

Municipal Markets Weekly

TARGET: Biden executive orders, 2020 Fund complex flows, Muni ETF growth, CY 2020 Tax rev update

- This week, UST yields fell 1-0-1-2bps in the 2-5-10-30yrs spots. Benchmark muni yields declined by 2-3-5-6bps in 2-5-10-30yrs, outperforming UST by 1-3-4-4bps
- Tax-exempt supply at \$18.7bn, is 19.4% lower than January of 2020. Lower te supply coupled with YTD mutual fund inflows of \$14bn, January reinvestment capital of \$27bn and coming February reinvestment of \$33bn, are chiefly responsible for the current market imbalance in the muni market
- While richer te market conditions has prompted some selling, particularly of same name te bonds for pari corporate and taxable municipal bonds, we believe the tax-exempt market could maintain rich conditions through at least February, or until te supply hits \$7-\$10bn/wk over several weeks
- Next week, we expect issuance of \$8.5bn, or 137% of the trailing 5yr (\$6.2bn). Tax-exempt issuance would be at \$4.9bn (96% of 5yr avg), and taxable/corp cusip issuance is \$3.6bn (3.4x the 5yr equivalent week avg)
- Lipper reported combined weekly and monthly inflows of \$2.8bn for the period ending January 27th, increasing YTD inflows to \$13.8bn. High Yield funds recorded \$778mn of inflows, Intermediate funds saw \$168mn of inflows, and Long Term funds saw \$1.8bn of inflows. Municipal ETF's registered \$635mn of inflows
- Biden's executive orders are consistent with policy themes but the aggressive pace belies a bipartisan approach
- We note that 5 fund complexes accounted for \$30.2bn or 76% of total 2020 muni inflows (\$39.7bn), while about half of the fund complexes (#50 and above) posted net outflows over the year
- There was no obvious relationship between 2020 fund complex total return performance and the dollar amount of net inflows for the year. There were also several medium sized fund complexes that had growth of over 30%
- Most HY funds posted net flows between -\$1bn and \$1.5bn 2020. The biggest outlier was the largest HY fund complex, with over \$5bn in outflows. Excluding this largest group, HY funds had a total of \$1.6bn inflows
- ETF inflows were exceptional in 2020. Total ETF inflows of \$12.2bn, were 26% of ETF AUM
- 2020 state tax receipts for the 47 states who report the data, shows an avg decline of just 0.12% vs. 2019, with a weighted avg decline of 0.06%, virtually flat to 2019. 21 of 47 states show positive YoY growth of tax receipts
- The solid revenue performance and credit fundamentals, along with positive technical factors have fueled significant spread compression as investors reach for yield/spread. This is especially apparent in lower rated states such as Illinois, Connecticut, and New Jersey, where spreads are at or below pre-COVID-19 levels
- Of the 40 states that report personal income taxes, 2020 collections rose 1.3% vs 2019, with a weighted avg growth of +2.0%. Over half (25) of states reported positive growth, especially larger states (CA, NY, IL, MA)
- 2020 Sales tax revenue also led a rebound, with YoY decline of 0.26%. Many Midwest/Southwest/Central US states have increased sales tax rev, while Northeast/South/West have experienced declines. Further, tourism-reliant (HI, NV, FL) and more populous states (CA, NY, TX, IL) have seen greater sales tax declines, likely due to labor markets/unemployment, cost of living, Fed stimulus buying power, and COVID-19 infection rates

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Lower supply against continued fund inflows and supportive reinvestment capital boost muni performance, despite already rich levels

The municipal market continued its outperformance streak this week, with tax-exempt yields lower by 2-3-5-6bps, beating Treasuries by 1-3-4-4bps in the 2-5-10-30yr spots. The technical picture remains positive, with YTD total muni issuance (\$29bn) down 18.7% from last year. Tax-exempt supply at \$18.7bn, is 19.4% lower than January of 2020. **This lower tax-exempt supply coupled with YTD muni mutual fund inflows of \$14bn coupled with January reinvestment capital of \$27bn and coming February reinvestment of \$33bn, is chiefly responsible for the current market imbalance in the muni market.**

Further, SMA flows have also been supportive and to a lesser degree, bank/insurance investment, although recent bank/ins. investment has been more focused on taxable munis. **While richer tax-exempt market conditions has prompted some selling, particularly of same name tax-exempt bonds for pari corporate and taxable municipal bonds, we believe the tax-exempt market could maintain rich conditions through at least February, or until the supply hits \$7-\$10bn/wk over several weeks.**

Taxable municipals have also outperformed, and are now ~0.4-1.1sigma rich (20yr AA and A-rated bonds) using a trailing 1yr analysis. Richer taxable municipal levels are also a byproduct of strong technicals. Year to date taxable supply (\$10.4bn) is 17% below last year. Several additional factors are contributing to stronger market conditions including sizable spread tightening in tax-exempt names, which in some cases has driven same-name taxable muni spreads tighter.

The relative rich taxable muni levels has prompted selling of more liquid and better known names. **In addition to domestic demand by investors looking to add diversification and longer dated higher quality bonds, non-US buyers are willing to take the market to new levels given lower currency hedging cost.**

On the Fed front, this week's FOMC meeting contained no major surprises. Forward guidance on rates and asset purchases were and will be left unchanged and dovish for "some time". **Chair Powell further stated in the press conference that if there is near term rise in inflation associated with reopening of the economy, the Fed will view it as transitory and will react by being "patient".** The Fed also intends to continue buying assets at a \$120bn monthly pace until there has been "substantial further progress" ([JPM Feroli: It's a long way to Taper-ary](#)).

Real GDP expanded at 4.0% annual rate in Q4, slightly below expectations (4.2%). **On a year-on-year basis, real 2020 GDP contracted 3.5%, the biggest decline since 1946.** Real consumer spending increased at a middling 2.5% annual rate for the quarter, business fixed investment was up at a solid 18.4% rate, paced by a 24.9% annualized gain in spending on business equipment, and government spending contracted at a 1.2% rate, as both federal and state/local outlays fell last quarter ([JPM Feroli: 2020's wild ride ends with moderating Q4 GDP growth](#)).

Consumer spending was weak in Dec, with real consumption falling 0.6% and nominal spending declining 0.2%. These December drops in spending came after November declines, and consumer spending clearly had a weak end to 2020 as the virus surge depressed activity. The PCE price indexes came in above expectations, but the trends still remain below the FOMC's 2% inflation target. **The headline PCE**

price index rose 0.4% in December (1.3% oya) while the core PCE deflator rose 0.3% (1.5% oya) ([JPM Silver: Consumer spending stumbles out of 2020](#)).

This week, UST yields were lower by 1-0-1-2bps in the 2-5-10-30yrs spots. Benchmark municipal yields declined by 2-3-5-6bps in 2-5-10-30yrs, outperforming Treasuries by 1-3-4-4bps in the 2-5-10-30yr spot (Exhibit 1).

Exhibit 1: Benchmark municipal yields declined by 2-3-5-6bps in 2-5-10-30yrs, outperforming Treasuries by 1-3-4-4bps in the 2-5-10-30yr spot

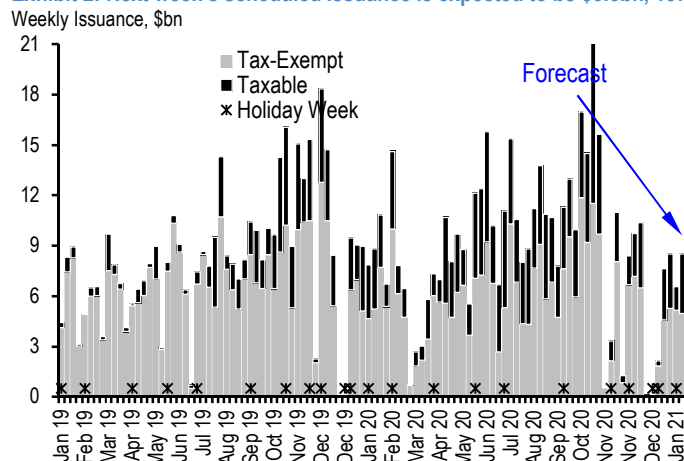
Sector	HG Municipal Yields		Treasury Yields		Relative Change	HG Muni/Tsy Ratio	
	Current (%)	1w k chg (bps)	Current (%)	1w k chg (bps)		Ratio (%)	change (% pts)
2yr	0.11	-2	0.11	-1	1	100	-5
5yr	0.22	-3	0.43	0	3	51	-7
10yr	0.72	-5	1.08	-1	4	67	-4
30yr	1.38	-6	1.84	-2	4	75	-3

Source: Refinitiv, JP Morgan

This week's issuance was \$7.2bn, with \$5.6bn tax-exempt and \$1.6bn taxable. Next week, we expect issuance of \$8.5bn, or 137% of the trailing 5yr (\$6.2bn). Tax-exempt issuance would be at \$4.9bn (96% of 5yr avg), and taxable/corp cusip issuance is \$3.6bn (3.4x the 5yr equivalent week avg) (Exhibit 2).

The largest deal next week is New York City Transitional Finance Authority Future Tax Secured Revenue (Aa1/AAA/AAA), with \$991mn in tax-exempt bonds and \$300mn taxable bonds. The second largest deal, Nassau County Interim Finance Authority (--/AAA/AAA) is expected to bring \$578mn of tax-exempt bonds and \$562mn taxable bonds. The third largest issue is City of Dallas TX (--/AA-/AA), with \$243mn tax-exempt bonds and \$299mn taxable bonds.

Exhibit 2: Next week's scheduled issuance is expected to be \$8.5bn, 137% of the trailing 5yr avg



Source: IPREO, Bloomberg Finance L.P., JP Morgan

For the period ending 01/27/2021, Lipper's combined weekly and monthly reporting funds indicated inflows of \$2.8bn

Lipper Flows:

Lipper reported combined weekly and monthly inflows of \$2.8bn for the period ending January 27th, increasing YTD inflows to \$13.8bn. High Yield funds recorded \$778mn of inflows, Intermediate funds saw \$168mn of inflows, and Long Term funds saw \$1.8bn of inflows. Municipal ETF's registered \$635mn of inflows.

Weekly reporting funds were responsible for all of the flows this period.

California municipal bond funds experienced \$72mn of inflows, and New York municipal funds indicated \$24mn of inflows.

For the period, Tax-exempt money market funds reported outflows of \$305mn, while Taxable money market funds reported net inflows of \$21.4bn.

Taxable Fixed Income funds reported inflows of \$7.9bn, and Equity funds (US & Global) saw inflows of \$1.6bn.

Excluding ETFs, all term muni funds reported \$2.2bn of inflows.

Exhibit 3: Municipal bond funds indicated inflows of \$2.8bn for the period ending 1/27/2021

Type of funds	Fund flows			Fund Assets	
	Actual	YTD Total	4-wk. avg.	Actual	4-wk. avg.
All term muni funds	2,789	13,843	3,461	949,132	941,603
New York	24	-11	-3	33,922	33,823
California	72	494	123	88,522	88,169
National funds	2,623	13,341	3,335	751,522	744,702
High Yield	778	2,713	678	132,093	130,172
Intermediate	168	2,849	712	225,793	224,558
Long Term	1,775	6,894	1,724	545,392	540,631
Tax-exempt money market	-305	886	222	106,808	107,061
Taxable money market	21,364	14,331	3,583	4,183,486	4,168,652
Taxable Fixed Income	7,940	66,342	16,585	6,340,317	6,321,271
Equity	1,584	-28,160	-7,040	15,991,410	16,075,058

Source: Lipper US Fund Flows, JP Morgan.

Biden initiates historic number of executive orders

In just his first 10 days in office, President Biden has initiated a record 42 executive orders. The aggressive pace, and focus on reversal of many of the prior Administration's actions, belie a bipartisan approach to policy and further the view that most meaningful legislation will need to be funneled through this year's two budget reconciliations.

As we have discussed at length ([JPM Muni Mkt Weekly 01-22-21](#)),

- Should the bipartisan legislative process around stimulus break down, look for a quick shift to packing stimulus into the **1Q 2021 budget reconciliation process**
- **In the spring, we expect the legislative agenda to shift to infrastructure.** Expect tax-exempt advance refunding to be a big push and then some form of a BAB-like subsidy program, raising the gas tax, and increasing the private activity bond allowance to be prominent in the discussions

This week among the 42 actions initiated, several have direct import to sectors within the municipal market (Exhibit 4). From a health-care perspective the reopening of enrollment on HealthCare.gov (Feb. 15 through May 15), and directions to federal agencies to reexamine policy that limits access to the Affordable Care Act. **While only a small step, we expect Biden's broader legislative agenda to include higher Federal aid and spending on Medicaid/CHIP, expanded ACA eligibility and rollout, higher FMAP's for states ([JPM Muni Health Care Outlook](#)).**

The President's environmental focus was also prominent in rejoining Paris climate accord and cancelling the Keystone XL pipeline, and ordering an extensive review of Trump's environmental actions. **This clear mandate coupled with the extreme lack of bonds in the market, present a timely opportunity to pare high carbon and fossil fuel dependent credits from investor portfolios.**

Exhibit 4: Among Biden's 42 executive actions, several have direct import to sectors within the municipal market

Date	Sector	Description
28-Jan	health care	Reopens enrollment on HealthCare.gov from Feb. 15 through May 15, and directs federal agencies to reexamine policies that may reduce or undermine access to the Affordable Care Act
27-Jan	environment	Elevates climate change as an essential element of US foreign policy and national security and kicks off development of a new emissions reduction target, which will be announced by April 22
20-Jan	environment	Rejoins the Paris climate accord, a process that will take 30 days
20-Jan	environment	Cancels the Keystone XL pipeline and directs agencies to review and reverse more than 100 Trump actions on the environment
22-Jan	economy	Restores collective bargaining power and worker protections for federal workers, and lays the foundation for \$15 minimum wage
21-Jan	coronavirus	Directs FEMA to expand reimbursement to states to fully cover the cost for National Guard personnel and emergency supplies
21-Jan	coronavirus	Directs FEMA to create federally-supported community vaccination centers
27-Jan	environment	Reestablishes the President's Council of Advisors on Science and Technology
27-Jan	environment	Charges the director of the Office of Science and Technology Policy with responsibility for ensuring scientific integrity across federal agencies
25-Jan	economy	Strengthens Buy American rules by closing loopholes and reducing waivers granted on federal purchases of domestic goods
25-Jan	coronavirus	Reinstates Covid-19 travel restrictions for individuals traveling to the United States from the Schengen Area, the United Kingdom, Ireland and South Africa
20-Jan	economy	Extends the existing nationwide moratorium on evictions and foreclosures until at least March 31
20-Jan	economy	Extends the existing pause on student loan payments and interest for Americans with federal student loans until at least September 30

Source: CNN Politics, J.P. Morgan

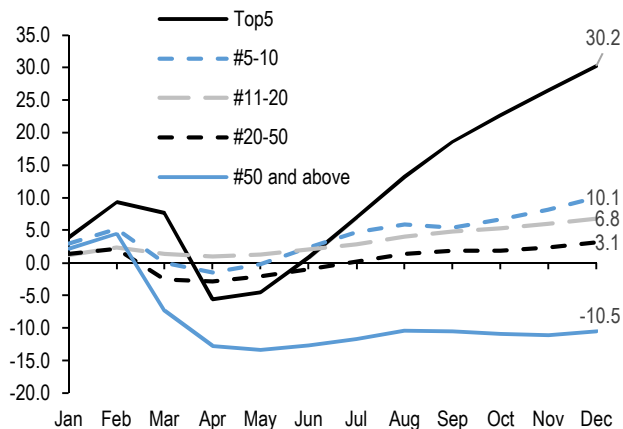
The five largest municipal fund complexes received 76% of 2020 inflows. ETF growth was also prominent in 2020

Municipal mutual fund flows in 2020 set new marks for extremes in outflows and inflows. **In just five weeks (March-April), municipal bond mutual funds experienced \$47.5bn in outflows, only to recover by year end, to 32 weeks of inflows totaling \$61.5bn).** The 2020 combined weekly and monthly reporting fund flow ended with \$39.7bn, the 4th highest in history.

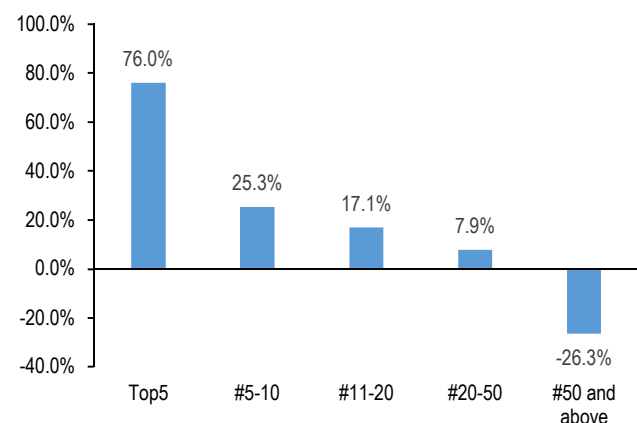
This week we review the 2020 fund complex flows against average municipal fund performance, and fund AUM. We group the 103 fund complexes within Lipper's fund universe, by sum of inflows into 5 groups, including top5, #6-10, #11-20, #21-50, and 50+. **We note that the top 5 fund complexes by 2020 inflows, received \$30.2bn or 76% of the entire market's net inflows (\$39.7bn), while about half of the fund complexes (#50 and above) posted net outflows for calendar year 2020 (Exhibit 5).**

Exhibit 5: Top 5 fund complexes received \$30.2bn or 76% of the entire market fund flows (\$39.7bn), while about half of the fund complexes (#50 and above) still posted outflows by end of 2020

Cumulative fund flow in 2020, \$bn



Total 2020 fund flow as of entire market total fund flows, %



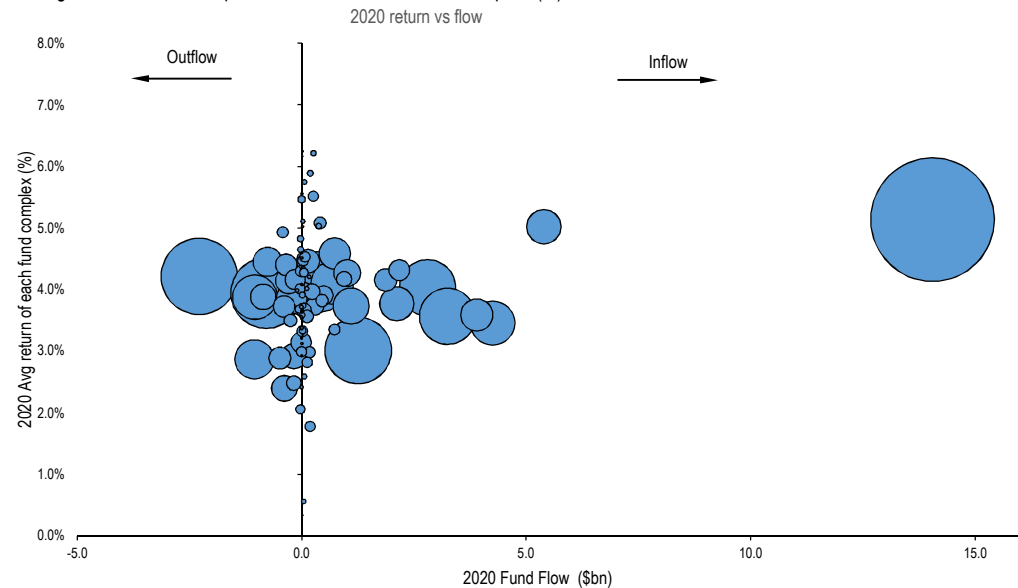
Source: Refinitiv, Bloomberg Finance L.P., JP Morgan. Note: Using weekly and monthly combined fund flow data.

In an effort to relate total return performance to fund flows, we calculate the average return across muni funds by fund complex using Bloomberg data, and plot the results against 2020 flows (Exhibit 6). As illustrated in exhibit, **there is no obvious relationship between 2020 fund complex total return performance and the dollar amount of net inflows for the year.**

Interestingly, most funds posted returns of between 3% and 5% in 2020, while net flows are dramatically different across the universe of complexes. Fund complex size was also not a determinant of inflows. **While the largest fund complex received the most inflows, some large fund complexes with a high-yield focus, had outflows in 2020.** The fund group with the second highest flows ranked 13th, based on beginning 2020 AUM. Several intermediate size fund complexes also continued their growth in 2020.

Exhibit 6: There is no obvious relationship between the 2020 performance vs 2020 fund flows in dollar amount. Most funds posted a return between 3% and 5% in 2020, while the flows are different dramatically

Average return of all municipal bond funds within the fund complex, (%)

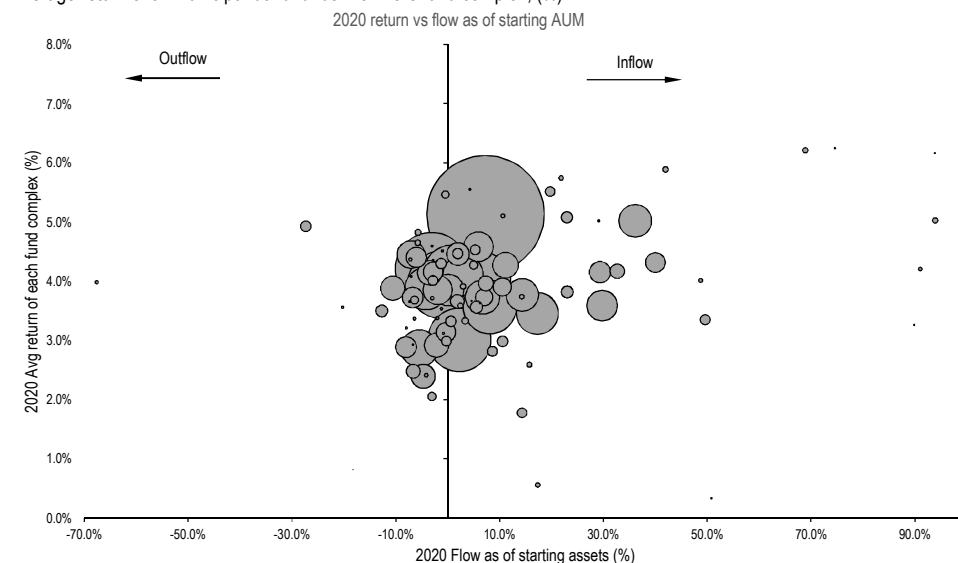


Source: Refinitiv, Bloomberg Finance L.P., JP Morgan. Note: x-axis indicates 2020 total flow, y-axis indicates the average return of all municipal bond funds within the fund complex, and the size of the bubble indicates starting assets of 2020

Changing the view from total dollar amount, to flows as a percentage of beginning AUM, we can see that even though larger funds received more capital than others peers, in terms of the percentage as of AUM, the growth rate is more in-line with other fund groups (Exhibit 7). There were also several medium sized fund complexes that had growth of over 30%.

Exhibit 7: Even though larger funds received higher dollar amount of inflows, in terms of the percentage as of AUM, the growth rate is more in-line with other fund groups. There were also a several medium sized fund complexes that had growth of over 30%

Average return of all municipal bond funds within the fund complex, (%)

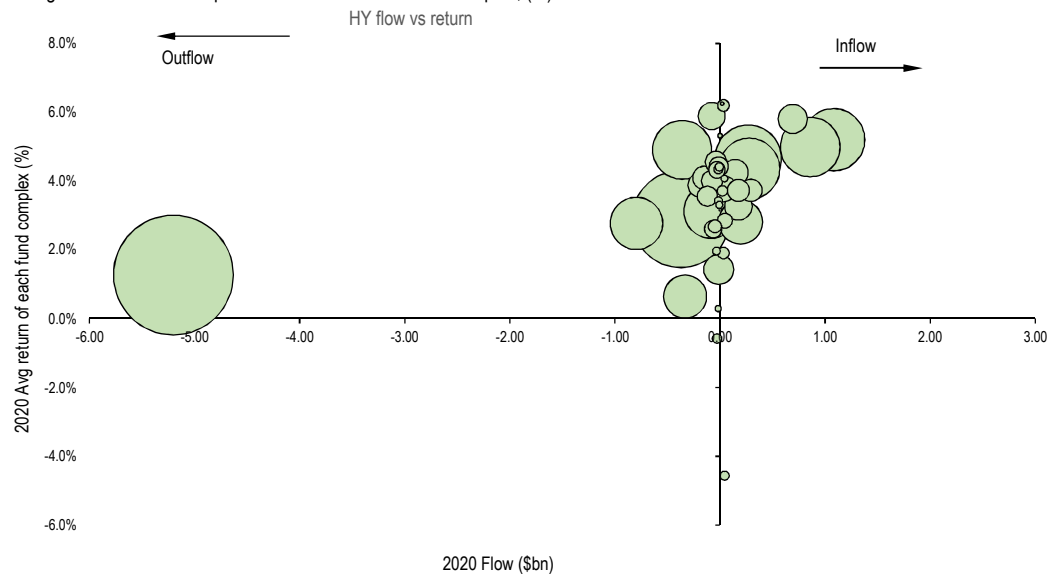


Source: Refinitiv, Bloomberg Finance L.P., JP Morgan. Note: x-axis indicates 2020 total flow as of 2020 starting AUM, y-axis indicates the average return of all municipal bond funds within the fund complex, and the size of the bubble indicates starting assets of 2020

Moving the analysis to solely HY funds, we find that most posted net flows between -\$1bn and \$1.5bn in 2020. **The biggest outlier was the largest HY fund complex, with more than \$5bn outflows. Excluding the largest fund group, the balance of HY funds had a total of \$1.6bn inflows (Exhibit 8).**

Exhibit 8: 2020 HY fund flows were negative, largely due to the largest HY fund complex

Average return of all municipal bond funds within the fund complex, (%)

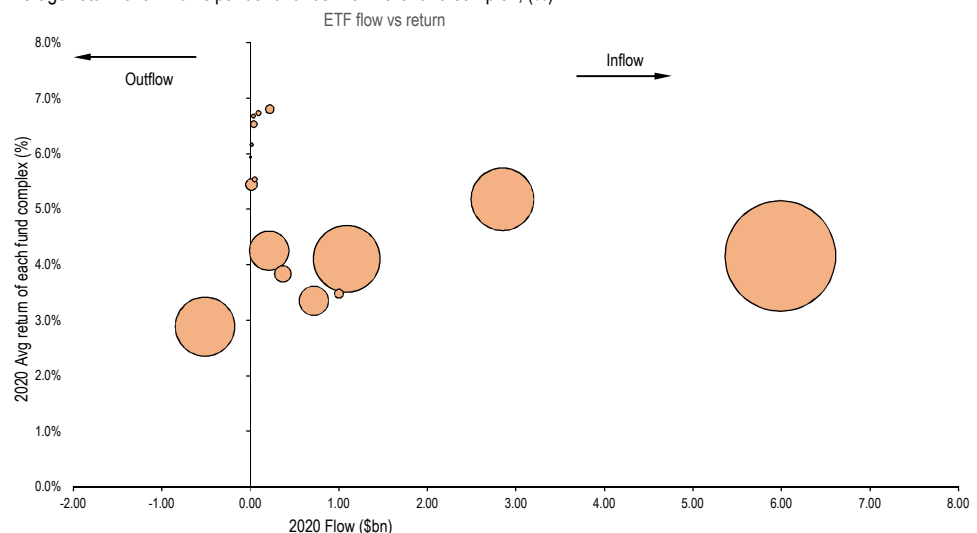


Source: Refinitiv, Bloomberg Finance L.P., JP Morgan. Note: x-axis indicates 2020 total flow, y-axis indicates the average return of all municipal bond funds within the fund complex, and the size of the bubble indicates starting assets of 2020

ETF inflows were exceptional in 2020. **Total ETF inflows in 2020 (\$12.2bn) was 26% as of ETF starting AUM in 2020 (Exhibit 9).** Only one fund complex posted outflows, and this was mainly focus on HY municipals.

Exhibit 9: ETF growth was exceptional in 2020. Total ETF inflows in 2020 (\$12.2bn) was 26% as of ETF starting AUM in 2020

Average return of all municipal bond funds within the fund complex, (%)



Source: Refinitiv, Bloomberg Finance L.P., JP Morgan. Note: x-axis indicates 2020 total flow, y-axis indicates the average return of all municipal bond funds within the fund complex, and the size of the bubble indicates starting assets of 2020

Calendar 2020 total tax receipts for 47 states show decline of just 0.12% vs calendar 2019, with a weighted avg decline of 0.06%

We provide an update on full-year 2020 tax receipts across the 37 states that report monthly revenue figures through December and the 10 states with data through November (Oregon, Wyoming, and Alaska do not report monthly). **Once again, we note that conclusions drawn are based on the current data, and are not indicative of future revenues, particularly given the uncertainties on the progress of the pandemic, future legislation, and the broader pace of the economy.**

Key takeaways:

- Calendar year 2020 state tax receipts for the 47 states who report the data, shows an avg decline of just 0.12% compared to 2019, with a weighted average decline of 0.06%, virtually flat to 2019. 21 of 47 states show positive YoY growth of tax receipts
- The solid revenue performance and credit fundamentals, along with positive technical factors have fueled significant spread compression as investors reach for yield/spread. This is especially apparent in lower rated states such as Illinois, Connecticut, and New Jersey, where spreads are at or below pre-COVID-19 levels
- Of the 40 states that report personal income taxes, CY2020 collections grew 1.3% vs 2019, with a weighted average growth of +2.0%. More than half (25) of states are reporting positive growth, especially among larger states (CA, IL, NC, GA)
- 2020 Sales tax revenue also led a rebound, with YoY decline of 0.26%. Many states in the Midwest/Southwest/Central US have increased sales tax rev, while Northeast/South/West have experienced declines. Further, tourism-reliant (HI, NV, FL) and more populous states (CA, NY, TX, IL) have seen greater sales tax declines, likely due to labor markets/unemployment, cost of living, Fed stimulus buying power, and COVID-19 infection rates

Reported calendar year 2020 tax receipts across 47 states show decline of just 0.12%, with weighted average decline of 0.06%

Across our sample size of 47 states, we find that an aggregate average decline of just 0.12% through year end 2020, improved from an average decline of 1.03% in our last revenue tracking update through September 2020. A little more than half (26 of 47) states saw a YoY decline of taxes, while 21 saw positive growth of receipts versus 2019. **Across the data, there is a low variance, as most states are within a band of +/- 5% revenue gain/decline.**

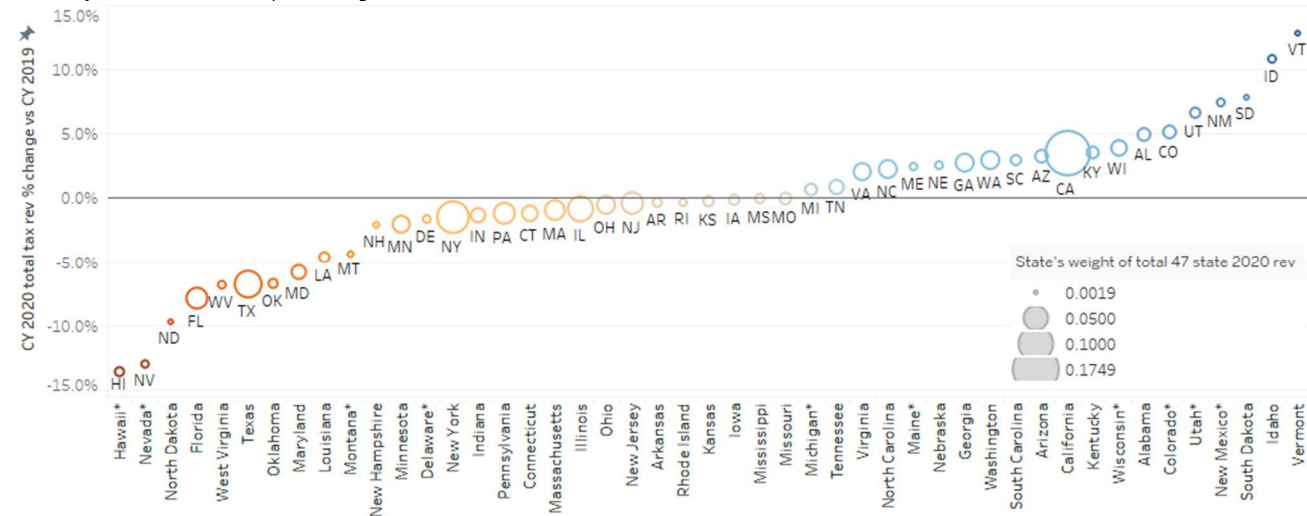
Unsurprisingly, tourism-heavy states such as Hawaii (-13.6%), Nevada (-13.0%), and Florida (-7.9%) saw some of the largest YoY tax revenue declines. Other states dependent on economically sensitive revenue streams such as oil and gas drilling, coal extraction, such as North Dakota (-9.7%), West Virginia (-6.8%), and Texas (-6.8%) were also among the more impacted states.

The largest increases in tax revenues were in Vermont (+12.8%), Idaho (+10.8%), South Dakota (+7.9%), and New Mexico (+7.4%). We hypothesize the growth may be due to a mix of factors, including the composition of tax revenue with

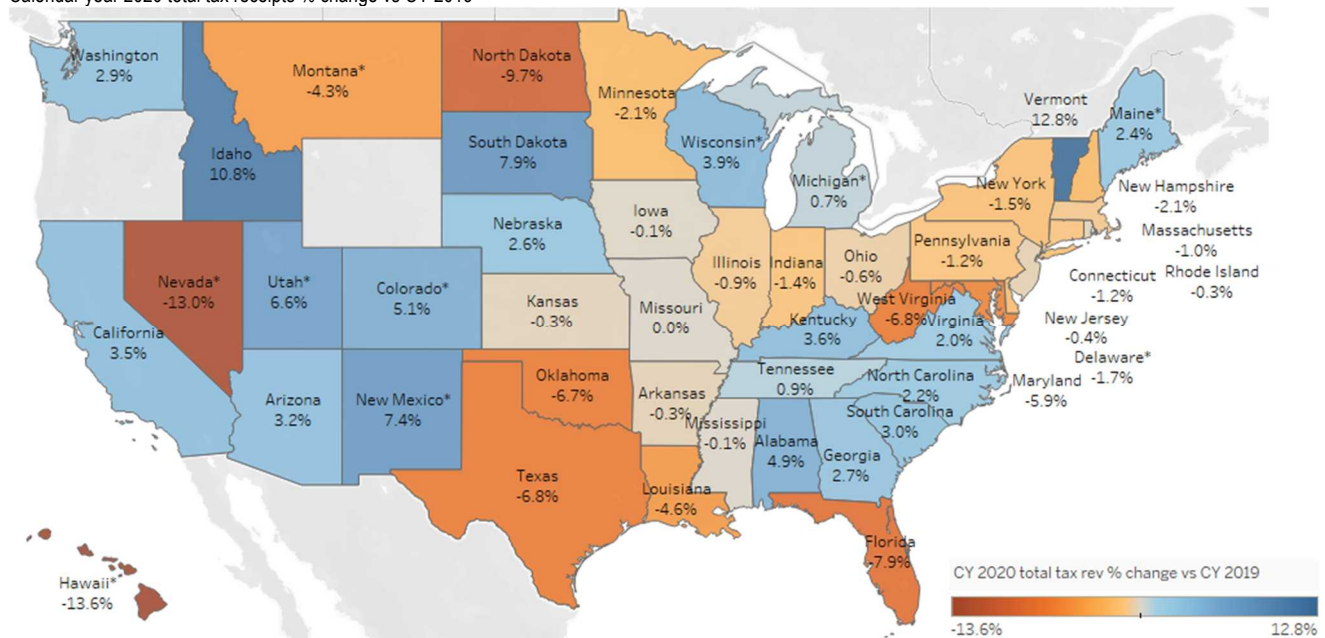
higher proportions of less volatile revenues such as property tax (Vermont gets 32% of state tax revenue from property taxes), state economies/industries, and possible COVID-19 related shifts in activity and driving patterns (driving to national parks out west) (Exhibit 10).

Exhibit 10: Across our sample size of 47 states, we find that on average, 2020 aggregate tax revenue decline totaled just 0.12%, with many states within a band of +/- 5% revenue gain/decline

Calendar year 2020 total tax receipts % change vs CY 2019



Calendar year 2020 total tax receipts % change vs CY 2019



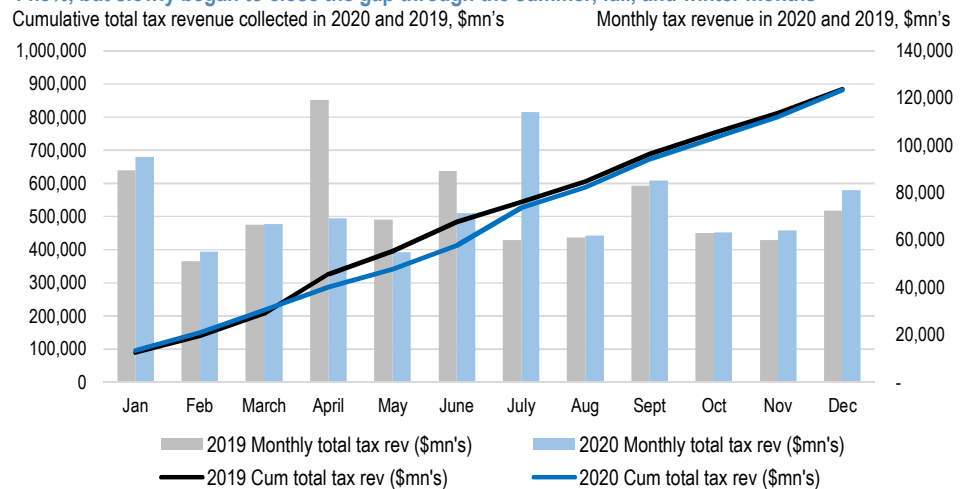
Source: Individual state monthly tax reports, JPMorgan. Note: Oregon, Wyoming, and Alaska do not report monthly tax revenue figures. Michigan, Wisconsin, Colorado, Nevada, Utah, Hawaii, New Mexico, Maine, Delaware, and Montana do not have Dec rev data available yet. Size of circles based on proportionate contribution of states' tax revenue to total 47 state aggregate tax revenue

On a weighted average basis (based on aggregated available 2020 tax receipts of each state), the 47 state tax collection average decline was just 0.06%, virtually flat to 2019. This is due to some larger states with showing revenue increases such

as California (17.5% weight, +3.5% yoy tax rev), Illinois (5.6% weight, -0.9% yoy tax rev), and New Jersey (4.0% weight, -0.4% yoy tax rev), which offset tax revenue losses in other states.

Further, analyzing the dataset by month, we see that 2020 tax revenue data (in aggregate across 47 states) outperformed 2019 in every month except April, May, and June. In June, cumulative tax receipts in 2020 had underperformed 2019 by 14.8%, but slowly began to close the gap through the summer, fall, and winter months (Exhibit 11).

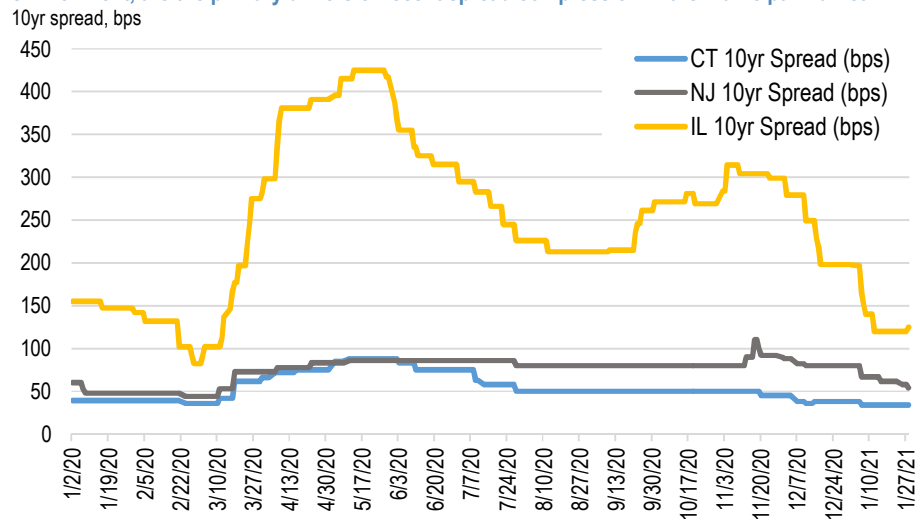
Exhibit 11: 2020 tax revenue (in aggregate across 47 states) outperformed 2019 in every month except April, May, and June. In June, cumulative tax receipts in 2020 had underperformed 2019 by 14.8%, but slowly began to close the gap through the summer, fall, and winter months



Source: Individual state monthly tax reports, JPMorgan. Note: Oregon, Wyoming, and Alaska do not report monthly tax revenue figures.

The latest data has supported the thesis in our [2021 outlook](#) that state tax revenues have not shown significant/apocalyptic declines like some have feared. This is also corroborated by reports from states recently, as [California sees a budget surplus](#), and [Illinois reports an upside surprise and beat on their latest December 2020 revenues](#). We believe that the positive fundamentals have been a contributing factor in spread tightening, although overwhelmingly positive fund flows and the need to generate yield in the low rate environment, are the primary drivers of current rich valuations in the municipal market. With spreads of lower rated credits such as Illinois, New Jersey, and Connecticut, compressing to or below, pre-COVID-19 levels (Exhibit 12).

Exhibit 12: Better than expected revenues have been a contributing factor in spread tightening, although overwhelmingly positive fund flows and the need to generate yield in the low rate environment, are the primary drivers of recent spread compression in the municipal market



Source: Refinitive TM3, JPMorgan

However we point out that many states are still seeing budget gaps, given higher COVID-19 expenditures, contact tracing, vaccine rollout, and greater social service needs. Any additional state and local aid from Washington to relief these expenditure pressures will be a credit positive, but even without such aid, if states maintain expenditure and cost control, the budget impact should be manageable for most. Naturally, **we caveat that investors should also consider other factors of creditworthiness, such as demographics, governance, budget, COVID-19 infection rates, pension, among others, that can be more challenging for some states in an economic slowdown.**

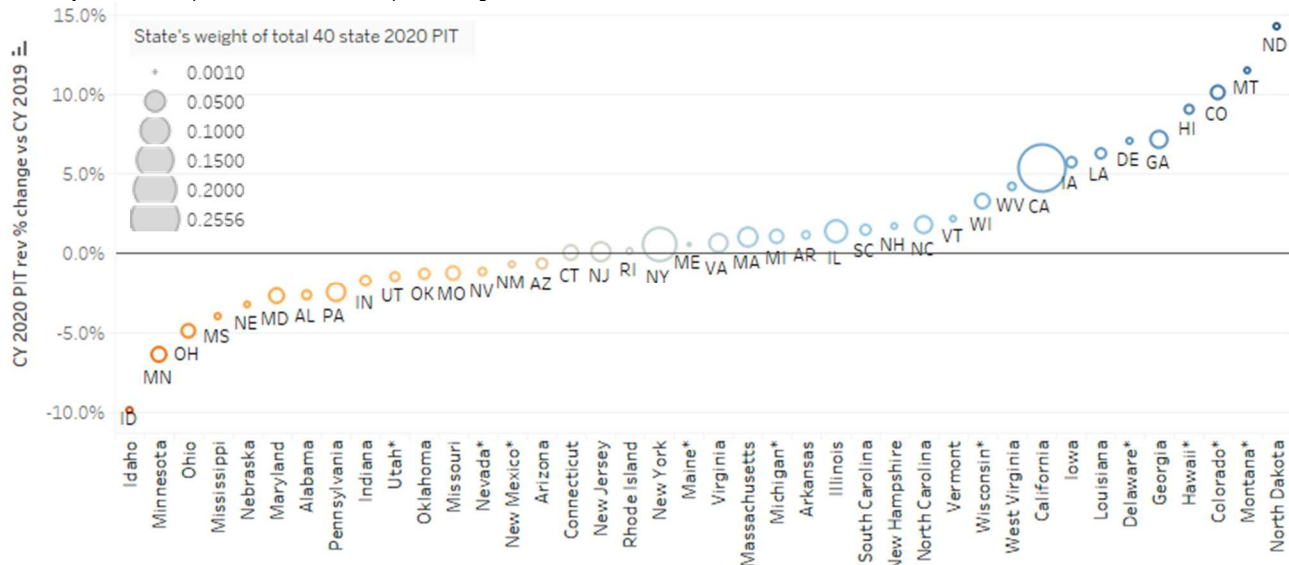
Income tax collection CY 2020 YoY growth of 1.33% across 40 states, with almost all larger states seeing flat or positive growth vs 2019

Positively, we find that 2020 income tax collections, for the 40 states that report monthly income tax receipts, have been +1.33% vs 2019 levels. **Across the cohort, more than half (25) of the states reported positive growth. Idaho (-9.9%), Minnesota (-6.4%), and Ohio (-5.0%) reported the largest YoY PIT declines, while North Dakota (+14.3%), Montana (+11.5%), and Colorado (+10.1%) reported the highest YoY PIT revenue growth (Exhibit 13).**

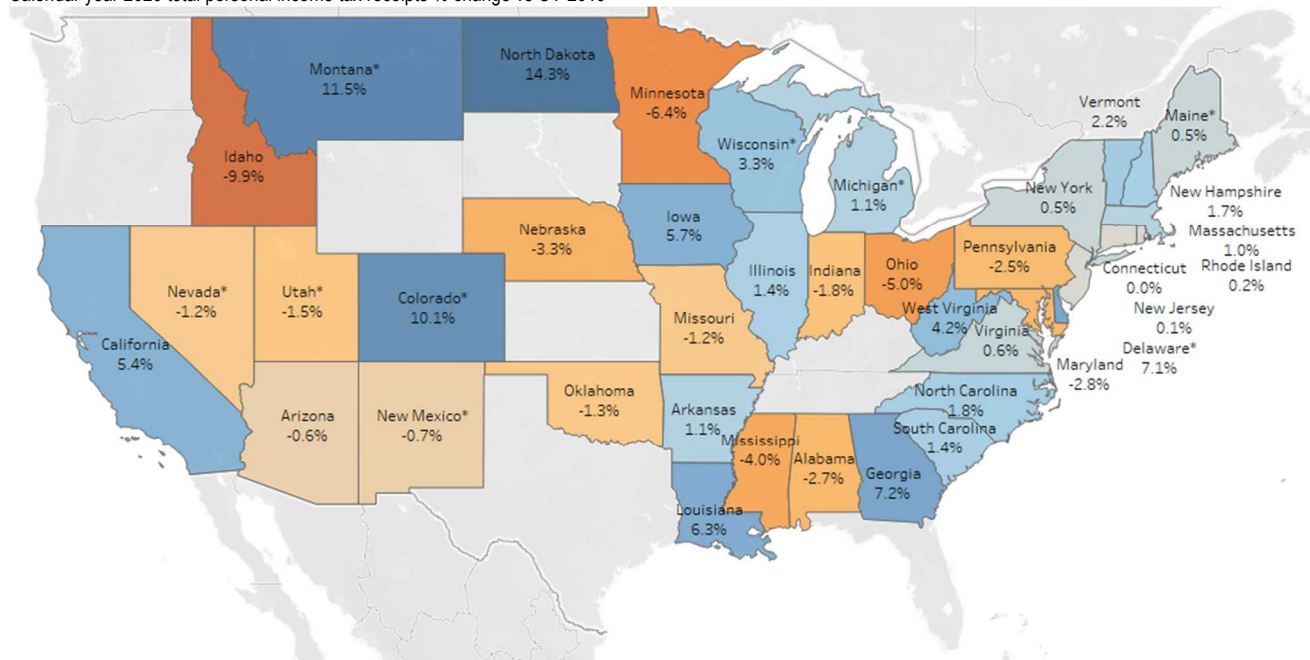
Aggregate state income tax receipts as a proportion of total state income tax, shows an average increase of 1.99% in PIT collections, versus 2019. This outcome results from some larger weighted states seeing higher income tax collections, such as California (25.6% weight, +5.4% YoY PIT), New York (12.8% weight, +0.5% YoY PIT), Illinois (5.5% weight, +1.4% YoY PIT), and Massachusetts (4.2% weight, +1.0% YoY PIT). Seeing as income tax makes up a significant portion of total tax revenues for many states, this signals stabilization in tax revenue, especially as the labor market has rebounded somewhat in recent months.

Exhibit 13: Positively, we find that for income tax collections, for the 40 states that have and report monthly income tax receipts, 2020 collections have been +1.33% above 2019 levels

Calendar year 2020 total personal income tax receipts % change vs CY 2019



Calendar year 2020 total personal income tax receipts % change vs CY 2019



Source: Individual state monthly tax reports, JPMorgan. Note: Oregon, Wyoming, and Alaska do not report monthly tax revenue figures. Michigan, Wisconsin, Colorado, Nevada, Utah, Hawaii, New Mexico, Maine, Delaware, and Montana do not have Dec rev data available yet. Size of circles based on proportionate contribution of states' PIT revenue to total 40 state aggregate PIT revenue

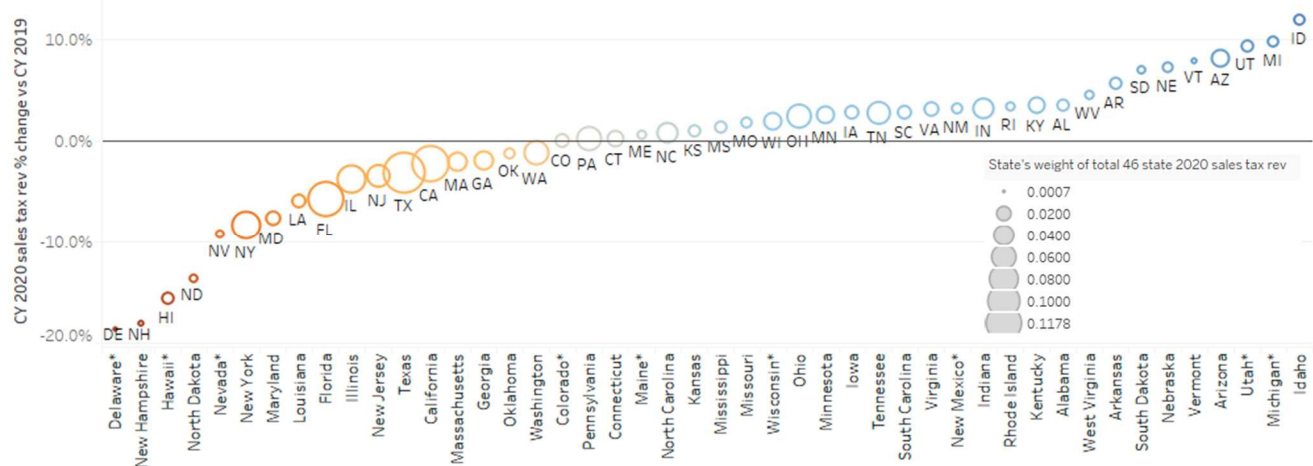
2020 Sales tax collections also see rebound, with YoY decline of 0.26% through December

Across the 46 states with sales tax data/collections, revenue also improved from earlier in the year, and our last tracking in September. Full year sales tax revenue was down only 0.26% on average, compared to 2019. However, compared to total

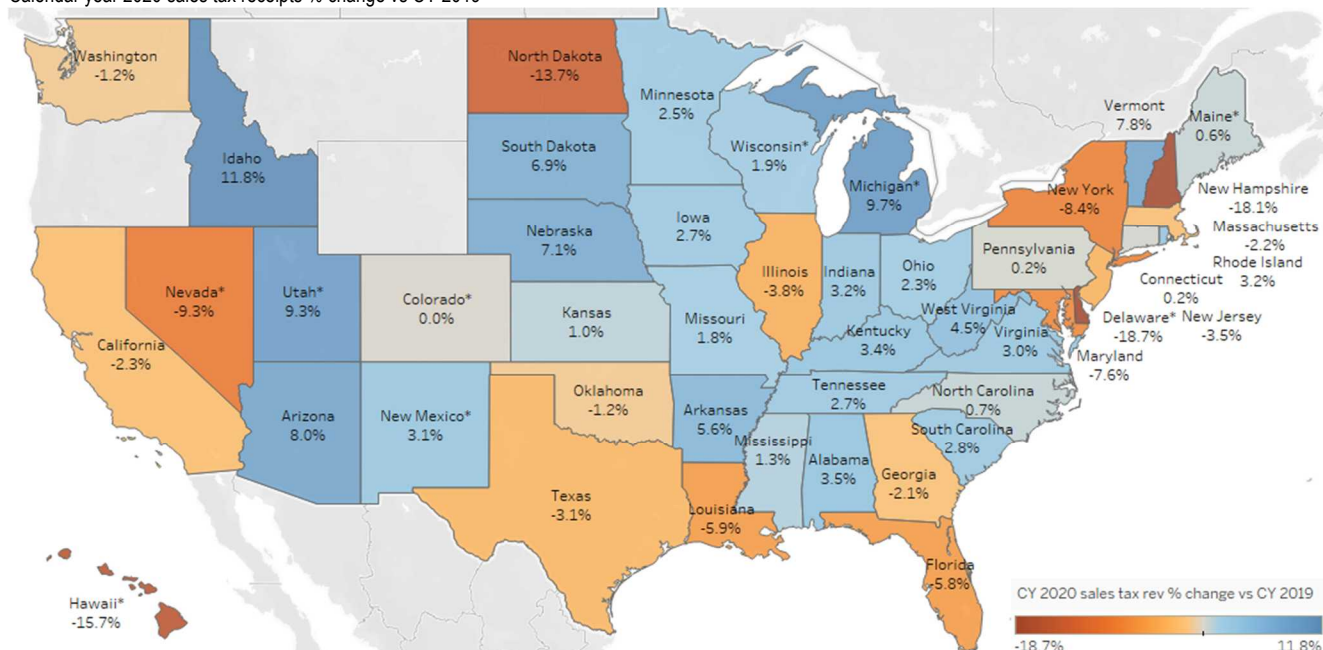
receipts and income taxes, we see a slightly wider variance across the results (stdev of 6.9%, compared to ~5% for total tax and PIT). **Further, while some of the usual suspects of tourism states (Hawaii -15.7%, Nevada -9.3%, Florida -5.8%) saw larger declines in sales tax revenue, we also see some larger/more populous states such as California (-2.3%), New York (-8.4%), Illinois (-3.8%), and New Jersey (-3.5%) also reporting higher sales tax revenue losses than their respective PIT losses. While Idaho +11.8%, Michigan +9.7%, Utah +9.3%, Arizona +8.0% reported the highest YoY sales tax collections (Exhibit 14).**

Exhibit 14: 2020 Sales tax collections also see rebound, with YoY decline of only 0.26%

Calendar year 2020 sales tax receipts % change vs CY 2019



Calendar year 2020 sales tax receipts % change vs CY 2019



Once again, we see that many states in Central, Midwest, and Southwest regions have reported increases in sales tax revenue (vs same period 2019), while Northeast, West, and South regions generally saw declines in sales tax collections. This may be due to a host of factors, including unemployment rates, cost of living/consumer purchasing power, higher impact of Federal stimulus checks, and COVID-19 cases.

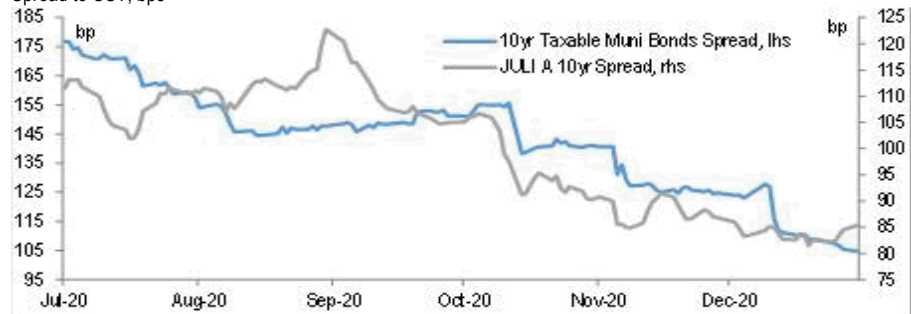
In case you missed it from our daily reports...

Jan 26th--Taxable muni outperformed Corps

Our HG strategy team points out, that **10yr Taxable Muni Bonds have recently outperformed the JULI A 10y index and are now trading 17bp too rich versus JULI using a 3 month regression (R.sq of 80%).** This is about 2.3 sigma from the mean. We note that relative rich taxable muni levels are a result of several factors including **sizable spread tightening in tax-exempt names on exceptional technicals, which in some cases has driven same-name taxable muni spreads tighter.** Richer valuations in tax-exempts has also at a minimum, shifted the focus of insurance and bank investors to taxables, and in many cases had led to outright selling of tax-exempts and reallocation in the taxable municipal market. Finally, the relative rich taxable muni levels has prompted selling of more liquid and better known names into the strong bid from non-US buyers, who are willing to take the market to new levels given lower hedging cost, added need for diversification, and demand for longer dated higher quality bonds.

Exhibit 15: 10yr Taxable Muni Bonds have recently outperformed the JULI A 10y index and are now trading 17bp too rich versus JULI using a 3 month regression

Spread to UST, bps



Source: JP Morgan

Jan 27th--2020 Default

The par value of defaults rose to \$2.1bn in 2020, from \$1.4bn in 2019 (+50%) and were 8% above the long term average (\$1.9bn). **While the amount of defaulted bonds rose significantly on a percentage basis, we note that total defaults remain limited as a percentage of the entire market (0.05%) and as a percentage of the HY muni market (0.62%).**

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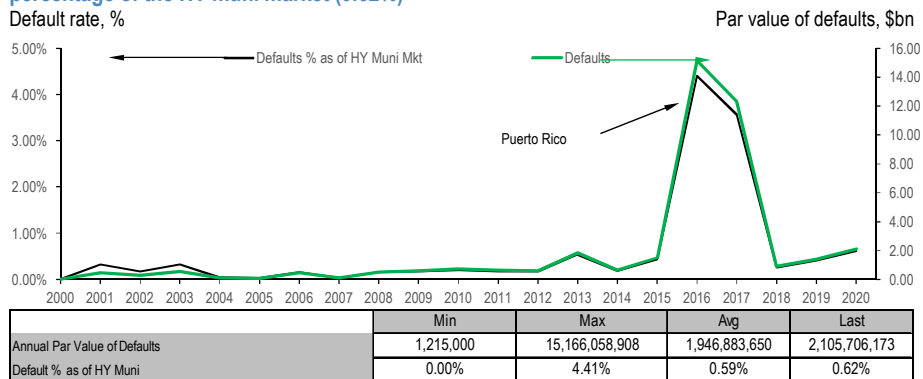
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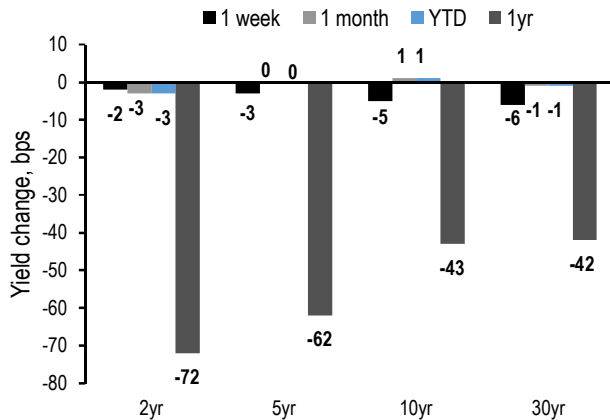
Exhibit 16: Total defaults remain limited as a percentage of the entire market (0.05%) and as a percentage of the HY muni market (0.62%)



Source: Bloomberg Finance L.P., JP Morgan. Note: Through Dec 31, 2020. Defaults defined as an actual missed payment. Bonds covered by insurance are not considered to be in default

Markets at a glance

In the past year, yields across the HG curve have decreased by 72bps, 62bps, 43bps, and 42bps in the 2yr, 5yr, 10yr, and 30yr spots, respectively



Source: Thomson Reuters, JP Morgan

We expect 10yr municipal high-grade yields rise close to 1.25% by 4Q21

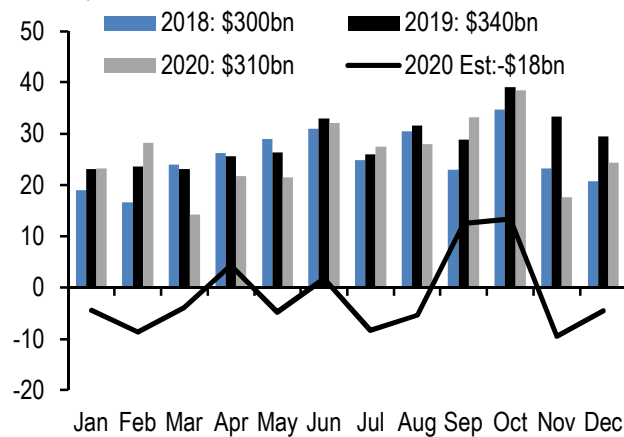
Yields, %

	1/29/2021	1mo ahead Forecast	1Q21 Forecast	2Q21 Forecast	3Q21 Forecast	4Q21 Forecast
Treasury						
2yr	0.11	0.10	0.20	0.20	0.25	0.25
5yr	0.43	0.45	0.50	0.55	0.60	0.65
10yr	1.08	1.15	1.10	1.25	1.35	1.45
30yr	1.84	1.85	1.90	2.10	2.15	2.25
AAA Tax-exempt						
2yr	0.11	0.15	0.20	0.25	0.30	0.30
5yr	0.22	0.25	0.35	0.35	0.45	0.50
10yr	0.72	0.75	0.80	1.05	1.20	1.25
30yr	1.38	1.40	1.50	1.85	2.00	2.10
AAA / TSY Ratios						
2yr	100%	150%	100%	125%	120%	120%
5yr	51%	56%	70%	64%	75%	77%
10yr	67%	65%	73%	84%	89%	86%
30yr	75%	76%	79%	88%	93%	93%

Source: Bloomberg Finance L.P., Refinitiv, JP Morgan

We project 2020 tax-exempt gross supply of \$310bn with net supply of -\$18bn

Tax-exempt issuance Forecast, \$bn



Source: Bloomberg Finance L.P., Refinitiv, JP Morgan

Benchmark municipals look rich vs long end Treasury

AAA tax-exempt yield / Treasury yield (%)

						Z-score	
	Last	Min	Max	Mean	St. Dev.	3yr	5yr
2yr	91.6	86.7	139.8	108.1	13.3	-0.1	0.0
5yr	48.9	48.9	85.5	60.9	7.9	-0.7	-0.8
10yr	67.3	67.3	111.3	80.8	11.1	-0.8	-1.0
30yr	75.9	75.9	105.4	86.0	7.7	-1.3	-1.6

AA corporate yield - AA tax-exempt yield (bp)

						Z-score	
	Last	Min	Max	Mean	St. Dev.	3yr	5yr
3-5yr	48	37	49	45	3	-1.1	-1.3
5-7yr	63	43	63	54	4	-0.9	-1.0
7-10yr	84	59	84	70	6	-0.4	-0.4
25yr	117	82	117	98	10	1.6	1.2

values over last 3 months displayed, as of, Z-Score +/- 1.5 Rich / Cheap

yy indicates rich yy indicates cheap

Source: TRACE, Refinitiv, JP Morgan

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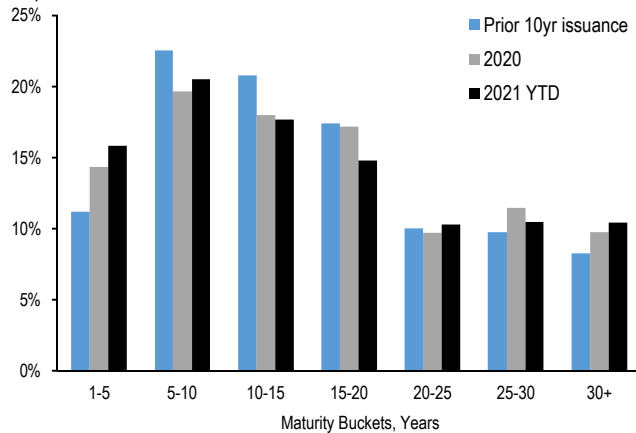
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YTD Issuance and Trading Trends

30yr+ maturities are about 10% of YTD issuance

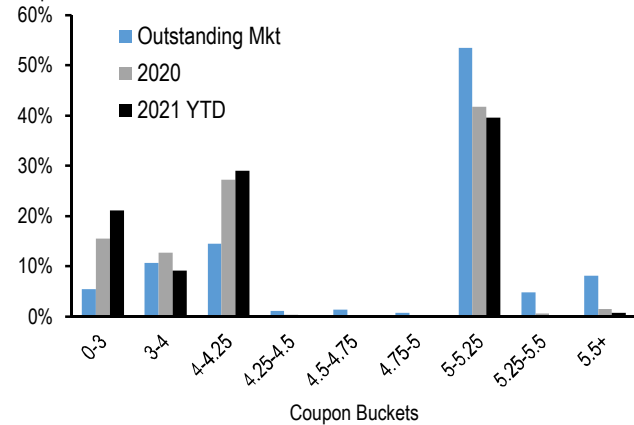
Proportion of issuance, %



Note: Long term, fixed coupon, tax-exempt bonds only
Source: ICE, JP Morgan

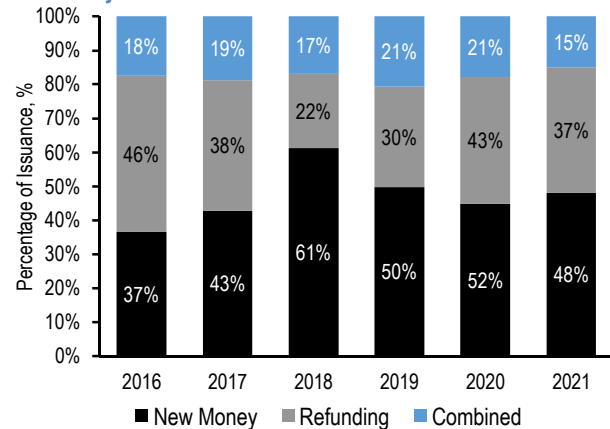
38% of YTD issuance has been in 3-4.25% coupon bonds

Proportion of issuance, %



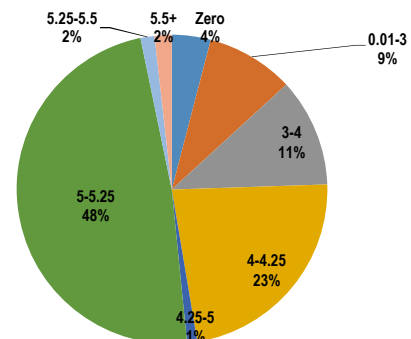
Note: Long term, fixed coupon, tax-exempt bonds only
Source: ICE, JP Morgan

New Money issuance has accounted for 48% of YTD issuance



Note: Long term bonds only
Source: Bloomberg Finance L.P., JP Morgan

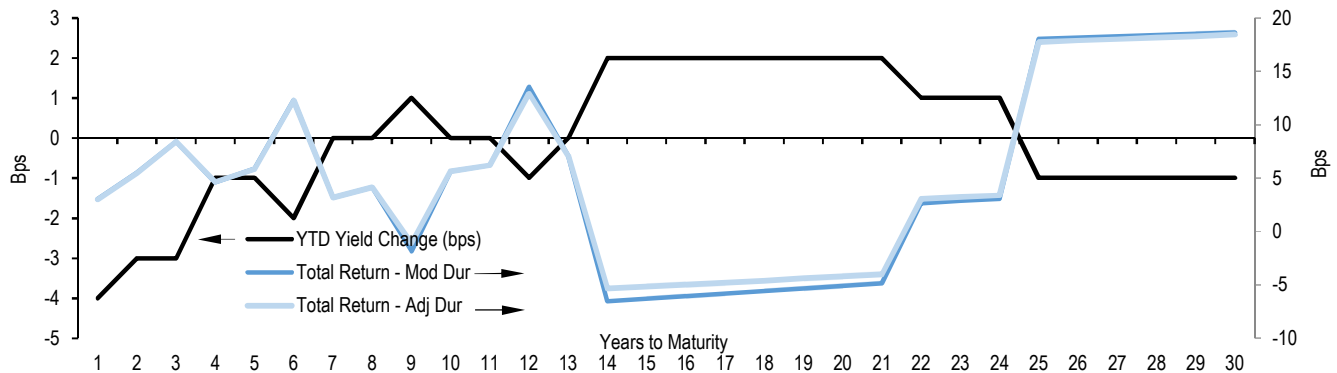
3% to 4% coupon bonds have accounted for 11% of YTD trading volume



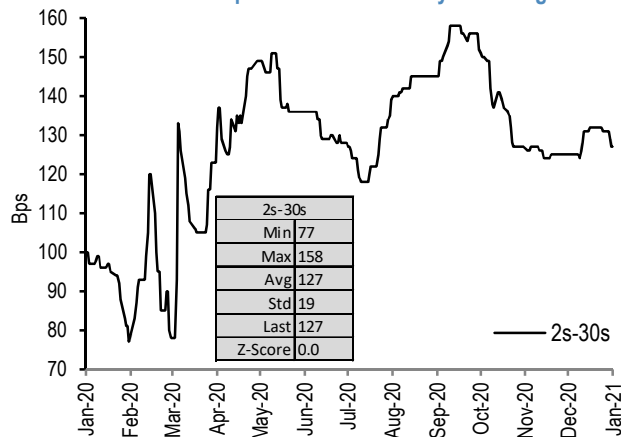
Note: Long term, fixed coupon, tax-exempt bonds only
Source: MSRB, ICE, JP Morgan.

YTD Total return and Curve Spreads

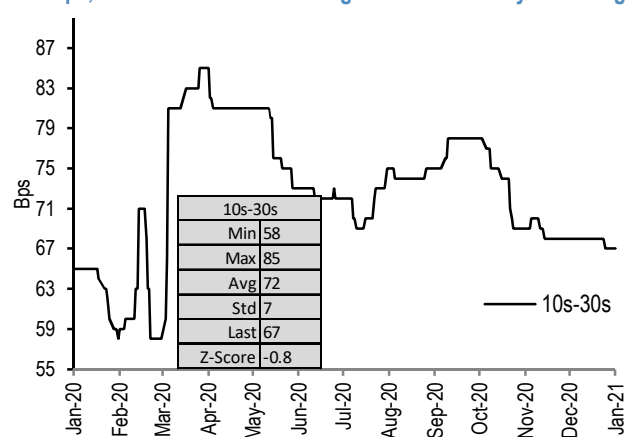
YTD total returns are negative across the curve



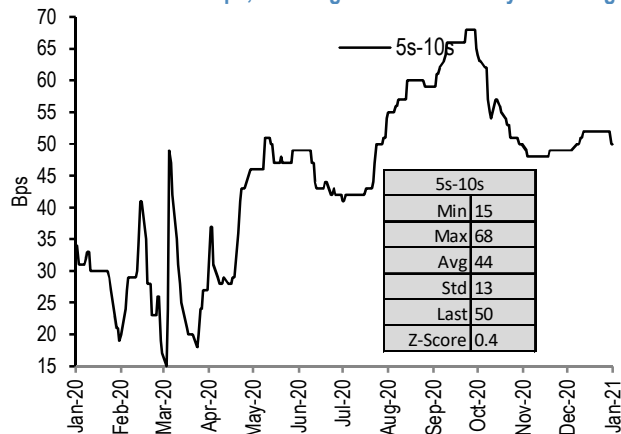
The 2s/30s curve at 127bps is same as its one year average



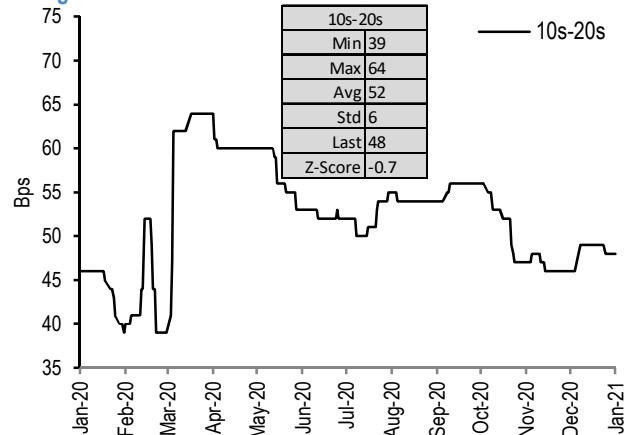
At 67bps, the 10s/30s curve is 0.8 sigma below its one year average



The 5s/10s curve at 50bps, is 0.4 sigma above its one year average



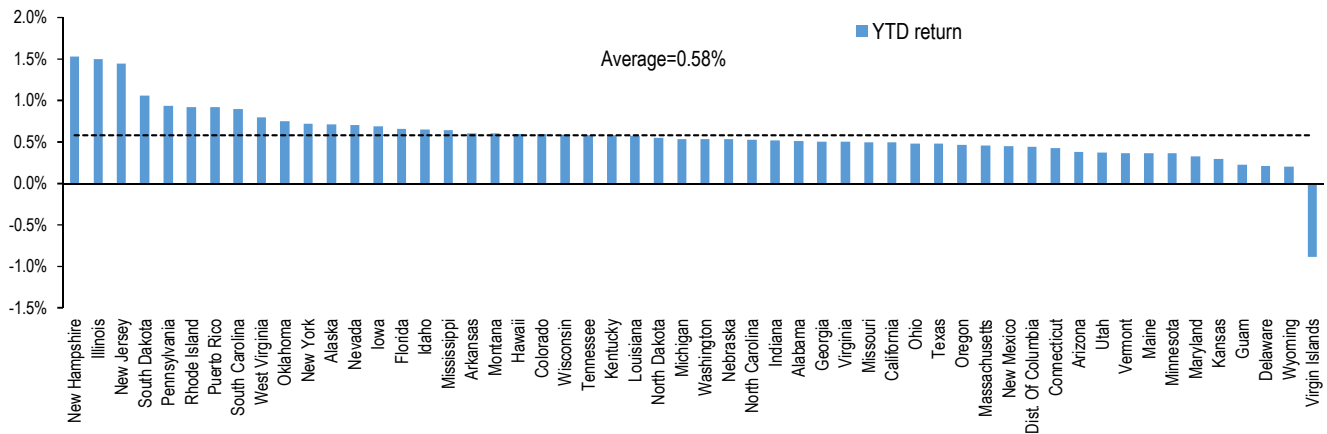
At 48bps, the 10s/20s curve is now 0.7 sigma below its one year average



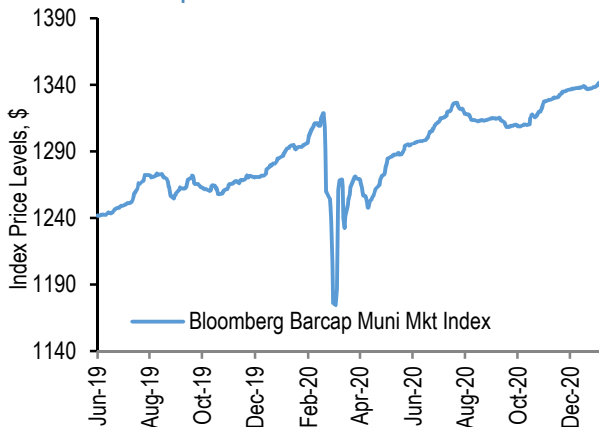
Source: Thomson Reuters, Bloomberg Finance L.P., JP Morgan. Note: As of 1/28/2021

Total return by State and Sector

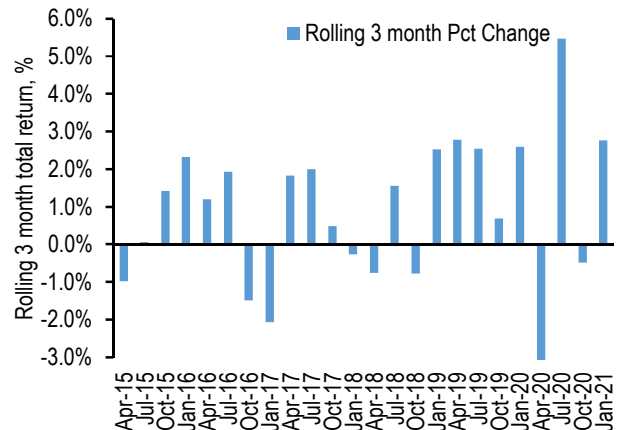
The average YTD total return for Bloomberg municipal bond indices by state is 0.58%



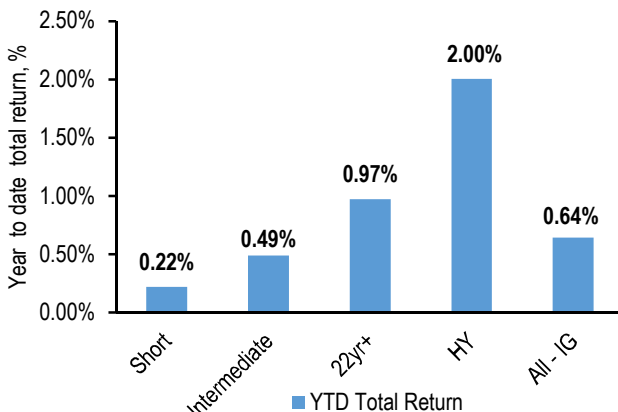
The broader municipal market has returned 0.64%



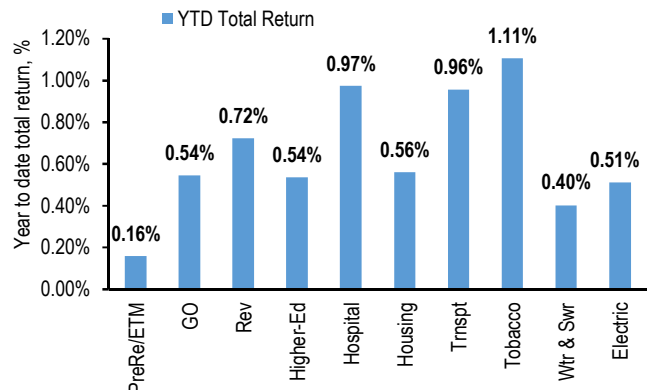
The Bloomberg Muni index has increased 2.77% in the three months between 10/28/2020 and 1/28/2021



The HY index has the highest YTD returns, of 2.00%



The Tobacco sector exhibits the best YTD return of 1.11%



Source: Bloomberg Finance L.P., JP Morgan, as of 1/28/2021. Note: Total return calculated as the percentage change in index levels. Bloomberg Municipal bond total return indices used

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