nuveen
A TIAA Company

Third quarter 2022 outlook

Municipal bonds: turning the corner

John V. Miller, CFA
Head of Nuveen Municipals

The municipal bond market continued to struggle during the second quarter. Headwinds included volatile U.S. Treasury rates, persistent inflation and rapid U.S. Federal Reserve policy tightening. Municipal fund outflows were the largest on record. But positive developments also emerged. Some economic data pointed to a less overheated economy. And after the worst six-month period of municipal market returns in more than 40 years, relative value and absolute yields began attracting buyers of bonds and ETFs, while mutual fund flows became much less negative.

KEY TAKEAWAYS

- Higher rates and persistent inflation continued to pressure fixed income and municipal market performance.
- With the bad news already priced into municipal bond prices and yields, we see hints of a recovery in demand.
- Municipalities are flush with cash, making them well-positioned for slow growth or a mild recession.

INFLATION CONTINUES TO DRIVE MARKET VOLATILITY

The inflation outlook remains the key driver of fixed income performance and volatility. On this front, overall municipal market conditions in the second quarter looked a lot like the first quarter. The municipal market staged a strong rally in the last week of May due to deeply oversold conditions. But this rally proved short-lived once the inflation reports for May showed that the peak inflation dynamic might look like a plateau.

The Fed stated it needs to see "clear and convincing evidence" that inflation is trending downward before changing policy. We may be seeing signs of

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.
NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

this shift, and a number of positive developments should bode well for second half performance.

Rapidly increasing mortgage rates signal a cooling of home price appreciation. Key commodity prices have declined over just the last month, as investors began to worry about the impact of fiscal and monetary tightening on consumer spending.

U.S. dollar strength should help put downward pressure on inflation. The U.S. Federal Reserve has acted faster and is indicating much further interest rate action than other global central banks. As a result, the U.S. dollar has appreciated by 18% versus the yen in 2022 and is up 12% versus the euro, with which it is expected to soon reach parity.

While the June employment report indicated that the labor market remains solid, average hourly earnings growth has decelerated and layoffs and hiring freeze announcements are slightly higher.

All of these factors helped reduce longer-term inflation expectations by more than 100 basis points (bps) over the last month, establishing the recent trading range for the 10-year Treasury bond between 2.80% and 3.30%.

The municipal bond market has maintained a fragile tone throughout the first half of 2022. Uncertainty remained high around where the fed funds rate would peak, the top level of inflation, how fast inflation may fall and the appropriate level for the 10-year Treasury bond yield. Reassessing these important issues has contributed to municipal market volatility and fund outflows. Therefore, the ability to establish this new trading range during this cycle should improve confidence and stability.

> *"The ability to establish a new U.S. Treasury trading range during this cycle should improve confidence and stability."*

THE FED IS FRONTLOADING RATE ADJUSTMENTS

In this mid-term election year, the Fed is under intense political pressure to rein in inflation. The central bank has been playing catch up in 2022, tightening faster than in most past cycles. The June hike of 75 bps brought the year-to-date increase to 150 bps, with an additional 75 bps expected in July. The Fed has not hiked rates 75 bps multiple times in the same tightening cycle in nearly 40 years.

While the speed of this tightening has driven negative total returns for municipals year-to-date, we are starting to see positive signals. Forward-looking inflation expectations show the CPI falling into the mid 2% range over the next few years. In addition, futures markets indicate that the Fed will start cutting interest rates by the second quarter of 2023. That means longer-term bond yields might have seen their highs for this cycle.

Historically, a municipal bond market selloff of this magnitude has been followed by a rally strong enough for investors to recoup losses over the next 12 months simply by remaining invested. This pattern has held over the past six such cycles. If the rates market is at or near its inflection point for this cycle, we believe this historical trend could still hold, indicating attractive returns over the coming year.

VALUATIONS CONTINUE TO SUPPORT MUNICIPALS

U.S. Treasury market volatility continues, as markets toggle between fears of inflation and recession. The 10-year U.S. Treasury yield started the quarter at 2.39%, peaked at 3.47% and dropped back to 2.98%. AAA municipal benchmark interest rates moved similarly, but increased overall during the quarter, with the 10-year AAA yield rising from 2.18% to 2.72%.

Credit spreads widened, but remain below historical averages. Overall, municipal returns were driven primarily by duration and yield curve positioning, with the long end of the yield curve continuing to underperform.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

Municipal-to-Treasury yield ratios also fluctuated, but remained much higher compared to the beginning of the year and historical averages. The 10-year ratio started the year at 67%, rose to its highest point of 105% on 20 May, then fell to 91% by quarter end. The 30-year ratio, which is typically cheaper, moved similarly. The long-term ratio to Treasuries rose from 78% to a high of 110%, then ended the quarter at 101%, compared to its long-term average of 93%.

Although rate volatility is inevitable, we anticipate a better balance going forward. While inflation has yet to definitively break out to the downside, expectations declined during the last few weeks of the second quarter. We still expect to see a mix of municipal inflows and outflows given attractive current valuations, and the market should continue toggling between concerns over inflation versus recession.

Supply

Supply declined by 11.7% from the same period last year to $208.2 billion, primarily because refundings dropped by 47%. The market selloff appears to have stalled the ability of many issuers to refund existing issues, at least temporarily.

Taxable municipal supply declined by 44% for the quarter compared with the second quarter of 2021. Taxable supply increased dramatically after the Tax Cuts and Jobs Act of 2017, and now regularly makes up approximately 20% of the new issue market under normal circumstances. If interest rates stabilize, we may see a catch-up period of taxable new issuance after a sluggish first half of the year.

Demand

After consistently positive inflows in 2021, outflows are now trending, including -$11.8 billion in March, -$23.9 billion in April and -$21.0 billion in May. The -$74.7 billion total year-to-date is the primary cause of cheaper valuations, such as rising municipal-to-Treasury ratios.

However, the total may understate interest in the asset class overall, as municipal exchange-traded fund flows have seen positive flows of $14 billion through May. High yield municipal fund outflows were -$1.7 billion in March, -$3.4 billion in April and -$2.2 billion in May.

Defaults

Through May 2022, first-time municipal bond defaults total just $582 million, a very small percentage of the overall $4 trillion market. Defaults are mainly concentrated in nursing homes and industrial development revenue bonds, as these categories include arguably the most idiosyncratic risks. Overall, we do not anticipate municipal payment defaults becoming widespread.

Credit spreads

Credit spreads were relatively stable, widening by 36 bps for the quarter, from 190 bps to 226 bps over the equivalent-maturity AAA bond. The S&P Municipal High Yield Index returned -11.75% for the first half of the year, driven more by duration and higher ratios to Treasuries than credit spread movement. Lower investment grade spreads also widened, with BBB spreads widening to 95 bps from 86 bps.

State and local government reserve levels and revenue collections are the highest in more than 40 years.”

AMPLE RESERVES CUSHION GOVERNMENT BUDGETS

State and local governments have ample tools to weather an economic downturn. Their coffers are flush with cash, boosted by strong revenue collections. Reserve levels and revenue collections are at the highest levels in more than 40 years, and federal funds are easing the pressure on expenditures.

Total reserves are anticipated to be $262 billion in 2022, or a significant 25% of expenditures. State

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

rainy day funds reached a record collective high at $132 billion in 2022, or 13% of expenditures.

State and local tax revenue collections increased 22% in 2021 compared to 2020 and sit 20% above pre-pandemic levels in 2019. States reporting thus far show a 66% revenue growth from the previous quarter, and are up 21.3% from a year ago in Q1 2021.

At the same time, overall budgets increased by only 7%. Initial stimulus funds helped ease pandemic-related expenses, and funds from the American Rescue Plan Act (ARPA) and the Bipartisan Infrastructure Law (BIL) may help keep some expenses at bay. ARPA funding must be used by 2024, and BIL funding for infrastructure projects will begin in 2022. Pension investment returns were so strong in 2021 that actuarially determined payments in fiscal 2023 will be lower. State pension funds are expected to be more than 80% funded for the first time since 2009.

Moody's issued 89 upgrades and 25 downgrades in the first quarter of 2022. This compares with 817 upgrades and just 307 downgrades in 2021, and 296 upgrades and 209 downgrades in 2020. Given the strong revenue environment and record reserves, we believe municipal credit is well prepared for a recession in the event the Fed were to over-tighten policy.

California budget prepares for the next recession

On 30 June 2022, Governor Newsom signed the $308 billion FY22-23 California State Budget. The General Fund budget alone totals $234.4 billion, 3.5% lower than the revised 2021-22 budget, but 3% higher than the May Revision. The budget reflects a $49.2 billion discretionary surplus, with 93% of that expected to be spent on one-time projects. The budget projects California's and the nation's economy will continue to expand, but at a slower pace than originally proposed in January 2022.

A $17 billion inflation relief package includes a minimum wage increase; a one-year suspension of the diesel sales tax; assistance for rental housing and utility bills; subsidized child care and small business assistance. The centerpiece of the relief program is a return of tax proceeds ranging from $200 up to $1,050 based on income level and size of household. It also allocates additional funds to help address the statewide drought, improve energy systems reliability over the next 5 years and provide incentives for climate-positive projects.

The budget continues to help California prepare for the next economic recession by depositing funds into reserves and reducing retirement liabilities, as well as prepaying state debts. The budget provides for $37.2 billion in total budgetary reserves, including: $23.3 billion in the Rainy Day Fund, $9.5 billion in the Public School System Stabilization Account, $900 million in the Safety Net reserve and $3.5 billion in the traditional General Fund reserve. The rainy day fund is now at its constitutional maximum (10% of General Fund revenues) thus any excess revenues that would have been deposited into the Rainy Day Fund must be spent on infrastructure. Another $8 billion of supplemental deposits into the Rainy Day Fund and the safety net reserve are forecasted over the next few years.

The budget also includes a plan to prepay callable general obligation (GO) bonds over a multiyear period and to finance projects with cash rather than borrowing in order to further build budget resiliency. Supplemental payments of $3.4 billion toward the state's pension liabilities – above and beyond what is actuarially required – are included in the 2022-23 budget, and another $7.5 billion of supplemental payments are projected over the next three years.

Illinois' rating receives upgrades

Illinois' strong revenue growth and improved fiscal management have boosted the state's credit quality and helped net several rating upgrades. Fiscal year (FY) 2021 revenues far exceeded initial projections, coming in nearly 20% over the prior year. The unanticipated tax revenue, combined with the influx of federal stimulus dollars, precluded the need for expenditure cuts or tax increases.

Illinois' recently adopted FY23 budget is a stark departure from recent years. Revenue assumptions are considered conservative, with net general fund revenues essentially flat year-over-year. The $46.5 billion General Fund budget fully funds operations,

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

including education funding increases, a tax relief package and a projected $770 million surplus to be applied to several new policy priorities. The state plans to contribute $1 billion to a new budget stabilization fund using surplus revenues from FY22 and FY23. This will be the first time Illinois has made a deposit into a reserve fund in 18 years. An additional $500 million will go to a pension stabilization fund, representing a payment above the statutory pension requirement. The state estimates the contribution will result in $1.8 billion in long-term savings. Recent surpluses have enabled Illinois to get current on accounts payable, eliminating the historic bill backlog and fully repaying funds borrowed from the federal government and inter-fund borrowing.

Rating agencies were quick to take note and recent upgrades reflect the steady improvement of the state's financial situation over the last two years. Following an upgrade in 2021, Moody's upgraded the state again in April 2022, raising the rating to Baa1/Stable. Fitch upgraded the state by two notches in May 2022 to BBB+. An S&P upgrade to BBB+ followed.

Illinois remains the lowest-rated state. Given the state's broad taxing authority and large economy, a rating in the BBB category is still well below where a state should be. Above-average fixed costs, debt and a comparatively weaker financial position are likely to keep the rating lower than peer states' despite above-average income levels and other credit strengths. The state's pension and debt service costs amount to about 30% of total revenues, which is substantially higher than the state median of 10%. This severely constrains budgetary flexibility and makes the state more vulnerable in future economic downturns because it is less able to provide aid to local governments in need.

The toll road sector was one of the quickest to recover from the pandemic."

Toll roads and airports bounce back

The toll road sector was one of the quickest to recover from the pandemic, with traffic levels rebounding faster than anticipated once governmental lockdowns and restrictions were eased. According to Federal Reserve Economic Data, vehicle miles traveled (VMT) in America during April 2020 declined 39% versus the prior year and reached its lowest level reported since 1994. As economic activity steadily improved over the ensuing 12 months, VMT during April 2021 had already rebounded to 95% of April 2019 activity. Many experts had predicted that 2022 traffic levels nationwide would finally reach pre-pandemic levels, but VMT as of April 2022 was still running approximately 4% below April 2019 results. We attribute this recent decline in traffic to rising gasoline prices during the first half of 2022 and greater than anticipated remote work activity 2+ years into the pandemic. Nonetheless, we continue to view the toll-road sector as a very resilient asset class with a strong track record of surviving downturns.

The airport sector took somewhat longer to see passenger traffic recover, as it was impacted by ongoing restrictions and a lingering fear of public transportation. However, the airport sector is now experiencing a strong recovery, and most airports are observing passenger traffic at or near pre-pandemic levels. Domestic leisure travel is now exceeding pre-Covid levels at many airports, while international and business travel have been slower to recover. TSA daily checkpoint travel data (the daily throughput at all TSA checkpoints) during June 2022 was approximately 90% of the June 2019 average.

Prior to the recovery in air travel, and in corresponding revenues for airports, the sector benefited from solid pre-pandemic liquidity that was further bolstered by three rounds of financial support from the federal government.

For the balance of 2022 and 2023, we expect air traffic volumes will continue to recover as business travel and international travel continue to catch up to the already strong leisure segment.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

OUTLOOK

Trends show hints of a recovery

Investors are increasingly worried that the Fed might have to force the economy into a recession in an effort to return the U.S. to price stability. We believe a soft landing is still most likely, but expect relatively weak real GDP growth, hovering around zero. Municipal credit fundamentals have continued to show record strength, which should support the value of the asset class in a slow-growth economic scenario.

We believe several trends bode well for a potential rebound in the municipal bond market. With additional rate increases already priced into fixed income markets, longer-term Treasuries and longer-term inflation expectations are hinting at a more stable trading range as of the end of the second quarter. Given the relative cheapness of the municipal asset class, this rate stability could easily support the emerging pickup in demand for municipal bonds, leading to improved performance during the second half of the year.

Fiscal and monetary tightening are moving at a historic pace, and we are starting to feel the impact. The U.S. dollar is strengthening versus the euro and the yen, and we are seeing resulting pullbacks in some commodity markets. Mortgage rates have nearly doubled in six months, cooling the super-tight housing markets. While lags in timing are inherently unpredictable, these factors should filter through to inflation statistics during the second half of the year.

Meanwhile, municipal bond returns have most likely endured the worst of the pain for the year, and valuations look attractive. Tax-exempt cash flows and taxable-equivalent yields have more than doubled since the beginning of the year. Yields have historically been the best predictor of forward-looking returns, and they now appear high enough to account for the bad news while generating renewed enthusiasm for investing in bonds.

By the end of June, we were beginning to see new demand for individual bonds and exchange-traded funds, as well as a substantial lessening of the consistent outflows from open-ended mutual funds. If this trend transitions into fund inflows, it would be a positive for second half returns.

2022 THEMES

- The level of inflation remains hard to predict. While we believe inflation has peaked, the incremental price declines indicate inflation is still above the Fed's target. Geopolitical events are creating further uncertainty.
- The Fed has raised interest rates 150 bps in 2022, with more hikes expected through this cycle. The Fed's policy shift has been fully discounted by the markets.
- Peak economic expansion is behind us. Economic growth is beginning to soften due to higher interest rates and fiscal tightening.
- Interest rate volatility is now moving in both directions. The path of interest rates depends on how inflation evolves.
- Credit fundamentals remain strong, with revenue collections and rainy day funds at the highest levels in history.
- Municipal supply is lower year over year, due to fewer refundings and less taxable municipal supply.
- Consumer behavior has normalized and returned to pre-pandemic trends.
- Market dislocation has created an attractive entry point for long-term investors in all areas of the municipal market.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

For more information, please visit nuveen.com.

Endnotes

Sources

Gross Domestic Product: U.S. Department of Commerce. Treasury Yields and Ratios: Bloomberg (subscription required). Municipal Bond Yields: Municipal Market Data. Fund flows: Morningstar. Municipal Issuance: Seibert Research. Defaults: Municipals Weekly, Bank of America/Merrill Lynch Research. State Revenues: The Nelson A. Rockefeller Institute of Government, State Revenue Report. State Budget Reserves: Pew Charitable Trust. Global Growth: International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). Standard & Poor's and Investortools: http://www.invtools.com/. Flow of Funds, The Federal Reserve Board: http://www.federalreserve.gov/releases.pdf. Payroll Data: Bureau of Labor Statistics. Bond Ratings: Standard & Poor's, Moody's, Fitch. New Money Project Financing: The Bond Buyer. State revenues: U.S. Census Bureau.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her financial professionals.

The views and opinions expressed are for informational and educational purposes only as of the date of production/writing and may change without notice at any time based on numerous factors, such as market or other conditions, legal and regulatory developments, additional risks and uncertainties and may not come to pass. This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. **Past performance does not predict or guarantee future results. Investing involves risk; principal loss is possible.**

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. For term definitions and index descriptions, please access the glossary on nuveen.com. **Please note, it is not possible to invest directly in an index.**

Important information on risk

Investing involves risk; principal loss is possible. All investments carry a certain degree of risk and there is no assurance that an investment will provide positive performance over any period of time. Investing in municipal bonds involves risks such as interest rate risk, credit risk and market risk. The value of the portfolio will fluctuate based on the value of the underlying securities. There are special risks associated with investments in high yield bonds, hedging activities and the potential use of leverage. Portfolios that include lower rated municipal bonds, commonly referred to as "high yield" or "junk" bonds, which are considered to be speculative, the credit and investment risk is heightened for the portfolio. Bond insurance guarantees only the payment of principal and interest on the bond when due, and not the value of the bonds themselves, which will fluctuate with the bond market and the financial success of the issuer and the insurer. No representation is made as to an insurer's ability to meet their commitments. This information should not replace an investor's consultation with a financial professional regarding their tax situation. Nuveen is not a tax advisor. Investors should contact a tax professional regarding the appropriateness of tax-exempt investments in their portfolio. If sold prior to maturity, municipal securities are subject to gain/losses based on the level of interest rates, market conditions and the credit quality of the issuer. Income may be subject to the alternative minimum tax (AMT) and/or state and local taxes, based on the state of residence. Income from municipal bonds held by a portfolio could be declared taxable because of unfavorable changes in tax laws, adverse interpretations by the Internal Revenue Service or state tax authorities, or noncompliant conduct of a bond issuer. It is important to review your investment objectives, risk tolerance and liquidity needs before choosing an investment style or manager.

CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

Nuveen provides investment advisory solutions through its investment specialists.

This information does not constitute investment research as defined under MiFID.

nuveen

A TIAA Company

GWP-2286250PG-Q0722P 65125