CARRET Asset Management

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Carret Credit Insight

We Have Liftoff! - Jack King, July 16, 1969

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Firm AUM

$3.413 Billion

Since the Financial Crisis of 2008, the Federal Reserve (FED) has encouraged "healthy inflation" in an effort to achieve its mandate of maximum employment and ***price stability***. This encouragement was initiated in 2008 through 2019 in the form of a record low Fed Funds Rate and multiple rounds of quantitative easing (QE), which boosted the FED's balance sheet from sub $1 Trillion to $4.5 Trillion. Simultaneously, fiscal policy in Washington increased the U.S. debt load by $13+ Trillion from a base of $9 Trillion before the Financial Crisis to $22 Trillion at the end of 2019. The result - the FED struggled to nudge inflation sustainably above the FED's personal consumption expenditure price index (PCE) 2% target level.

In 2020, Covid closed the global economies in a way we have never witnessed. U.S. GDP declined by 5.1% in the 1st Q of 2020 and by 31.2% during the 2nd Q of 2020. The largest economy in the world saw an economic collapse of $2.2+ Trillion in a 180-day period. That's equal to $6,600+ per U.S. citizen and we comprise only 4% of the global population. The FED responded swiftly with a 0% Fed Funds Rate and QE while the US government handed out $5.5+ Trillion in stimulus aid to keep the economy moving forward and, economically speaking, ***it worked*** - just look at the stock market. U.S. GDP finally returned to 2019 levels during the 4th Q of 2021. Over the course of 2020 and 2021, the FED's balance sheet expanded another $4 Trillion ending 2021 at $8.5 Trillion and the U.S. Debt increased by another $5 Trillion and now stands north of $28 Trillion. The U.S. was not alone in these actions – most countries, large and small, printed money and borrowed heavily to get through the past two years.

An economic shock of this magnitude, followed by massive amounts of stimulus money, has consequences – ones that we will continue to discover in the years ahead. One of the most significant immediate consequences is that we are experiencing the hottest inflation rate since the early 1980s driven by:

- 3+ Million net jobs have been lost – the labor market is distorted
- Consumers flush with stimulus cash and benefiting from rising asset values went on a spending spree
- Supply chains have been stressed / disrupted
- Inventories have been depleted / restocking is slow

Key Interest Rates	12.31.21	12.31.20	12.31.19
Prime Rate	3.25%	3.25%	4.75%
Fed Funds Rate	0.00% – 0.25%	0.00% – 0.25%	1.50% – 1.75%
3 Month U.S. T-Bill	0.05%	0.08%	1.55%
5 Yr U.S. Treasury Note	1.26%	0.36%	1.69%
10 Yr U.S. Treasury Bond	1.51%	0.92%	1.92%
10 Yr AAA Municipal Bond	1.03%	0.71%	1.44%
10 Yr A Corporate Bond	2.31%	1.62%	2.73%

Source: Bloomberg, Wall Street Journal, Reuters, Municipal Market Data (MMD), FactSet

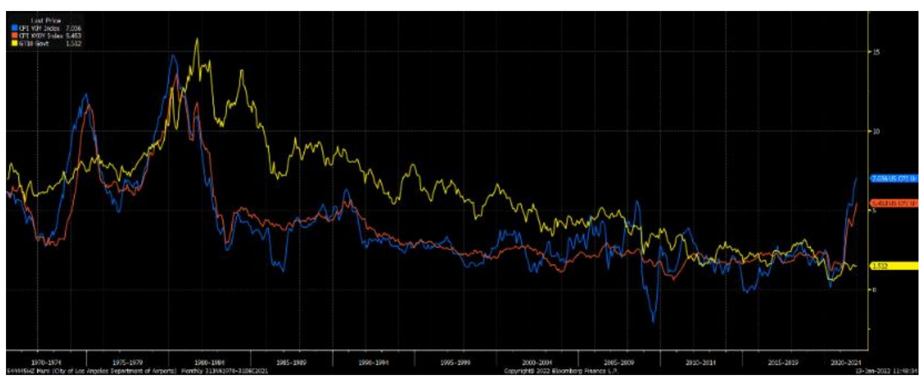
Interestingly, the FEDs response to inflation, thus far, has been inconsistent with a mandate of ***price stability.*** Inflation first rose above the FEDs 2% target in April of 2021 when it hit 3.0% Y/Y - the rate of inflation has only accelerated since then, with CORE CPI hitting a 5.5% Y/Y in December. At first, the FED stated – don't worry, this will be transitory. Upon concluding that the ***liftoff*** was here to stay, the FED decided to conclude QE by July of 2022 and, in short order, moved that date forward to the end of March of 2022. We now anticipate that 1 Yr after the inflation liftoff, the FED will increase the Fed Funds Rate by 0.25% at the March 16th FOMC meeting. The front end of the yield curve has moved higher in anticipation of this move.

We are frequently asked where we think rates will end the year – a specific number. We find this a pointless exercise, rather we focus on getting the directional move correct. If we do, we can add value. In our last commentary dated July of 2021, we stated:

- We believe that in the short to intermediate term, the risk is for inflation to rise more than anticipated (albeit at modest levels) and therefore, rates should trend modestly higher.
- With the 10 Yr Treasury at 1.3%, we believe the risk of rates rising to 2.0% is greater than the reward of rates falling below 1.0%.
- Given our risk / reward focus on investing, we are positioned for a modest increase in rates.

The chart below illustrates the high correlation between inflation (consumer price index) and interest rates. Given the ***liftoff*** of inflation during 2021, our continued directional forecast for interest rates is simply ***upwards*** – we remain positioned accordingly and will look to be opportunistic in a rising rate environment.

10 Yr UST vs CPI 1970 - 2021



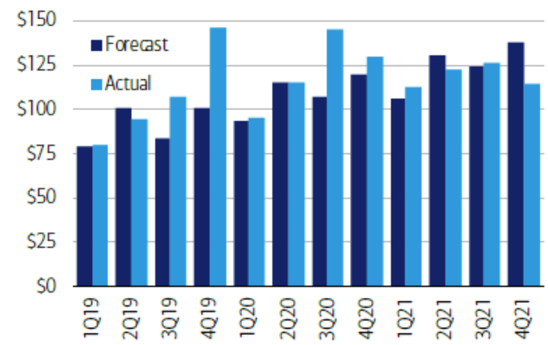
Source: Bloomberg

With core inflation at 5.5% and the 10 Yr UST ending the year at 1.51%, something has to give if this historical correlation is to hold: inflation cools, rates rise, or both. We are in the "both" camp! While the Covid pandemic looks to turn endemic, serious concerns remain and global imbalances continue to challenge the economy. Looking ahead, the ability of the supply chain and labor markets to return to 2019 normalcy will determine if the FED is capable of exiting their monetary stimulus gradually or are forced to tighten aggressively and risk cutting-off the economic expansion. Going forward, fixed-income investors will need to be patient, nimble, and opportunistic in what we expect to be a complex and challenging environment.

As always, we believe it is important to monitor the FED's economic projections. The following is the **FED's Summary of Economic Projections** released on December 15th: The FED projections reflect a strong economic outlook. The FED expects the economy (GDP) to expand by 4.0% in 2022, 2.3% in 2023, and 2.0% in 2024. The longer run projected growth rate remains at a more normalized 1.8%. The FED expects the labor market to continue to improve with the unemployment rate projected to end 2022 at 3.8%. Inflation, as measure by Core PCE, is expected to be above the FED's 2.0% target through 2024. The FED expects the Core PCE index to be 2.7% for 2022, but slow to 2.3% for 2023, and 2.1% for 2024. The DOT Plot shows the majority of members expect the FED to raise rates to 0.90% by year end 2022. In summary, during 2022, the FED expects the economic rebound to continue, the unemployment picture to improve, and inflation to moderate.

Municipal Bond Strategy

New Issue Supply



Source: Refinitiv, Lipper Data

The municipal bond market experienced some interest rate volatility during the 2nd half of 2021. The bellwether AAA 10 Yr Municipal Index began July with a YTM of 1.00%, reached a low of 0.83% on July 20th, peaked at a 1.24% on October 21st, and closed out the year at 1.05%. Thus, notable volatility with little net change over the 6-month period. The stubbornness of municipal yields during the 4th Q was highlighted as municipal yields declined while UST yields rose slightly. The data points indicated the inflation was real and economic growth was surging. From the textbook perspective, yields should be moving markedly higher. However, municipal demand was strong enough to override solid supply levels and thus, negated a rise in municipal bond yields. Additionally, market tailwinds and favorable fundamentals helped to provide stability and support the optimistic picture for the municipal landscape. As we review the 2nd half of 2021 and model ahead, it is important to factor in the heaping stimulus already provided to municipalities, infrastructure spending, and the current logjam of potential policy changes ahead.

On November 15th of 2021, President Biden signed into law the $1.2 trillion Infrastructure Investment and Jobs Act of 2021, with the bulk of new spending directed towards transportation – particularly roads and bridges (22% of total) and rail projects (12%). While municipal provisions such as pre-refundings and a new taxable municipal type program (Example: Build America Bonds) were left out of the final bill, we view the passage of the bill as credit positive for the municipal market, even though shovel-ready projects will certainly take time. The expansion of infrastructure investment, together with the aid delivered under the American Rescue Plan, should put the US on a structurally strong growth track for many years ahead.

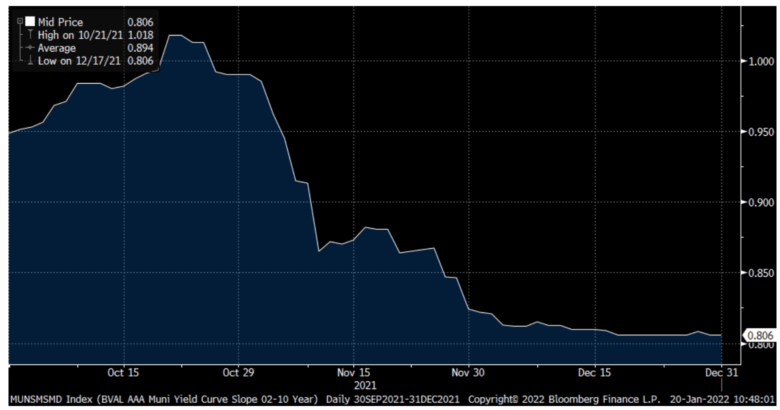
From the supply and demand perspective, supply was strong in the 2nd half, but demand was even stronger. Principal redemptions helped to drive demand of both long- and short-term bonds in 2021. In the 4th Q, redemption proceeds (in search of "replacement bonds") combined with coupon payments totaled $145 billion in demand dollars. Meanwhile, the municipal bond market's positive net inflow streak reached 43 consecutive weeks at year-end 2021. Demand did slow a bit in the 4th Q as investors resisted stubbornly low yields levels and readied themselves for the anticipated January supply spike (January effect). Municipal mutual fund inflows were roughly $100 billion in 2021, up about $54 billon Y/Y. From the supply-side, 4th Q 2021 new issuance was $114 billion which was slightly behind the Q/Q levels from 2020. For the year, municipal issuance levels reached $475 billion which was down roughly 2% Y/Y. The 10 Yr average is $388 billion with a peak in 2020 at $485 billion. Taxable municipal issuance was down nearly 20% in 2021 after doubling in 2019 and 2020. The ratio of new project funding versus refinancing closed the year at a 3-to-1 ratio. Infrastructure spending certainly has the potential to impact supply levels over the next few years.

As we mentioned above, despite the belief that current economic factors were pointing to higher yields in the 2nd half, high-quality municipal yields remained stable. For the year, 10 Yr AAA Municipal Yields rose by 37 bps with yield spikes in February and September. During the same period, 10 Yr UST yields rose by 60 bps. During the 2nd half, 3 Yr and 5 Yr AAA municipal yields increased slightly (roughly 3 bps) while 10 Yr municipal yields declined by 8 bps.

The 2 Yr to 10 Yr Municipal-to-Treasury (MOT) ratio declined during the 2nd half of 2021 as the 10 Yr UST yield marched higher to 1.51% at year-end. The MOT ratio began the 2nd half at 95 bps and peaked at 102 bps on October 21. From October 21 to year-end, the ratio fell by 21 bps and closed the year at 81 bps before. The 100-day and 200-day moving averages (for the 10 Yr MOT ratio) were 87% and 86% respectively. These ratio levels coincide with relative outperformance. Municipal credit spreads continued on their path to full recovery as the year closed out. Yield spreads were little changed during the 4th Q with AA and single-A spreads widening by only 1bp.

Credit continued to improve during the 2nd half. The current economic recovery, as well as the substantial fiscal support, has helped to bolster revenues for many issuers. According to the PEW Charitable Trust, the 50-state total of rainy-day funds was estimated to be higher in fiscal year 2021 compared to the pre-pandemic peaks. For the past two quarters, Moody's has upgraded more bonds than it has downgraded. Additionally, funded levels for state pension plans continue to improve according to projections by the PEW Charitable Trust - "state retirement systems are now over 80% funded for the first time since 2008." This is notable because an 80% funded level is considered to be fully funded.

2-to-10 Year AAA Muni-to-Treasury Ratio 2H21



Source: Bloomberg

We expect that stable economic growth, favorable supply and demand dynamics, and easing credit risks should help maintain the municipal market's positive trend into 2022. Our high-quality, intermediate-maturity bias continues to seek a balance of preservation of principal, total return, and tax-exempt cash flows. We will continue to opportunistically add value through credit research, bond structure, and yield curve positioning. Our municipal bond portfolios are actively managed as either state-specific or state-focused (general market in approach, otherwise). Essential service revenue bonds and high-quality general obligation bonds continue to make up the framework of our municipal bond portfolio strategy. Our Municipal Bond Strategy is focused on high-quality IG, intermediate-maturity bonds. Portfolios are currently structured to generate an average YTM of 1.73% and a YTC of 0.87%. These metrics equate to a Taxable Equivalent Yield (TEY) of 3.35%* and 1.68* respectively. Our composite duration-to-maturity is 6.0 years and our duration-to-call is 4.3 years. The average credit rating is AA-.

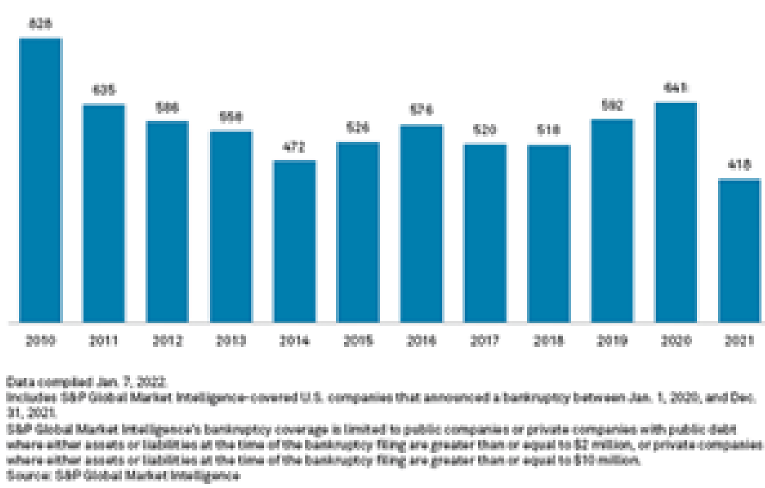
** Assumes 48.3% Combined Effective Tax Bracket*

Taxable Bond Strategy

With inflation and rising rates top of mind, institutional bond managers, in general, are shortening portfolio duration. As has been the case for years, U.S. companies have refinanced debt and extended maturities. This is positive for balance sheets because the debt burden is pushed further into the future at historically attractive rates. The push and pull between an increased demand for short duration bonds and decreased supply of said bonds should keep corporate bond spreads stable in this segment of the market. The Carret Taxable Strategy has maintained a low duration (sub-3.5 years) throughout the Covid-19 pandemic. The strategy is structured to outperform in a rising rate environment.

Our Taxable Fixed Income Strategy remains overweight corporate bonds relative to the index (87% vs. 36%). This allocation reflects our view that minimizing interest rate risk while taking on incremental credit risk is an attractive balance of risk and return. On the interest rate front, yield curves remain stubbornly flat – we believe there is

US Bankruptcy Filings by Year



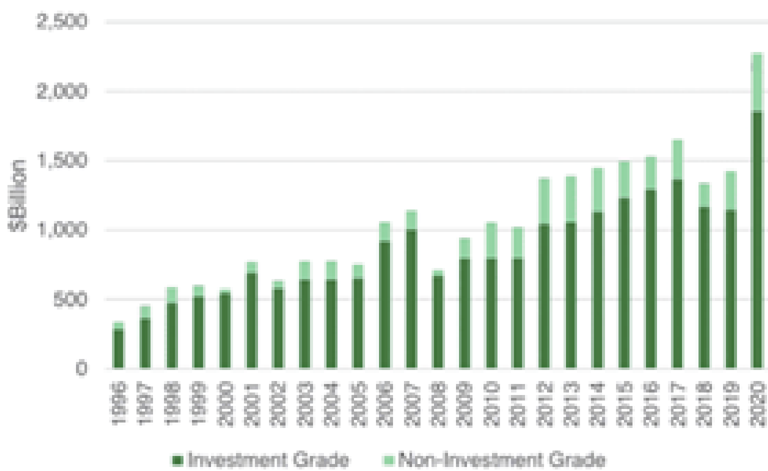
Source: The Daily Shot

minimal value added by extending along the curve. We remain positive on corporate credits as earnings are projected to reach record levels in 2022 as the economy contniues to recover from Covid related headwinds, increasing fiscal stimulus, and improving supply chain stresses. In 2021, the US corporate debt burden, as measured by interest payments as a percentage of earnings, has reached lows not seen in 50 years. Net debt to market capitalization for S&P 500 corporates is at record lows – a sign of strength for corporate bond markets. One of the "safety nets" as a bond holder is that the equity must be wiped out before bond holders are affected. In 2021, US bankruptcy filings are at decade lows – another positive sign for corporate bond markets.

We are wary of Omicron headwinds from increasing worker absences. We believe these will be short-lived as more employees recover from the virus and return to work. An additional headwind that we are watching is the increase in worker pay. As the market for labor heats up and salaries increase, this is a burden on the bottom lines of companies. Despite this pressure, businesses retain the ability to raise prices on their products – to an extent. One final consideration is that unlike in equity markets, for bond markets to perform, we do not need earnings growth – we simply need earnings to remain healthy.

During 2020, the markets saw a deluge of corporate bond issuance influenced by falling interest rates and investors' insatiable demand. As we wrote at mid-year, the flood of new issuance in 2020 saw the pendulum swing in the opposite direction during the first half of 2021. This trend has continued in the second half of 2021 as corporate bond issuance for the year was 13.9% lower than in 2020. This was especially pronounced in high quality assets as investment grade (IG) issuance was down by 20.4%. While the trend is notable, it is significantly due to massive issuance in 2020 rather than a minuscule number in 2021 – total corporate debt outstanding remains at record levels.

US Corporate Bond Issuance



Source: The Daily Shot

As of December 31st, our overweight corporate bond allocation focuses on A and BBB credits. During the second half of 2021, 5 Yr A rated corporate yields rose 50 bp (1.18% to 1.68%) and 5 Yr BBB yields rose 52 bp (1.54% to 2.06%). Relative to 5 Yr UST, corporate spreads widened over the past six months with A rated spreads rising from +30 bp to +41 bp and BBB rated spreads moving from +66 bp to +79 bp. Corporate spreads remain tighter than before the Covid pandemic gripped the world. The 2 to 10 Yr UST spread tightened over the second half of the year, ending December 31st at +79 bp – down from +120 bp at mid-year and back to December 2020 levels of +80 bp. The tightening was the result of a significant move in the short end of the curve as the 2 Yr moved from 0.25% at mid-year to 0.73% at the end of December. The 10 Yr rate moved from 1.45% to 1.51% during that time. Interestingly, the first half of 2021 saw this spread widen due to greater movement of the 10 Yr higher. Short term yields caught up to what the long end of the curve displayed six months prior.

The ***Taxable Bond Strategy*** is focused on high-quality IG, intermediate-maturity bonds. As of December 31st, portfolios were structured to target an average yield to maturity (YTM) of 1.73% with a duration of 3.5, and an average credit rating of BBB+ relative to the Barclays Intermediate Government Credit Index (BIGC) yielding 1.30%. We continue to be overweight corporate bonds, relative to the BIGC index, as spreads versus UST and Government Agencies are attractive after six months of widening. Our allocation to preferred securities increases the overall yield and captures incremental cash flows, while enhancing the level of diversity within the strategy. With inflation remaining above the FED's 2% target and rising yields, we remain comfortable holding a current duration target of 3.0 - 3.5 Yrs – the low end of the strategy's defined range. We continue to maintain our flexibility to reinvest maturities and cash flows into an upward moving interest rate environment – as was the case in the 4th quarter.

Opportunity Strategy & Leveraged Opportunity Strategy

We continue to find compelling relative value in short duration, high quality, high yield (HY) bonds, preferreds, and special situation income plays. HY rates (as measured by the iBoxx HY Index) increased from 4.23% to 4.36% during the year. With a duration of roughly 3.3, this is a spread advantage of +310 over the 5 Yr UST. Given that UST rates remain at negative real yields, we continue to echo that the UST market remains the riskiest sector of the bond market, while short HY offers compelling value with less interest rate risk.

The strategies' top five holdings by market value are Dell Technologies, Onemain Finance, Jefferies, Liberty Media, and Icahn Enterprises. Notably, two of the top five names – Dell and Jefferies – are IG rated. Our DELL position was upgraded from HY to IG during the 3rd Q. Over the last half year, Onemain became a top five position while Ford was reduced to a smaller allocation. The comfort level with these "junk rated" bonds remains high as these are large, industry leading companies with abundant market liquidity.

During 2021, we were rewarded for investing in high coupon corporate bonds as several of our core holdings experienced tenders. Tenders benefit performance as the companies of the debt we owned had to pay above market values to buy their bonds back. Tender and call activity have been running at multi-year highs. We anticipate this trend will continue in 2022, albeit at a slower pace.

Barclays US Corp HY Index vs. 5 Yr US Treasury

Source: Bloomberg

HY spreads - the yield differential between UST and HY bond yields – tightened by 77 bp during the year, while rates on 5 Yr UST bonds increased by 90 bp. Spreads, as of December 31st, contracted to +310 bp compared to +387 bp at the beginning of the year. HY bond issuance experienced a slowdown in the 4th Q in spite of insatiable demand from investors throughout the year. Regardless of this decline, the total level of HY issuance has nearly doubled from 2019 to year-end 2021. While we anticipate a positive fundamental environment for credit investors coupled with record S&P 500 earnings in 2022, we remain focused on the following risks: historically rich equity valuations could create an increase in equity market volatility, which we expect would create HY spread widening and HY market volatility. We are optimistic that these risks will also present investment opportunities in preferred securities, busted convertibles, and special income plays. If we are correct, this is an environment in which we believe we can add value.

As of December 31st, on average, 32% of our Opportunity Strategy was invested in IG bonds while the Leveraged Opportunity Strategy had 14% invested in IG bonds. With spreads at record lows and our outlook for higher interest rates, we are defensively positioned, from both a duration and credit perspective, and are patiently awaiting a return of volatility. We remain eager to deploy capital to a higher risk profile, but as we always say… "We like to take risk, but only when we get paid to do so". In the current market, we are not getting paid to do so. As mentioned, we are finding solid relative value in the short duration / higher quality HY part of the bond market.

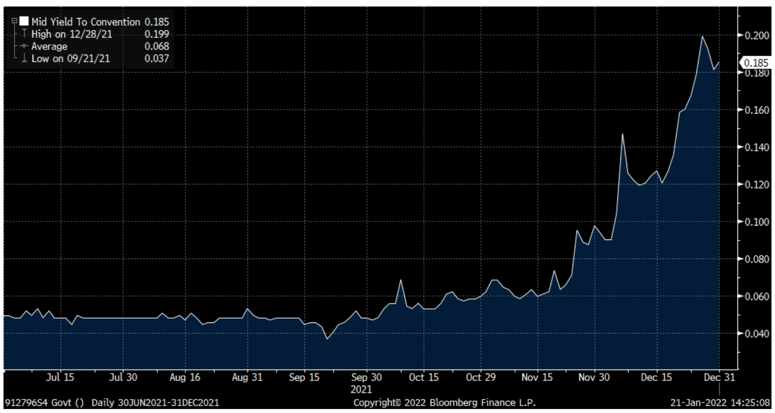
At year-end, our ***Opportunity Strategy***, on average, had a YTM of 2.59%, a duration of 2.7, and an average credit rating of BB. Our ***Leveraged Opportunity Strategy***, on average, had a YTM of 2.82%, a duration of 1.9, and an average credit rating of BB-. As we entered 2022, we remained unleveraged.

Enhanced Cash Strategy

During the 2nd half of 2021, the prevailing bond market status quo of record-low, short-term UST yields altered course late in the year to a steady, slow grind higher in UST rates across the yield curve. This was especially evident in the ultra-short end of the market.

The chart below is a snapshot of the 6 month UST yield over the last 6 months of 2021. Yields were relatively flat – and range-bound – from July through mid-November, yielding just 0.04% to 0.06% over that time period. However, once the Fed announced a tapering of future bond purchases and raising Fed Funds in 2022 and beyond, the yield on the 6-month UST gradually edged higher, reaching 0.20%, before settling at 0.185% by calendar's end.

6 Month US Treasury Bill



Source: Bloomberg

Despite the fact that ultra-short-term rates still remained at nominally low levels for most of the 2nd half of the year, IG Corporate yield spreads did begin to widen throughout the 4th Q. This made finding relative value quite a bit easier, and finally provided a more meaningful return on cash for investors. We expect this dynamic to continue as the FED looks to raise the Fed Funds Rate during 2022.

We improved the overall credit quality of the Strategy over the last half of the year, boosting the average rating from BBB+ to A-, through reinvestments of maturing proceeds and new cash into higher-rated credits.

As always, we continue to focus on investing in quality companies with solid balance sheets and strong market positions. We believe the type of active bond management that our **Enhanced Cash** strategy provides – producing attractive yields without giving up quality nor liquidity – can be an appealing alternative to money market funds and short-duration bond mutual funds.

The *Enhanced Cash Strategy* invests in a tactful mix of liquid, ultra-short duration Corporate, US Agency, and UST bonds, periodically adding tax-advantaged Municipal bonds to enhance overall returns when appropriate. At quarter's end, our portfolios averaged a 0.68% YTM, an average credit rating of A-, and a duration of 0.4.

Separately Managed Account Strategies:

Municipal: Carret's Municipal Bond Strategy seeks to maximize tax efficiency through opportunistic portfolio management while preserving principal through practical portfolio structuring and fundamental credit analysis. We actively manage investment-grade portfolios with a diversified blend of issuers, sectors, and maturities aimed at delivering consistent, risk-adjusted returns with an emphasis on tax-efficient cash flows.

Taxable: Carret's Taxable Bond Strategy seeks to achieve above average total returns with an emphasis on preservation of capital and consistent cash flow. We utilize investment-grade fixed income securities and shift across bond sectors based on changing market conditions. Our fundamental credit research and active portfolio management process has provided consistent and attractive risk-adjusted returns.

Opportunity: Carret's Fixed Income Opportunity Strategy seeks to generate a high level of current income with a secondary focus on long term capital appreciation. We utilize higher yielding fixed income securities and shift among various types of fixed income securities based on changing market conditions. We actively manage risk and reward and can respond quickly to market movements. We utilize interest rate hedges to limit duration risk.

Leveraged Opportunity: Carret's Fixed Income Leveraged Opportunity Strategy seeks to utilize low cost leverage and favorably negotiated release rates to potentially enhance our existing Opportunity Strategy returns. We actively manage leverage to augment opportunities within the high yield and investment-grade sectors of the fixed income market.

Enhanced Cash: Carret's Enhanced Cash Strategy seeks to provide excess returns above those offered by cash equivalents, while focusing on capital preservation and liquidity. The strategy invests in ultra-short duration investment-grade bonds. Our custom approach opportunistically utilizes tax-advantaged municipal bonds to enhance overall after-tax returns when appropriate.

Mutual Fund Strategy:

Kansas Tax-Exempt: The Carret Kansas Tax-Exempt Bond Fund's objective is to preserve capital while producing current income that is exempt from both Federal and Kansas state taxes. The Fund seeks to generate monthly income and principally invests in investment-grade bonds of intermediate maturity.