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Project report

FIM 590 - Fixed Income and Analysis

November 29th 2021

Holdings (BOP)

Portfolio					
Sector	*Treasuries Markets and Interest Rate Swaps*				
Initial Amount September 1, 2021	*$ 10,000,000*	**Value as of Nov 1, 2021**	*$9,674,596*	**Date**	11/01/2021
Fund Allocations as of date					
Fund	**Fund Code**	**Portfolio Weight**	**Initial Amount invested**	**Closing price**	**Units held**
iShares 7-10 Year Treasury Bond ETF	*IEF*	29%	$2,891,590	$114.54	25245
iShares 1-3 Year Treasury Bond ETF	*SHY*	35%	$3,483,009	$85.80	40595
ProShares UltraShort 20+ Year Treasury (TBT)	*TBT*	34%	$3,299,997	$18.35	192420
Total		1	$9,674,596		

As of 1st November 2021, the fund consisted of 3 ETFs, different from the 3ETFs at the beginning of the portfolio. Weights were assigned keeping in mind the volatility ahead in terms of the special economic measures (for the pandemic) and future inflation expectation.
Below is the composition of the funds
IEF - This is an ETF consisting of around 11 treasury notes and a few cash derivatives. The treasury notes all have 7-10 years left to maturity. 70% of the notes mature between 2029 and 2031. The total fund value is around $14.28 billion and an estimated duration of 8.05
SHY - This is an ETF consisting of around 75 treasury notes and bonds and a few cash derivatives .The treasury notes all mature before 30th September 2024. The total fund value is around $20.29 billion and an estimated duration of 1.92
TLT - This is an ETF consisting of around 30 treasury bonds and a few cash derivatives .The treasury bonds all mature between May 2041 and August 2051. The total fund value is around $15.36 billion and an estimated duration of 19.26. This ETF was sold off keeping in mind the investment strategy.
TBT - This ETF offers 2x short leveraged exposure to the broad-based Barclays Capital U.S. 20+ Year Treasury Index, making it a powerful tool for investors with a bearish short-term outlook for U.S. long-term treasuries.

Holding Period Return

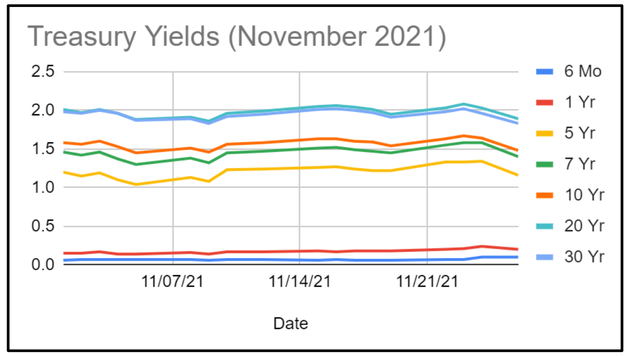
Fund value as of 11/29/2021					
Fund	**Fund Code**	**Units held**	**Closing price**	**Market Value**	**HPR November (annualized)**
iShares 7-10 Year Treasury Bond ETF	*IEF*	25245	$115.37	$2,912,543	9.05%
iShares 1-3 Year Treasury Bond ETF	*SHY*	40595	$85.82	$3,483,821	0.28%
ProShares UltraShort 20+ Year Treasury (TBT)	*TBT*	192420	$16.59	$3,192,242	-32.86%

The portfolio gave a **-10.16%** annualized return over the month of november. The current asset value of the fund stands at **$9,588,607** giving the total holding period return over the 3 months(Sept - Dec) as **-22.28%**.

Commentary / thoughts on the returns

The portfolio performed poorly, but somewhat differently than last period. The reasons for this can be broadly attributed to the following market developments:

- Expectation vs Actual : Given the economic conditions in November, the expectation was that the long term yields would rise. However, this view was assumed taking into account the strong COVID recovery and sign of the pandemic ending. But with the new strain from South Africa raising concerns about the pandemic, the market has reacted as expected. The medium and long term rates have decreased, coming to almost the same levels as of the start of the portfolio. This explains losses the portfolio booked specially the ultra short long term ETF.
  TBT is a leveraged ETF and is supposed to provide 2x inverse returns compared to the TLT ETF. Factoring in the investment amounts and the units held, the returns of TBT were over twice the inverse returns from TLT.
  The short term yields have all increased over the month but ever so slightly. The medium term yield decrease has brought in some profits as they have caused the IEF to increase.



- Overall the macroeconomic trend is having the momentum that has been discussed in the previous two monthly reports. This momentum is defined by record low unemployment, increasing inflation. Apart from these, on the supply side, increased factory output and increased aggregate demand during the holiday season was evident. The trajectory dictated that an increase in yield was on the cards and therefore, a short-heavy position seemed pragmatic. All this seemed a continuation of the trend seen in the last two years until Thanksgiving Day, when the report of a new variant broke out
- New COVID strain: The Omicron Variant juxtaposed with all the macroeconomic optimism not only caused equity markets globally to fall, but also led to a decline in yield rates. This decline in yield rates was based on the uncertainty involving the new variant which in itself can pause the tapering of asset purchases from the Feds. Considering the onset of COVID-19, it is expected that the government will keep the option open to pursue an expansionary monetary policy to stimulate the economy in case the outbreak is as severe as the last two cycles prove to be. Considering this, the yield rates dropped and the prices of treasuries rose, while that of the short treasury fell drastically.

The position taken by the portfolio on November 1st was based on the fact that the Fed tapering would force the yields of the rates to drive up. Owing to their higher duration, the long term bonds and their ETFs were supposed to be adversely affected. Hence, the highly levered short position was expected to be profitable. However, due to the above factors, the positions did not work. Even the short term to mid term yields were expected to be stable but that did not happen amid increased volatility due to debt-ceiling debates and other factors. The new strain adds to this uncertainty and puts into question the investment strategy and outlook of this portfolio

Conclusion

The last 3 months have been very interesting for the bonds market as we got to see the long term expectation fulfilled as well as the uncertainty increases due to the new strain making the market very volatile. Some of the learnings are:

- Considering the fact that the world is now a lot better prepared for handling the pandemic, we might keep the same economic and investment outlook. The portfolio should stay invested in the levered short positions but might want to hedge with a small non levered long position in the long term yields.
- In order to beat the market, we might want to consider diversifying the portfolio. This, however, might not be possible considering that we are investing only in one sector with highly correlated constituents.
- Knowing the things that we do now, things that we would have done differently are:
  - Invest a small amount in the levered ultrashort ETF from the start with a low allocation.
  - Increase the allocation of the ultrashort only after evidence that the long term yields have started declining as per expectation.
  - Reconsider drastically changing allocations (against initial investment strategy) in the portfolio when underperforming. For example: we sold the entire allocation in TLT when underperforming but TLT rose about 38% in the month of November due to the above mentioned factors. Lesson: Do not overreact over the performance of the portfolio.