VERITABLE

Domestic Investment Grade Fixed Income Market Summary

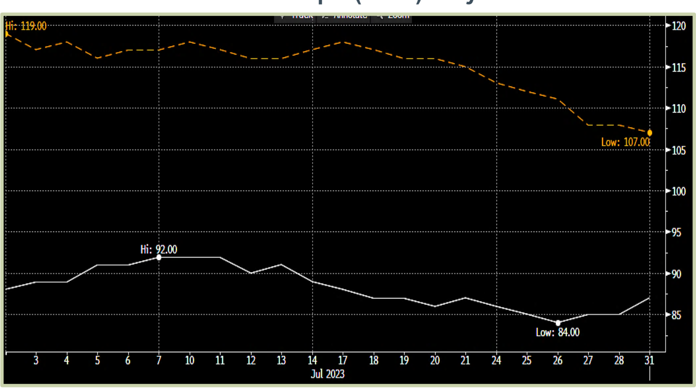
July 2023

Treasury Yields Move Higher on Long End as Signs of Economic Growth Continue

- Treasury yields jumped to start the month, pushing the 10-year rate to 4.07% before declining sharply on the heels of relatively tame inflation indicators that pulled the 10-year yield lower to 3.77% by mid-month.
- Over the second half of July, yields once again moved higher due to strong economic data [e.g., GDP expanded by an annualized rate of 2.4% in the second quarter (expected: 1.8%)] as well as international factors, as the Bank of Japan surprisingly moved to lessen yield curve control policy with a higher 10-year rate cap.
- The front-end of the curve was little changed given minor changes to Fed policy expectations, as 1-5 year Treasury rates moved only a couple basis points (bps) while 7+ year yields increased 8-15 bps month-over-month.
    - The 10-year ended July at 3.96%, an increase of 12 bps for the month.
    - Curve inversion lessened due to the rise in longer-term rates with the 2-year and 10-year yield spread increasing 14 bps to -92 bps.
- After pausing in June, the Fed raised its benchmark lending rate 25 bps to a 5.25% to 5.50% range as expected and left open the possibility of additional hikes depending on economic data.
- The Bureau of Labor Statistics reported a 209,000 increase to nonfarm payrolls in June, the weakest monthly growth since December 2020 and below the expected gain of 230,000 jobs.
    - The unemployment rate remained steady at 3.6% and average hourly earnings rose 0.4%, more than the expected 0.3%.
- The overall and core Consumer Price Indices (CPI) increased less than expected in June at 0.2% compared to 0.3% anticipated for both as the continued rise in shelter costs cooled somewhat to 0.4%, the smallest monthly increase since January 2021.
    - Year-over-year CPI growth decelerated for the twelfth consecutive month and posted the smallest increase in more than two years at 3.0% (expected: 3.1%), while the core index increased 4.8% (expected: 5.0%), the lowest since October 2021.

Segment	July Return	2023 Return
Bloomberg Barclays Intermediate Government Credit Index	0.26%	1.77%
ICE BofA 1-10 Year US Treasury Index	0.12%	1.20%
ICE BofA 1-10 Year US Inflation-Linked Treasury Index	0.49%	2.01%
ICE BofA 1-10 Year Corporate Index	0.66%	3.09%
ICE BofA 1-10 Year Taxable Municipal Index	0.12%	2.77%

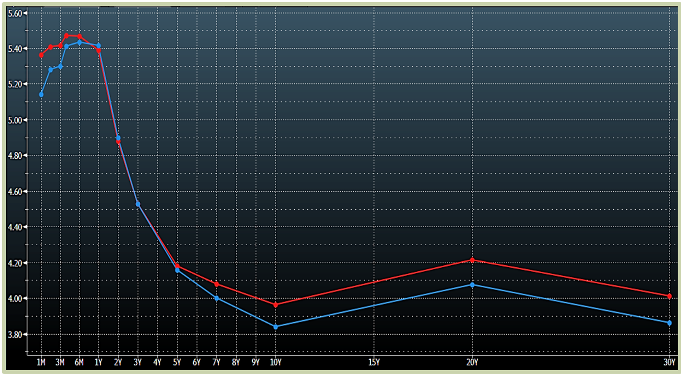
1-10 Year IG Credit Spreads: Corporate (orange) and Taxable Municipal (white): July 2023



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.

Maturity	6/30/23 Treasury	7/31/23 Treasury	Change
2-Year	4.90%	4.88%	-0.02%
5-Year	4.16%	4.18%	+0.02%
7-Year	4.00%	4.08%	+0.08%
10-Year	3.84%	3.96%	+0.12%
30-Year	3.86%	4.01%	+0.15%

Treasury Yield Curve: 6/30/23 (blue) vs. 7/31/23 (red)



TIPS and Credit Outperformed Treasuries Again, Buoyed by Risk Appetite and Economic Outlook

- Treasury Inflation Protected Securities (TIPS) performed well in the face of cooler than expected pricing pressures.
    - TIPS maturing in 1-10 years returned 0.49%, providing 34 bps of excess return over nominal Treasuries adjusted for duration.
    - The 10-year TIPS inflation break-even rate rose 15 bps in July to 2.37%, near the mid-point of the 2023 high and low.
    - An improving economic outlook also pushed the 5-year TIPS inflation break-even rate higher to 2.27%, an increase of 11 bps for the month.
- Credit markets and risk assets in general benefitted from a risk-on investor sentiment as greater than expected economic growth and cooler inflation lent credence to the "soft landing" narrative that has gained steam since March's banking sector concern induced weakness.
- Intermediate investment grade corporate bonds posted a 0.66% total return for the month, outperforming duration-neutral Treasuries by 59 bps; solid corporate earnings season added to the general strength from an improving economic outlook with spreads tightening over the second half of July.
    - Financial and industrial credits, particularly on the long-end, continued to lead the way in the corporate space.
    - Lower rated credit performed relatively better with the intermediate BBB subset providing 72 bps of excess return over Treasuries compared to 46 bps of alpha from A and better rated issues.
    - Year-to-date, 1-10 year corporate bonds have returned 3.09%, outpacing Treasuries by a strong 202 bps after adjusting for duration.
- 1-10 year taxable municipal bonds also outperformed duration-neutral Treasuries but to a lesser extent with 7 bps of excess return.
    - The year-to-date total return of 2.77% equates to 174 bps of alpha over duration-adjusted Treasuries.

www.veritablelp.com 6022 West Chester Pike, Newtown Square, PA 19073 610 640 9551

Municipals Yields Mixed, Longer-Maturities Outperformed Treasury Market Weakness

- 1-5 year municipal yields rose 4-12 bps in July while 7+ year tax-exempt rates moved 2-3 bps.
- As intermediate and long-term Treasury yields rose in July, comparable maturity tax-exempts were little changed, outperforming their taxable counterparts for the month.
  - Short-term municipals generally underperformed Treasuries thanks to late-month price weakness given rich relative valuations and more attractive alternatives like variable rate demand notes.
  - Longer-dated maturities produced the greatest outperformance as the 30-year AAA municipal yield rose by only 2 bps versus a 15 bp increase in the equivalent-maturing Treasury yield.
- Summer reinvestment season has continued to generate a tailwind for municipal outperformance with net supply expected to remain deeply negative in August before rising to positive levels over the subsequent two months.
- For the month, the 10-year AAA municipal yield rose 1 bp to 2.57%, remaining more than 80 bps above the 5-year average of 1.73%.
- Meanwhile, the 10-year AAA municipal-to-Treasury yield ratio moved lower in July to 65%, remaining well-below the 5-year historical average of 86%.
  - In order to reach the 86% historical average level, the 10-year AAA municipal yield must rise 84 bps to 3.41%, assuming an unchanged 10-year Treasury rate.
  - With sub-65% relative valuations in the 1-10 year range, taxable crossover opportunities continued to be a viable alternative for traditional tax-exempt investors.
- The tax-exempt curve inversion deepened led by a rise in short term rates, as the term spread between 2-year and 10-year AAA municipal debt moved 6 bps to -43 bps.

Maturity	6/30/23 Muni	7/31/23 Muni	Change	% of U.S. Govt 7/31/23
2-Year	2.93%	3.00%	0.07%	61.48%
5-Year	2.62%	2.66%	0.04%	63.64%
7-Year	2.54%	2.53%	-0.01%	62.01%
10-Year	2.56%	2.57%	0.01%	64.90%
15-Year	3.09%	3.07%	-0.02%	77.33%
20-Year	3.27%	3.30%	0.03%	78.38%
30-Year	3.49%	3.51%	0.02%	87.53%

- Retail demand warmed as municipal bond fund flows turned positive in July following five straight months of net outflows.
  - Refinitiv-Lipper reported July flows into weekly and monthly reporting municipal bond funds totaling $797 million through the week ended August 2nd as year-to-date outflows fell to $7.2 billion.
  - The market could be approaching an inflection point whereas inflows strengthen and retail demand for duration intensifies as the Fed nears the end of their rate hike cycle.

10-Year AAA Municipal Yie ld: 2018-2023

- July reinvestment demand favored intermediate and longer-dated tax-exempt debt as investors lock-in attractive absolute yields despite stretched relative valuations and an inverted curve.
- As July 1st reinvestment demand hit the municipal market, the SIFMA Municipal Swap Index (7-day high grade market index comprised of tax-exempt VRDNs) sank to as low as 2.20% in mid-July, as reinvestment cash absorbed inventory, before normalizing to 3.98% (74% of the funds rate) by month-end.
- According to SIFMA data, July municipal public issuance declined 29% versus the previous month to $27 billion, but roughly consistent with last-year's monthly total.
  - While the technical environment should remain supportive in August, net issuance is expected to turn positive in September and October, according to JP Morgan projections, upon which relative valuation normalization could occur.
  - Awaiting a yield environment whereas cheap nominals coalesce with attractive relative valuations, investors can improve upon foundational AA yields through modest doses of credit (i.e., A rated or insured paper), less-liquid structures, callable bonds, and taxable crossover opportunities.
- The favorable technical environment buoyed municipal performance in July even as the Treasury market continued to post negative monthly returns; the ICE BoA 1-12 Year Municipal Securities Index produced a 0.21% total return, as year-to-date performance climbed to 1.60%.

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 Ind*ex* 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).

The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index is a 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Notes (VRDNs) with certain characteristics. The Index is calculated and published by Bloomberg. The Index is overseen by SIFMA's Municipal Swap Index Committee.