 Years		**$3.57**
Average Funded Ratio		100%
5-Year Projection of Fixed Income and Long Duration/LDI Allocations:		
Frozen and Closed Plans After Paying LS: Fixed Income Assets	100%	$1.44
Long Duration/LDI Strategies (100% of Fixed Income)		**$1.44**
Open Plans After Paying LS: Fixed Income Assets	100%	$2.13
Long Duration/LDI Strategies (100% of Fixed Income)		**$2.13**
5-Year projection of corporate pension assets in long duration/LDI strategies assuming fully funded status:		$3.57

In Step 3

The incremental demand for long duration/LDI bonds from SPGA's is now zero in this Max Potential Demand estimate, as we are assuming all assets are invested in long duration/LDI prior to an SPGA. Thus, there is no increase in long duration LDI by shifting assets from a plan sponsor to an insurance company.

Step 3		
Total Long Duration/LDI Allocation in 5 Years		**$3.57**
Impact of Annuity Buyouts	+	**$0.00**
Adjusted 5-Year Projection	=	$3.57

Calculation of 5-Yr Incremental Long Duration/LDI Demand from SPGA Activity:

$$\text{Total SPGA's Expected Over 5 Years} \times \left[1 - \frac{\text{5-Year Projected Long Duration/LDI Assets for All Plans After Paying LS}}{\text{Total U.S. Corporate DB Pension Liabilities After Paying Lump Sums}}\right]$$

$$\$0.20 \times \left[1 - \frac{\$3.57}{\$3.57}\right] = \$0.00$$

In Step 4

We arrive at our 5-year Max Potential Demand estimate for long duration/LDI bonds by subtracting our estimate of assets currently invested in long duration/LDI strategies ($1.26 trillion) from our 5-year projection of $3.57 billion.

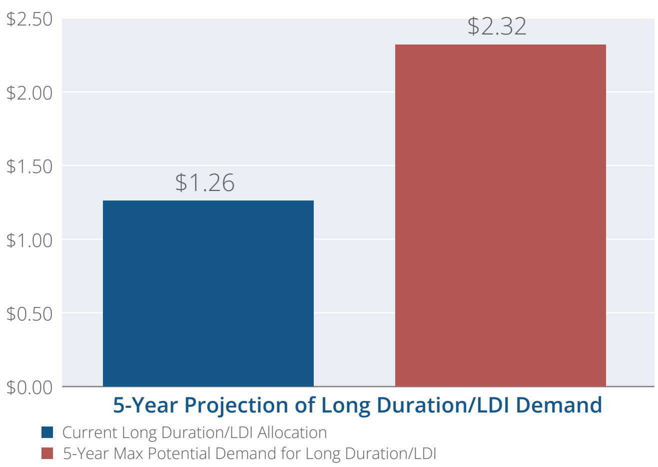
Step 4		
5-Year Projection of Long Duration/LDI Manager Opportunities		**$3.57**
Current Long Duration/LDI Allocation	–	**$1.26**
5-Year Max Potential Demand for Long Duration/LDI	=	**$2.32**

This makes our 5-year Max Potential Demand for long duration/LDI bonds $2.32 trillion.

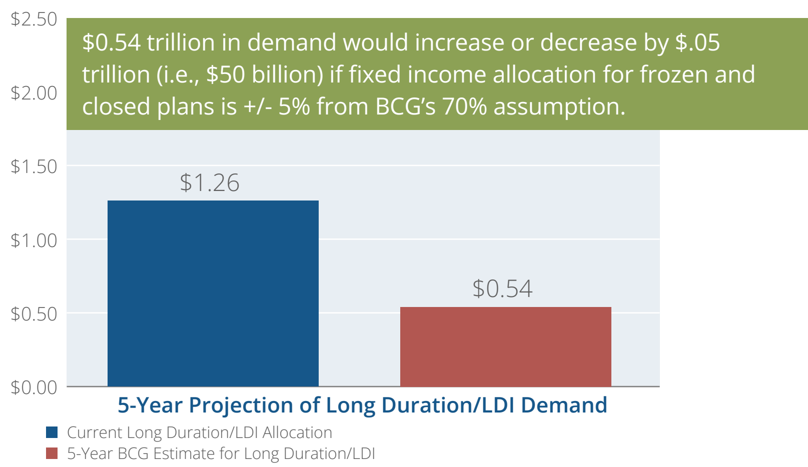
9 Same as footnote 7 on page 3.

Comparison ($ Trillions)

Max Potential Demand



BCG Estimate



Why Might the Max Potential Demand Be Realized

- Rising interest rates and a (long-term) expectation of rising equities should improve funded status, and plans on average are already overfunded.
- Minimum funded requirements will require poorly funded plans to make progress towards improved funding.
- PBGC premiums continue to provide a strong financial incentive for many plans to reach full funding.
- Information regarding pension risk mitigation is more widely available and accepted each year.
- A growing annuity purchase market will shift more pension obligations to insurance companies, where LDI-type investment is already the norm.
- IRS excise taxes and limitations on use of surplus pension assets point towards de-risking asset allocations as plans (especially frozen or closed plans) near full funding.

Why Neither the Max Potential Demand Nor the BCG Estimate May Be Realized

- Some plans will still be materially underfunded in 5 years (especially with a looming recession), thus won't be ready for full LDI.
- U.S. GAAP accounting rules provide incentive to remain invested in high risk/high reward investments, by basing pension expense calculation on expected (not actual) investment returns.
- Plan sponsors may believe interest rates will rise and/or equity markets will grow substantially, and will be able to effectively use surplus pension assets (e.g., through ongoing and/or improved benefit accruals, replacement retirement plans, and/ or acquisition of new pension obligations via mergers).
- Plan sponsors may have reached the point where a (nearly) full LDI allocation is warranted, but lack advisors to objectively assist with appropriate asset allocation changes to minimize risk.
- Settlement accounting impact may have plan sponsors focus on the short-term P&L expense, despite a funded status that may allow for plan termination without any additional contributions in the near term.
- As it relates to the Max Potential Demand scenario, investing 100% in any asset class will result in a concentration of risk (market risk for equities, credit risk for LDI (duration-matched fixed income).

This collaborative article with BofA Global Research is a special feature for the July 2022 edition of The BCG Pension Insider, BCG's monthly pension industry publication that covers topics relevant to the pension de-risking industry. The BCG Pension Insider reaches over 5,000 U.S. retirement industry participants covering plan sponsors, plan advisors, consulting actuaries, institutional investment consultants, asset managers, law firms, PRT insurers, reinsurers and other industry participants.

To receive The BCG Pension Insider in your email each month, click: bcgpension.com/leadership/the-bcg-pension-insider

BCG Questions for BofA's Yuri Seliger and Meghan Swiber

BCG: *Are you surprised to see the difference between the Max Potential Demand estimate and the BCG Estimate?*

BofA: We are not surprised. While the BCG Estimate is notably below the Max Potential Demand scenario, it still implies a faster pace of bond buying than recent history. That would be consistent with the much higher average pension funded status. $540 billion over 5 years effectively translates to a bit more than $100 billion in pension demand for duration per year, which is a meaningful pickup from what we have observed over the past 12 months. The Fed's flow of funds report suggests that DB pensions have added about $6 billion and $25 billion in U.S. Investment Grade and Treasury bonds since the start of 2021, respectively, so this flow would represent a meaningful acceleration.

This estimate of a significant pickup in pension demand for fixed income is likely consistent with market participant expectations, as investors think more plans will choose to de-risk to lock in their fully funded status. On the other hand, the demand is limited by the fact that it mostly applies to only closed and frozen defined benefit plans, subtracts out anticipated lump sum payouts, and assumes a max allocation to fixed income of 75%. BCG thinks that it is unlikely that pensions increase a duration allocation beyond 75% because this creates concentration risk and because not all plans are at a place to fully de-risk.

BCG: *What does this mean for the broader demand picture for your markets?*

BofA: BCG's estimate of about $100 billion of pension demand per year for longer dated Treasuries and Investment Grade credit is sizable compared to issuance. We anticipate about $225 billion in 30y Treasury issuance and about $200 billion in 30-year U.S. Investment Grade corporate supply over the next year. Therefore, a potential tripling of DB pension demand from ~$30 to ~$100 billion would have a notable market impact, including flatter Treasury yield curve and flatter corporate spread curves. Away from pensions we still think that the Treasury market will see lackluster demand this year until we see clearer signs of an economic slowdown that will likely drive demand from asset managers.

While pensions will likely want a higher allocation to U.S. Investment Grade credit as they de-risk, Treasuries do play an important role in pension fund portfolios and are often used as a way for pensions to get duration exposure more quickly. We would expect this demand to be concentrated in zero coupon Treasuries and the longest coupon bonds (30 yrs.).

BCG: *Markets have been very volatile; how long should we expect this to last?*

BofA: Markets are likely to remain volatile until we have seen a confirmed peak in inflation and begin to see signs that price pressures are abating. Until then, there is still a high degree of uncertainty around how high the Fed will need to bring rates to cool the economy and inflation, and what that means for the economy. While this means large fluctuations in interest rates—it also creates an uncertain environment for equities. This is because the way the Fed impacts the economy is through financial conditions—a tighter policy stance means tighter financial conditions—lower equity valuations and higher credit spreads.

BCG: *From the BofA Global Research perspective, how imminent is a recession and what does this mean for investors including pension funds?*

BofA: BofA economists expect a mild recession this year and expect 4Q/4Q real GDP in 2022 to decline 1.4%, followed by an increase of 1.0% in 2023. In terms of labor markets, the combination of a moderate downturn this year and below- trend growth for much of next year pushes the unemployment rate 1pp higher from 3.6% currently to 4.6%. With a sharper slowdown penciled in and higher unemployment, our outlook calls for inflation to moderate. We look for headline PCE inflation to move lower to 4.9% in 2022 (4Q/4Q) and 2.5% in 2023. The equivalent numbers for core PCE are 4.1% and 2.9%, respectively.

This suggests that now is a good time for pensions to take advantage of the high funded ratios and de-risk. **Recession fears will likely drive lower interest rates particularly at longer dated tenors as the market prices in future Fed cuts.** Because pensions typically use longer dated tenors to discount their liabilities, a decline in longer tenor rates will increase liability valuations and reduce funded status. More negative growth prospects also imply higher downside risks to equities and, unless pensions de-risk, would also materially reduce funded statuses.

BCG: *What are BofA's expectations for rates and the credit market?*

BofA: For U.S. Treasury rates by year end we are forecasting the 10y at 2.75% and 2y at 2.90%, suggesting an inverted 2s10s yield curve as the market prices rate cuts from the peak in the Fed funds rate this cycle. Our economists expect that the Fed will raise the fed funds rate to peak between 3.25-3.50% by the end of this year, with cuts to begin in September 2023 as the economy slows. **In general, we anticipate that we have likely seen the highs in longer dated rates (10y and out this cycle), and that flight to quality flows and downside risks will continue to compress the backend from here, even as the Fed delivers hikes.**

We look for investment grade corporate spreads to tighten to 130 basis points in six months, from 152 basis points currently. Extremely elevated uncertainties about inflation, the Fed, interest rates and ultimately economic growth are the biggest drivers of spreads currently. Under such conditions both investor sentiment and demand are weak, weighing on spreads. In part due to weak investor demand, Investment Grade new issue supply volumes dropped 32% in second quarter 2022 relative to the same period last year.

Inflation finally slowing down – likely in 4th quarter – should reduce some of these elevated risks and help spreads tighten towards our target. Also supporting spreads is our call for only a shallow U.S. recession this year and a modest default cycle before U.S. growth turns modestly positive in 2023.

BofA Questions for BCG's Steve Keating

BofA: *You state that fixed income allocations will increase to 70% for closed and frozen plans and remain the same at 59% for open plans. This is the key insight for us. Could you explain why you expect only a somewhat marginal increase in the fixed income allocations for closed and frozen plans (from 59% currently to 70%) and no change for open plans and how you came up with the 59% and 70% assumptions?*

BCG: Total fixed income allocations today are around 59%, including both frozen and open plans. Many of these plans are expected to improve funded status, progress along (or possibly just establish) an investment glidepath, or perhaps even terminate. While this all points toward increases – perhaps substantial increases – in fixed income allocation, there are reasons why some plans may opt for little additional fixed income in their portfolio. Most of these reasons center on how changes in asset allocation affect the presentation of pension expense in U.S. GAAP earnings. One such reason concerns the calculation of the P&L expense under U.S. GAAP accounting. Managing this expense is critical to the objectives of many plan sponsors and relies on the plan sponsor's best estimate of the plan's Expected Return on Assets, or EROA, in order to keep the expense low. A high allocation to equities allows the plan sponsor to honestly estimate a high EROA, whereas a move towards more fixed income would require the plan sponsor to lower its EROA assumption, and thus accept a higher pension expense. For many sponsors, keeping the current year's pension expense as low as possible may trump most other pension decisions, leading to higher equity allocations than might otherwise be expected. Beyond this, many plans will remain poorly funded, and may need to shoot for higher asset returns to improve funded status. And still others expect interest rates to rise further before they will commit more to fixed income. The 70% and 59% assumptions take all these technical considerations into account.

BofA: *Given the much higher funded status today, why do you assume risk transfer activity runs at a rate of $40 billion per year – similar to 2021 – over the next five years, and why not faster?*

BCG: The $40 billion per year estimate does represent an increase over the record $38 billion risk transfer activity in 2021. While it is certainly not out of the question that risk transfers do rise faster than expected, there is also the possibility of a decrease in annual risk transfer activity, compared with 2021. The record year in 2021 may have (in part) been due to the advent of COVID-19 in 2020. Many retiree liftout transactions that otherwise may have occurred in 2020 were pushed off until 2021 (as other actions took priority, e.g., contingency planning and figuring out how to work from home). While an increase may have occurred from 2020 to 2021 even without COVID, the baseline for expected risk transfer activity may be a bit below the $38 billion number from 2021 – and the $40 billion per year estimate may represent a fairly sizable increase over an adjusted "baseline" (of something <$38 billion). Of course, in most years over the past decade, the total dollars spent on de-risking activity has relied heavily on a very small number of very large annuity purchases, and thus there is the potential for significant swings in either direction from year to year.

BofA: *Could you explain why open and closed plans differ in terms of their asset allocation decisions?*

BCG: For frozen/closed corporate plans, the assumption used is that, in 5 years, 70% of assets will be invested in fixed income. In contrast, only 59% of assets in open/accruing plans are expected to be invested in fixed income. With plans that still have benefits accruing, there tends to be a higher allocation of assets to equities, as the upside of equity returns allows for the potential to avoid making contributions to the plan to fund these ongoing accruals, and instead allow superior investment returns to fund the accruals. For frozen plans, as the plan becomes better funded, there may be little value in further improved funding, thus making LDI the more prudent choice for well-funded frozen plans. For both types of plans, 75% of the fixed income assets are assumed to be Long Duration/LDI investments, reflecting the growing importance and recognition of LDI in a pension plan's investment strategy.

BofA: *How did you arrive at the assumption on the open/closed plan split of 60/40?*

BCG: The assumption on the split of open/closed plans relies on only those pension plans that file Form 5500 and PBGC filings each year. Information from government filings is a bit dated by the time it is publicly available (e.g., a 1/1/2020 plan year Form 5500 may not be available until after 10/15/2021). Such filings up through plan years commencing 1/1/2021 point towards approximately 60% of these plans remaining open to new entrants and accruing benefits, with 40% closed and/or frozen. While the dollar amounts are larger in the frozen/closed plans, the open plans will continue to add new benefits.

BofA: *Could you give more detail on lump sum payments and the assumptions you used?*

BCG: Different assumptions for each participant status (active, terminated vested "TV", or retired) were the key variables in determining the total lump sums expected to be paid. For active participants, the assumption is that 15% of currently active participants would be offered a lump sum over the next 5 years, primarily due to the termination of some pension plans. For TVs, 50% are expected to be offered a lump sum. Like actives, these TVs will generally be offered a lump sum when their plan terminates. But unlike active participants, TVs will often be offered lump sums prior to a plan's termination. Some plans (e.g., most cash balance plans) already offer TVs the ability to receive a lump sum. Even plans that do not currently offer a lump sum may offer a limited time "lump sum window". Many are expected to do so. Finally, we expect only 1% of retirees will be offered a lump sum. Lump sum offers to retirees are rare, and this assumption reflects the rarity of these offers. When offered a lump sum, we assume that 80% of actives will accept the offer and 60% for TVs and 30% for retirees. TVs will elect a lump sum at a lower rate than retirees, in part because there may have been previous lump sum offers to TVs. So, some of these have previously rejected a lump sum. Lump sum take rates for retirees are generally well below that of TVs and actives, thus the 30% assumption for the retirees' take rate.

Key Takeaways

- The funded status of many corporate plans has improved substantially because interest rates have recently risen. Many plans are now fully- or over-funded.
- High funded status provides the plan sponsor latitude to lock in funded status by implementing a LDI fixed income strategy to hedge against falling rates and narrowing spreads or to hedge the cost of risk transfer transactions like lump sums, buy-ins or buy-outs.
- BofA believes the Fed will start lowering rates in 3Q2023. Thus, long-term rates, which anticipate Fed actions, may have already peaked. BofA also expects that Investment Grade corporate spreads will narrow and sees signs of that in the current market. The current interest rate environment suggests that it is a good time to expand LDI implementation and consider de-risking.
- Combining current funded status and current market conditions, BCG expects the current "window" for optimal de-risking to not last long, though many technical impediments to swift action by plan sponsors remain.
- The time for plan sponsor action is now.

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