

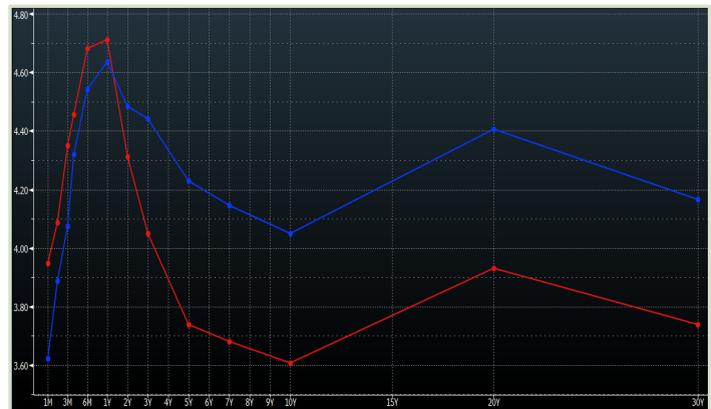


Treasury Rates Declined on Cooler Inflation Data

- Despite initially moving higher, 3+ year Treasury yields declined 39-49 basis points (bps) in November with the largest rate moves coming from 5-7 year issues.
 - After reaching as high as 4.24% early in the month, the 10-year Treasury yield ended November at 3.61%, a 44 bp month-over-month decline.
 - With the 2-year rate declining to a lesser extent, the 2-10 year Treasury yield inversion deepened to -70 bps.
- As expected, the Fed increased the funds rate by 75 bps during its early November meeting; however, commentary surrounding the hike was generally viewed as hawkish and initially pushed rates higher.
 - Chairman Powell suggested that the “ultimate level of interest rates will be higher than previously expected” based on recent economic data.
- The labor market continued to show minimal impact from tighter monetary policy, as the economy added 233,000 jobs in October (expected: +200,000) with the unemployment rate remaining below 4% at 3.7% (expected: 3.6%).
- The most impactful economic data point during the month came from the Consumer Price Index (CPI) which increased a less than projected 0.4% in October (expected: 0.6%), including a 0.3% core increase (expected: 0.5%).
 - The cooler inflation readings were a welcome sign despite both indices increasing for the 29th consecutive month.
 - With higher shelter costs (+0.8%) contributing roughly half of the overall index increase, the CPI may have already peaked as indications of declining rental price growth should eventually flow through to the shelter component of the index.

Maturity	10/31/22 Treasury	11/30/22 Treasury	Change
2-Year	4.49%	4.31%	-0.18%
5-Year	4.23%	3.74%	-0.49%
7-Year	4.15%	3.68%	-0.47%
10-Year	4.05%	3.61%	-0.44%
30-Year	4.17%	3.74%	-0.43%

Treasury Yield Curve: 10/31/22 (blue) vs. 11/30/22 (red)

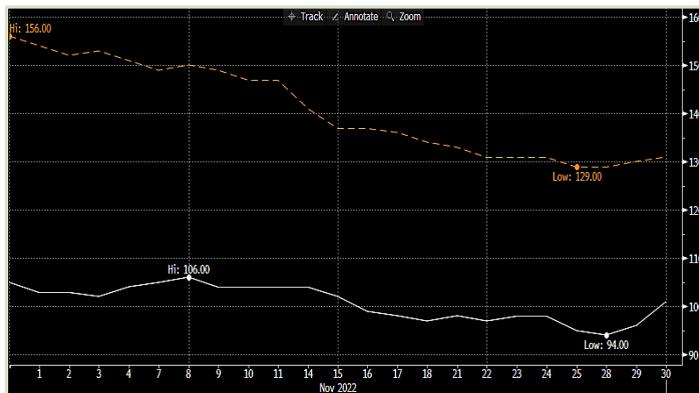


Segment	November Return	2022 Return
Bloomberg Barclays Intermediate Government Credit Index	2.17%	-8.07%
ICE BofA 1-10 Year US Treasury Index	1.70%	-7.41%
ICE BofA 1-10 Year US Inflation-Linked Treasury Index	1.20%	-6.76%
ICE BofA 1-10 Year Corporate Index	3.15%	-9.72%
ICE BofA 1-10 Year Taxable Municipal Index	2.25%	-9.56%

TIPS Lagged Nominal Treasuries While Credit Outperformed

- The lower than anticipated CPI print pulled inflation expectations lower and caused Treasury Inflation Protected Securities (TIPS) to underperform.
 - On a duration-adjusted basis, 1-10 year TIPS lagged nominals by -81 bps in November, reducing the year-to-date excess return to 107 bps.
 - After rebounding in October, the 10-year TIPS break-even inflation rate declined 15 bps in November to 2.36%, pulled lower by hawkish Fed commentary as well as decelerating inflation.
 - The 5-year TIPS inflation expectation fell 23 bps to 2.43%, nearly equal to the 10-year rate, signifying investors view outsized near-term inflationary pressures as waning.
- Slowing inflation and a potential reduction of monetary tightening were viewed as an obvious positive for credit markets which had been floundering for much of the year due to concerns over the impact of tighter financial conditions.
- Intermediate investment grade corporate bonds outperformed Treasuries by 123 bps (duration-adjusted), the strongest month of relative performance since June 2020, reducing the year-to-date underperformance to -137 bps.
 - Corporate bond spreads declined roughly 25 bps during the month.
- Taxable municipal bonds also outperformed Treasuries but to a far lesser extent, providing 25 bps of excess return as credit spread tightening that occurred in the corporate space was not nearly as prominent.
 - Since taxable municipal risk premium movements often lag the corporate bond market, the former could perhaps experience greater relative strength heading into year-end.

1-10 Year IG Credit Spreads: Corporate (orange) and Taxable Municipal (white): November 2022



Source: Bloomberg; Bureau of Economic Analysis; Federal Reserve; ICE BofA; Veritable, L.P. All numbers are estimates. See Disclosures for index descriptions and additional information.



Municipal Yields Staged Strong Rally With Treasuries; Outperformed

- In November, municipal yields fell throughout the month, benefitting from a Treasury market rally as well as a favorable technical environment (i.e., demand outpacing supply).
 - Tax-exempt rates declined by 54-68 bps over the month, in a relatively-parallel downward shift.
 - Yields were unchanged or lower on nineteen of the twenty trading days in November.
- Municipal debt outperformed its taxable counterparts in all maturities as strong demand, especially from institutional buyers, encountered a light primary market calendar.
 - Municipal market outperformance caused relative valuations to sink lower with the 10-year AAA municipal-to-Treasury yield ratio closing the month at 75% versus a 5-year historical average of 88%.
- For the month, the 10-year AAA municipal yield declined 68 bps to 2.71%, still 168 bps above 2021 year-end and 99 bps higher than the historical average over the past five years.
- The yield spread between 2-year and 10-year AAA municipal rates declined 3 bps to 18 bps, remaining near the smallest term premium since at least 2009 and 41 bps below the 5-year historical average.
 - Despite a rich municipal curve from an absolute perspective, the 2-year and 10-year tax-exempt spread remained attractive relative to the deeply inverted Treasury curve at -70 bps.

Maturity	10/31/22 Muni	11/30/22 Muni	Change	% of U.S. Govt 11/30/22
2-Year	3.18%	2.53%	-0.65%	58.70%
5-Year	3.24%	2.63%	-0.61%	70.32%
7-Year	3.30%	2.67%	-0.63%	72.55%
10-Year	3.39%	2.71%	-0.68%	75.07%
15-Year	3.69%	3.15%	-0.54%	84.68%
20-Year	3.90%	3.31%	-0.59%	84.22%
30-Year	4.12%	3.52%	-0.60%	94.12%

- Treasury market stability helped decelerate the velocity of retail selling, as weekly-reporting municipal bond fund outflows slowed.
 - According to Refinitiv Lipper, municipal fund outflows totaled \$6.1 billion in November, as average weekly losses moderated to \$1.2 billion versus \$2.2 billion in October.
 - While net flows were negative for the full month, November included the first week of inflows since August.
 - Through Nov 30th municipal bond funds have shed assets for 40 of the previous 46 weeks.
 - Year-to-date municipal fund outflows through November 30th increased to a new record of \$111.9 billion.
 - With retail investors typically chasing yields lower, municipal funds could experience positive flows in December, but we think long-term funds remain vulnerable to skittish sentiment amid the market uncertainty.

10-Year AAA Municipal Yie Id: 2017-2022



- A strong rally in Treasuries and attractive nominal rates reinvigorated municipal demand in a low new issue supply environment, resulting in outperformance in all maturities relative to U.S. governments.
 - Taxable crossover opportunities reemerged in front-end maturities as 1-year and 2-year AAA municipal-to-Treasury yield ratios slipped below 60%.
- With the sharp November market rally pushing nominal rates and relative valuations lower, investors can generate incremental yield through 'structure' but should be cautious of both reinvestment and extension risks when value-hunting among callable securities.
- In November, light primary market issuance (\$27.2 billion) failed to keep pace with potential reinvestment demand (\$28.6 billion), as municipal net supply remained in negative territory by around \$1.4 billion, according to Bloomberg data.
 - Net supply is expected to remain negative in December, producing full-year net negative supply of -\$36 billion according to JP Morgan data.
 - Moving into 2023, January traditionally represents another technically-supportive month for municipal debt with heavy coupon payments and maturities, acting as a potential tailwind for continued tax-exempt outperformance despite stretched relative valuations
- The strength of the bond market rally saw the ICE BofA 1-12 Year Municipal Securities Index produce a +2.92% return for the month, the best monthly performance since 2009, thereby reducing the year-to-date total return loss to -5.22%.

Source: Bloomberg; ICE; JP Morgan; MRSB; Refinitiv; SIFMA; Veritable, L.P.
All numbers are estimates. See Disclosures for index descriptions and additional information.



Disclosures

This Summary reflects the views of Veritable's Fixed Income Desk and is for your general information. It is not intended to provide personal investment advice and does not take into account the unique investment objectives and financial situation of the reader. Investors should only seek investment advice from their individual financial adviser. Investments in fixed income securities involve the risk of loss that investors should be prepared to bear. Forecasts may not be realized due to a variety of factors, including changes in economic growth, corporate profitability, geopolitical conditions, and inflation.

All information presented is based on available data at the time of publication and is obtained from various sources that Veritable believes to be reliable, but Veritable makes no representation or warranty with respect to the accuracy or completeness of such information. Past performance is no guarantee of future results.

Index Descriptions *(Investors cannot invest directly in an index)*

Bloomberg Barclays Intermediate Government Credit Index is a total returns index of U.S. dollar denominated U.S. Treasuries, government-related securities, and investment grade U.S. corporate securities that have a remaining maturity of greater than or equal to 1 year and less than 10 years. Securities must have \$250 million or more of outstanding face value and must be fixed rate and non-convertible.

Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. The yearly (or monthly) growth rates represent the inflation rate. The CPI is published by the US Bureau of Labor Statistics on a monthly basis.

ICE BofA 1-10 Year US Treasury Index is a subset of ICE BofA Treasury Index including all securities with a remaining term to final maturity greater than or equal to 1 year and less than 10 years.

ICE BofA 1-10 Year US Inflation-Linked Treasury Index is a subset of ICE BofA US Inflation-Linked Treasury Index including all securities with a remaining term to final maturity greater than or equal to 1 year and less than 10 years.

ICE BofA 1-10 Year Corporate Index measures the performance of investment grade corporate bonds of both U.S. and non-U.S. issuers that are U.S. dollar-denominated and publicly issued in the U.S. domestic market with a remaining term to final maturity greater than or equal to 1 year and less than 10 years.

ICE BofA 1-10 Year Taxable Municipal Index is designed to track the performance of U.S. dollar-denominated taxable municipal debt publicly issued by U.S. states and territories, and their political subdivisions, in the U.S. market with a remaining term to final maturity greater than or equal to 1 year and less than 10 years.

ICE BofA 1-12 Year Municipal Securities Index is a subset of ICE BofA Municipal Securities Index including all securities with a remaining term to final maturity less than 12 years. The ICE BofA Municipal Securities Index is market capitalization weighted and tracks the performance of U.S. dollar denominated investment grade tax-exempt debt publicly issued by U.S. states and territories, and their political subdivisions, in the U.S. domestic market. Qualifying securities must have at least one-year remaining term to final maturity, at least 18 months to final maturity at the time of issuance, a fixed coupon schedule and an investment grade rating (based on an average of Moody's, S&P and Fitch).