Municipal Market Insight

October 2021 | Portfolio Advisory Group – U.S. Fixed Income Strategies

What's inside:

For important disclosures and authors' contact information, see page 9.

Are the tides shifting?

Treasury prices fell across all maturities in September, as the Fed gave its clearest indication yet on the likely path for pulling back the extraordinary measures introduced in response to the pandemic. Yields—which move in the opposite direction of prices—rose 0.17% on government bonds maturing in 10 years, ending the month just below 1.5%.

Based on its September meeting statement, the Fed will likely begin reducing the pace of its bond purchases by year end and may terminate the entire program as early as mid-2022. This is slightly earlier than we had previously envisioned, and we believe the accelerated timeline was a key driver for the post-meeting move higher in rates.

Despite the greater clarity on monetary policy, the future of fiscal policy remains murky. A scheduled House vote on the roughly $600 billion infrastructure bill was delayed on the combined opposition of House Republicans and progressive Democrats. Without any fiscal legislation, government spending is likely to be a drag on 2022 GDP; the Brookings Institution, for instance, expects the government sector to subtract 3% from overall growth next year under current legislation. Without any additional fiscal

U.S. Treasury rate forecasts (% as of September 12, 2021)

	2021				2022			
	Q1	Q2	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
FF	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.38
2-yr	0.16	0.25	0.30	0.45	0.60	0.80	1.00	1.20
5-yr	0.92	0.87	0.95	1.20	1.30	1.45	1.60	1.80
10-yr	1.74	1.45	1.55	1.75	1.85	2.00	2.10	2.20
30-yr	2.41	2.06	2.15	2.30	2.40	2.50	2.55	2.55

Source - RBC Economics

Treasuries vs. municipals (%)

	5-yr TSY	5-yr Muni	10-yr TSY	10-yr AAA Muni	30-yr TSY	30-yr AAA Muni
Beginning of month (9/1/21)	0.77%	0.41%	1.30%	0.93%	1.91%	1.52%
Mid-month (9/15/21)	0.80%	0.41%	1.30%	0.93%	1.86%	1.53%
End of month (9/30/21)	0.97%	0.50%	1.49%	1.14%	2.05%	1.67%

Source - Bloomberg (Treasuries), Thomson Reuters TM3 (Municipals) measures, concerns on lower growth are likely to increase demand for bonds, potentially slowing any move higher in rates. Fortunately, we do not believe the legislative impasse will extend to the critical debt ceiling legislation, which we expect to pass next month.

Overall, we continue to see a bias toward lower bond prices and higher yields, although the pace and magnitude of the move will likely depend on Congressional action.

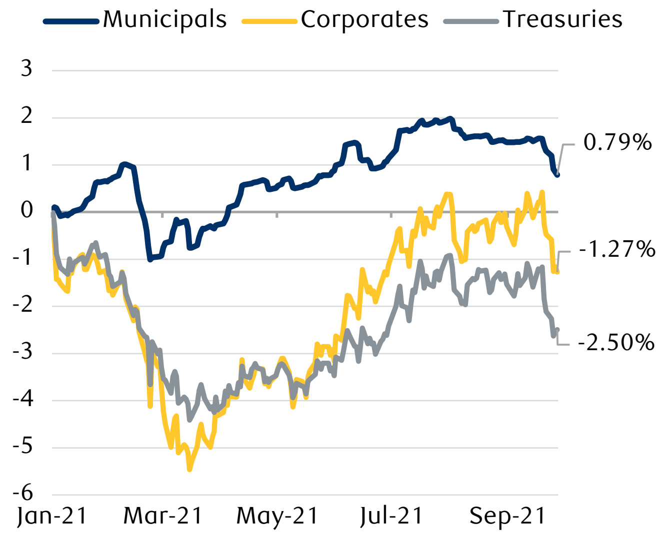
Market investment strategy & market commentary

Market performance—A challenging September

Municipals, Treasuries, and corporate bonds finished the month in negative territory. Was September a sign of volatility ahead, or was it about clients harvesting tax losses and/or reallocating their portfolios amid rising yields?

Municipals performed well the first three weeks of the month before weakening and selling off the last week of the month. Municipal technicals have remained strong as evidenced by inflows to municipal bond funds 38 of 39 weeks this year and 30 straight weeks beginning March 10. During the week of Sept. 29, investors added $408 million to municipal bond funds, marking the first time in three months inflows were under $1 billion. Municipal high-yield bond funds saw their first outflows since March 3. Investors have remained primarily focused on high-yield and long-term bond funds gaining $18.9 billion and $20.7 billion, respectively, this year.

Bloomberg index returns

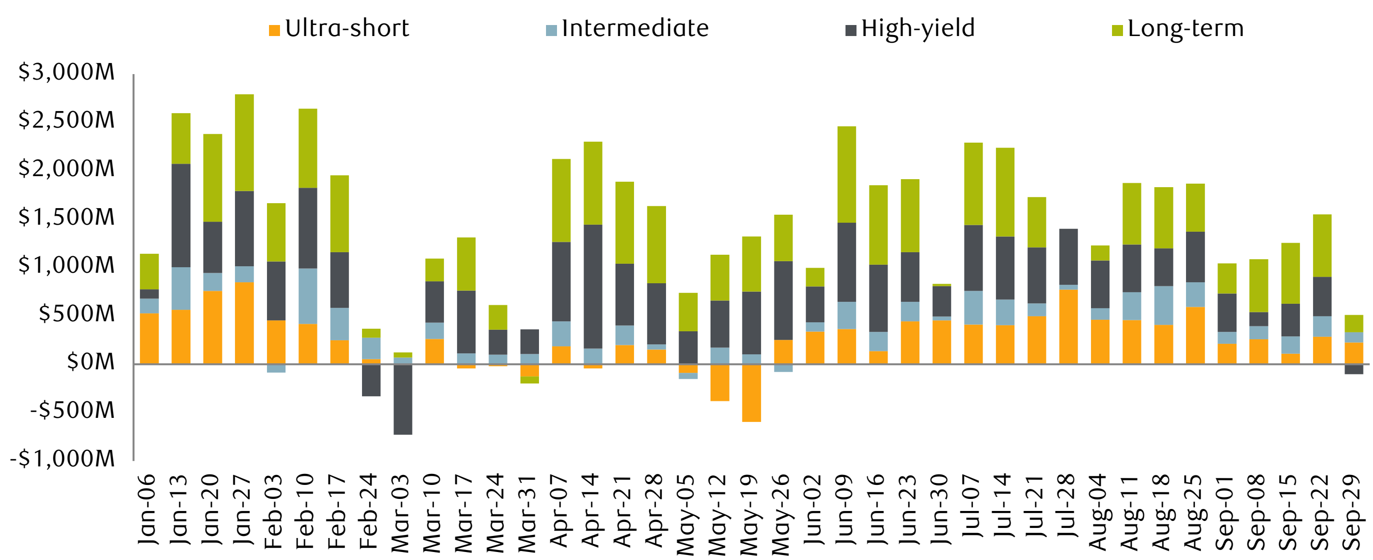


Source - RBC Wealth Management, Bloomberg; data through 9/30/21

A September not to remember for municipals

The municipal selloff during the last week of September erased nearly half of this year's gains. Prior to September, municipals were returning 1.51% year-to-date, according to the Bloomberg U.S. Municipal Index. Despite the weakness, municipals outperformed corporate and Treasury bonds in September, returning -0.72% compared with corporate bonds at -1.05% and Treasuries -1.08%. On a year-to-date basis, municipals are returning 0.79% compared with Treasuries that are returning -2.50% and corporates returning -1.27%, according to Bloomberg data.

2021 municipal fund flows



Source - Refinitiv Lipper U.S. Fund Flows, RBC Wealth Management; weekly data through 9/29/21

Looking Ahead: Could fixed income be in for a rough ride?

U.S. markets were not the only markets that struggled in September, global markets also faced challenges. Will September's weakness translate in to continued weakness through the last quarter of the year? The global pandemic, supply chain disruptions, inflation fears, higher taxes, and Washington, D.C. dysfunction have the potential to drive yields higher the remainder of this year and into 2022. Retail municipal investors took a backseat to institutional investors the better part of the year. As of the end of Q2 retail holdings dropped to 43.1% from 45.8% as of the end of 2019. Mutual fund holdings rose to 21.9% compared with 20.0% as of the end of 2019. We believe the rising yield environment will draw retail investors back to the now $4.3 trillion municipal market.

Traditional buy-and-hold retail investors should remain focused on the longer-dated maturities to maximize cash flow. Yield-sensitive investors have multiple investing options at their disposal including a barbell portfolio structure, a laddered portfolio structure, or they could opt to remain invested in the shorter-dated maturities. Rising Treasury yields are likely to pull municipal yields higher, likely increasing demand over the near term, presenting opportunities for investors.

This month's focus: Earthquakes, wildfires, and drought, oh my!

Natural disasters are occurring more frequently and with more intensity throughout the United States. But the West Coast—California in particular—seems to be under an unusually large barrage of threats. In addition to the top-of-mind earthquake risk, wildfires and droughts appear to be more prevalent, and rising sea levels present yet another nascent concern. Thankfully, no natural disaster has translated into a municipal bond loss despite numerous alarming disasters throughout the U.S. over the years. Of course, investors should not blithely ignore these natural disaster risks, but they can take comfort in the various levels of governmental assistance that have helped the devastated communities regain their footing, which, in turn, have enabled them to continue honoring their financial obligations.

Earthquakes: A longstanding risk

Municipal bond investors need to be comfortable with seismic risk in certain geographic regions because many of the West Coast's largest debt issuers are acutely exposed to this hazard. California is crisscrossed by major fault lines, including 500 active faults.

While many municipalities have strengthened building codes to mitigate catastrophic building failures, nonetheless building to the region's minimum requirements would statistically still result in extensive damage in a major earthquake. Furthermore, based on our review, most municipalities do not have earthquake insurance due to its prohibitively-high cost or unavailability, and only about 10% of California's private residences have earthquake insurance.

A 2008 U.S. Geological Survey study predicted there is a greater than 99% chance of at least a 6.7 magnitude tremor striking California over the next 30 years (the 2019 Ridgecrest Earthquake at a 7.1 magnitude validated this prediction). The study goes on to say that an earthquake of that magnitude along the San Andreas Fault could result in $213 billion in damage and cripple Southern California's infrastructure for months.

Wildfires: A flaring risk

Experts believe the confluence of climate change, an increase in dead tree fuel, and the increased encroachment of human development adjacent to forest lands will hasten more frequent and more devastating wildfires. The number and severity of wildfires in recent years seems to validate this prediction. Still, despite this ominous forecast, the 2018 Camp Fire may provide a glimpse into what could be the worst possible wildfire outcome. Paradise, California, was utterly destroyed during the 2018 blaze, yet no municipal default occurred. Furthermore the town surpassed 1,000 building permits by 2020 albeit with stricter fire building codes.

Drought: A parching risk

Drought has erratically plagued the Southwestern U.S. for nearly two decades, and some researchers predict the area has entered an era of decades-long drought. For the first time ever, the federal government declared a water shortage on the lower Colorado River this summer whereby Nevada and Arizona will experience automatic cuts to their water supply beginning in 2022. The water shortages will have an immediate impact on all affected communities, in our opinion, and likely will require various constituents—including municipalities—to rethink how to persevere with less water.

In response, states have instituted conservation policies, and individual consumers are voluntarily using less water. Municipal water districts are also taking part by finding other water sources such as ground water, recycling water, building desalination plants, increasing water storage, and promoting conservation. Despite the potentially challenging times ahead including the prospect of less water delivery, all affected parties are learning to cope with the changing conditions.

Rising sea levels: A fluid risk

Chronic inundation due to rising sea levels may invariably alter many coastal communities in many ways including reduced tourism, retail trade, property values, and overall quality of life. In turn, coastal communities may experience a drop in tax receipts and increased costs to address the effects of water intrusion. The end result is these communities may have more difficulty servicing their competing obligations, including debt service.

Furthermore, as susceptible communities experience progressively more frequent flooding, commercial insurance may become unaffordable or, worse, may not be available altogether. In our view, the absence of affordable commercial insurance would eviscerate these communities unless states are willing to create alternative insurance options.

If the sea change projections are proven correct, even assuming moderate forecasts, more than 100,000 coastal homes and businesses nationwide could be subject to chronic flooding (defined as at least 26 times annually) within the next 30 years. The undesirable effects on these communities could likely be felt well before 30 years as the flooding becomes progressively worse.

Arguably, certain shore communities are already experiencing climate change with unusually severe flooding events even after "normal" storms. As such, climate change should be influencing nearer-term investment decisions instead of being thought of as a next-generation investment risk.

Pinpointing which coastal communities may be the most negatively affected by sea level change is an inexact science; however, certain trends emerge. The West Coast's higher coastal topography better protects its communities from sea level rises although communities such as San Mateo and San Jose have thousands of homes at risk to even a moderate rise in sea levels.

Solace

Municipal bondholders are exposed to many natural disaster risks including wildfires, earthquakes, floods, sea level changes, and drought. Over the past several decades, communities nationwide—and the West Coast in particular—have been stricken by all these catastrophes yet still flourish and honor their debt obligations.

Furthermore, there is a higher probability of rebuilding and economic rejuvenation if there is reasonable likelihood of future prosperity. In our view, many western U.S. economies offer ample future economic opportunities, even in the face of catastrophic loss. We assume state and federal aid and other charitable support will help boost the suppressed regional economy until the area regains its footing.

An ounce of prevention

To our knowledge, nationwide, no natural disaster has resulted in a municipal default, highlighting the resiliency of this asset class. However, municipal investors should not get complacent. Instead, investors should take measured precautions such as geographically diversifying their portfolios and limiting exposures to any one municipality or small geographic region.

While there has not been a municipal default due to a natural disaster, it is likely a default will occur in the future. As such, we reinforce the importance of geographic diversification, and not just diversification to different parts of the same state, especially if the investor is exposed to the same risks. In the case of California, municipal investors are exposed to many of the same natural disaster risks statewide, most notably earthquakes and wildfires. And the states along the entire East and Gulf Coasts are more susceptible to hurricanes and rising sea levels.

Nonetheless, we believe that any future defaults due to a natural disaster would be rare based on proven state and federal support. As such, in our view, investors should put any default in perspective and not project that widespread municipal defaults are inevitable. While past performance is not an indicator of future success, it may suggest the patchwork of state and federal aid is sufficient to help adversely impacted communities regain their footing—at least for the time being. But at some point, state and federal governments may reassess if they are throwing good money after bad to revive certain communities that Mother Nature has condemned.

Municipal news

General commentary – Personal income rises in almost all states

Pew Charitable Trusts reported that personal incomes in all 50 states saw gains, with 27 recording their highest year-over-year (y/y) increases in Q1 2021. Pew reported national personal income rose an almost inflation-adjusted 14.4%. Utah, Idaho, West Virginia, and Mississippi gained 19.8%, 19.4%, 19.2%, and 19.1%, respectively, the highest among all states. Helping fuel the surge in personal income was the very generous amount of federal aid in the form of one or two federal payments of $600 and $1,400 in addition to extended unemployment benefits.

Charter schools – Enrollment trends rising

During the 2020–21 school year, charter schools across the country gained 240,000 new students, a 7% y/y increase and the largest jump in five years, according to the National Alliance for Public Charter Schools, a pro-charter advocacy group. Not all states posted gains. Illinois, Iowa, and Wyoming saw decreases. At the same time, public schools saw enrollment decline 3% y/y nationally.

States see a sales tax windfall in July

Sales tax revenue jumped 15% among 27 states in July, according the U.S. Census Bureau. The 27 states collected $19.6 billion in sales tax revenue compared to the same period the prior year. The mix of tax collections was spread across all major tax collection groups including general sales and gross tax receipts which were up 16%, motor fuel taxes up 8.4%, alcoholic beverage tax receipts up 15%, and lodging tax receipts up 92.5%, while tobacco tax receipts declined 8.1%.

Mississippi saw the biggest gains with sales tax collections rising 52.2%, while Pennsylvania saw tax collections drop 4.21%.

State tax revenue rises

States saw tax revenue increase 56% to $394.5 billion during Q2 compared with the same period the prior year. California saw a 135% y/y increase to $81.6 billion while Massachusetts fell the most, by 6.8%, to $8.31 billion.

States have $332.9 billion in outstanding general obligations bonds, according to Bloomberg.

Municipal market news

California – The rebound continues

The state's finance department reported it has collected $22.9 billion, for the fiscal year that ends June 30, 2022, an 18% jump. The state is seeing revenue gains across the board including personal income tax collections (up 20%), sales and use taxes (15%), and corporate taxes (up 34%).

Chicago – Mayor proposes budget

The country's third-largest city is facing a $733 million budget gap, which Mayor Lori Lightfoot plans to close with federal aid following submission of her optimistic $16.7 billion budget, which relies on federal aid and one-time revenue gains for the upcoming fiscal year. The mayor plans to use about $385 million of the $1.9 billion of federal aid it has received to help close the gap. Lightfoot's budget relies on $24.9 million of surpluses from tax increment projects and $81.2 million in new property growth and revenue collections.

Florida – Business sue Governor DeSantis

A recently signed deal between Governor Ron DeSantis and the Seminole Tribe allowing the Tribe to expand gambling in the state is being challenged by a group of businessmen. The agreement would allow the Tribe to bring online sports betting, open new venues, and offer roulette and craps.

The lawsuit, brought in Washington, D.C. by a Miami developer and a group of other businessmen is arguing the U.S. Department of Interior, which oversees gambling on tribal lands, wrongly approved the deal the governor and Tribe signed. The agreement was approved by a majority of the Florida Legislature and supported by two-thirds of Florida residents.

Las Vegas – Rail line financing

Brightline Holdings, owned by Fortress Investment Group's rail company, is expecting to finalize $8 billion of financing, for construction of a rail line connecting Southern California to Las Vegas, over the next six months. The ambitious rail project has been delayed since first being floated pre-COVID 19.

The Southern California to Las Vegas route marks the second Fortress rail venture. The investment group previously financed, developed, and constructed their Brightline East, which connects West Palm Beach and Miami. Fortress has plans to construct and extend Brightline East with service to Orlando, a project that is in the development stage.

New Jersey – Pension fund posts solid gains

The state's pension fund returned an unaudited 28.63% for the fiscal year ended June 30. The return is the highest in 20 years, according to the state's Department of Treasury. The state's pension fund had an assumed 7.3% rate of return, which this year's performance exceeded by 235 basis points. The state's pension fund ended the fiscal year with an unaudited $94.4 billion value.

New York City MTA – Borrowed time?

State Comptroller Thomas DiNapoli said the country's largest mass transit system is running on borrowed time. The MTA is expected to face budget and revenue challenges as early as 2025, according to DiNapoli. The MTA continues struggling from the impact of the pandemic where ridership on the system's buses, subways, and commuter rail lines is struggling to recover riders. The system is carrying around half the riders it did in 2019.

The system operating budget has benefitted from $14.5 billion of federal aid, which could run out as soon as 2025. Failure to attract additional ridership will require near-term budgetary and service changes. If the MTA does not promptly address these challenges the system is facing sizable budget shortfalls that could impact the regional economy, DiNapoli said.

Pennsylvania – Boosts rainy day fund

State Treasurer Stacy Garrity announced the state transferred $2.6 billion to its rainy-day fund in an effort to prepare for another economic downturn or other unforeseen event that could pressure the state to reduce discretionary spending to balance its budget. The state's rainy day fund, following the transfer, has about 25 days of general fund spending available.

Port of Los Angeles – Seeking additional funding

Gene Seroka, the port's executive director, said West Coast ports are in need of additional federal funding to help address supply chain disruptions and growing labor shortages. Seroka said over the past decade the federal government and Congress have been primarily focused on funding East and Gulf Coast ports while providing less funding to West Coast ports. Driving Seroka's assessment is that Asia outputs are at record highs and vessel capacity has increased 30%, leaving insufficient space at the port. Furthermore, cargo has been sitting longer than normal at the ports and warehouses.

Texas – August sales tax collections surge

The state collected $3.3 billion in sales taxes in August, marking an 18% jump from a year earlier, according to Texas Comptroller Glenn Hegar. The state sizable bumps in motor vehicles sales and rental taxes (up 33%), motor fuel taxes (15%), and oil production taxes (85%) contributed to the increase. Texas has no income tax and depends heavily on sales tax collections, which account for 59% of the state's tax collections.

Ratings corner

Notable state and local issuer rating updates

Atlanta – Affirmed by Fitch

On Sept. 28, Fitch Ratings affirmed the AA+ rating on the city's outstanding general obligation debt. At the same time, Fitch downgraded the City Court Certificates of Participation one notch to A+ from AA-. The city's broad revenue raising powers, full control of its public employee-related wages and benefits, and high revenues support the city's existing AA+ rating.

The downgrade to the certificates of participation was driven by a precipitous decline in court fees and fine revenue driven in part by the ongoing impact of the pandemic.

Austin, Texas – Rating affirmed

On Sept. 2, Moody's affirmed the City of Austin's Aa1 general obligation rating, and maintained a stable outlook on the city. The rating affirmation "reflects a robust and growing economy that benefits from the economic strength provided by two large institutions, the University of Texas System and the state capital."

Hawaii – Rating affirmed

On Sept. 17, Fitch Ratings affirmed the state's AA rating, the rating outlook is stable. The rating affirmation "reflects the state's solid revenue growth prospects, high independent revenue-raising ability and the ability to control spending."

Jacob Javits Convention Center, NY – downgraded

On Sept. 2, Moody's downgraded around $770 million of senior debt to A2 from A1 and $220 million of subordinate debt two notches to Baa2 from A3, at the same time Moody's is maintaining a negative outlook on the borrower. Ongoing disruptions caused by COVID-19 have hindered tourism and travel to New York City. The convention center bonds are secured by a $1.50 per-night fee on occupied hotel rooms.

Nevada – Outlook to stable

On Sept. 22, Fitch Ratings revised the state's outlook to stable from negative. "The stable rating outlook on the GO bonds and lease revenue COPs reflects a rebounding domestic tourism industry, which has benefited Nevada and led to improving performance of sales and gaming taxes, the state's two largest revenue sources."

St. Louis – Wins an upgrade

On Aug. 30, Moody's raised the city's rating one-notch to A3 from Baa1, the outlook is stable. The upgrade was a result of the substantial improvement the city has made to its financial profile as evidenced by consecutive years of budget surpluses.

Territorial update

Commonwealth of Puerto Rico

Oversight Board makes concessions

The Puerto Rico Oversight Management and Economic Stability Board recently announced it was making concessions to the representatives of the government to the threshold for pensions to $2,000 a month from the original $1,500 threshold the Board previosuly requested. The Board went on to say it would approve lesser or no cuts to pensions for the fiscal year, if the commonwealth receives more federal Medicaid funding. The move by the Board was to garner support by the government of Puerto Rico to approve the Plan of Adjustment currently being negotiated.

Puerto Rico House – Negotiating new bill

The Puerto Rico House of Representatives prepared a bill to allow for the issuance of restructuring bonds once the current restructuring agreement has been completed. Approval of the legislation should provide additional momentum for completion of the restructuring. Legislators said the bill should include approval of restructured bonds and Cintingent Value Instruments found in the current restructuring plan. Lawmakers are also seeking to address the island's pension system, which remains a sticking point within the current Plan of Adjustment.

Puerto Rico reorganization plan voting extended

Federal Bankruptcy Judge Laura Taylor Swain approved a motion filed by the Official Committee of Retired Employees to extend the deadline to vote on the Plan of Adjustment. Judge Swain extended the voting deadline to Oct. 18 from Oct. 4 for voters of all classes. Within the same ruling, Judge Swain extended the deadline for vote tabulation to Nov. 3 from Oct. 25.

RBC Wealth Management retail trading (9/1/21 – 9/30/21)

Top 10 CUSIPs selling volume to retail customers

CUSIP	Description	Maturity	Coupon	Volume
89602HAU1	TRIBOROUGH BRIDGE-B-1	05/15/2056	5.00	9,057
13063DKS6	CALIFORNIA ST	04/01/2049	5.00	6,195
13063DPW2	CALIFORNIA	10/01/2049	5.00	3,844
54811BVB4	LOWER COLORADO RIVER	05/15/2050	5.00	3,493
59656QAS4	MIDDLESEX IMPT AUTH	09/01/2046	4.00	3,062
59261AA31	MTA-C-AGM	11/15/2041	5.00	2,503
59656QAT2	MIDDLESEX IMPT AUTH	09/01/2051	4.00	2,447
64966QAZ3	NEW YORK-D-SUBSER D1	12/01/2041	4.00	1,954
79905VAX9	SAN MATEO CA PUB FING	08/01/2049	5.00	1,948
13063DNK0	CALIFORNIA ST	04/01/2045	5.00	1,921

Top 10 CUSIPs buying volume from retail customers

CUSIP	Description	Maturity	Coupon	Volume
649519BQ7	NY LIBERTY-TRD CTR	11/15/2051	5.75	4,241
79574CBB8	SALT RIVER PROJ-A	12/01/2045	5.00	3,670
362762LE4	GAINESVILLE HOSP-A	08/15/2054	5.50	3,221
91802RAQ2	UTIL DEV SEC-TE	12/15/2041	5.00	3,180
64971WNC0	NYC TRANSITIONAL-B-1	08/01/2039	5.00	3,141
13063CUG3	CALIFORNIA ST	08/01/2045	5.00	2,390
650116DA1	PROJECT NEW YORK TRANS	10/01/2045	4.38	1,622
88283KAZ1	TEXAS TRANSPRTN-C-REF	08/15/2042	5.00	1,232
13063CJC5	CALIFORNIA ST-VARIOUS	12/01/2043	4.50	1,177
61685PEB0	MORENO VLY FING-REF	05/01/2038	4.38	1,045

Source - RBC Wealth Management

RBC Capital Markets institutional trading (9/1/21 – 9/30/21)

Top 10 CUSIPs selling volume to institutional customers

CUSIP	Description	Maturity	Coupon	Volume
72014TAE9	PIEDMONT HEALTHCARE	01/01/2052	2.86	60,857
79642GMY5	SAN ANTONIO -A-REF	05/15/2046	5.00	25,631
72014TAD1	PIEDMONT HEALTHCARE	01/01/2042	2.72	21,099
38122NZX3	GOLDEN ST TOBACCO SEC	06/01/2038	3.12	20,550
64971XG44	NYC TFA FUTURE TAX	08/01/2045	5.00	20,493
438687UA1	HONOLULU CITY & CO -E	03/01/2030	5.00	17,733
64971XG69	NYC TFA FUTURE TAX	08/01/2048	4.00	17,452
72014TAC3	PIEDMONT HEALTHCARE	01/01/2032	2.04	17,265
5946952S6	MICHIGAN ST TRUNK LIN	11/15/2035	5.00	13,389
64971XE61	NYC TFA FUTURE TAX	08/01/2045	4.00	11,654

Top 10 CUSIPs buying volume from institutional customers

CUSIP	Description	Maturity	Coupon	Volume
72014TAE9	PIEDMONT HEALTHCARE	01/01/2052	2.86	74,091
419792ZK5	HAWAII ST-GB	10/01/2024	0.80	32,661
72014TAC3	PIEDMONT HEALTHCARE	01/01/2032	2.04	32,029
64971XE61	NYC TFA FUTURE TAX	08/01/2045	4.00	31,627
79642GMY5	SAN ANTONIO -A-REF	05/15/2046	5.00	25,610
72014TAD1	PIEDMONT HEALTHCARE	01/01/2042	2.72	25,106
574296CR8	MARYLAND ST STADIUM A	05/01/2050	5.00	22,032
64971XG44	NYC TFA FUTURE TAX	08/01/2045	5.00	20,208
64971XF86	NYC TFA FUTURE TAX	08/01/2039	4.00	18,278
13013JAP1	CALIFORNIA CMNTY CHOI	02/01/2052	4.00	18,269

Source - RBC Capital Markets

Bond Buyer indexes

Weekly	Current 9/30/21	Previous 9/23/21	2021 high	Date	2021 low	Date
Bond Buyer Revenue Bond Index	2.62%	2.51%	2.80%	(2/25)	2.39%	(7/22)
Bond Buyer 20-Bond Index	2.26%	2.15%	2.44%	(2/25)	2.03%	(7/22)
Bond Buyer 11-Bond Index	1.79%	1.68%	1.97%	(2/25)	1.56%	(7/22)

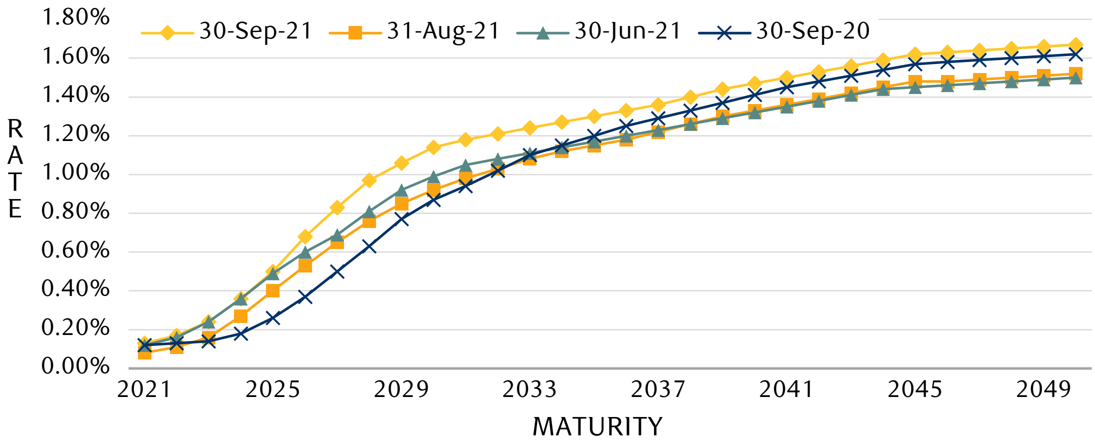
Source - The Bond Buyer

Bloomberg Municipal Index returns

	Index								
	1-month	5-year (4–6)	10-year (8–12)	15-year (12–17)	Long bond (22+)	AAA	AA	A	BAA
Month-to-date total return	-0.72%	-0.46%	-0.83%	-0.92%	-1.00%	-0.80%	-0.70%	-0.69%	-0.78%
Year-to-date total return	0.79%	0.30%	0.41%	0.90%	1.57%	0.00%	0.23%	1.55%	4.02%

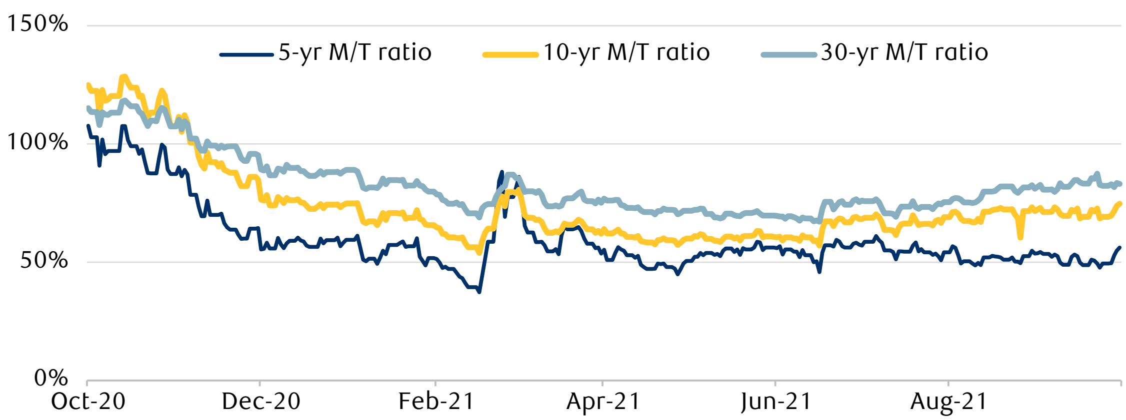
Source - Bloomberg; data through 9/30/21

Muni market data AAA yield curve



Source - RBC Wealth Management, Thomson One Refinitiv; data through 9/30/21

Muni/Treasury ratio comparison



Source - RBC Wealth Management, Bloomberg; data through 9/30/21

Municipal bond insurers

Insurer	Moody's	Kroll Ratings
ACA	Not rated	Not rated
AMBAC	Not rated	Not rated
Assured Guaranty (AGC)	A3 (stable outlook)	AA (stable outlook)
Assured Guaranty Municipal Corp. (AGM)	A2 (stable outlook)	AA+ (stable outlook)
Berkshire Hathaway (BHAC)	Aa1 (stable outlook)	Not rated
Build America Mutual (BAM)	Not rated	Not rated
FGIC	Not rated	Not rated
National Public Finance (MBIA)	Baa2 (negative outlook)	Not rated
Syncora	Not rated	Not rated

Source - RBC Wealth Management; data through 9/30/21

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