Capital Risk

CORPORATE PENSION STRATEGY

The Next Pandemic

Photo: Markus Winkler on Unsplash

Monetary policy is solving one problem and creating another. All hands-on deck is required to temper the impact of the Pandemic on the economy. The Federal Reserve's entry into the corporate bond markets as an indiscriminate buyer resulted in corporate spreads returning to near-normal levels. This action helped reduce the threat of a financial crisis by lifting both corporate credits *and equities*. The latter is the problem. A reversal of equities may not result in a corresponding increase in credit spreads due to Fed actions. Thus, an equity decline would impair assets with no similar reduction of liabilities. This event would result in falling funded ratios and increased contributions. Sponsor beware.

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The Fed is placing US Corporate pensions in a tenuous position as their buying is compressing credit spreads.

An equity market decline would result in a material funded ratio decline with no offsetting liability reduction to the assets losses.

\- Jason Prole

"

Highlights

- The **funded ratio** is down 5.1% year-to-date and may increase contributions.
- **Credit spreads** do not reflect the credit risk due to Fed policy.
- Low **interest rates** do not prevent further declines: see Europe.
- **Equities** are the main driver of funding risk and require active management.
- The economic shock of the Pandemic will endure and **limit inflation**.
- **US equities** are very richly valued and magnify the funded ratio risk.

Performance Summary

Monetary policy is creating risk.

The continued rebound of the equity markets mitigates some of the damage to the funded ratio caused by falling interest rates (exhibit 1). The persistence of the equity market rebound is debatable, given the disconnect with the underlying economy. The quandary is that an incessantly weak economy will keep interest rates low and the liability high. The Federal Reserve's monetary action of supporting lower interest rates and *corporate bonds* reinforces this outcome. Herein lies the predicament.

Assets pose a risk to the funded ratio.

Exhibit 1. Funded Ratio, Liability, and Asset Performance

Source: Capital Risk calculations. Liability cash flows are unchanging with service cost equaling the pension payment outflows. Asset portfolio is rebalanced to target each quarter.

As the buyer of last resort, the Fed is compressing corporate spreads and supporting equities. This action is rooted in the belief that the support of credit and lower interest rates will compel lending and lift the economy through a wealth effect. While these outcomes' efficacy is debatable, the impact on the risk for corporate pensions is not.

A widening of spreads usually echoes a decline in equity markets. With spreads artificially narrow, the next equity decline will result in depreciating

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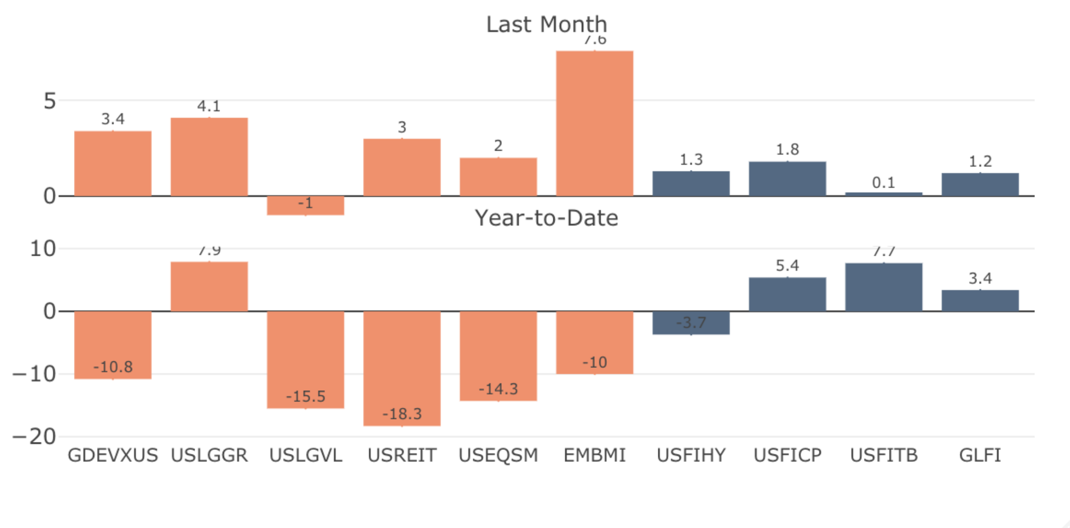
assets and little impact on the liability. The result is further declines in the funding ratio.

Narrow equity breadth is a warning.

Amplifying the risk to this outcome is the narrow breadth of the equity market rebound. Most of the global equity markets remain firmly in correction territory year-to-date (e.g., -10%), except one. Large capitalization growth stocks are the lone risky asset class positive for the year (exhibit 2). While other asset classes are joining the rebound in the last month, they are still distant from their prior peaks.

Exhibit 2. Performance by Asset Class (% change)



Source: Capital Risk calculations.

Equity risks abound.

Narrow breadth in the equity markets is frequently an indicator of a weak bull market. There are arguments for the durability of large US growth stocks in the technology sector.[1] A reversal of fortune can quickly occur as investors exit. This risk is particularly acute during the earnings season. An unexpected negative earnings surprise from a technology bemouth could lead to a cascade risk and a market reversal. An election that might bring unfavorable

[1] See Capital Risk's Global Equity Markets, *Requiem for Value Investing*, May 2020.

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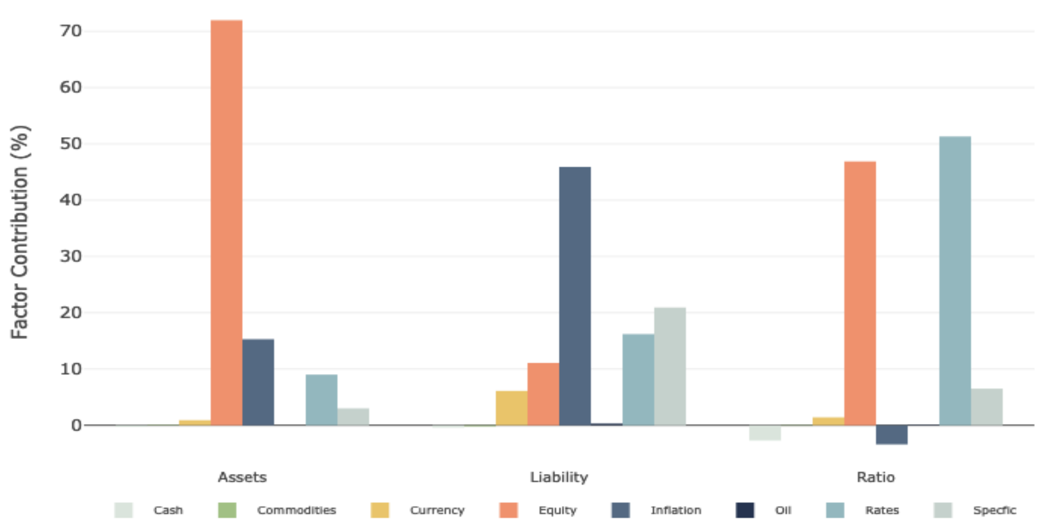
regulation to the monopolistic practices of the technology market leaders magnifies the risk.

Asset & Liability risks appear balanced.

Highlighting this outcome is the risk factor exposure of the asset, liability, and the funded ratio. The asset portfolio is dominated by equity risk, while interest rate and inflation dictate liability risk. The net result on the funded ratio is a roughly balanced exposure to equity, and real interest rate risk (exhibit 3). In ordinary times, this is an appropriate outcome. Now is not a normal time.

Exhibit 3. Asset, Liability, and Funded Ratio Risk Contribution



Source: Capital Risk calculations. All factors are orthogonal (e.g., each factor is unique).

Equity risk management is critical.

Monetary policy constrains spreads from widening. While the low level of interest rates does not prevent lower interest rates, it does limit the extent of an adverse move lower. The fallout is that only one material risk factor remains for the funded ratio: equities. With US corporations under unprecedented economic pressure, the risk of the equities markets correcting is unpalatable. This result is particularly acute for those that adhere to mark-to-market accounting, a requirement for globally reporting companies. For corporate plan sponsors, **equity risk management is *mission critical*.**

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Bonds and equities tell different stories.

The disconnect between the equity market and the economy is unprecedented. The economy is at a level that would exceed every recession since the Great Depression. At the same time, the US equity market approaches its prior highs before the Pandemic with technology stocks leading the way. Suppose the economy is ten percent below its previous peak and may not return there for two years. In that case, it's highly unlikely that earnings are not impaired.

An equity reversal is the threat to pension funded status. While interest rates could fall further, monetary policy seems likely to limit the movement of corporate yields over the near term. Thus, plan sponsors should focus on equity risk. Every ten percent decline in equity value results in a loss of two funded status points (exhibit 4). This event would place some plan sponsors near the critical 80 percent threshold. It could also result in action from the Pension Benefit Guarantee Corp (PBGC).

Funded ratio gains require higher equities.

Exhibit 4. Funded Ratio Scenario Analysis (Change, %)

Yield Curve Change (bps)	Equity Market Change (%)						
	-15	-10	-5	0	5	10	15
100	4.9	5.8	6.8	7.8	8.8	9.7	10.7
50	1.0	1.9	2.9	3.9	4.9	8.8	6.8
25	-1.0	0.0	0.6	1.9	2.9	4.9	4.8
0	-2.9	-2.0	-1.0	0	1.0	2.0	2.9
-25	-4.9	-3.9	-2.9	-1.9	-1.0	0.0	3.9
-50	-6.8	-5.8	-4.9	-3.9	-2.9	-1.9	-1.0
-100	-10.7	-9.7	-8.8	-7.8	-6.8	-6.0	-4.9

Source: Percent change in funded status. Capital Risk calculations.

While pension relief is modestly present in the CARES act, further policy relief is not guaranteed. Significantly, it does not change the mark-to-market accounting for the financial statements. An equity decline with only a modest change in interest rates of 25 bps would result in them breaking the critical funding threshold. Thus, managing equity risk is crucial for plan sponsors.

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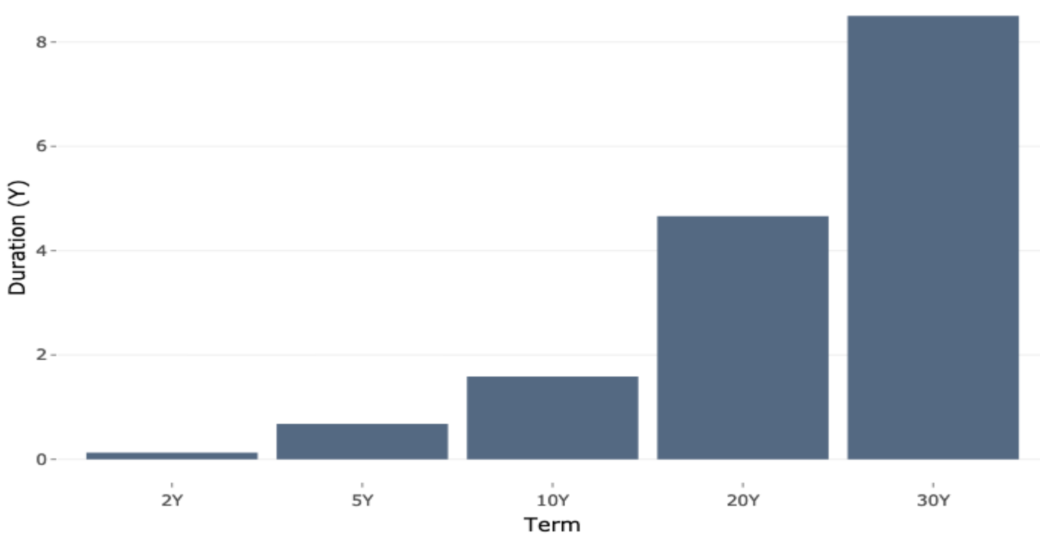
Real growth is the risk factor for the liability.

The risk to the liability is the general lowering of interest rates with the longer-term interest rates of 20 and 30 years the most sensitive (exhibit 5.) The path to lower interest rates is the through lower growth or inflation with the latter accounting for half of the interest rate risk (exhibit 3). With inflation expectations negative for the entire curve, this risk is minimal.[2]

Exhibit 5. Liability Key Rate Durations



Source: Capital Risk calculations based on 15-year duration liability.

Most interest rate risk is past 20 years.

This situation leaves growth expectations as the key driver for changes in nominal interest rates. The 20- and 30-year interest rates reflect nearly 125 bps premiums to the 10-year tenor (exhibit 6). These levels are inconsistent with the growth expectations that would suggest real growth of greater than 3% over their terms. This growth expectation seems improbable given, the outlook for demographics and productivity in the US.[3] This insight would suggest two different strategies for the plan sponsor to manage interest rate risk. The choice is between a nominal yield curve strategy and a cross-yield curve strategy.

[2] See Capital Risk's Global Portfolio Strategy, Second Quarter 2020 for inflation expectations or visit our online dashboard at capitalriskmanageemnt.com/rates.

[3] See the "*The Productivity Gap*", Capital Risk (2017) for a discussion on the long-term trends in growth for the US.

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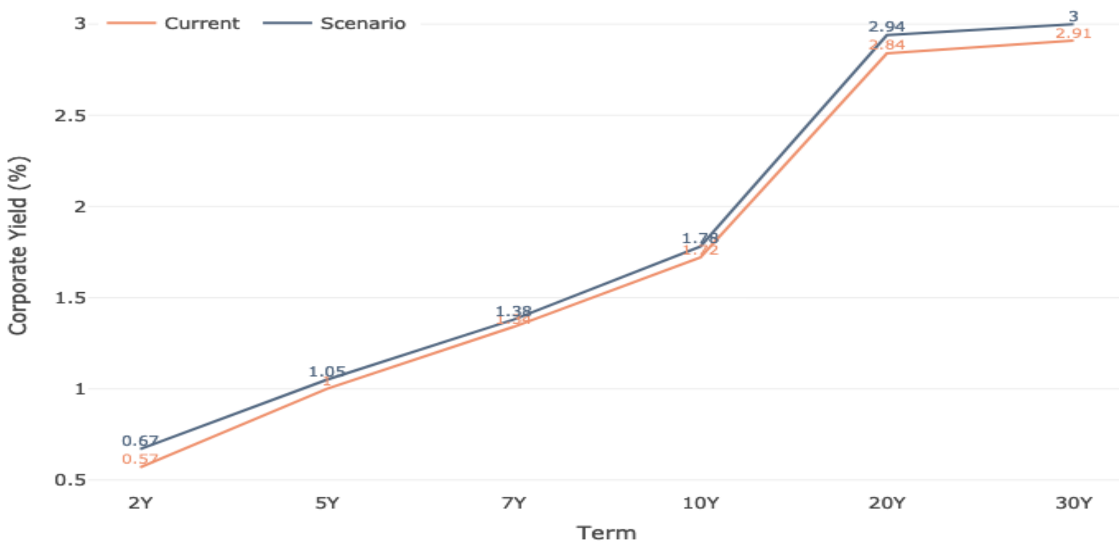
Exhibit 6. Liability Yield Curve (%)

The long end of the curve is cheap.

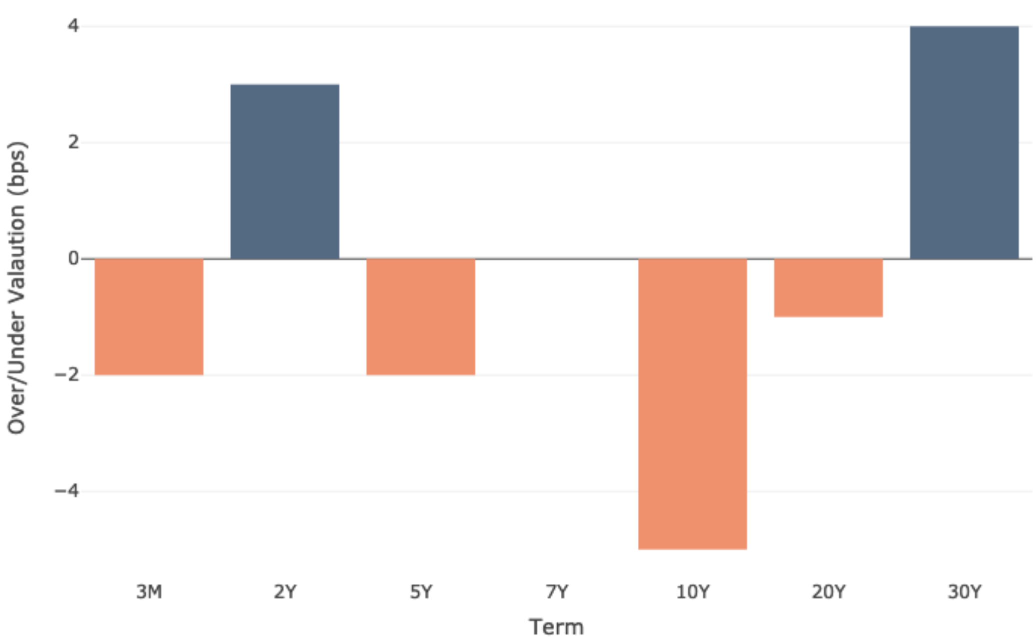


Source: FTSE Pension Yield Curve as of June 30th, 2020.

A nominal yield curve strategy would suggest a duration neutral position with a long 30-year tenor and short the 10-year tenor (exhibit 7). Alternately, short positions in the TIPS markets could offset long positions in the nominal yield curve for an explicit short growth position.

Exhibit 7. Treasury Yield Curve Valuation

Short tips can offset nominal rate risk.



Source: FTSE Pension Yield Curve as of June 30th, 2020.

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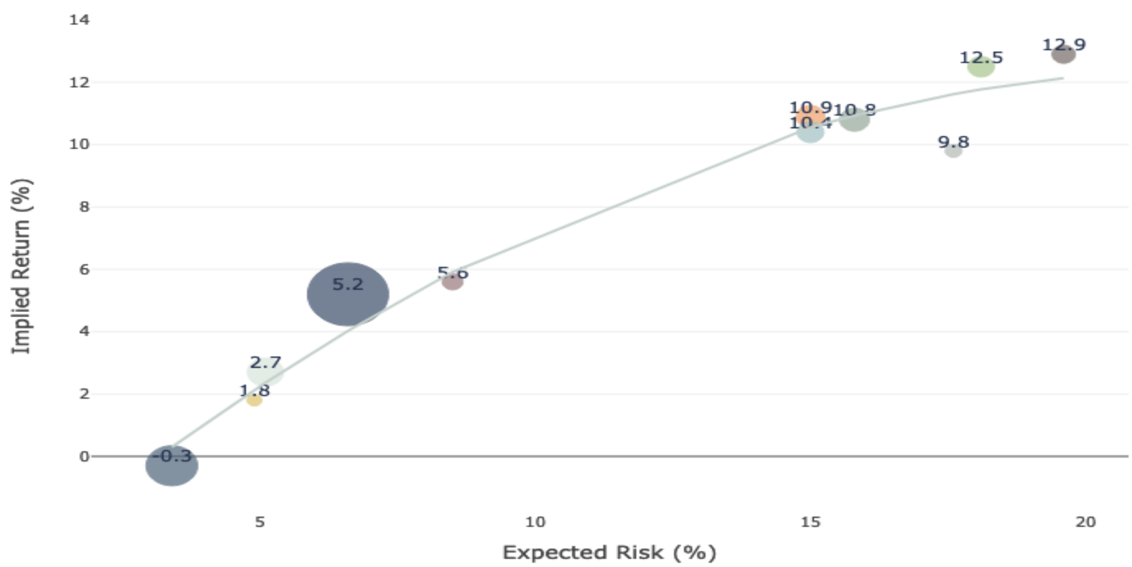
The probability of achieving the required return is low.

The **strategic risk** to the asset portfolio is the incoherent expectation for asset returns (exhibit 8). The implied return from the asset allocation is 5.2% versus an expectation of 6.5%. The probability that plan sponsors achieve their required return over the next five years is less than a third.[4] A liability-driven investment strategy will face severe headwinds delivering the expected returns. This strategic risk requires **return-focused risk management**.

Exhibit 8. Portfolio Asset Class Implied Return and Expected Risk



Note: CRM calculations. Returns are market implied from the Black-Litterman methodology, while risk is based on EWMA over the trailing 60 months with a decay factor of 0.96.

Asset and liability risk are aligned.

Plan sponsors are in a perilous position. In ordinary times, the inflation risk would offset some of the asset risk. This time is not normal, and plan action is required to manage risk. With monetary policy limiting the spreads' ability to widen during a crisis, the plan sponsor is short equity and real growth options. Both their **asset and liability risk** are in the **same direction**.

Liability-driven investing remains a singular threat to underfunded corporate pensions. This threat exists because of the low level of interest rates. Whether a sponsor follows a cash flow or duration matching strategy for the liability, the result is that they accept embedded returns that are too low to achieve the

[4] See www.capitalriskmanagement/corp for the online pension dashboard with a simulation of returns.

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required return. This measure's fallout is that they overbid asset values as they reach for return in private assets (e.g., private equity, hedge funds, and levered loans). This action **magnifies their equity risk.**

Table 9. Asset Portfolio Scenario Analysis (Change, %)

Equity Change (%)	Yield Curve Change (bps) -100	-50	-25	0	25	50	100
15	10.4	7.7	6.5	5.1	3.9	2.6	0.2
10	8.7	6.0	4.8	3.4	2.2	0.9	-1.5
5	7.0	4.3	3.1	1.7	0.5	-0.7	-3.2
0	5.3	2.6	1.4	0.0	-1.3	-2.4	-4.9
-5	3.6	0.9	-0.4	-1.7	-3.0	-4.1	-6.6
-10	1.9	-0.7	-2.1	-3.4	-4.7	-5.8	-8.3
-15	0.2	-2.4	-3.8	-5.1	-6.4	-7.5	-10.0

Note: Equity benchmark is the S&P Global 1200 TR (USD) and Yield Curve change is a parallel shift of the Treasury curve.

Only one scenario achieves the required return.

Placing the risk in perspective is straightforward. The liability duration is roughly 15 for the average plan sponsor. This amount would suggest a 15% decline in the liability for a 100-bps parallel shift in the yield curve. The problem is that outcomes require a fully matched liability. Most plan sponsors are underfunded (e.g., 85%) and do not have all their assets in fixed income (e.g., 50%). Thus, even if they wanted to achieve full duration matching, they would require a bond with a 35-year duration: this bond does not exist.

Scenario analysis further demonstrates the asset portfolio risk (exhibit 9). Bonds are probably limited to further declines of 50 bps with no apparent limits to the upside. Thus, the only way for the portfolio to achieve the required return is a **15% equity gain** over the next year. Since over half of the remaining scenario results in losses, this is an unrewarded risk. Portfolio structuring is imperative at ordinary times: the current economic environment makes it **mission critical.**

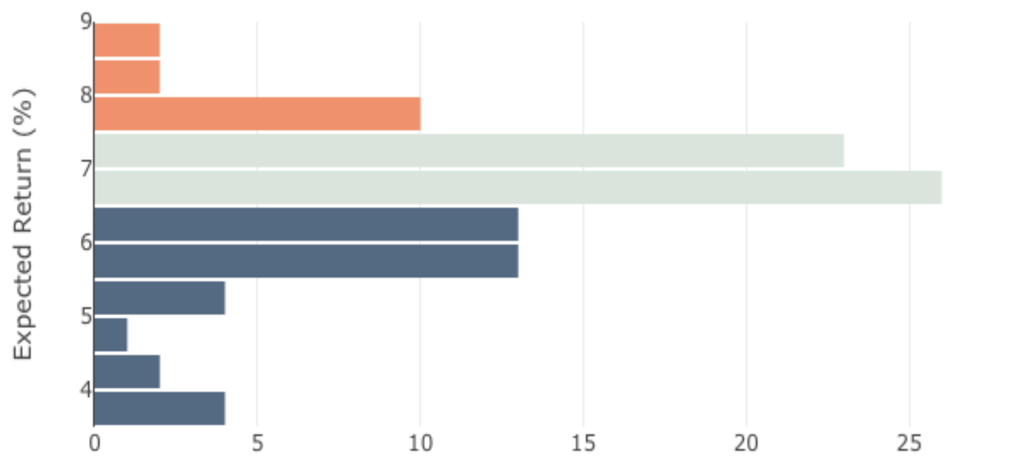
A 15% equity market gain is unlikely.

Appendix

Distributions of expected asset portfolio return and pension funded ratio (asset value/PBO liability value) for the corporate universe.

Only one in five will earn the expected return.

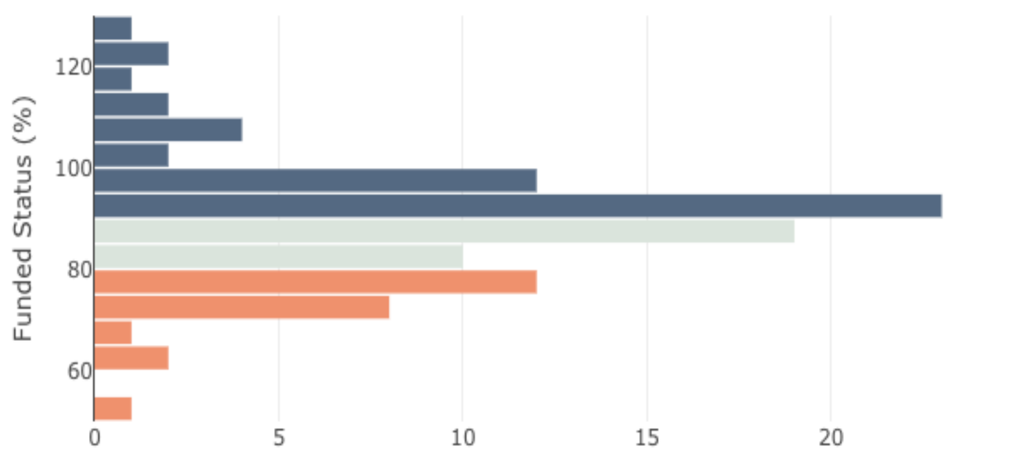
Exhibit A1. Expected Asset Returns



Source: Annual Corporate Financial Statements 2019.

Half of plan sponsors may breach the critical threshold.

Exhibit A2. Funded Ratio (%)



Source: Annual Corporate Financial Statements 2019.

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