Municipal Market Insight

Wealth Management

August 2021 Portfolio Advisory Group – U.S. Fixed Income Strategies

What's inside:

For important disclosures and authors' contact information, see page 11.

Is inflation transitory or here to stay?

Economic data released in July showed above-trend increases in consumer prices and economic activity. The Consumer Price Index rose 0.9% in a month, and second-quarter GDP increased at a 6.5% annualized rate. The combination of inflation and growth is typically negative for fixed income assets, but Treasuries rallied in July, with yields declining by at least 0.2% on government bonds maturing in five years or more.

Several factors likely contributed to increased investor demand for the relative safety of Treasuries: the global increase in COVID-19 case counts associated with the Delta variant; the failure, as of this writing, of Congress to pass infrastructure legislation; and the possibility of a government shutdown in the fall if debt ceiling limits are not raised or suspended. Against this backdrop, the July 28 Fed meeting broke little ground; the central bank indicated progress toward its requirements for reducing the pace of monthly bond purchases, while Fed Chair Jerome Powell's post-meeting press conference reiterated the view that elevated inflation is unlikely to be sustained and that accommodative monetary policy was warranted.

U.S. Treasury rate forecasts (% as of July 8, 2021)

	2021				2022			
	Q1	Q2E	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	1.50	1.45	1.60	1.80
10-yr	1.74	1.45	1.55	1.75	2.05	2.00	2.10	2.20
30-yr	2.41	2.06	2.15	2.30	2.60	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 (7/1/21)	0.89%	0.50%	1.46%	0.98%	2.06%	1.49%
Mid-month (7/15/21)	0.78%	0.40%	1.30%	0.84%	1.92%	1.35%
End of month (7/31/21)	0.69%	0.36%	1.22%	0.82%	1.89%	1.39%

Source - Bloomberg (Treasuries), Thomson Reuters TM3 (Municipals)

We think July's events did little to change the fundamental picture, and we believe rates will likely trend higher over the balance of the year, with 10-year yields likely approaching 1.75% by year end. Congressional inaction on the debt ceiling or infrastructure would challenge this view, likely leading to rates staying low or shifting lower.

Market investment strategy & market commentary

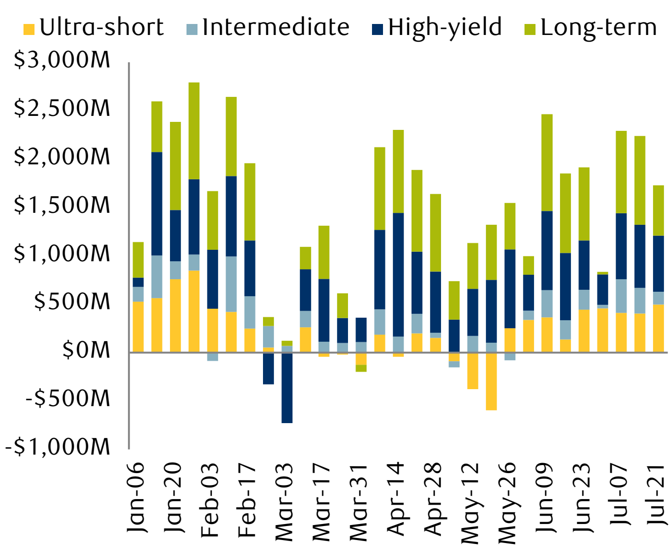
Market performance – Tax-exempts turn in another good performance

Principal, interest, and redemption payments could exceed issuance in August:

Investors who are already flush with cash can expect to receive another $46 billion in principal payments and around another $13.7 billion of interest payments in August, far exceeding our $35 billion projection. In addition to oversize reinvestment payments of $59.7 billion, cash-rich investors have been adding cash to municipal mutual funds at a torrid pace—in 30 of this year's 31 weeks through July 28. Municipal bond funds are averaging $1.8 billion of inflows per week year to date.

Strong investor demand, driven by inflation fears, tax hike concerns, and a spike in COVID-19 Delta variant cases caused municipal spreads to narrow throughout the July as investors flocked to the safety of the muni market, further pressuring yields lower. For August, we do not anticipate near-term relief for investors seeking opportunities to put funds to work amid the current demand/supply imbalances, as cash-rich investors seek to maximize returns amid historically low yields.

2021 municipal fund flows



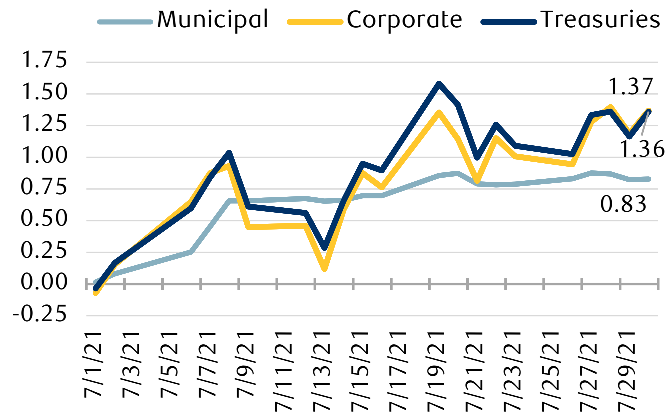
Source - Refinitiv Lipper U.S. Fund Flows, RBC Wealth Management; weekly data through 7/31/21

Tax-exempts underperform in July

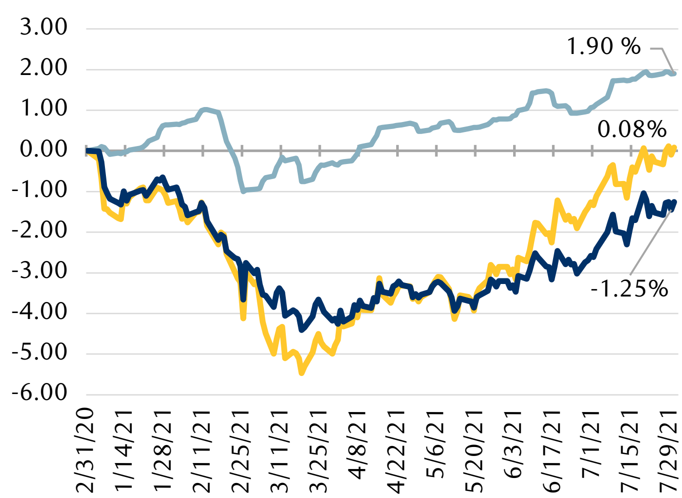
July marked the fifth consecutive month of positive returns for the tax-exempt space; however, municipals were unable to keep pace with the solid performance from the corporate and Treasury markets. During July, corporates returned 1.37%, slightly better than the 1.36% returned by Treasuries, while municipals trailed both, returning 0.83% for the month. Year to date, municipals' 1.90% return is outperforming both Treasuries and corporates returns of -1.25% and 0.08%, respectively, according to Bloomberg Barclays data.

Bloomberg Barclays indexes

Month to date



Year to date

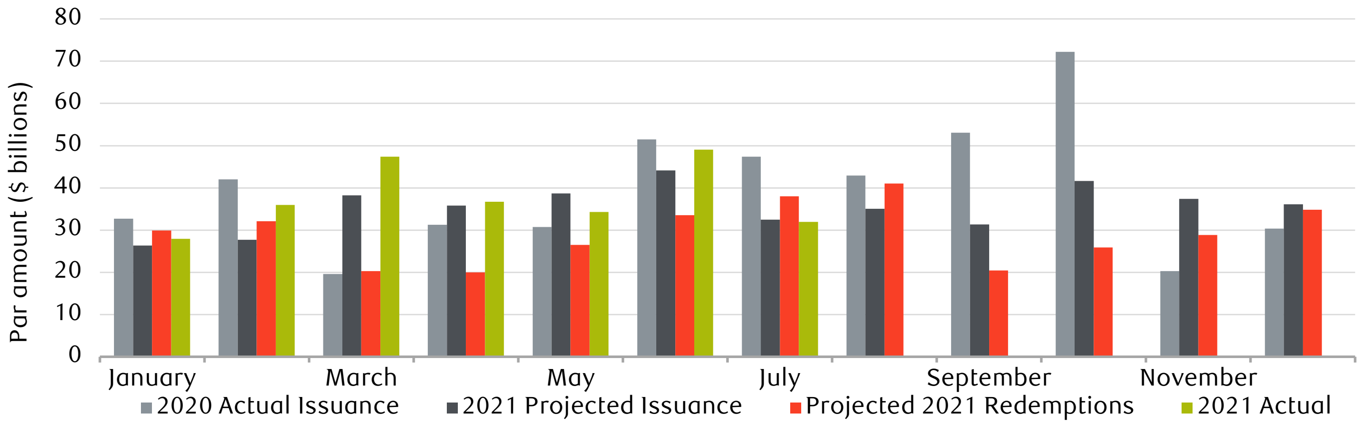


Source - RBC Wealth Management, Bloomberg; data through 7/30/21

Is there light at the end of yield tunnel?

Year-to-date issuance has topped $263 billion, approximately $20 billion ahead of our projections earlier this year. Solid institutional demand has caused yields

2021 issuance actual/projected



Source - RBC Capital Markets, The Bond Buyer

to firm significantly since mid-March when 5-year, 10-year, and 30-year benchmark tax exempts were yielding 0.55%, 1.16%, and 1.79%, respectively. Since mid-March, longer-maturity tax-exempt yields firmed 1.39%, a yield not seen since the beginning of the year. Spreads on the benchmark 5-year and 10-year tax-exempt as of July 30 yielded 0.36% and 0.82%, respectively, compared to 0.22% and 0.71%, respectively, at the beginning of the year.

RBC Capital Markets is projecting issuance of $110 billion from September through November with investors expected to receive $75.4 billion over the same period, setting up the potential for yields to rise during the same period, possibly drawing yield-hungry retail investors back to the municipal market.

This month's focus: The state of the states

Q&A with James Mann, head, Fixed Income Strategies Group and Peggy Rokala, manager, Advisory Fixed Income Trading

With the economic recovery evolving as vaccines become more widely distributed, we are seeing the effects across all sectors of fixed income markets, none more dramatically than the municipal sector. Fears of widespread downgrades and even defaults have dissipated as stimulus plans solidify out of Washington and state budgets come in with surprises to the upside.

Peggy Rokala – How do you see this current economic recovery playing out, and what will be the impact to the municipal market?

Jim Mann – The shutdown and subsequent reopening of the economy has shown the durability and pliability of the U.S. economy and its workforce. I am confident in the continuing economic recovery but not without hiccups such as supply line bottlenecks, commodity shortages, and now the uptick of the Delta variant of COVID-19. But these challenges should be relatively short-lived as the economy finds its new equilibrium and more people get vaccinated. And as the saying goes, "A rising tide lifts all boats," so the municipal community will also benefit from the continuing economic rebound. The economic recovery is resulting in greater consumption-based tax revenues, and taxpayers will more likely be able to afford their property tax bills, which in turn will improve or at least stabilize municipalities' fiscal situations.

PR – In May, the Treasury Department released guidance on how state and local governments can use $350 billion in funding from President Biden's $1.9 trillion rescue package. Can you please lay out the broad strokes of the guidance?

JM – State and local governments were given wide latitude in terms of how quickly they can spend the stimulus money, and what they can spend it on. Governments can offset lost revenues due to the pandemic, rehire employees, invest in economic activity projects, or fund essential infrastructure needs such as water, sewer, and broadband. But the federal aid cannot be used to reduce taxes, make pension payments, or pay debt service. The prohibition on paying debt service likely surprised some municipal officials, but the work-around is fairly easy. Governments that were planning to use stimulus money to pay debt service can instead allocate the federal aid to an approved purpose which in turn frees up other revenues that can be used to then pay debt service.

PR – Is the latest stimulus overall good, bad, or neutral for state and local budgets?

JM – The federal aid is unequivocally positive for governments. States and local governments indirectly benefited from every round of federal stimulus—there were six rounds—but the latest round has the most direct impact. To put it into perspective, states' allocation of the $350 billion equals nearly 16% of total state revenues in fiscal 2019. Unsurprisingly, $350 billion ameliorates a lot of the financial harm caused by the pandemic and subsequent economic shutdowns. Also, many municipalities were quick to curb spending at the onset of the economic shutdowns, so their current financial situations are not that bad, considering.

PR – State and local lobbying groups are pushing for the return of tax-exempt advance refundings that were curbed in 2018. If successful, how would this impact the municipal market?

JM – From the municipality's perspective, tax-exempt advance refundings would give government's greater flexibility to refinance existing debt at the lowest cost of capital, which is always positive. Currently, municipalities can only advance refund their outstanding tax-exempt debt with taxable debt, which of course is a higher cost of capital compared to a tax-exempt financing. From an investor's perspective, advance refundings are often escrowed with U.S. Treasuries, yet yield more than Treasuries and are still tax exempt, which makes this structure desirable to many investors.

PR – On the taxable side of the municipal markets, we're also hearing about the potential return of a program similar to the Build America Bonds (BABs) program to help spur infrastructure spending. What form do you see this taking and how do you expect the municipal markets to react?

JM – Unfortunately, the latest version of the legislation does not include a direct-pay program, but earlier versions did, so things could change again. If the proposed taxable direct-pay program does come to fruition, it would actually be a better version of the BABs legislation—especially from a municipality's perspective—because the federal subsidy would not be subject to federal sequestration cuts, which was a flaw in the BABs program. Based on earlier versions of the Congressional bill, the federal government would reimburse the municipalities 28% of the interest cost on taxably-issued debt.

I think the municipal market's reaction to a new direct-pay program would be mixed, but on the whole positive. On the one hand, taxable municipal bonds would attract a different and potentially larger investor base such as foreign buyers, retirement accounts, and pension funds. But on the other hand, a potential shrinking of the tax-exempt municipal bond market as a consequence would make sourcing tax-exempt bonds more difficult and, therefore, more expensive.

PR – Of late, there have been a number of notable rating upgrades, including the state of Illinois for the first time in 20 years and four rating agency upgrades for the state of Connecticut. Do you expect to see more rating upgrades as we emerge from the pandemic?

JM – I do anticipate more upgrades, but at the very least less downgrades. From a credit perspective, most municipalities are in a good place right now. The U.S. economy is rebounding, most governments were overly conservative in their fiscal assumptions because of the pandemic uncertainties, and the far-reaching federal stimulus money is filling a lot of fiscal holes. By and large, credit issues should play less of a role in the muni market for the next year or two.

PR – We've been experiencing an imbalance in tax-exempt municipal supply and demand with fund inflows, redemptions, and lower issuance. Do you see this imbalance persisting?

JM – The supply-demand imbalance is expected to continue for at least the next several months as redemptions are projected to outstrip expected new issuance. While mutual fund flows are difficult to predict, the steady pace of inflows this year suggests investors are looking to shelter income in anticipation of a federal income tax increase. Unless the income tax increase chatter stops, I don't think the mutual fund inflows will materially abate.

PR – What other factors will drive the direction of tax-exempt yields for the remainder of this year and into 2022? And longer term?

JM – Anticipated and/or actual tax increases and long-term inflation expectations are likely to be the big yield drivers this year and next. On the tax front, not only are personal income taxes being contemplated but so are corporate taxes. As mentioned previously, an increase in personal income taxes will spur demand for munis, but so will an increase in corporate tax rates. Banks and insurance companies, who were meaningful players prior to the Trump-era tax cuts, would likely return to the muni market if corporate tax rates increased. On the inflation front, if the investment community believes that inflation is more than transitory then yields will increase.

PR – With that in mind, is there currently value in municipals?

JM – Regardless of the circumstances, there is always value in municipal bonds for certain investors, especially those who are loath to pay taxes. In my experience, a meaningful percentage of investors are willing to forgo some rate of return in exchange for not paying taxes, and municipal bonds perfectly fit that bill.

Purely from a muni/treasury ratio standpoint, municipals currently are not appealing but I would argue on a risk- and tax-adjusted basis, municipal bond yields are competitive with most other fixed income security options in this yield-starved environment.

PR – With the low rates and investor fear of inflation, we've seen a great deal of short-term investing. Are there any strategies or disciplines that we could consider to help put investors' money to work more meaningfully as we move through these low interest rate and potentially volatile times?

JM – Our team believes that longer-term inflation fears are overstated given the large disinflationary forces such as aging demographics, wealth-shifts toward savers, and efficiency improvements. But, admittedly, accurately predicting inflation is a difficult task. Regardless, we believe that under most circumstances staying short is not the optimal solution in anticipation of better investment opportunities that may never materialize, or to avoid temporary losses on a fixed income investment (because bonds mature at par absent a credit event) if sustained inflation does occur.

One alternative approach is to create a bond ladder, which is allocating fixed income purchases over a range of staggered maturities. Another strategy is to split purchases between long and short maturities, which is known as a barbell. Either strategy increases cash flow certainty and reduces reinvestment risk, while still providing investment flexibility. Barbell and ladders are really the best of both worlds especially in uncertain times, in my opinion.

PR – Jim, thank you for sharing these valuable insights.

Municipal news

General commentary – Bond insurers' best year in a decade

Through the first six months of 2021, Assured Guaranty and Build America Mutual bond insurers, the two active municipal bond insurers, wrapped a combined 1,127 bond issues with a par value of $18.28 billion. The rise in insurance wraps began last year, during the height of the pandemic, and has continued through the first half of the year. This year's boost compares favorably to last year when through the first six months the two bond insurers wrapped 979 deals with a par value of $13.92 billion, a 31% year-over-year bump. We expect this trend to continue throughout the remainder of the year.

California – Updates

Budgets additional $500 million

State lawmakers voted on an additional $500 million in spending for wildfire prevention and forest preservation projects. The $500 million combined with the previously passed $833 million are meant to help the state combat wildfires that have been on the rise as the state is experiencing a prolonged period of drought. The state had one of its worst wildfire seasons in 2020 when 4.2 million acres were burned by almost 10,000 wildfires.

Governor signs legislation

Governor Gavin Newsom signed legislation that includes $12 billion over the next two years to help combat the state's rampant homelessness. Its homeless population accounts for almost 25% of the nation's homeless population. Newsom plans to use $5.8 billion of the $12 billion to expand the state's Homekey program, which was originally launched with federal aid and helped convert approximately 6,000 units during the height of the pandemic. The Homekey program seeks to convert existing hotels and motels into permanent housing. In addition to investing $5.8 billion in to the Homekey program the legislation allocated $2 billion to local governments to address homelessness, $1.8 billion to affordable housing, $565 million to stabilize homeless families and $30 million for a new tax credit to provide incentives to businesses to employ more homeless and people in need in jobs.

Chicago – Updates

Improving finances allow city to postpone short-term borrowing

After planning to borrow up to $500 million to close the city's FY2021 budget shortfall, city government officials postponed the offering as Chicago's finances continue improving. The city, which has received significant federal aid, has also seen improved tax collections allowing it to postpone the need for the borrowing, signaling the city's short-term finances have improved allowing Chicago to close the budget deficit with available funds.

The city borrowed $465 million from JP Morgan Chase to close its $800 million FY2020 budget deficit. Chicago has yet to determine how it plans to pay back JP Morgan Chase, which could include tapping better-than-expected tax receipts if the city receives additional federal aid.

Short-term financing on the menu

The Windy City is planning to secure a $400 million line of credit and $300 million of short-term financing for the city-owned O'Hare International Airport over the next couple of months. The city was able to delay securing the credit line to Q3 2021 from Q2 2021, benefitting from slower-than-expected cash spending.

Electric Reliability Council of Texas (ERCOT) – Seeks financing

ERCOT is seeking to get approval from state utility regulators to issue $2.9 billion of debt to cover the costs tied to the February's winter storm that caused statewide blackouts. Approximately $800 million would cover payment defaults from power market distributors and $2.1 billion to cover additional costs associated with the winter storm.

In a related news article, a climatologist at the U.S. National Oceanic and Atmospheric Administration said the storm generated at least $20 billion of direct losses, making it the most costly U.S. winter storm in history.

Illinois – Revenues top expectations

State tax collections for the fiscal year ending June 30 exceeded budget and were up 18% more than 2020's $44.85 billion, and up more than the state's final upward revision to $42.95 billion by the Governor's Office of Management and Budget in May.

Las Vegas – Visitors return

The city had just under 3 million visitors in June, a 3.2% rise from May. The desert gambling capital has seen tourism rise for a sixth consecutive month, according to the Las Vegas Convention and Visitors Authority. While impressive, the approximately 13.5 million people that have visited the city so far this year, up 38.6% year over year, remains 36.2% short of 2019's total.

New York state – Post-pandemic recovery gains steam

The state reported tax revenues are exceeding budget by $4.8 billion through first quarter of the fiscal year, which began April 1. State Comptroller Thomas DiNapoli said strong tax collections and unprecedented federal aid have positioned the state to near fiscal stability and to be better prepared to handle future economic and fiscal uncertainties. The state spent $1.7 billion less in operating expenditures through June and ended the month with a general fund balance of $15.5 billion, $5.8 billion more than projected.

New York Economic Development Corporation – Restructuring on hold

A deal to restructure series 2007 bonds that financed the construction of multiple parking garages around Yankee Stadium in the Bronx has been put on hold after the Yankee organization wanted a guarantee that 5,500 parking spaces would be set aside for stadium events. The parking spaces request was not included in the original restructuring plan. The original parking garage project defaulted due to underperformance. The restructuring would help finance part of a $1 billion project to build a soccer arena for Major League Soccer's New York City Football Club.

New York Metropolitan Transportation Authority (MTA) – Facing future deficits

The Citizens Budget Commission, a business group watchdog, said the country's largest public transportation provider could face deficits after 2024, once the MTA depletes the $14.5 billion of federal aid. According to the commission, federal aid should be sufficient to offset lost fare-box revenue, which plummeted 90% during the height of the pandemic, through 2024. After 2024, the MTA's options to address revenue shortfalls are limited to fare increases, reducing system service, finding operating efficiencies, and cost cutting. On July 21, the MTA said it could face a combined $3.5 billion deficit in 2024 and 2025, as the agency struggles to get riders to return.

Senior care sector – Sector struggles to improve occupancy

A survey by the National Investment Center for Seniors Housing & Care (NIC) found the senior care sector continues struggling to boost occupancy despite declining COVID-19 cases. During the three months ended June 30, average occupancy remained flat at 78.7% while demand for senior housing measured by units leased has improved slightly. Despite improved demand, new construction offset the slight improvement in move-ins, leaving occupancy flat. According to the report, 47% of senior housing projects experienced occupancy gains, an improvement from the 22.5% that experienced improved occupancy during the height of the pandemic. Houston, Atlanta, and Las Vegas averaged the lowest occupancy rates while San Jose; Portland, Oregon; and San Francisco had the highest occupancy levels.

State sales tax collections continue rebounding post pandemic

In May, states collected 40% more year over year in sales tax collections, according to the U.S. Census Bureau data collected from 30 states. The key driver to the improved collections was that general sales and gross tax receipts rose 39% to $21.4 billion, accounting for 84.9% of sales tax collection in 27 states. Motor fuel taxes, tobacco taxes, alcoholic beverage taxes, and lodging taxes all experienced significant year-over-year gains.

Stock market rally boosts pension systems

This year's equity market rally has provided some significant relief to the country's top 100 public pension systems. Pension system returns are heavily tied to financial market performance each year, and following this year's strong performance, the state's top public pension systems are 82.6% funded. The 82.6% marks the first time funding ratios have surpassed 80% since 2016.

Texas – Another state on the rebound

Texas Comptroller Glenn Hegar revised the state's revenue forecast upward for the second time after raising his forecast in May. The comptroller said sales tax collections, one of the state's primary revenue sources, are coming in very strong, allowing him to boost the tax collections estimate for the year. The comptroller boosted revenue by $7.4 billion to an aggregate $123 billion for the budget year that begins in September.

Ratings corner

Notable state and local issuer rating updates

Albuquerque, NM – Rating outlook revision

On July 6, Moody's revised the city's rating outlook to positive from negative after steps to cut costs in 2020 have led the city to find itself in a much better financial position. Furthermore, the city is planning to structure future budgets to generate balanced operations. The outlook revision was also driven by Moody's belief gross receipts tax collections, which represent a large portion of the city's tax collections, are expected to remain stable with the city's commitment to multiple economic development projects that should generate additional gross receipts taxes.

Bridgeport, CT – Outlook to positive

On July 12, Moody's revised the outlook on the city's Baa1 rating to positive from stable citing the likelihood the city's audited FY2021 financials will yield positive results, which Moody's expects should give the city's finances the momentum to post a surplus in FY2022, bringing the city materially closer to elevating its fund balance to its 8% (of expenditures) target.

Nevada – Outlook revision

On July 19, Moody's affirmed the state's Aa1 rating and revised the state's outlook to stable from negative. The outlook revision reflects the state's rebounding tourism industry that is driving improved sales tax and gaming tax revenue.

New York City – Rating affirmed

On July 20, Kroll Bond Rating Agency (KBRA) affirmed the city's AA+ rating, saying the "rating recognizes the city's preeminent role as a domestic and international center of business and culture, the broad and diverse economic base which has demonstrated historic resiliency, elevated yet manageable debt obligations, and institutionalized procedures and plans for confronting near-term financial challenges, which have assisted in navigating through the COVID-19 pandemic."

Pennsylvania Turnpike – Rating affirmed

On July 14, KBRA affirmed the A+ rating on the turnpike's Series 2021B subordinate lien revenue bonds and affirmed the rating on all outstanding subordinate lien revenue bonds. KBRA simultaneously affirmed the AA- long-term ratings for outstanding Turnpike senior-lien revenue bonds and Motor License Fund Enhanced Turnpike Subordinate Special Revenue Bonds. The outlook remains stable. The affirmations reflect the turnpikes solid market position and inelastic demand profile of the turnpike system. Statutorily required annual toll increases and operational cost controls have historically produced debt service coverage that has exceeded expectations.

Phoenix – Rating affirmation

On July 8, Fitch affirmed the city's AA+ rating and stable outlook, and said "The city's strong economic and revenue growth prospects and substantial reserves support an overall strong financial profile, and notable reforms to the city's two pension plans should ease what is currently a sizable burden over time."

Territorial update

Commonwealth of Puerto Rico – Restructuring talks ongoing

Oversight Board – Reaches and accord with Ambac and FGIC

The Oversight Board reached a tentative agreement with bond insurers Ambac and FGIC signaling an exit from bankruptcy could be within reach. The last remaining holdouts to winning approval to a bankruptcy exit are the island's lawmakers, who are not in favor of reducing pension benefits to the island's retirees.

Oversight Board – Received court date

U.S. District Court Judge Laura Taylor Swain voted to send the oversight board's restructuring plan to creditors for a vote. At the same time, the judge rejected a handful of objections to the disclosure statement creditors will be asked to vote on. The restructuring plan could remain contingent on island lawmakers authorizing the issuance of new bonds once a restructuring plan is approved. Lawmakers have said that unless pension cuts are eliminated they would not approve the issuance of new debt. Without legislation by the lawmakers, the island's restructuring plan could be in jeopardy absent the issuance of new bonds as was the case with the Puerto Rico Urgent Interest Fund Corporation restructuring.

Moody's withdraws ratings on various Commonwealth issuers

On July 20, Moody's withdrew its ratings on the Commonwealth's General Obligation bonds and most of the other borrowing arms of the Commonwealth. The ratings withdrawals were the result of a business decision by Moody's and was not related to the ongoing restructuring under the Puerto Rico Oversight, Management, and Economic Stability Act.

The ratings withdrawals affect the following Commonwealth issuers:

Puerto Rico (Commonwealth of)

Puerto Rico Public Buildings Authority

Puerto Rico Public Finance Corporation

Puerto Rico Employees Retirement System

Puerto Rico Municipal Finance Agency

Puerto Rico Aqueduct and Sewer Authority

University of Puerto Rico (UoPR)

Puerto Rico Convention Center District Authority

Puerto Rico Highway & Transportation Authority

Puerto Rico Infrastructure Financing Authority

Puerto Rico Development Company

AFICA (only debt issued on behalf of the UoPR)

Oversight Board to disclose political risk surrounding restructuring deal

Swain ordered the Puerto Rico Financial Oversight Board to disclose the political risks associated with the restructuring of $22 billion of bonded debt and the island's $35 billion of total debt. Governor Pedro Pierluisi and members of the island's legislature have voiced opposition to pension benefits cuts and may not vote to approve the plan.

Puerto Rico Aqueduct and Sewer Authority (PRASA) – To issue new debt

During mid-August, the PRASA plans to issue $1.7 billion of revenue refunding bonds to refinance prior issued bonds. The authority is seeking to refund the prior bonds to lower its borrowing costs without the need for restructuring the Authority's currently outstanding debt. The Authority is banking on strong demand from yield-starved investors amid record low municipal market benchmark yields.

RBC Wealth Management retail trading (7/1/21 – 7/31/21)

Top 10 CUSIPs selling volume to retail customers

CUSIP	Description	Maturity	Coupon	Volume
487694SS1	KELLER TX ISD	02/15/2044	4.00	2,578
44244CXH5	HOUSTON TX UTL SYS-B	11/15/2049	5.00	2,372
13077DHE5	CALIFORNIA ST UNIV -A	11/01/2044	5.00	2,248
64972GSJ4	NEW YORK CITY MUNI-DD	06/15/2049	5.25	2,119
399267GS6	GROSSMONT ETC CCD-B	08/01/2044	5.00	1,942
780869WQ2	ROYSE CITY ISD	02/15/2041	4.00	1,905
767057SH6	RIO GRANDE CITY ISD	08/15/2051	4.00	1,776
86754EAU0	SUNNYVALE FING AUTH	04/01/2050	4.00	1,758
044357VF5	ASHLAND MA	05/15/2046	2.13	1,571
783186UW7	RUTGERS UNIV-O-BAM	05/01/2048	4.41	1,516

Top 10 CUSIPs buying volume from retail customers

CUSIP	Description	Maturity	Coupon	Volume
64971WT26	NYC TRAN FIN AUTH-B1	08/01/2036	5.00	2,219
73358WD27	PORT AUTH NY/NJ-197	11/15/2036	5.00	2,202
283590EX1	EL PASO CO HOSP DIST	08/15/2043	5.00	1,573
64579F8G1	NJ HLTH CARE FACS FIN	07/01/2039	5.00	1,493
97712DA63	WI HLTH & EDL FACS-C	02/15/2047	5.00	1,473
86754EAU0	SUNNYVALE FING AUTH	04/01/2050	4.00	1,369
927676QV1	VI PUB FIN AUTH -A	10/01/2029	5.00	1,334
64972GHG2	NY MUNI WTR FIN AUTH	06/15/2039	5.00	1,276
65830RCL1	NO CAROLINA ST TUR	01/01/2041	4.00	1,156
646136K59	NJ TRANSPRT-BAM-TCRS	06/15/2042	5.00	1,153

Source - RBC Wealth Management

RBC Capital Markets institutional trading (7/1/21 – 7/31/21)

Top 10 CUSIPs selling volume to institutional customers

CUSIP	Description	Maturity	Coupon	Volume
79765PDW0	SAN FRANCISCO -REV -J	07/01/2039	2.55	60,392
875291AQ9	TAMPA FL WTR/WSTWTR	10/01/2054	5.00	23,645
85440KAD6	STANFORD UNIVERSITY	06/01/2050	2.41	21,196
041806Z94	ARLINGTON TX HGR EDU	02/15/2046	3.00	18,220
544532CN2	LA DEPT OF WTR-B-REF	07/01/2048	5.00	17,683
89837LAG0	TRUST PRINCETON UNIV	07/01/2050	2.52	15,504
20772KLZ0	CONNECTICUT ST -A	01/15/2035	3.00	14,356
20772KMA4	CONNECTICUT ST -A	01/15/2036	3.00	13,964
544532CP7	LA DEPT OF WTR-B-REF	07/01/2051	5.00	13,887
544532CM4	LA DEPT OF WTR-B-REF	07/01/2046	5.00	12,155

Top 10 CUSIPs buying volume from institutional customers

CUSIP	Description	Maturity	Coupon	Volume
79765PDW0	SAN FRANCISCO -REV -J	07/01/2039	2.55	60,289
48305QAF0	KAISER FOUND HOSPIT	06/01/2041	2.82	29,980
380334LK6	GODLEY ISD	02/15/2051	3.00	25,202
594698SF0	MICHIGAN ST STRATEGIC	09/01/2034	2.48	22,575
667826BP5	N W ISD	02/15/2046	3.00	22,078
153476HJ8	CENTRL FL EXPWY AUTH	07/01/2034	5.00	20,299
18985DAS1	COACHELLA VLY WTR DT	08/01/2051	5.00	16,445
20772KMA4	CONNECTICUT ST -A	01/15/2036	3.00	13,952
20772KLZ0	CONNECTICUT ST -A	01/15/2035	3.00	13,332
20281PNE8	CMWLTH FIN AUTH-A	06/01/2042	2.99	13,002

Source - RBC Capital Markets

Bond Buyer indexes

Weekly	Current 7/29/21	Previous 7/22/21	2021 high	Date	2021 low	Date
Bond Buyer Revenue Bond Index	2.40%	2.39%	2.80%	(2/25)	2.39%	(7/22)
Bond Buyer 20-Bond Index	2.04%	2.03%	2.44%	(2/25)	2.03%	(7/22)
Bond Buyer 11-Bond Index	1.57%	1.56%	1.97%	(2/25)	1.56%	(7/22)

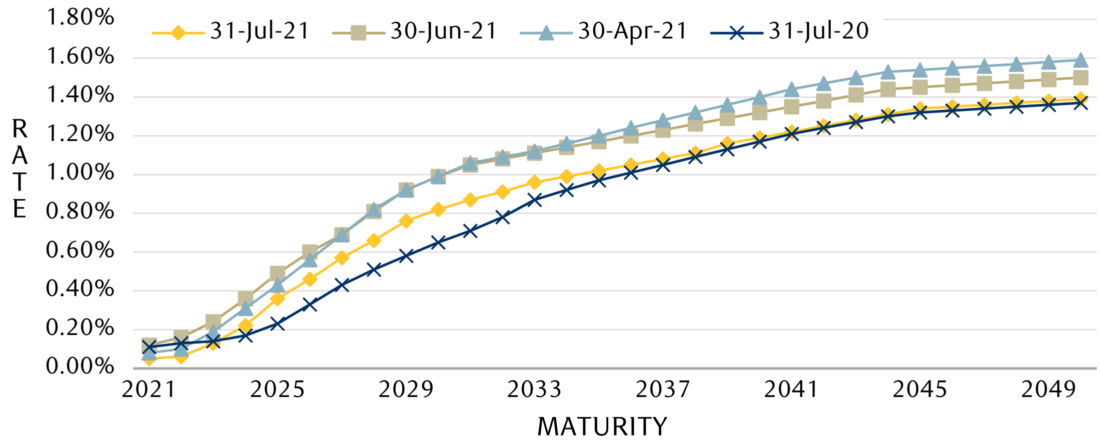
Source - The Bond Buyer

Barclays 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	0.83%	0.65%	0.95%	1.05%	1.06%	0.80%	0.78%	0.81%	1.26%
Year-to-date total return	1.90%	0.82%	1.52%	2.30%	3.42%	0.86%	1.29%	2.67%	5.22%

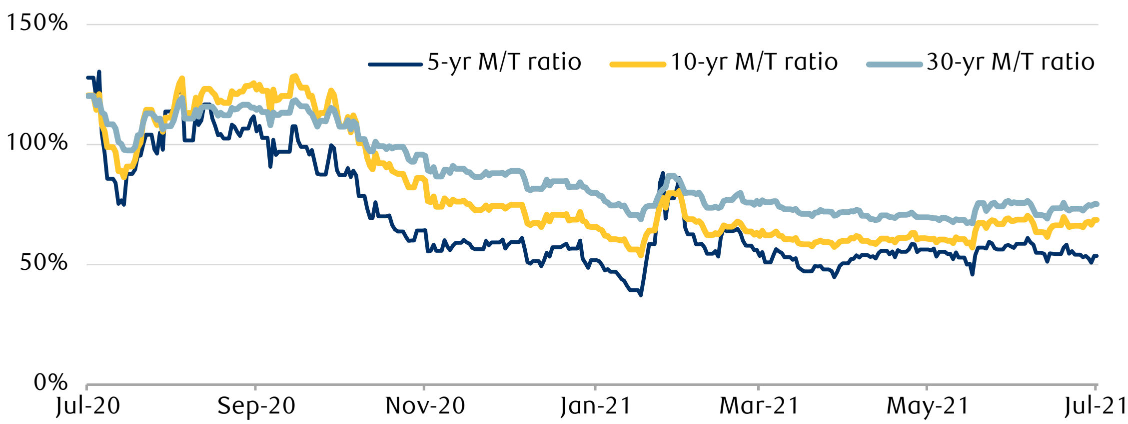
Source - Bloomberg; data through 7/31/21

Muni market data AAA yield curve



Source - RBC Wealth Management, Thomson One Refinitiv; data through 7/31/21

Muni/Treasury ratio comparison



Source - RBC Wealth Management, Bloomberg; data through 7/31/21

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
Municipal Assurance Corporation	Not rated	AA+ (stable outlook)
National Public Finance (MBIA)	Baa2 (negative outlook)	Not rated
Syncora	Not rated	Not rated

Source - RBC Wealth Management; data through 7/31/21

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