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**(The views expressed herein are solely those of the author)**

## **Soaring Pension Funding Levels Propel Flows into Fixed Income**

### **Introduction**

The funding status of public and private pension plans has dramatically improved. The Millman 100 Pension Funding Index (PFI), which tracks the 100 largest corporate defined benefit plans, had not exceeded 90% since the 2008 crises; that is, until this year, when it has soared during the past 12 month and now stands at 97.1%. There are two major catalysts behind the dramatic improvement. This note will discuss them, but more importantly will also discuss how and why pension plans materially change their portfolio allocations when funding nears fully funded status. First some review is necessary.

### **A Quick Review of Terms**

A pension has an obligation to meet a future stream of payments it has promised to beneficiaries. Future liabilities are discounted back to a present-day value. If the value of the assets held today matches this level, then the fund is considered fully funded. As a point of clarity, the terms actuarial assumption, assumed rate of return and discount rate are all interchangeable: it's the interest rate at which the liabilities are discounted, or conversely the rate at which assets are expected to appreciate.

### **Public Pension Plan Overview**

Public plans in the U.S. often have pension boards select a “reasonable” assumed rate of return, whereas some state statutes allow treasurers to decide a level. Guidance is drawn from complex actuarial formulas and outlined by the Government Accounting Standards Board (GASB).

Choosing the “right” level can be a politically charged exercise because the lower the rate of return assumption, then the higher the calculated liability: thus, more money would need to be drawn from state budgets and allocated to the public pension in order to keep the funding status the same.

The current weighted average discount rate for U.S. public plans is about 7.18%. A high level compared to official rates or Treasury bond yields. Some argue that the best way to calculate the present value of a very low risk liability is to use a very low risk discount rate. Since the weighted average duration is around 17 years, an argument could be made that a 17-year “risk-free” treasury yield (around 1.85% today) should be the “right” discount rate. It is an

interesting point (outside of the scope of this note) and has been a source of debate for decades.

### **Private or Corporate Pension Overview**

Corporate pension plans, on the other hand, are highly regulated under the 1974 Employee Retirement Income Securities Act (ERISA) and normally insured by the Pension Benefit Guaranty Corporation (PBGC). Corporate pensions are required to use a discount rate equivalent to an AA-rated bond (currently around 2.6%). Clearly, constructing a portfolio designed to meet, or marginally exceed, 2.6% will differ from a portfolio whose mandate is to meet or exceed 7.18%.

Corporate plans are typically more heavily weighted in fixed income securities because there are plenty of available securities that deliver a higher-expected return than their *lower* discount rate. Fixed income securities also have the added benefit of better liability duration-matching opportunities than most equity securities and can be achieved with a diversified mix of long corporates and credits, mortgage loans, private placements, private-market real estate and infrastructure investments.

### **Funding Ratio Drivers**

What were the two catalysts causing the significant improvement in the funding ratio? The first was market conditions in 2021 and the other was a slow-moving multi-year event caused by pension rule changes dating back to 2013.

**Catalyst 1:** Risk asset returns during the past 12 have risen significantly while yields have risen slightly. For instance, the 12-month return on the S&P 500 is around 29% while yields on highly rated corporate bonds have risen around 12 basis points (0.12%). Thus, the funding ratio, calculated by dividing assets by liabilities, rose considerably, because the numerator rose concurrently with the denominator falling.

**Catalyst 2:** First some background. The exact opposite happened during the 2008 crisis: asset prices plummeted, and interest rates fell. Even after asset prices began to rise again from 2010 to 2012, interest rates fell even harder (during QE2) causing liabilities to rise faster than asset prices. The average funding ratio of corporate plans fell from 98% in 2006 to a low of around 76% in 2012.

The PBGC administers private pension plans' termination insurance. It is not funded by general tax revenues but rather by collecting insurance premiums from employers that sponsor insured pension plans. By mandate, it is supposed to hold a minimum reserve balance equal to 2% of the aggregate of the liabilities it is insuring. Ironically, the PBGC itself was underfunded in 2012 with reserves of only 0.6%. In order to build reserves back to 2%, and to avert another potential taxpayer bailout, Congress passed PBGC rule changes as part of The Budget Act of 2013.

The PBGC collects two types of premiums to fund its insurance program: a flat rate per participant and a variable-rate based on the plan's funding status. The Budget Act increased each premium significantly through large increases every January 1<sup>st</sup> until 2019. The variable rate change incentivized a plan sponsor to avoid risks that could worsen the plans funding level, while the flat rate change incentivized the plan sponsor to moderate the number of beneficiaries in the plan. Over time, several plans have decided to switch from defined-benefit plans to defined-contribution plans.

Specifically, the per participant flat rate increased each year from \$42 in 2012 to \$86 in 2021 (a 104.7% increase). The variable rate premium is the more important of the two. It is basically a "fine" that kicks in if the funding status falls below a certain level. The penalty is non-linear: it increases the greater the underfunding, but does have a cap. The premiums (i.e., "fines") also had *high* double-digit percentage increases every year through 2019. The plan sponsor had to pay \$9 per \$1000 of unfunded vested benefit in 2012 that increased every year until 2019 with a terminal rate of \$31 (a 244% increase).

The bottom line is that over time the incentives of the corporation as well as those of the pension plan sponsor changed. With the asymmetry of downside penalties in place it was basically impossible for plan sponsors to honor their fiduciary responsibility - to maximize return per unit of risk - without first addressing its uneconomic starting position of having to pay large premiums. The most powerful incentive therefore became trying to avoid arduous underfunding penalties.

Since funding status shows up directly on a corporate balance sheet, funding status volatility also meant unwelcomed balance sheet volatility. Corporations naturally began to make contributions to their plans to avoid the worst of the incremental premiums which came directly from a company's profit. At the pension level, lurking premium penalties altered asset selection and risk versus reward calculations. Plans were properly incentivized to lower risk levels and made moves to more closely align liabilities to assets by increasing allocations to fixed income securities.

### **Powerful Asset Allocation Shift**

Underfunded plans, particularly public plans with a much higher rate of return assumption, are incentivized to take more risk (i.e., find higher yielding securities) in the hope of earning their way out of the funding shortfall. However, all plans with *near*-fully funded status should ask themselves 'what benefit is there of taking continued market risks?' Since there are few and skewed benefits in doing so, fully funded plans have been moving toward lowering tracking error to their liabilities, which means de-risking the portfolio. The best way to make the transition is by shifting out of equities and allocating more to fixed income securities. Corporate DB plans make these shifts quickest, while public plans are slower and more reluctant to veer too far from benchmarks.

Total assets of all U.S. corporate defined benefit plans are around \$3.5 trillion with the top 100 corporate pensions owning about \$1.8 trillion and all US government defined benefit plans holding about \$7.5 trillion as of the end of June 2021. Since 2008, the percentage allocated to fixed income has steadily risen from under 40% to slightly above 50% today. The UK was one of the first to adopt LDI strategies back in the 1990's. Today, UK defined benefit plans are over 70% allocated to fixed income.

Experiences like the 2000 technology melt down and 2008 financial crisis demonstrated how funding levels can swing dramatically when assets and liabilities are mismatched. A pension CIO friend of mine once said, "I'd rather fund these liabilities once, rather than multiple times."

## **Conclusion**

There continues to be momentum behind adopting LDI strategies. This trend is likely to endure; and if, and when, plans become over-funded (some already are), then allocations to fixed income should accelerate in kind. History has shown us that. If US plans follow UK plans by upping fixed income allocations to 70%, this would mean another \$660 billion just from corporate DB plans. And this could just be the tip of the iceberg. According to the Thinking Ahead Institute's annual global pension asset study, there was \$52 trillion of assets held by global pension plans at the end of 2020: 41.7% in North America, 27.6% in Europe, and 27.5 in Asia-Pacific funds.

Currently, many market participants are focused on trying to explain how bond yields can be so low with relatively high current levels, and forecasts for growth and inflation. Maybe, just maybe, growth and inflation forecasts (which are inherently difficult to measure and flawed over time) are, and have been, less important than the flows just discussed; not to mention other strong *flow-factors* into fixed income securities from global saving rates and demographic shifts. With this backdrop, maybe *low rates* relative to historical norms will continue for many more years to come.

"The times they are a-changin'" – Bob Dylan