

Q4-2021: *The New Question*

The McConachie Team – Quarterly Educational Piece

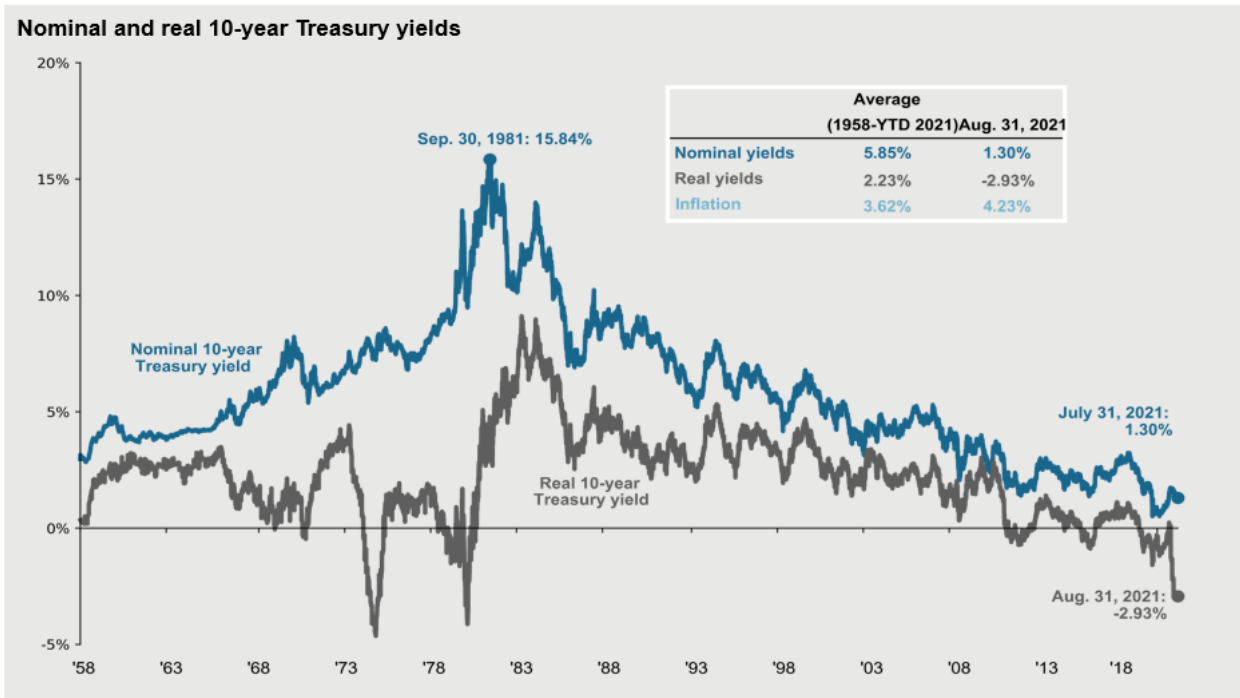
The New Question:

How long can bonds carry a negative real yield?

A real yield compares the nominal interest rate of a bond (US Treasury) with the inflation rate, or the cost of consumption per unit over time. Real purchasing power continues to shift with time as nominal rates and inflation change. For example, if US Treasuries yield +3% interest and inflation is +4%, the real yield (or return) is -1%.

Real return is a very important concept for investors to understand. Investors must understand the real growth rate of “investments”, or its growth in terms of purchasing power. Historically, the return imbalance between interest rates and inflation shifts capital into “riskier” investments.

The negative real return is an imbalance that has rarely occurred in the modern era. The real yield is illustrated by the gray line in the picture below. This trend shows a comparison of the daily 10-year treasury against rolling year-over-year core inflation (CPI).



Source: BLS, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month except for July and June 2021 where real yields are calculated by subtracting out June 2021 year-over-year core inflation.
Guide to the Markets – U.S. Data are as of August 31, 2021.

It is important to note that historically, when negative real returns existed, they were short lived and followed by higher interest rates.

Interest Rates & Bond Prices:

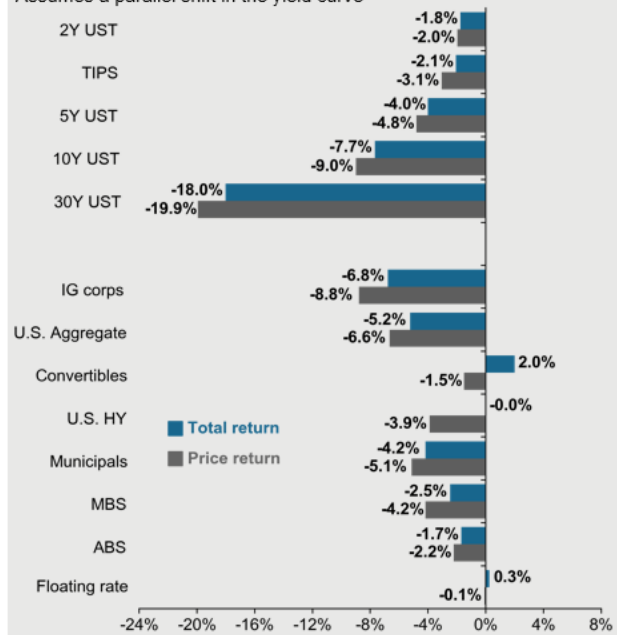
There is an inverse relationship between the price (current value) of a bond and changes to interest rates. An increase in interest rates will decrease current bond prices and vice versa. The idea that a shift in rates will impact bond value is known as duration risk.

Interest rates in the US, and around the world, are at historically low levels. Simply put, the lower the yields, the higher the duration risk in the bond market. The right side of the depiction below shows the impact of a 1% yield increase on different types of bonds:

	Yield		Return			
	8/31/2021	12/31/2020	2021 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
U.S. Treasuries						
2-Year	0.20%	0.13%	0.06%	2 years	0.67	-0.40
5-Year	0.77%	0.36%	-1.06%	5	0.92	-0.36
TIPS	-1.03%	-1.06%	4.26%	10	0.57	0.19
10-Year	1.30%	0.93%	-2.47%	10	1.00	-0.33
30-Year	1.92%	1.65%	-5.78%	30	0.93	-0.32
Sector						
IG corps	1.99%	1.74%	-0.22%	12.3	0.42	0.38
U.S. Aggregate	1.42%	1.12%	-0.69%	8.6	0.85	0.02
Convertibles	4.44%	4.91%	7.34%	-	-0.29	0.88
U.S. HY	3.87%	4.18%	4.55%	6.6	-0.25	0.73
Municipals	0.95%	1.07%	1.53%	13.1	0.37	0.10
MBS	1.71%	1.25%	-0.31%	5.6	0.81	-0.16
ABS	1.65%	2.87%	1.47%	2.3	-0.01	-0.00
Floating rate	0.33%	0.54%	0.53%	2.0	-0.22	0.44

Impact of a 1% rise in interest rates

Assumes a parallel shift in the yield curve



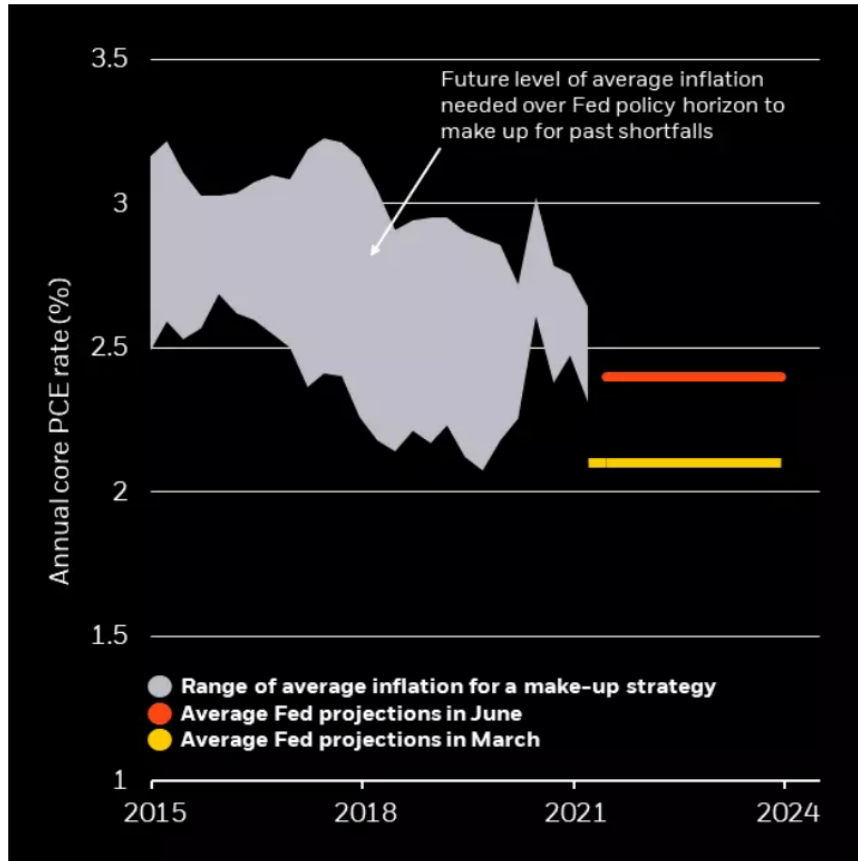
Source: Barclays, Bloomberg, FactSet, SIFMA, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; ABS: J.P. Morgan ABS Index; Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; TIPS: Treasury Inflation-Protected Securities (TIPS); U.S. Floating rate index; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of July 2021 due to data availability. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield-to-worst. Convertibles yield is based on U.S. portion of Bloomberg Barclays Global Convertibles. Correlations are based on 15-years of monthly returns for all sectors. Issuance is based on monthly data provided by SIFMA. Past performance is not indicative of future results.
Guide to the Markets – U.S. Data as of August 31, 2021.

J.P.Morgan
Asset Management

The Fed's Policy:

Jerome Powell, and the current Federal Reserve administration, are committed to the dual mandate of full employment and controlling inflation. However, Powell and other Fed officials publicly stated that they believe inflation will be transitory, as noted in previous quarterly updates. Additionally, they note that the central bank will remain committed to a data-dependent process and will adjust accordingly. Despite levels of inflation, the Fed has remained extremely accommodative with their monetary policies. The risk of defectors within the Fed may disrupt markets, which could lead to the preverbal “punch bowl” being taken away from the “liquidity party” too soon, causing a potential repricing of risk assets.

Additionally, the Fed is of the belief that the economy can tolerate higher inflation for a period of time to back fill the extremely low inflation the economy has experienced over last decade ([FederalReserve.gov](https://www.federalreserve.gov), September 21-22, 2021 FOMC Meeting, 9/22/2021). As seen below, the future level of inflation needed to make up for past shortfalls, would need to be well above the Fed's ~2% target.



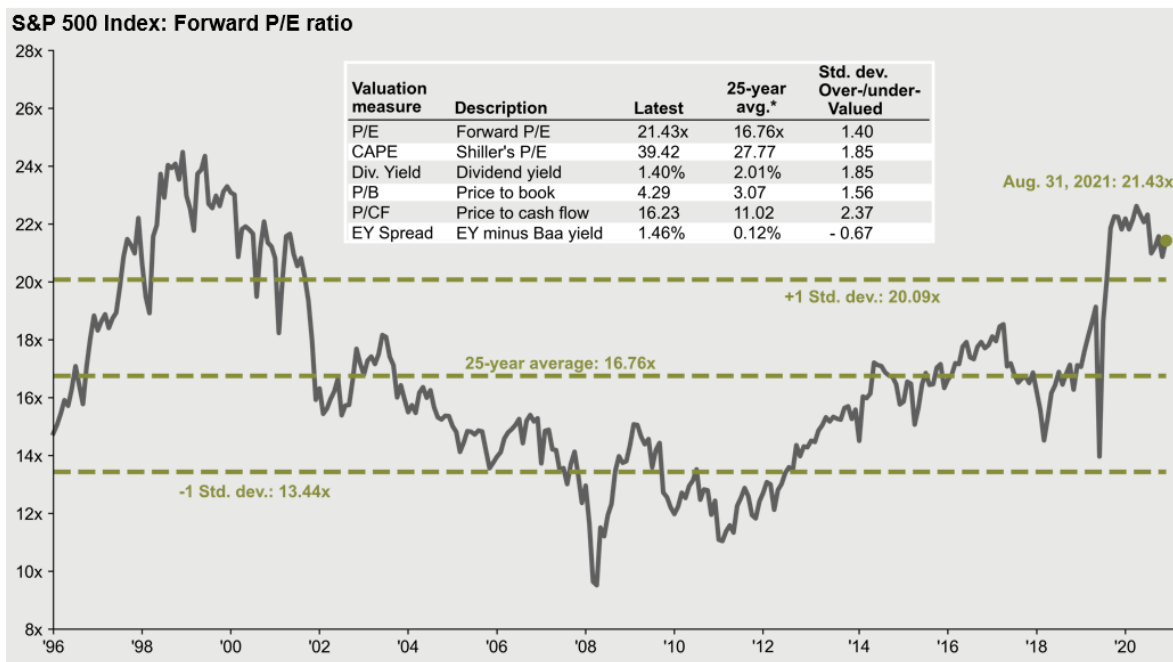
Sources: BlackRock Investment Institute, with data from the U.S. Bureau of Economic Analysis and Federal Reserve, June 2021. Notes: The chart shows the range of future PCE inflation levels over the Fed's policy horizon, which we set at two years, that would be needed on average to make up for past inflation undershoots of the Fed's 2% target. The undershoot is calculated as the average actual core PCE inflation over the previous two to five years. The red and yellow lines show the average of Fed forecasts of annual core personal consumption expenditure inflation in Q4 2021, Q4 2022 and Q4 2023 from its quarterly Summary of Economic Projections.

Equity Market Impacts:

This leads us to equity markets, which by historical measures appear to be over-valued on the price (cost of equity position) relative to the earnings of those equities, or Price-to-Earnings (P/E) ratio. There are many approaches to valuing an equity, but the three main approaches are liquidation value, discounted cash flow analysis or value of future earnings today, and market comparable(s) like the above-mentioned P/E approach.

A liquidation valuation is equivalent to the net worth of a business on balance sheet, or the value of the business after all of its obligations are met (think assets minus liabilities). This approach holds little credence for most sectors but is still worth noting as a “worst-case” or baseline valuation method. Interest rates play a small role in most price to book valuation tactics, so we generally set these methods aside.

The other two methods use current interest rates to discount future cash flows back to a “present value”. The act of discounting these future cash flows is done by dividing the cash flow by a denominator, where part of the denominator includes the interest rate. A lower interest rate (denominator) inflates the current value of the future earnings. So, when interest rates are low, investors are willing to “pay more now” for future earnings in the form of dividends and returns of capital. As seen below, the forward P/E ratio is relatively high signaling investors acceptance to “pay more now” during this low interest rate environment:



Source: FactSet, FRB, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management. Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since August 1996, and J.P. Morgan Asset Management for August 31, 2021. Current next 12-months consensus earnings estimates are \$200. Average P/E and standard deviations are calculated using 25 years of IBES history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability.

J.P.Morgan
Asset Management

Our Outlook:

Our thoughts are that the equity markets remain attractive regardless of current price-to-earnings ratios, which are currently above historical averages, because these historical multiple comparisons incorporate much higher interest-rate environments. However, equity investors should be braced for additional volatility in the equity markets as we grind towards a potential shift in monetary policy. Bracing investors for this potential volatility will be important in the coming quarters. With the current economic backdrop and the Fed fully in play, we feel that equities remain attractive relative to other asset classes.

We feel that the next quarter will be more than interesting, and we *look forward* to watching it play out.

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