



Quarterly Bond Market Overview

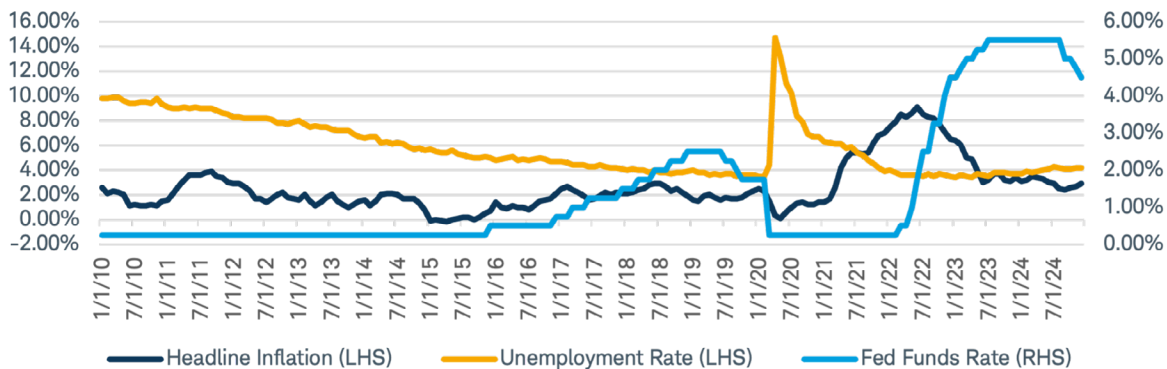
December 31, 2024

The (Not So) Little Economy That Could

Tom Richmond, Co-Head of Taxable SMA Strategies, Senior Portfolio Manager

By now, you are probably tired of reading (although still wondering how so many folks get paid so much to be so wrong) that the U.S. economy must be in, or heading into, a dark, recessionary period. These dire predictions have been a steady drumbeat since the upturn in the data spurred by the first COVID-era stimulus packages in 2020 and 2021. Wrong. Decidedly and wildly wrong. 2024 may go down as one of the strongest economic years in our nation's history. Real growth in GDP will come in above 2% for the year (and maybe closer to 3%), a level thought by many economists to be near its maximum sustainable level. Unemployment ticked up slightly last year, but remains historically low in percentage terms, and inflation, while still above the U.S. Federal Reserve's target, has moderated nicely. These results are even more astounding given that nominal interest rates rose several percentage points over this period. How did this happen, and is it sustainable into 2025?

The Fed's Dual Mandate



Source: Bloomberg 12/31/24; 2025 estimates represent average issuance projections from six large underwriting firms.

The how part is fairly straightforward in our view. A large increase in the working population driven by high levels of immigration over the past couple of years has helped, and the increased productivity of those workers has allowed for real wage gains without driving up broad-based goods prices too dramatically. Fiscal stimulus has played a part as well, with packages like the Inflation Reduction Act and CHIPS Act providing very large investment expenditures to various sectors of the economy. Some of these dynamics are already changed, or will likely change, under the incoming second Trump administration - especially on the immigration front. However, with advances in fields like Artificial Intelligence helping spur productivity gains, we believe wage inflation should remain manageable. Further, given his pre-inauguration comments and his anticipated early term agenda, it seems likely that the President-elect will continue to push stimulative fiscal policies, although the sectors benefitting from these policies may be quite different than today. In short, while downbeat outlooks may get more clicks, we are at least a little more upbeat than most as the new year begins.

If that assessment is anywhere near correct, we suspect that interest rates, especially in longer maturities, may stay 'higher for longer'. This will depend on the aggressiveness of fiscal policies enacted by Congress and/or by executive order, and how much these policies might project to widen our already sizable budget deficits or add to near-term inflation. It would also mean that risk assets should continue to perform reasonably well in our view, although repeating the performances of the last year or two gets more difficult as stock indices continue near all-time highs and risk spreads start the year at historically tight levels. Naturally all these possibilities come with a very large caveat: we have no way of knowing how the first months of the new administration and Congress will unfold, or how the world might evolve geopolitically. While we need a starting baseline to frame our investment decisions, we know that volatility will remain front and center, and agility will be a very helpful asset.

Tax-Exempt Market

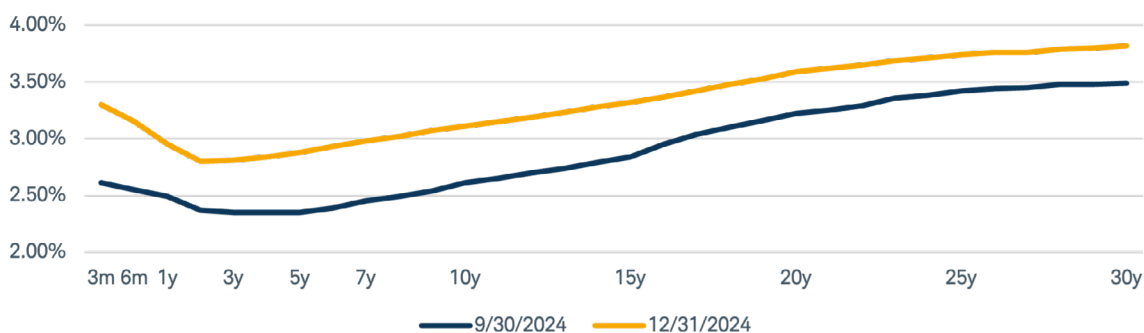
Jason Diefenthaler, Managing Director and Head of Tax-Exempt Strategies

The municipal bond market ended 2024 with a whimper as yields rose by 30–55 basis points (bps) during the final three months of the year. The Bloomberg Municipal Bond Index produced a total return of -1.22% during the quarter, its third negative quarter of performance out of the last four, dropping the full year return to +1.05%. The lift in tax exempt yields was driven primarily by the move in U.S. Treasury yields which were higher by 60–80 bps during the quarter. Interest rate volatility remained at historically elevated levels during the quarter with the ICE BofA MOVE Index, which measures U.S. bond market volatility, hitting a 12-month high during November. The spike in volatility was driven by a number of factors, most notably investors reassessing the forward path of Federal Reserve rate cuts and general uncertainty surrounding the election. This set the stage for measurable muni outperformance relative to Treasuries, with the Bloomberg Municipal Bond Index outperforming the Bloomberg US Treasury Index by 192 bps during the quarter.

The first ten years of the tax exempt yield curve saw the largest yield increases during the quarter with the belly of the curve, from 5–10 years, higher by 50–55 bps. Longer-term maturities saw yields higher by just 30–40 bps, yet that area of the curve was the worst performing given the longer duration profile; the Bloomberg Municipal Long Bond Index was down -1.65% during the quarter compared with a total return of -0.42% for the Bloomberg Municipal Bond 3-Year Index. The sell-off left tax exempt yields near their 2024 highs with 10-year AAA yields ending December at 3.11%; for context, the year-end yield on 10-year munis was higher than 97% of all daily trading sessions over the prior decade.

The slope of the tax exempt yield curve experienced a minor twist during the quarter. The difference between 2-year and 10-year yields ("2s10s") steepened by 7 bps to end the quarter near their 12-month highs at +31 bps. The spread between 2-year and 30-year maturities ("2s30s") closed out December at +102 bps, roughly 11 bps flatter during the quarter but effectively twice as steep at the 2s30s curve in Treasury market (+54 bps). This suggests continued value out the curve for investors willing to add duration, and potentially higher volatility, for additional yield.

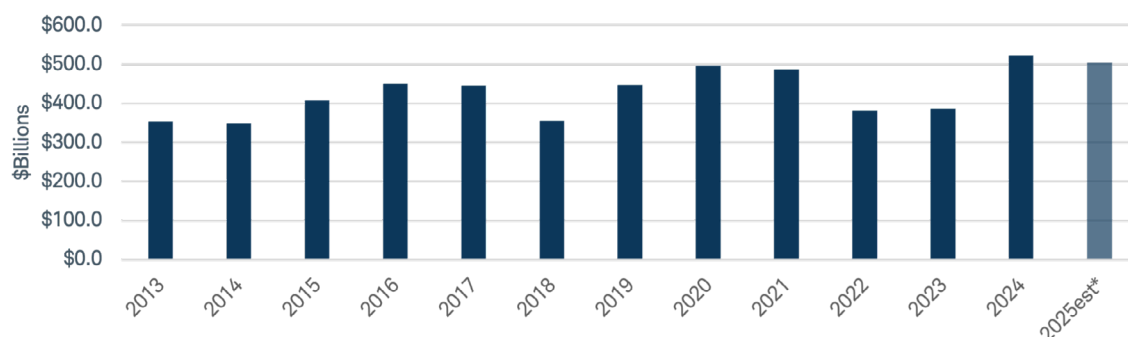
Bloomberg AAA Tax Exempt Yield Curve



Source: Bloomberg 12/31/24

Issuance patterns were arguably the most impactful market theme throughout the fourth quarter and all of 2024. The fourth quarter saw \$122 billion in issuance, which was an increase of 14% versus the fourth quarter of 2023, but an 18% decline sequentially. Total 2024 issuance increased 36% year-over-year to \$523 billion, setting a new calendar year record for supply. We anticipate this elevated supply back-drop will persist into 2025 as issuers transition away from pandemic-era Federal stimulus payments and back to more traditional self-funding measures.

Annual Issuance Totals



Source: Bloomberg 12/31/24; 2025 estimates represent average issuance projections from six large underwriting firms.

Demand was healthy throughout the quarter. Lipper reported outflows from municipal bond funds during the last 2 weeks of the year, but those outflows came on the heels of 23 consecutive weeks of inflows. The resurgence in investor demand during 2024, after the prior two years of investor outflows, was a welcome development during a period of heavy supply and higher rates. It represents an encouraging sign that investors are finding value in the market's current elevated rate structure.

Relative valuations didn't experience material movement during the quarter. 10-year municipal-to-Treasury yield ratios ended December at approximately 67% compared to 69% at the end of September. This is a continuation of a two-year trend where ratios inside of 10 years have generally been range bound between 60% to 70%. This is primarily an artifact of the strong demand patterns and improvements in the market's ability to price the value of the tax exemption.

Credit quality was not a material performance differentiator during the period as spreads had already seen significant tightening in prior quarters. The Bloomberg Municipal BAA Index essentially matched the performance of the Bloomberg Municipal AAA Index during the quarter, despite outperforming by more than 250 bps for the full year. The Bloomberg Municipal Bond High Yield Index outperformed the Bloomberg AAA Municipal Index by 24 bps during the quarter (its 8th consecutive quarter of outperformance), bringing its year-to-date outperformance to 599 bps. There has been a moderate increase in the number of credit unfriendly headlines across the market, including budget troubles in the City of Chicago IL, downgrades to the City of San Francisco CA, the need to implement congestion pricing fees to shore up the NY Metropolitan Transportation Agency's (MTA) finances, and continued enrollment challenges across wide swaths of the higher education sector. Yet credit quality conditions in aggregate appear stable, with a likely pattern developing this year of fewer credit rating upgrades relative to downgrades in our view.

The municipal market enters the year with a number of wildcards at its doorstep. While expectations are for just two cuts of 25 bps by the Federal Reserve in 2025, recent comments from a number of Federal Reserve Governors suggest that the FOMC is perhaps not seeing eye to eye on the forward path for monetary policy. Meanwhile, the direction of fiscal policy is highly uncertain, with many of the priorities outlined by the incoming administration likely to present renewed concerns around the outlook for inflation. Additionally, there are budding questions about risks to the broader municipal bond tax exemption as revenue sources are considered to help offset the cost of extending the 2017 Tax Cuts and Jobs Act. While we doubt a full repeal of the exemption will be pursued, it is certainly possible that some sectors like healthcare, industrial revenue, and private higher education could see their ability to issue tax exempt bonds curtailed. As many of these variables unfold throughout the course of the coming year, we continue to favor a more neutral duration across our strategies while maintaining a preference for single-A rated bonds and defensive coupon structures.

Taxable Market

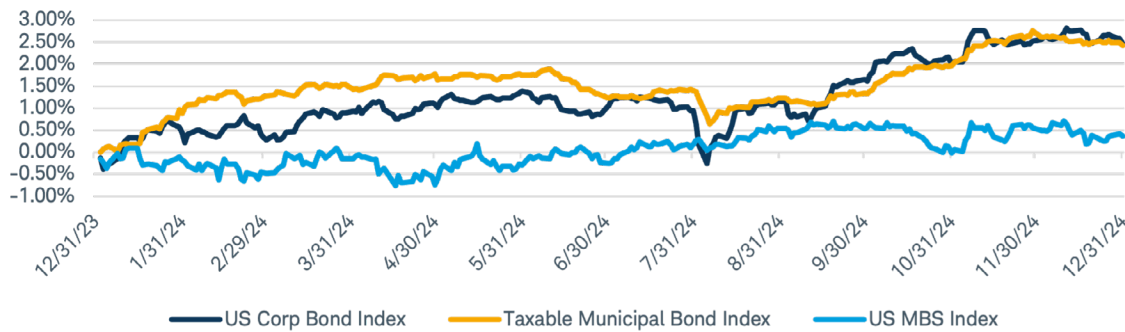
Brian Ferry, Senior Portfolio Manager

The investment grade (IG) corporate bond market ended 2024 on a positive note. The strength of the market was evident in the robust issuance throughout the year, reaching its second highest level on record, and only trailing the pandemic borrowing of 2020. IG companies priced \$1.6 trillion in 2024 of which \$247 billion was issued in the fourth quarter, a 13% increase from the same period last year. The sector continued to build on its already impressive performance in 2024. The Bloomberg US Corporate Bond Index outperformed like duration Treasury bonds by 82 bps in the fourth quarter and was able to outperform by a significant 246 bps for the year. The option-adjusted spread of the index touched multi-decade lows in early November and held near those levels into year-end.

The taxable municipal market was able to enjoy the “risk-on” trade in the fourth quarter– unlike last quarter when it sat on the sidelines. The Bloomberg Taxable Municipal Index outperformed like duration Treasury bonds 117 bps last quarter and an impressive 242 bps for the year. The OAS of the index also made multi-year lows in November and finished at 74 bps – 20 bps lower than where it started 2024. Issuance for the year was as expected at \$40 billion, representing a 6% increase from 2023. The fourth quarter saw \$9 billion in issuance from a broad range of 183 different issuers. Performance in the taxable municipal market in 2024 was anchored by a fast, positive start in the first quarter following a couple of disappointing quarters, finally closing how it started– with a strong finish fueled by the November “risk-on” spread rally.

2024 was quite the year for the mortgage-backed securities (mbs) market. It truly was a give and take type relationship for mbs investors throughout the year as you can see from the excess return chart above. The sector underperformed for the first six months of the year but turned the corner in the summer only to give up those year-to-date gains in the first month of the fourth quarter. In November, however, the sector put in its best month of the year in the “risk-on” rally and mbs buyers were able to finish the year in positive excess return territory. The Bloomberg US MBS Index outperformed like duration Treasury bonds by 37 bps in 2024, delivering its second consecutive year of outperformance.

Excess Returns over Treasuries



Source: Bloomberg 12/31/24

The fourth quarter was a difficult period for bond investors in terms of total return, although the underlying foundations for the sharp turn to a higher risk-free environment are encouraging. The bond market reacted and repriced due to economic strength powered by the consumer, and a resilient labor market that investors and the Federal Reserve might have soured on a little too early. Bond investors were confident enough in the fundamental outlook for the economy to push credit spreads to decade lows even with higher, more enticing risk-free rates.

**Tom Richmond**

Co-Head of Taxable SMA Strategies, Senior Portfolio Manager

Thomas Richmond is Co-Head of Taxable SMA Strategies and a Senior Portfolio Manager supporting the Wasmer Schroeder Strategies at Schwab Asset Management.

Mr. Richmond earned a Master of Science in Applied Mathematics and a Bachelor of Science in computer science with minors in economics and management from Rensselaer Polytechnic Institute.

**Jason D. Diefenthaler**

Managing Director, Head of Tax-Exempt Strategies

Jason Diefenthaler is the Head of Tax-Exempt Strategies for Schwab Asset Management. In this role, he is responsible for developing, managing, and implementing Schwab Asset Management's tax-exempt fixed income investment strategies, including separately managed accounts, actively managed mutual funds, and exchange-traded funds (ETFs).

Mr. Diefenthaler earned a Bachelor of Science in finance from Florida State University. He is a member of the Southern Municipal Finance Society and the National Federation of Municipal Analysts.

**Brian E. Ferry**

Senior Portfolio Manager

Brian Ferry is a Senior Portfolio Manager supporting the Wasmer Schroeder taxable bond strategies at Schwab Asset Management.

Mr. Ferry earned a Bachelor of Science in finance from Miami University. He is a CFA® charterholder and is a member of the CFA Society of Cleveland and the CFA Institute.

Disclosures

Mortgage-backed securities (MBS) may be more sensitive to interest rate changes than other fixed income investments. They are subject to extension risk, where borrowers extend the duration of their mortgages as interest rates rise, and prepayment risk, where borrowers pay off their mortgages earlier as interest rates fall. These risks may reduce returns.

Tax-exempt bonds are not necessarily an appropriate investment for all persons. Information related to a security's tax-exempt status (federal and in-state) is obtained from third-parties and Schwab Asset Management, does not guarantee its accuracy. Tax-exempt income may be subject to the Alternative Minimum Tax (AMT). Capital appreciation from bond funds and discounted bonds may be subject to state or local taxes. Capital gains are not exempt from federal income tax.

Supporting documentation for any claims or statistical information is available upon request.

Past performance is no guarantee of future results. The material provided is for informational purposes only and contains no investment advice or recommendations to buy or sell any specific securities. The statements contained herein are based upon the opinions of Schwab Asset Management, and the data available at the time of the presentation which may be subject to change depending on current market conditions. This presentation does not purport to be a complete overview of the topic stated, nor is it intended to be a complete discussion or analysis of the topic or securities discussed. All opinions and views constitute our judgments as of the date of writing and are subject to change at any time without notice. Schwab Asset Management does not accept any liability for any loss or damage arising out of the use of all or any part of this presentation. This report should not be regarded by recipients as a substitute for the exercise of their own judgment and may contain numerous assumptions. Different assumptions could result in materially different outcomes. Please contact Schwab Asset Management for more complete information, including the implications and appropriateness of the strategy or securities discussed herein for any particular portfolio or client.

Please refer to the Charles Schwab Investment Management [Disclosure Brochure](#) for additional information. Portfolio Management for the Wasmer Schroeder Strategies is provided by Charles Schwab Investment Management, Inc., dba Schwab Asset Management®, a registered investment adviser and an affiliate of Charles Schwab & Co., Inc. ("Schwab"). Both Schwab Asset Management and Schwab are separate entities and subsidiaries of The Charles Schwab Corporation.

Diversification strategies do not ensure a profit and do not protect against losses in declining markets. Investments in managed accounts should be considered in view of a larger, more diversified investment portfolio. There are risks associated with any investment approach, the Wasmer Schroeder Strategies have their own set of risks. The Wasmer Schroeder Strategies invests primarily in fixed income instruments and as such the strategies are subject to various risks including, but not limited to interest rate risk, reinvestment risk, credit risk, default risk, and event risk. Fixed income securities are subject to increased loss of principal during periods of rising interest rates. Fixed income investments are subject to various other risks including changes in credit quality, market valuations, liquidity, prepayments, early redemption, corporate events, tax ramifications and other factors. **Wasmer Schroeder Strategies are available through Schwab's Managed Account Connection® program ("Connection"). Please read Schwab's [Disclosure Brochure](#) for important information and disclosures relating to Connection and Schwab's Managed Account Services®.** Wasmer Schroeder Strategies may be available on other platforms or directly for certain investors with different minimums and fee structures. The Managed Account Marketplace® ("Marketplace") platform is not a program sponsored by Schwab. Marketplace is an open architecture platform that gives investment advisors and their clients' access to separate account managers and turnkey asset management providers (TAMPs). Participating money managers (MMs) and TAMPs need to establish a contract and have system compatibility with Schwab in order to be in Marketplace. The MMs, TAMPs, and their investment strategies available in Marketplace are not evaluated by Schwab.

Source: Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). Bloomberg or Bloomberg's licensors own all proprietary rights in the Bloomberg Indices. Neither Bloomberg nor Bloomberg's licensors approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

Indexes are unmanaged, do not incur management fees, costs and expenses, and cannot be invested in directly.

About the Wasmer Schroeder Strategies: More than 35 years ago, the Wasmer Schroeder philosophy was founded on the principles of an unwavering commitment to service and a dedication to managing fixed income. Originally founded by Martin Wasmer and Michael Schroeder, and now managed by Schwab Asset Management, the Wasmer Schroeder Strategies have grown significantly. From the beginning, management of the Wasmer Schroeder Strategies has held steadfast in its spirit of collaboration. We remain dedicated to uncovering opportunities and delivering results for our clients by working together every step of the way. The Wasmer Schroeder Strategies portfolio management team takes a dependable, collaborative, and insightful approach in the management of active fixed income tax-exempt and taxable strategies.

©2025 Charles Schwab Investment Management, Inc. All rights reserved.

SAM (0125-FNNV)