Monthly pension update

SEPTEMBER 2019

DID YOU KNOW?

For the first time since prior to the 2016 presidential election, our GFICC Investment Quarterly outlook has equal likelihood of expansion and contraction for the global economy.

FUNDED STATUS FAST FACTS

86.9%
FUNDED STATUS **ROSE 1.5%** THIS MONTH

-0.3% YTD
FUNDED STATUS CHANGE

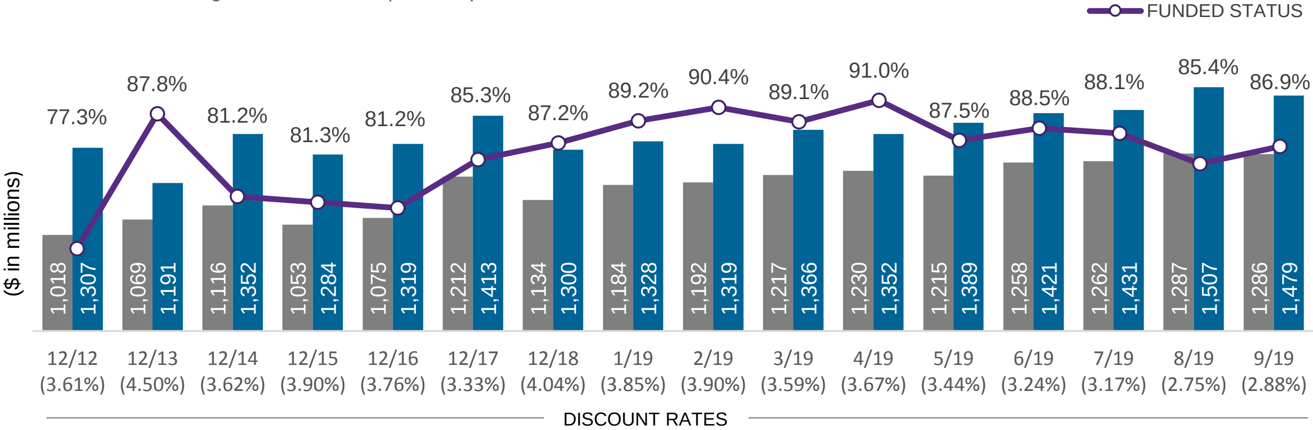
-116BPS
DISCOUNT RATE YEAR TO DATE CHANGE

MONTHLY CONTRIBUTORS OF FUNDED STATUS CHANGE:
GROWTH ASSETS AND INTEREST RATES

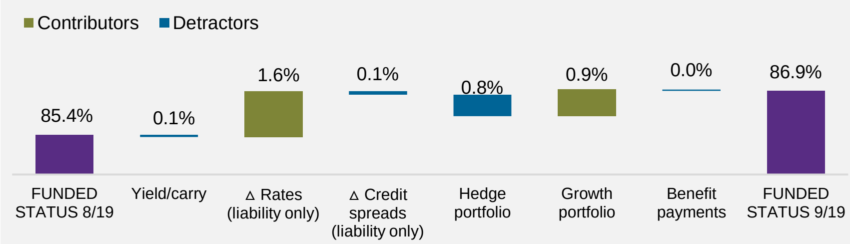
MONTHLY DETRACTORS OF FUNDED STATUS CHANGE:
HEDGE PORTFOLIO

HISTORICAL FUNDED STATUS

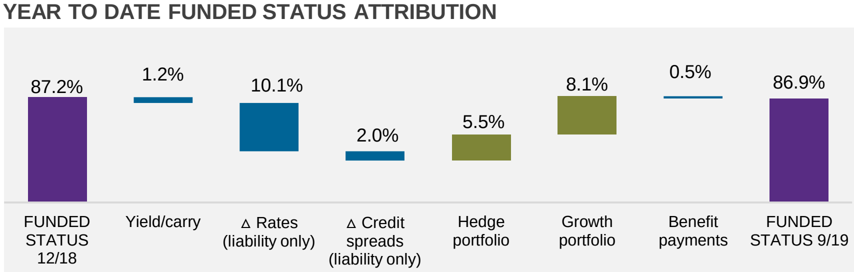
Performance of average defined benefit pension plan since 12/31/12



MONTHLY FUNDED STATUS ATTRIBUTION



YEAR TO DATE FUNDED STATUS ATTRIBUTION



Changes	Month	Year
Funded Status %	▲ 1.5%	▼ (0.3%)
Discount Rate (bps)	▲ 14	▼ (116)
Treasury Rates(bps)	▲ 15	▼ (95)
Credit Spreads (bps)	▼ (1)	▼ (21)
Liabilities (mm)	▲ ($27.9)	▼ $179.6
Assets (mm)	▼ ($1.2)	▲ $152.1
Funded Status (mm)	▲ $26.6	▼ ($27.5)

Note: Arrow indicates effect on funded status.

Source: J.P. Morgan, FTSE Pension Discount Curve, Bloomberg. As of September 30, 2019. For illustrative purposes only. Past performance is not indicative of future results.

J.P.Morgan Asset Management

MACROECONOMIC TRENDS IMPACTING PENSION PLANS

A breakdown of what you need to watch this month as you consider investment implications for your plan

GROWTH

Economic growth continues to soften, with the most recent round of purchasing managers indices (PMI's) pointing to a global manufacturing sector that is contracting and a services sector which is beginning to soften. The health of the consumer has been central to our view that recession will be avoided, but recently there have been some conflicting messages on the state of the labor market. Weaker employment sub-indices in the PMI survey and slowdown in hiring according to the JOLTS survey both represent risks, but at the same time, initial claims and the September employment report send a signal that the labor market is cooling, not contracting. Our expectation remains for below-trend global growth into the end of 2019.

INFLATION

Globally inflation remains low, but in the U.S., core inflation has been showing signs of life. That said, this has been primarily due to healthcare and housing, rather than being broadly based, which suggests that it is unlikely this is the beginning of a broader uptrend for inflation. Despite continued tightening in developed labor markets, wage growth remains subdued, contributing to this lackluster inflation backdrop. Furthermore, with economic growth expected to remain below trend for the rest of the year, it seems likely that the inflation environment will remain relatively benign.

RATES

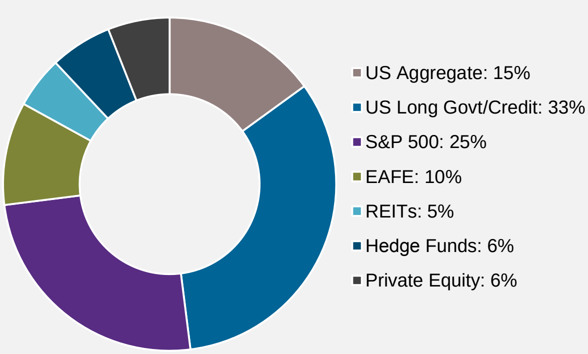
Central banks around the world continue to push interest rates lower, with 5 rate cuts from the world's top 10 central banks this year through the end of September. Broadly speaking central banks have gone into easing mode over the past few months, with the Federal Reserve leading the charge. We expect one more rate cut from the Federal Reserve (Fed) before the end of the year, and would not be surprised to see the European Central Bank (ECB) ease further as well. The question is whether central banks will be able to pause these easing campaigns if the economic data stabilizes – history suggests that this is more difficult than it may seem.

RETURNS

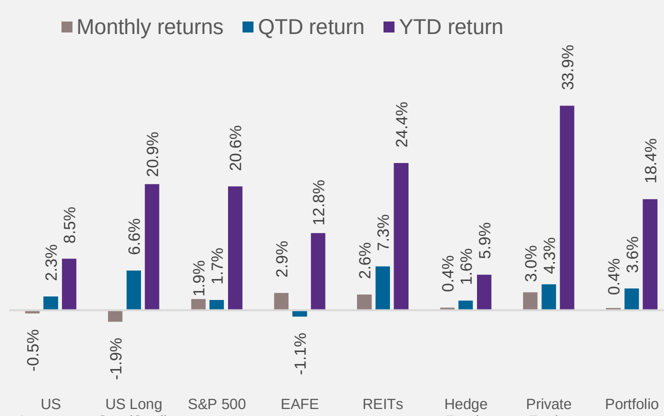
Earnings still look set to be the main driver of returns over the coming year, but risks are increasingly tilted to the downside. The 3Q19 earnings season is under way, with operating earnings currently expected to be down on a year-over-year basis when all is said and done. If we do see a contraction in 3Q earnings, weak numbers in 4Q18 have created a favorable base effect which will support a rebound at the end of the year. That said, the 2020 earnings environment is looking increasingly challenging, with consensus estimates for 10-11% earnings growth but our expectations in the low single-digits. As such, we expect muted, but positive returns from equities in 2020.

ASSET ALLOCATION & MARKET SNAPSHOT (As of 9/30/19)

PLAN ASSET ALLOCATION

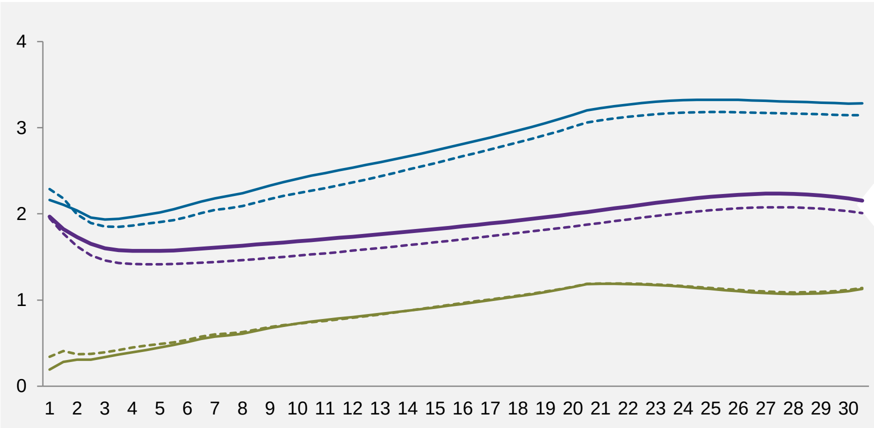


ASSET AND PORTFOLIO RETURNS



Source: J.P. Morgan, FTSE Pension Discount Curve, Bloomberg. As of September 30, 2019. For illustrative purposes only.
Past performance is not indicative of future results. For more information on our fixed income outlook, please visit our blog: http://blog.jpmorganinstitutional.com

YIELD CURVE CHANGES

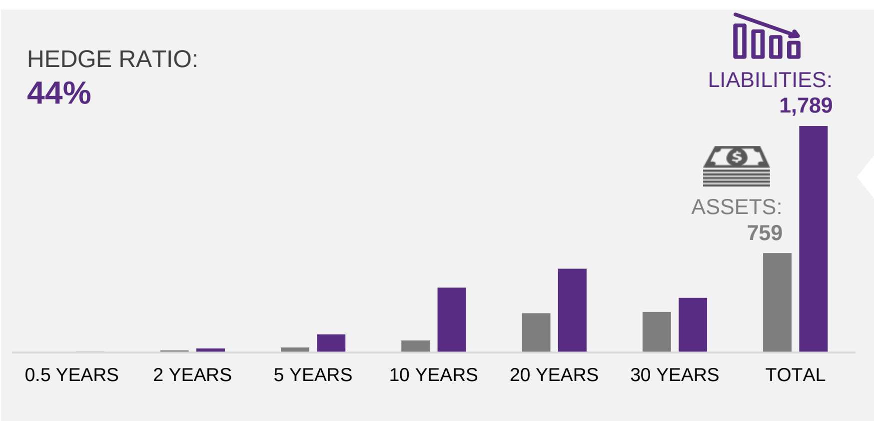


Over the month fallings rates pushed discount rates up 14bps, leaving them down 116bps year to date

INTERESTED IN A DEEPER DIVE ON FIXED INCOME?

Click here for all the charts you need to understand what is happening in the fixed income markets.

PLAN RISK ANALYTICS



DURATION SENSITIVITY

The overall hedge ratio is defined as the ratio of asset dollar duration to liability dollar duration.

We estimate that this is approximately 44%.

We note that a higher hedge ratio, constructed with better key rate duration (KRD) matching along the curve would reduce funded status volatility. Matching the dollar duration of assets and liabilities across the curve structure would better insulate the plan against non-parallel yield curve movements.

Change in Growth Portfolio (columns); *Change in Interest Rates* (rows)

	-20%	-15%	-10%	-5%	-	+5%	+10%	+15%	+20%
+100bps	82.5%	85.0%	87.6%	90.2%	92.8%	95.4%	98.0%	100.6%	103.2%
+75bps	81.2%	83.7%	86.2%	88.7%	91.2%	93.7%	96.2%	98.7%	101.2%
+50bps	80.0%	82.4%	84.8%	87.3%	89.7%	92.1%	94.5%	97.0%	99.4%
+25bps	78.9%	81.2%	83.6%	85.9%	88.3%	90.6%	93.0%	95.3%	97.6%
-	77.8%	80.1%	82.4%	84.6%	86.9%	89.2%	91.5%	93.7%	96.0%
-25bps	76.8%	79.0%	81.2%	83.4%	85.7%	87.9%	90.1%	92.3%	94.5%
-50bps	75.9%	78.0%	80.2%	82.3%	84.5%	86.6%	88.8%	90.9%	93.1%
-75bps	75.0%	77.1%	79.2%	81.3%	83.3%	85.4%	87.5%	89.6%	91.7%
-100bps	74.2%	76.2%	78.2%	80.3%	82.3%	84.3%	86.3%	88.4%	90.4%

SCENARIO ANALYSIS

The heat map shows the change in funded status under different instantaneous interest rate and growth portfolio movements.

We note that reducing the allocation to equities and increasing the hedge ratio will likely narrow the change of possible outcomes and help limit downside funded status scenarios.

Source: J.P. Morgan, FTSE Pension Discount Curve, Bloomberg. As of September 30, 2019. For illustrative purposes only.
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Asset Management

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Interest Rate Risk: Bonds and other debt securities will increase or decrease in value based on changes in interest rates. If rates increase, the investment generally declines. On the other hand, if rates fall, the value of the investments generally increases. Your investment will decline in value if the value of the investment decreases. Securities with greater interest rate sensitivity and longer maturities tend to produce higher yields, but also are subject to greater fluctuations in value. Usually, the changes in the value of fixed income securities will not affect cash income generated, but may affect the value of your investment.
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