The Fed's Role in Creating the U.S. Pension Crisis

by

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The Federal Reserve was created by an act of Congress on December 13, 1913. It has four goals or responsibilities:

1. Conducting the nation's monetary policy by influencing money and credit conditions in the economy in pursuit of full employment and stable prices.
2. Supervising and regulating banks and other important financial institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers.
3. Maintaining the stability of the financial system and containing systematic risk that may arise in financial markets.
4. Providing certain financial services to the U.S. government, U.S. financial institutions and foreign official institutions and playing a major role in operating and overseeing the nation's payments system.

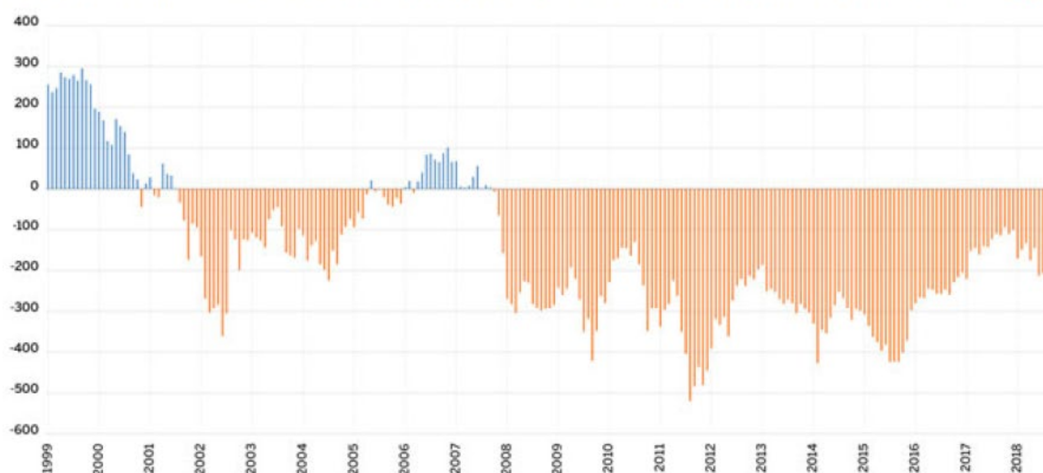
The Federal Reserve, by its charter, is charged with providing stability to the U.S. financial system. As America's central bank, the Federal Reserve plays a major role in the direction of most interest rates in America. The Fed discount rate is how much the U.S. central bank charges its member banks to borrow from the discount window to maintain the reserve requirement. It has become the base rate, cost factor and benchmark for most bank loans. The Fed discount rate also affects other economic factors such as inflation, stock market and pension discount rates. The 64-year history of Fed Funds in the graph below shows clearly one thing… volatility. The annual change in the Fed Funds Rate is consistently above 20% with swings from +233.33% (2015) to -95.42% (2008). This history contradicts the Fed's mission to maintain stability. And the last 37-year history of the Fed discount rate points us in one direction… lower secular rates since 1982.

History of the Fed Funds Rate since 1954

Pensions

The objective of all pensions is to secure the promised benefit payments in a cost-efficient manner. The funded status is pension assets – pension liabilities in present value dollars. The present value of liabilities for corporate defined benefit plans is calculated based on a discount rate required by the Financial Accounting Standards Board (FASB). This FASB pension discount rate has varied from the 30-year Treasury rate to the current AA corporate zero-coupon yield curve (effective 12/15/06). If pensions have a funded status deficit, they need to put up more funds (contributions). The Milliman pension funding index measures the cumulative funded status of the top 100 corporate defined benefit plans. Figure 1 shows a growing deficit since 2000, which translates into higher contribution costs that would affect corporate earnings as higher pension expense. Worst is the funded status of defined benefit pension plans sponsored by S&P 1500 companies. As of 8/31/19, the estimate aggregate deficit was $451 billion.

FIGURE 1: MILLIMAN 100 PENSION FUNDING INDEX PENSION SURPLUS/DEFICIT



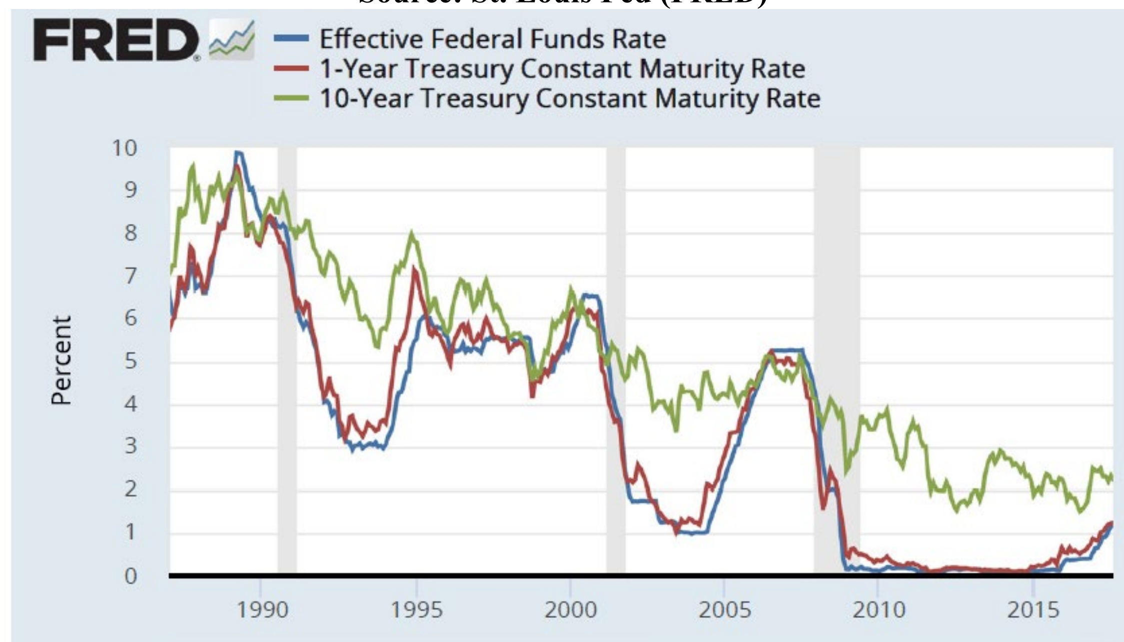
Based on calculations by Ryan ALM, Inc., core asset holdings of equities (S&P 500 as proxy) and fixed income (Lehman/Barclay Aggregate as proxy) underperformed liability growth significantly from 12/31/99 to 12/31/06 based on the FASB discount rates of a 30-year Treasury; and from 12/31/06 to 6/30/19 based on the ASC 715 discount rates of AA corporate zero-coupon yield curve. Such underperformance led to a declining funded status where pensions had surpluses in the 1990s and fell to severe deficits from 2000 on.

	12/31/99 – 12/31/06		12/31/06 – 06/30/19	
	Cumulative	**Annual**	**Cumulatiuve**	**Annual**
S&P 500	**8.13%**	**1.12%**	**169.98%**	**8.27%**
Barclay's Aggregate	**54.94%**	**6.45%**	**68.18%**	**4.25%**
Liabilities	**71.17%**	**7.97%**	**221.34%**	**9.79%**

The Fed is the largest single buyer and seller of U.S. Treasury securities. As a result, the Fed monetary policy can affect the level of interest rates by being a major buyer (rates go down) or seller (rates go up). These Fed actions ripple throughout the U.S. economy affecting many

areas that are interest rate sensitive. This secular trend of lower interest rates driven by the Fed since 1982 has led to lower pension discount rates which resulted in a lower funded ratio and funded status among America's corporate pensions causing earnings dilution and even bankruptcies.

Source: St. Louis Fed (FRED)



Return On Asset (ROA)

Pensions create a ROA as the target or hurdle rate for assets. This ROA drives the asset allocation model which uses the historical returns of each asset class except for bonds which go in the model at current yields. When interest rates went below the ROA (@ 1988) asset allocation models reduced their exposure to fixed income. As this interest rate trend continued the asset allocation models continued to reduce their bond allocation such that by 1999 most pensions had the lowest allocation to fixed income in modern history. This was a critical mistake as the funded status of pensions was the highest in the late 1990s with significant surpluses. The prudent pension should have increased its allocation to bonds cash flow matched to liabilities to secure their surplus position and to secure the lowest contribution costs as well. This ROA procedure continues today but with spiking contribution costs since 2000.

Insurance Buyout Annuities

One of the biggest trends among corporate DB plans is risk transfer of pension liabilities thru insurance buyout annuities (IBA). These deals have traditionally been structured as a group annuity contract primarily supported by fixed income assets. An insurance company is willing to takeover and guarantee payment of the Retired Lives liabilities based on discounting these liabilities at the U.S. Treasury STRIPS yield curve. The pension plan sponsor has to pay the present value of these Retired Lives liabilities plus a premium (around 4%) to the insurance company to transfer these liabilities. Contractually, the plan sponsor must then transfer assets over to the insurance company such that the Retired Lives liabilities are 104% funded. This

IBA contract removes these liabilities from the corporate balance sheet and eliminates the PBGC premiums. As U.S. Treasury rates go down, the cost of the IBA goes up. For every 100 basis points in lower U.S. Treasury STRIPS rates, the IBA cost goes up about 10%. Since lower interest rates increase the present value of liabilities, many plan sponsors have incurred a reduced funded status thereby causing increased funding costs.

Retirees

The Fed has had an effect on retirees in several ways, such as:

1. Money market funds and savings accounts – given the significant and steady decline in short-term interest rates, a retiree's safe havens were hurt. This damaged many personal budgets that were supposed to be an anchor to personal financial planning.
2. Fixed annuities -similarly, fixed annuities were considered a safe and budgetable cash flow to support one's cost of living and life-style. Such annuities are at an all-time low rate of income.
3. Asset allocation – due to the historically low rates on safe havens, many retirees decide to diversify into risky assets to support their budgets. This is dangerous for older people who have a much shorter time horizon than the younger active lives.
4. Underfunded pension funds – according to Wilshire Consulting, 94% of corporate defined benefit pensions are underfunded. Worst are the numerous corporate bankruptcies due to pension deficits that left retirees with reduced pension benefits when their plan was turned over to the Pension Benefit Guaranty Corporation (PBGC) who has a cap on benefits ($67,295 now up from $51,750 10 years ago). According to the PBGC, this cap leaves about 20% of corporate retirees with reduced benefits from what they earned and expected from the employer.
5. Long-term care premiums – long-term care insurance covers a wide range of expensive services (i.e. nursing, assisted living, etc.), which could save a family many thousands of dollars. But due to falling interest rates, insurance premiums have skyrocketed (over 50% in just the last five years). As interest rates fall, the return on investments for insurance companies fall and they pass on this opportunity cost to their clients.

Ryan Alm, Inc is an asset/liability management specialist and a ASC 715 discount rate vendor.

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