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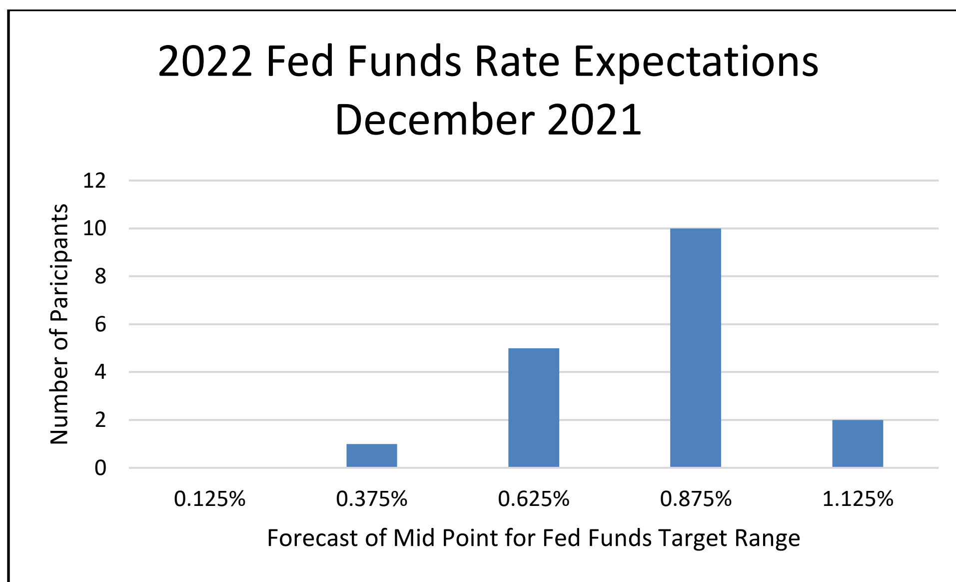
Investment Newsletter – September 2022

Executive Summary

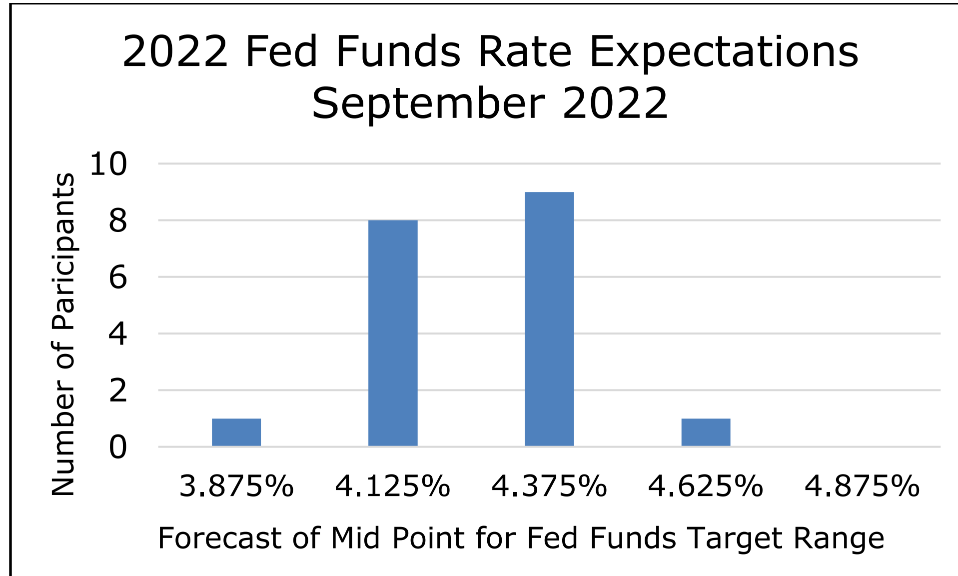
The Federal Reserve continued to surprise markets with higher interest rates and promises they will continue raising rates until inflation comes back down to 2%. Rising rates caused all investments to decline, including houses in San Francisco. At their anniversary dates, we report the performance for the Real Estate portfolio first and then the Long Term Income portfolio. In the case of the Long Term Income portfolio (at least), the market value decline implies we are likely to earn an above average return in the future.

The Federal Reserve's Faulty Predictions Slam the Market

The Federal Reserve is staffed by a bunch of economists with doctorate degrees, yet these experts have been absolutely horrible at predicting the economy and even their own actions. Below, (repeated from the December 2021 newsletter) are the December 2021 Fed meeting participants' expectations for how they would increase short term interest rates by the end of 2022:



The chart on the prior page shows that a majority (10 of 18) expected a year end rate of 0.875% for 2022. As of today, it is over 3% and they now expect to raise it at least another 1% by year end. Here's the chart published for their meeting last week:



Their forecasts for the year-end rate (which they control) rose by 3.5%! The forecasts for 2023 were similarly off by a wide margin from where they are today.

Needless to say, their forecast errors and surprising turn towards faster rate increases have played havoc with financial markets in 2022. This is because all investments are valued by applying a required rate of return to the expected future cash flows (or benefit stream) from the asset. Every such required rate of return must incorporate the risk free rate of interest as offered by U.S. government securities – meaning Treasury bills, notes and bonds. When these rates rise, all required returns should similarly rise.

The problem here is that investors, and the economy generally, are hurt by the unpredictable price of money coming from the Fed. The latest gyration was set off by a speech in which the Federal Reserve chairman said the market was wrong to think the Fed would not keep rates high even as the economy goes into recession. Up until then, the market was discounting their words since the projections as shown above were generally not in sync with the statements of resolve.

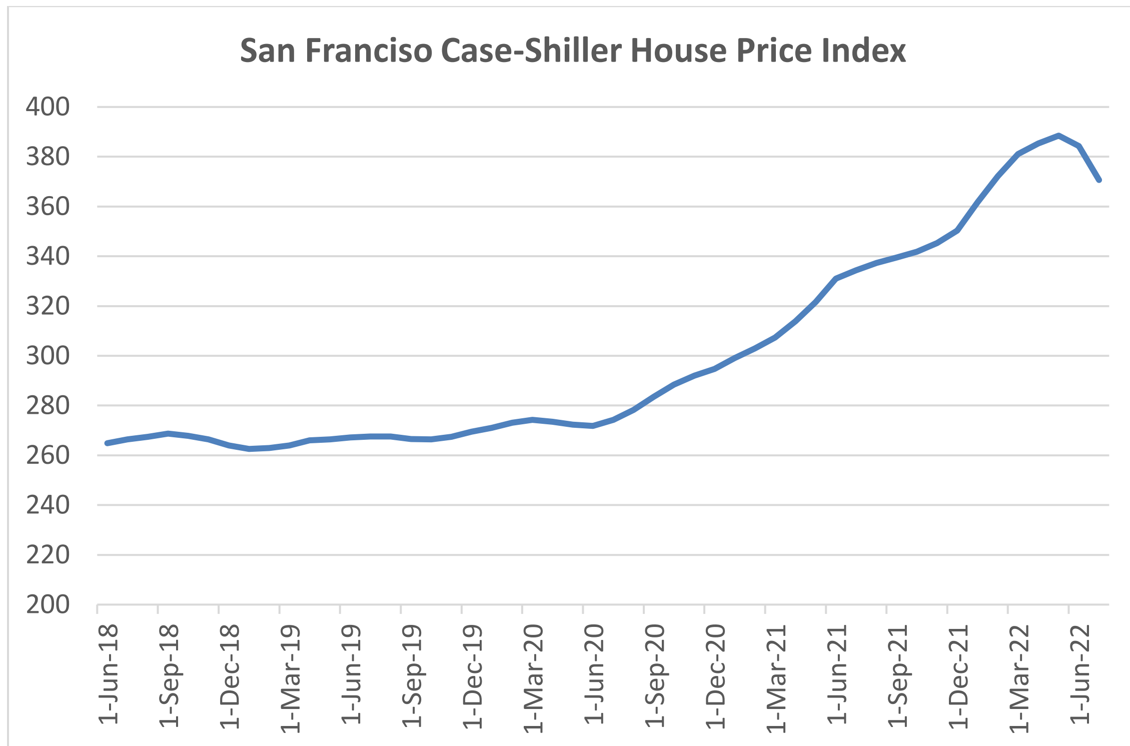
There is a good chance they will follow through on their words and put the country into a recession to bring down inflation. But there is also a good chance they will back off when faced with economic pain and the resulting complaints from politicians (after the election is safely over). This uncertainty means there is no easy answer as to what lies ahead. We could get recession or not. Rates could stay high or come back down. Inflation could stay high or come down. And, it seems, there could be any combination of these 3 up or down variables.

Each scenario that could play out leads to different things we would want to do, but since we cannot know which it will be, the prudent path is a middle ground

of positioning so that we're not caught doing exactly the wrong thing. Such is the consequence of the Fed's policy vacillations.

Higher Interest Rates Push Down House Prices

Even with historically low number of houses for sale, the huge jump in mortgage rates is pushing down house prices in California. As explained in the March 2022 newsletter, higher mortgage rates translate directly into decreased demand for housing. So it is no surprise that rates finally reached a high enough level to pull demand below supply and stop the upward momentum of the housing market. Here is the graph of the San Francisco house price index:



Although the media frequently cites median house prices, the median is not an accurate way to gauge the market as it conflates changes in prices with changes in the types of houses sold. The above index is a repeat sales index showing an "apples to apples" picture of what's going on with house prices. It shows price declines in both June and July with a cumulative two month decline of 4.6%.

The Case-Shiller index above is reported with a two month delay and the transactions it reports were agreed to at least a month prior to closing. So we are seeing the impact of mortgage rates back in May and June. Current mortgage rates are considerably higher so this will tend to exert further downward pressure on house prices. The supply of houses for sale will, however, likely decline as sellers feel locked into their current low mortgage rate. This should mitigate the down trend so that prices decline slowly. Sales volume will be terrible and some realtors will probably need to find a new career.

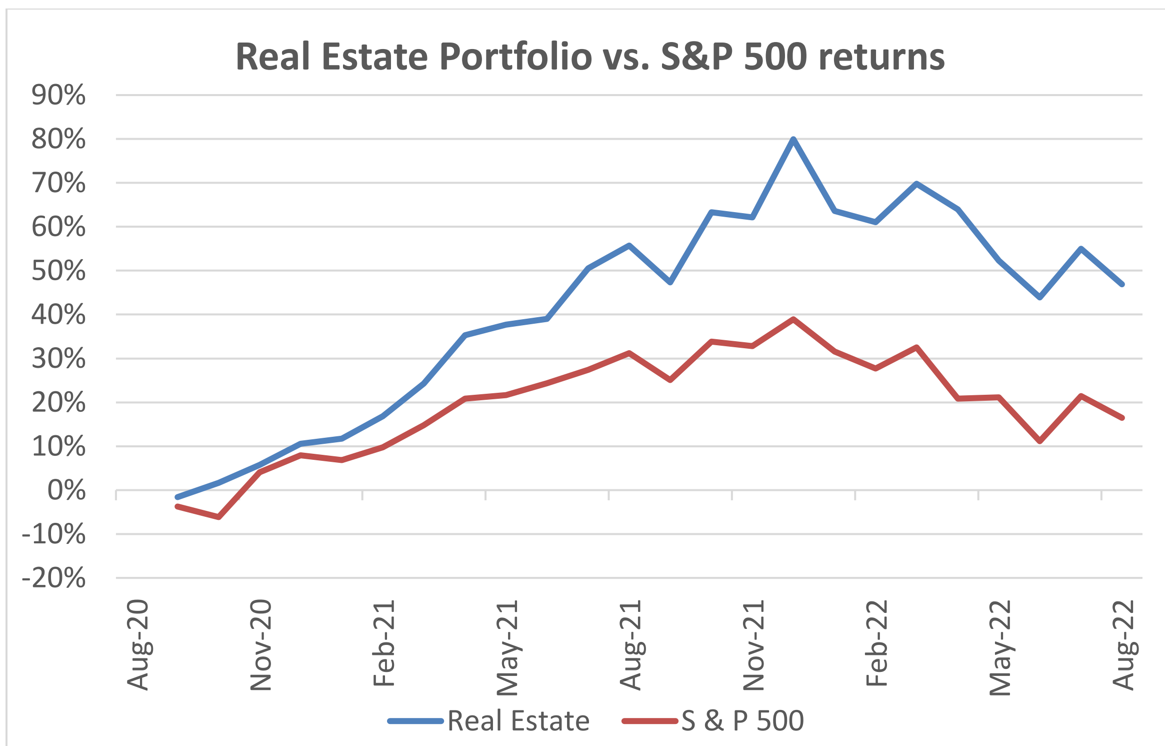
Real Estate Portfolio Strategy and Performance

In 2020 the combination of the pandemic's negative impact on supply, and the government's large handouts designed to stimulate demand, set the stage for a surge in prices. Therefore, our Real Estate portfolio was launched August 31st 2020 in order to provide an investment protected against the coming spike in inflation. The portfolio was allocated 60% to residential REITs, 26% to self-storage REITs, and the remainder invested opportunistically in other real estate securities.

Currently this portfolio provides a dividend yield of 3.4% and that income gets favorable tax treatment as Qualified Business Income. Because REITs must pay out 90% of their taxable income.

The results for the first year of this portfolio were spectacular. The total return, including dividends, capital gains, and price appreciation, was 55.7%. The portfolio peaked at the end of 2021 with a cumulative return of 80%! Since then, it has fallen roughly in line with the overall market. I expect this portfolio to generally have a bit less downside risk than the S&P 500 index but the huge spike upward last December added a mean reversion effect on top of the January decline in the overall market.

The graph below shows monthly cumulative returns for the first two years in comparison to the S&P 500 stock index.



Our portfolio returns calculated here are based on a particular client's account and have been reduced by annual fees of 1.25% which would apply to new accounts above $500,000 but below $1 million. Returns by year are shown in the table on the following page.

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Returns by Year

Year Ended	Real Estate	S & P 500	Difference
8/31/2021	55.7%	31.2%	24.5%
8/31/2022	-5.7%	-11.2%	5.6%
Compounded Total	46.9%	16.4%	30.4%

The Real Estate portfolio lost 5.7% in its second year, but this was still better than the S&P 500 which lost 11.2% over the same period. The market consensus seems to be that inflation has crested and will now fall. The Federal Reserve also forecasts this and their forecasts (right or wrong) tend to have an outsize influence on the market. If interest rates are going up while inflation is expected to decline, that would explain why the market value of the portfolio would have to decline. If the market consensus turns out to be wrong (again) this portfolio will likely out-perform other investments that don't benefit as much from inflation.

Currently the portfolio contains 54% residential REITs, 28% self-storage, 3.5% in homebuilding, 5.5% in a diversified REIT, and the rest in cash. Most of the REITs are priced at high multiples of funds from operations. We can interpret this as the market anticipating continued high growth in rents and income going forward due to the impact of inflation. New asking rents have recently hit a peak and dropped back a bit but actual collections will still keep growing significantly as leases expire and are reset to current rates. Also, if inflation does not come down, we can expect rents to resume their upward march. Given the situation, the high valuation multiples seem justified.

As explained last year, the main risk for this portfolio was that the Federal Reserve (the Fed) would change course to aggressively raise rates to fight inflation. This is what happened and this explains the decline in market value for this portfolio (as well as bonds and equities generally).

Recently the Fed has said they will keep raising rates until inflation comes down and they won't stop once a recession starts. The big question now is: will they actually keep rates high once the economic pain starts rising. As I've indicated before, I see a significant probability that they won't raise rates enough to get inflation back down to 2%. If they follow the path they've talked about, the U.S. is very likely to enter a recession in 2023.

Long-Term Income Portfolio Strategy and Performance

In the year ended 9/30/2021 the Long-Term Income portfolio produced a huge gain, returning 20.3%. This year, that entire gain and more was reversed. The loss was 24.9%; by far the worst year ever for this portfolio. This is .5% less than the worst case loss I estimated last year. In fact the entire fixed income market is having its worst year since at least 1931. The Bloomberg US Aggregate Bond Index, against which we compare the portfolio, is down 14.5% for the year ended 9/30/2022.

The underlying economic problem is a hangover from the pandemic: handing out money during the pandemic supply crunch created a huge surge in inflation which the Federal Reserve facilitated with interest rates at 0%. Now that

inflation has become persistent, the Fed must raise interest rates aggressively to reverse the policies that got us here.

For the first time since the financial crisis in 2008 short term interest rates are high enough to attract money from longer term investments and the result is rising yields on all fixed income investments. Since prices move inversely to yield, bond prices have fallen hard. The flip side of that is, of course, higher expected returns going forward.

Berkeley Investment Advisors uses several different strategy portfolios to manage client assets. The Long-Term Income portfolio focuses on taxable intermediate to long-term maturity bonds. Longer maturity bonds provide higher interest rates (yields) than shorter maturity bonds and are more sensitive to changes in interest rates. A bond's interest rate sensitivity risk, known as its duration, tells us how big a change in price we can expect when interest rates change. The duration of the portfolio is currently at 4.1 (it was 5.2 last year). If we hold a bond with duration of 5 when rates went up 2% we would expect the bond's price to decline by 10% (multiplying the rate increase by the duration).

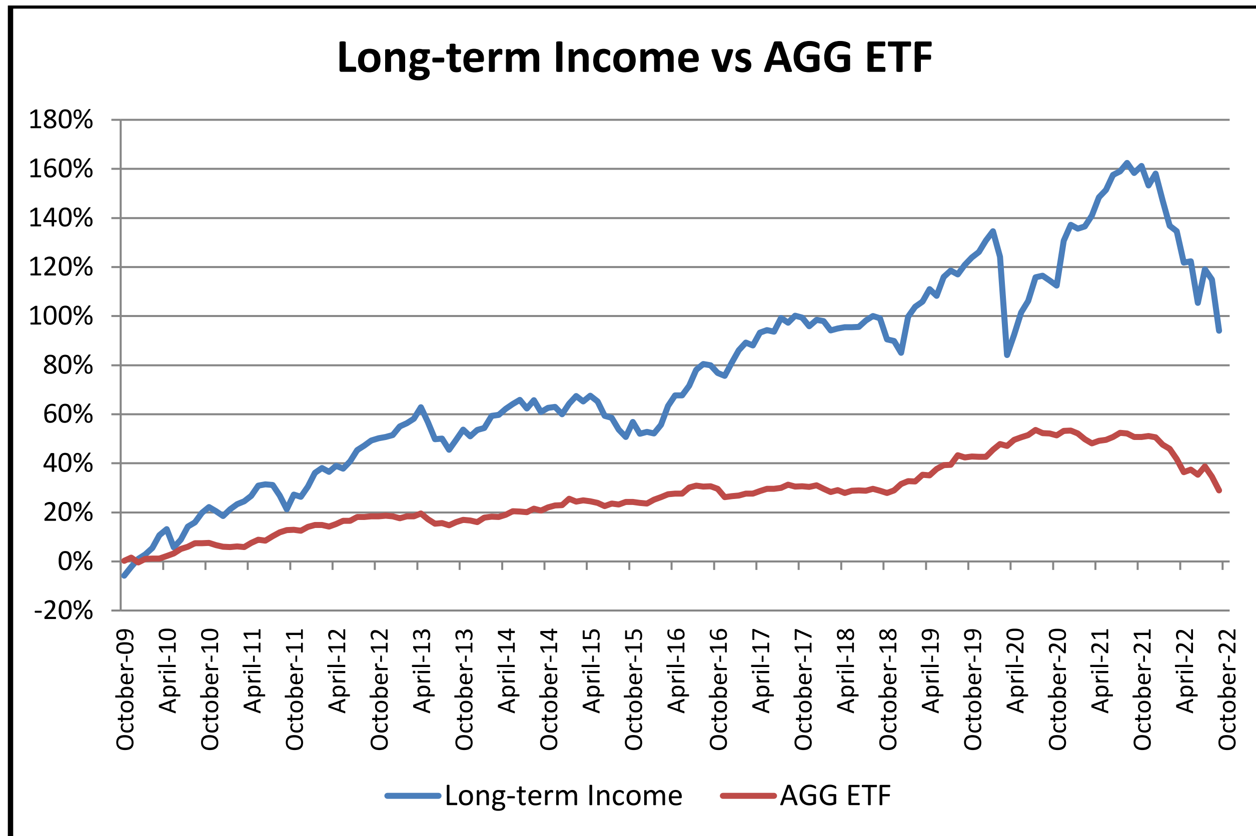
Besides interest rate risk, there is also default risk in this portfolio. Bonds with higher probabilities of default (relative to other corporate bonds) compensate investors with higher interest payments – hence they are called "high yield" bonds. High yield bond default risk is like stock market risk - it is correlated with the performance of the economy. At the portfolio level we diversify away individual company default risk by diversifying across a large number of issuers. This insures that the extra premiums earned won't be lost due to a few companies defaulting. Our strategy is to accept market correlated credit risks to earn those extra returns.

The extra return on high yield bonds over the interest rate paid by the U.S. treasury is called a credit spread – it is the compensation that investors demand for taking credit risks. These spreads change according to investors' risk preferences – i.e. how much they need to get paid for taking credit risk changes according to market mood just like stocks. Therefore, by accepting default risk we also accept credit spread "pricing risk" and we must endure fluctuations in our portfolio value that correspond to changes in the market mood - risk seeking or risk aversion– but at roughly half the level of stock market moves.

We also earn incremental yield by buying closed-end funds (CEFs). These securities can be bought at discounts to the underlying bond values (and occasionally sold at a premium). These funds also enhance returns through embedded leverage. Using these securities means we must endure more price volatility in down markets because most retail investors want to sell more at lows. Current market conditions are providing about 2.6% higher yield on our portfolio than if we held the underlying bonds directly. This is far higher than normal because prices of our holdings are at very large discounts relative to the underlying bond values. I.e. retail investors are more fearful than greedy and so are willing to offer buyers low prices to get out.

The Long-Term Income portfolio is diversified across virtually all sectors of the fixed income market, including government bonds and mortgage-backed securities. A good comparison index is the Barclays U.S. Aggregate Bond Index as represented by the iShares Core Total U.S. Bond Market exchange traded fund (ticker AGG). This is meant to represent the total overall U.S. bond market.

Our portfolio returns calculated here are based on a particular client's account and have been reduced by annual fees of 1.25% which would apply to new accounts above $500,000 but below $1 million.



		Returns by Year		
Year	Year Ended	Long-Term Income	AGG Bond Index	Difference
1	9/30/2010	19.8%	7.4%	12.4%
2	9/30/2011	1.2%	5.0%	-3.8%
3	9/30/2012	23.1%	5.0%	18.1%
4	9/30/2013	0.2%	-2.0%	2.3%
5	9/30/2014	7.6%	4.1%	3.5%
6	9/30/2015	-6.4%	2.9%	-9.3%
7	9/30/2016	19.4%	5.2%	14.2%
8	9/30/2017	11.3%	-0.1%	11.4%
9	9/30/2018	-0.5%	-1.3%	0.8%
10	9/30/2019	10.9%	10.6%	0.3%
11	9/30/2020	-2.9%	6.8%	-9.8%
12	9/30/2021	20.5%	-1.0%	21.4%
13	9/30/2022	-24.9%	-14.5%	-10.4%
	Compounded Total	94.0%	28.9%	65.1%

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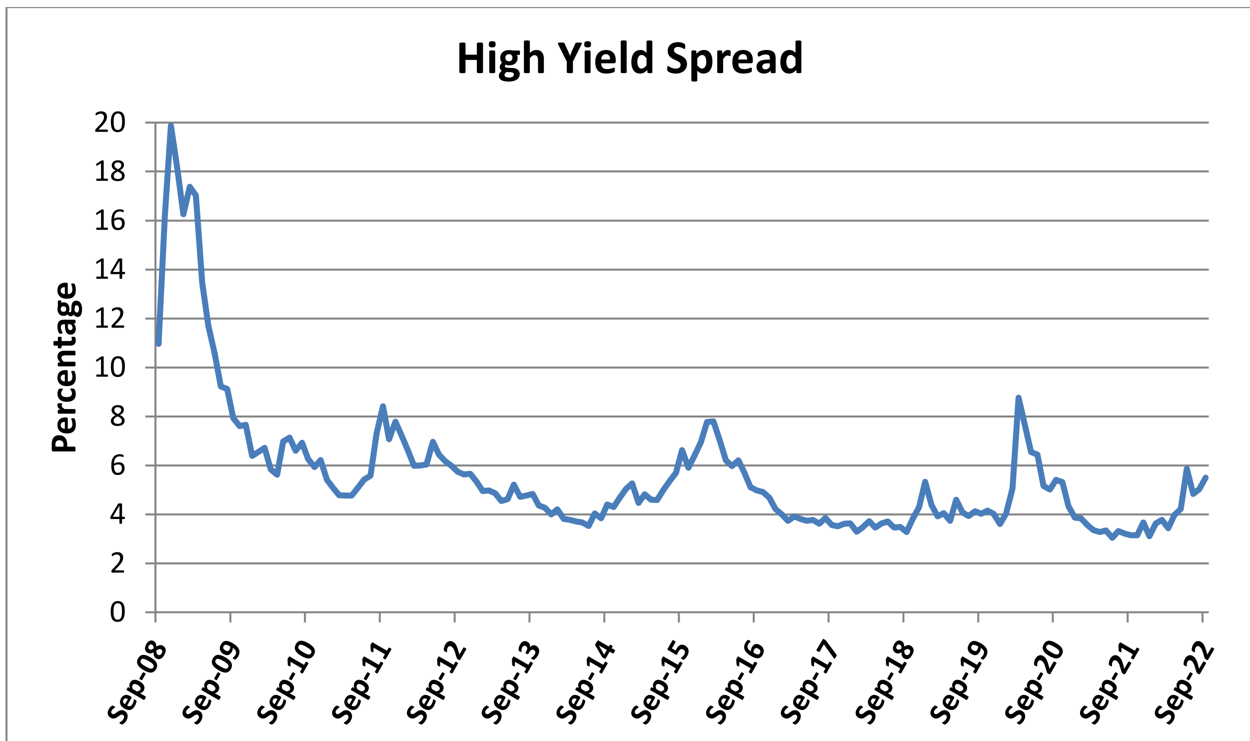
The graph and table on the prior page show total returns including price and interest payments in comparison to the bond index mentioned above, as implemented in the exchange traded fund (ticker AGG). The total return over thirteen years was 94% - an annualized compound rate of return of 5.23%.

It is worth noting that the portfolio lost 9.7% in the last 30 days – more than a third of the loss for the year in just one month. This is a shocking result whose severity has only been exceeded once – in the market turmoil of March 2020. It strikes me as an indication of panic in the market.

The strategy exhibits significant volatility in returns, but, prior to the year just ended, the results have been good over periods longer than one year. The variation in yearly returns is driven mostly by changes in the market value of securities which I refer to as the "mark-to-market return". Long run returns, however, are driven mainly by the interest payments from the securities as the gyrations in market valuations tend to cancel each other out over a period of years.

For the year ended 9/30/2022 the interest rate on 10-year treasury bonds increased from 1.52% to 3.83%. I estimate that this interest rate increase decreased the market value of the portfolio by around 10.86% compared to last year (4.7 average duration times the 2.31% interest rate increase). Remember our portfolio value moves in the opposite direction of interest rates. Although the rise in interest rates reduced the mark-to-market value of the portfolio, higher rates will benefit us in the long run by increasing cash interest payments received as underlying bonds mature and are replaced with new higher coupon bonds.

The graph below shows credit spreads starting the month that Lehman Brothers collapsed.



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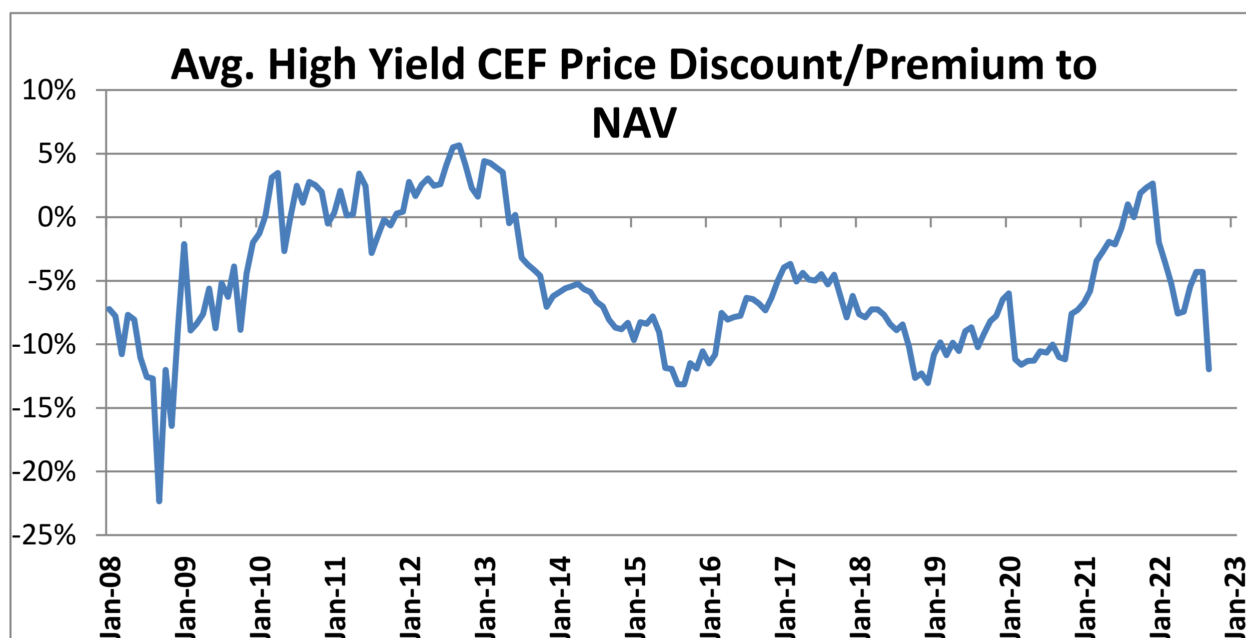
The median spread over this period is about 4.9% and spreads gyrate around this central tendency, driven by market sentiment. The current spread of 5.50% is 2.35% higher than last year (when it was abnormally low). Although inflation tends to make it easier to repay debt, rapidly rising rates increases the probability of recession and financial distress. This later factor has pushed spreads back to a normal level. I estimate that the increase in credit spreads contributed approximately 7.6% to our loss over the year. Generally the level of risk free interest rates (Treasury bond yields) and credit spreads push in opposite directions so this is a very unusual.

The portfolio's price returns (i.e., not counting interest payments) can also be impacted by changes in CEF prices relative to the underlying bonds. To determine the impact we can look at monthly prices and net asset values (NAVs) for some representative CEF holdings. NAV represents the value of underlying bonds inside the closed end funds and the difference between price and NAV is the discount that funds trade at relative to value.

To get an idea of how much CEF discounts can vary, I pulled data on a group of 8 CEFs with data available back to the beginning of 2008. See the graph below.



These CEFs have been (and some currently are) included in either the Long-Term Income portfolio or the Short-Term Income Portfolio. The chart above shows the average discount for these eight CEFs at the end of each month. We see that discounts last bottomed at 11.6% in March 2020 and then climbed back to reach a slight premium at 8/31/2021. Last year, I explained that this very unusual situation would likely reverse over the next year. We have now swung to the opposite extreme. Over the year, the average discount increased from roughly 0% to 12%. Because our strategy is to reduce exposure to premium priced CEFs as prices run up and seek out larger discounts, we are able to mitigate a portion of the swing against us in discounts. Still, the increase in discounts contributed to the portfolio loss and is the reason that it underperformed the benchmark portfolio by

10.4% as shown in the data above. The current average discount is high relative to historical norms and thus we can expect this to aid our returns going forward.

As of 9/30/22, the yield on the Long-Term Income Portfolio is 9.3% (before fees). The weighted average CEF discount of the portfolio is at 13%. Last September I cautioned that forward returns were unlikely to be as good as they had been. We have just endured a year that came very close to my worst case scenario. While much near term risk remains, the prospective long run returns on this portfolio have become much more attractive. At these levels it makes sense to add incrementally to this portfolio if you have funds available to invest.

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