

4Q 2021

NEUBERGER BERMAN

Municipal Basis Points

Bring On the Transition

Although the economic backdrop remains favorable for municipal credit quality, valuations have become more extended, requiring close assessment of individual issuer dynamics. As the market starts to test current pricing, investors may push back and demand higher yields. At the same time, massive legislative proposals could have significant impact on tax policy and the supply of municipal bonds. After a long period of relative calm, markets could become more volatile as we move into the post-COVID environment—something the Neuberger Berman Municipal Fixed Income team believes could lead to opportunities in the municipal space. The team presents its views in this report.

NEUBERGER BERMAN MUNICIPAL FIXED INCOME TEAM

“Intelligence is the ability to adapt to change.”

— STEPHEN HAWKING



JAMES L. ISELIN
HEAD OF MUNICIPAL FIXED INCOME

Bring On the Transition

A period of changing policy could bring new opportunities to add to yields in the municipal market.

The Federal Reserve’s favorite word this year has been “transitory.” Hearing that word does have a calming influence. If you describe something generally perceived as bad as fleeting, it somehow seems less concerning. Yes, I wish my neighbors didn’t blast heavy metal music after midnight, but they are moving in two weeks so I can live with that. It feels like the right word for the world that we are in right now—one filled with many unknowns that can leave people with a constant sense of uneasiness.

When Fed Chairman Jerome Powell said that uncomfortably high inflation readings this year would ultimately be transitory, those who were worried that a return of ‘70s-style inflation would wreck the economic recovery seemed to breathe a sigh of relief. While we have no doubt that Powell is being sincere in his assessment that the current uptick in inflation will moderate over time, only he knows his true confidence level in that prediction. There is no playbook for the long-term impact of a pandemic on a modern economic system that is intricately linked across the globe. One thing we have learned from this pandemic is that some trends have been stopped in their tracks while others have accelerated by 10 years. Before the pandemic, when a meeting didn’t take place in person, a conference call number was typically used. How 2019 that sounds! While we generally agree with Powell that current inflation

readings are not sustainable, if they take longer to moderate or ultimately settle at uncomfortably high levels, the market may not react kindly to that outcome.

Too Calm for Too Long

When thinking about the investment environment for munis in the coming quarters, the word transition feels more appropriate than transitory. While the economic environment remains favorable for muni credit quality, valuations have become a bit stretched for some muni bonds. Against that backdrop, each relative value call needs to be thoroughly debated. At some point, investors will push back and demand higher yields. While mutual fund flows remain positive, they have started to moderate, which suggests that the market is starting to be tested. Also, our nation’s capital will likely stir up additional volatility as two infrastructure bills and the debt ceiling continue to be debated. The infrastructure bills could have a significant impact on tax policy and the supply of muni bonds, so the potential for these bills to move markets should not be underestimated. As we have previously said, markets have been too calm for too long, effectively anesthetized by the government’s unwavering support. We believe this period of transition will offer better opportunities to enhance yields in municipal bond portfolios. Given that our approach tends to favor manageable amounts of interest rate risk while emphasizing liquidity, we should be in a good place to take advantage of an uptick in volatility. Bring on the transition!

“Why does everybody stand up and sing ‘Take Me Out to the Ballgame’ when they’re already there?”

—LARRY ANDERSON (FORMER MAJOR LEAGUE BASEBALL PITCHER)

TRADING NOTES

Seventh Inning Stretch

RANDY L. GROSS

SENIOR PORTFOLIO MANAGER, MUNICIPAL FIXED INCOME

Stimulus, better fundamentals and anticipation of higher taxes have helped score runs for municipal markets.

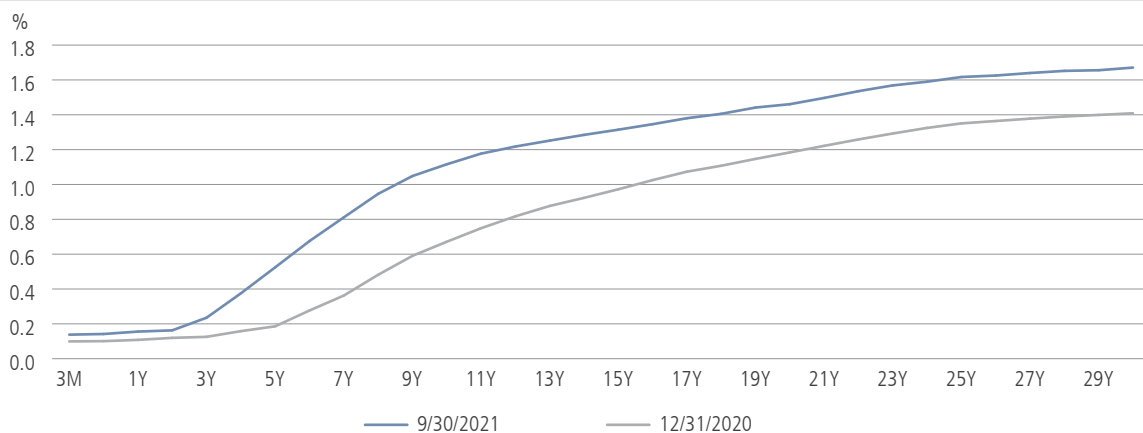
As even the most casual baseball fans appreciate, the seventh inning stretch is a time to stand up, stretch out and reflect on all the events that have unfolded in a game thus far. As Major League Baseball looks for another “Mr. October,” this seems like a perfect time to assess the year’s developments as we enter the latter stages of 2021.

The year began with the Georgia runoff elections for Senate, resulting in Democrats gaining full control of Congress. In March, they passed President Biden’s \$1.9 trillion COVID-19 stimulus package, which included \$570 billion in direct and indirect aid to state and local governments. This large cash funding bolstered the balance sheets of municipalities in the

near term and acted as a major stabilizer for many sectors, which improved the broader municipal credit outlook. Enhanced credit fundamentals coupled with anticipation of higher tax rates set in motion a historical deployment of new cash into municipal bond mutual funds and ETFs, totaling around \$90 billion year-to-date through September 30. These positive fund flows have been crucial in providing positive technical support, which has translated into robust market sentiment.

Indeed, insatiable muni demand has easily outstripped new supply, especially for securities with maturities 10 years and shorter. It has also driven stronger returns for lower-rated credits, propelling their outperformance versus AAA and AA rated securities as investors have reached for yield in a low-rate environment.

MUNICIPAL YIELDS HAVE BEEN RISING GRADUALLY



Source: Bloomberg.

Fed-Induced Rate Volatility

At the conclusion of the September FOMC meeting, most pundits viewed the Fed's comments as slightly hawkish, paving the way for a potential November/December announcement of tapering in their bond purchases. The reaction from market participants was swift, as the 10-year U.S. Treasury yield moved higher, immediately pricing in reduced stimulus for longer-term rates.

As a quick reminder, the 10-year Treasury ended 2019 at 1.91% (before COVID bond buying), an important point of reference. In March 2020, in direct response to the pandemic, the Fed began buying \$80 billion in U.S. Treasuries per month to help guide longer-term rates lower. In becoming the market's largest buyer of Treasuries, the Fed essentially "set the rate," which ended 2020 at 0.90%. If tapering is implemented this year, and inflation data remains higher for longer, it seems reasonable that longer-maturity Treasuries (10 years and longer) could continue to rise in response to reduced support from the Fed.

And Lastly...Revisiting our Summertime 'Active Patience'

In our July publication, we discussed the many tools at our disposal to navigate the summertime compressed valuations in the marketplace. One tool we utilized was being "actively patient" and very selective when adding to duration and credit sectors, given the full valuations. Since the September FOMC meeting, 10-year AAA municipal yields have followed 10-year Treasuries higher, rising to around 1.20%, their highest level since May 2020. We have also witnessed the largest high-yield ETF experience its largest outflow since 2016. Both factors contributed to longer duration and lower-rated credits underperforming in the month of September, a reversal of year-long trends.

Currently, we believe munis as an asset class are fairly valued, but we foresee better entry points amid pockets of volatility as the Fed telegraphs its eventual move to tapering U.S. Treasury and mortgage purchases. Finally, the multi-trillion-dollar spending package being considered by Congress includes municipal bond-friendly provisions that restore tax-exempt refunding and create a new direct-pay Build America Bonds (taxable muni subsidy) program. Should either or both move forward, this could portend higher new issuance in the remaining innings of 2021. We will continue to monitor all of the above very carefully, and remain "active" and vigilant in opportunistically adding value to our portfolios.

“Turn and face the strange ch-ch-changes: Pretty soon you’re gonna get a little older...”

— DAVID BOWIE

FUNDAMENTAL FOCUS

Higher Education Still Faces a Reckoning

PAUL CHARBONNEAU

SENIOR RESEARCH ANALYST, MUNICIPAL FIXED INCOME

Emergence from lockdowns has repopulated campuses and stabilized school coffers, but pre-pandemic issues remain.

In the face of the evolving COVID-19 pandemic, U.S. colleges and universities continue to deal with challenges beyond the immediate widespread threats to public health and related lockdowns that characterized earlier phases of the crisis. Having weathered the storm of the March 2020 campus shutdowns and the “start-stop” disruptions of subsequent academic semesters, schools are, by and large, now enjoying a return to a more traditional operating environment, bolstered by both the continued support of pandemic-related governmental aid and favorable borrowing terms. However, while it may seem that the worst is over, with the vast majority of colleges and universities surviving the pandemic to date, we believe the current situation is not sustainable. Rather, it is more of a window of relief for a pocket of precariously situated credits, often facilitated by undue optimism about the return-to-campus trend and undermined by the likelihood that current governmental support and the lenient credit environment will prove unsustainable. While the past two years presented significant obstacles to schools across the higher education spectrum, challenging governance capabilities and resources, it is more salient to view the pandemic as a catalyst, accelerating the impact of both vulnerabilities and strengths that predated COVID-19.

Colleges and universities are now contending with many of the headwinds that have challenged other credit sectors, including the emergence of variants, vaccine implementation and resistance, legal challenges, labor issues and potential regulatory shifts, among others.

Conversely, various contextual themes are positively impacting the sector, including strong market returns that have bolstered endowments and pension funding, and the availability of federal aid through 2023, as well as projections for research funding and recovery in student demand. That said, we believe that, for the majority of schools, their mix of resources and capabilities going into pandemic will be the prime determinant of how they will fare over the coming years. This idea forms the basis of how we are identifying and assessing investment opportunities in an industry that we believe was already nearing an inflection point prior to the health crisis.

Since March 2020, the pandemic has weighed on the higher education sector. However, the degree to which colleges and universities felt its impact was determined by a given school’s unique blend of market strength, financial resources and flexibility, as well as other idiosyncratic determinants. Schools of all types, from elite, comprehensive research universities to specialty colleges and access-oriented, two-year community colleges, were forced into new ways of operating as a result of all manner of difficulties wrought by the pandemic. Expenditure overruns and loss of revenue at universities with clinical affiliations and academic medical centers, research disruptions, costs of building out remote-delivery infrastructure and physical plant adaptations, admissions-related overruns and volatility, elevated endowment draws, curtailment of capital plans and suspended development campaigns, lost athletic revenues, nonperforming student housing systems and significant losses in international student “draw” have been just some of the issues seen by

the industry since March 2020, with the tide of disruption spreading to every corner of higher education. In the 4Q 2020 issue of *Municipal Basis Points*, we described how the changes brought on by the pandemic exposed existing vulnerabilities, and how the budgetary and market pressures of the crisis would help accelerate a shifting perception of value in the higher education space, with a range of short-, medium- and long-term outcomes dependent on credit type, structure and composition. A year later, we have the advantage of observing the pandemic's impacts via sector and bottom-up credit research, augmenting our analysis of sector-wide data-reporting sources to provide valuable insights, albeit on a lagging basis.

The Good, the Bad and the Ugly

The return of the vast majority of colleges and universities to an in-person, on-campus educational model, albeit with certain safety-oriented modifications, has been an important, stabilizing qualitative development in the sector. The value perception in higher education had been challenged by the fact that students were forced into remote education away from the many campus-related, intangible social aspects of college that are often sought by students. With return-to-campus initiatives, spurred by the rollout of COVID-19 vaccines, schools are now better able to convince students that the high cost of tuition is "worth it." Return-on-investment perception is important for colleges and universities and critical for those schools dependent on tuition and student fee-related revenues. According to medians tracked by Moody's, tuition and auxiliary revenue (tied to student services and activities) accounted for 75% of overall revenue for private colleges and universities, and 50% for public colleges and universities.

The return-to-campus scenarios benefit colleges and universities in that student fees and auxiliary campus fees are a vital revenue stream for the majority of schools. Simply having students on campus, utilizing housing, dining, recreational and other services, provides reliable income

for operations and servicing debt, which is often structured around these revenue streams. During the pandemic, auxiliary income was in many cases anemic. This forced schools to utilize other revenues and institutional resources to balance budgets and service debt secured by these revenues or, in many cases, a school's collected portion of student fees assessed on enrollment alone—regardless of the fact that students were not on campus to avail themselves of the services. This led to a large number of lawsuits against universities, the outcomes of which are still largely to be determined.

While, at present, there is insufficient data to analyze the impact of the return to on-campus learning (broad sector reporting from national higher education data repositories lags current semester trends), we do have the benefit of direct reporting from colleges and universities. Not surprisingly, the strongest private and public schools saw record numbers of applications over the course of the most recent application cycle, with Common App reporting a 22% increase in applications to highly selective, large private schools, a 14% increase at their smaller, highly selective private counterparts and a 15.5% increase in applications at large, selective public universities. This trend was driven in part by revisions to application criteria during the pandemic, such as suspension of standardized-test requirements, but most importantly, it points to the market power enjoyed by these schools. Many top-tier public universities have seen record enrollments for fall 2021, illustrating the importance of market power and financial flexibility. This stands in contrast to an overall enrollment reduction at public, four-year universities of 0.6%

As recently reported, several top-tier private and public schools experienced double-digit endowment returns over the past year, made possible by the size of their endowments prior to the pandemic onset and commensurate allocations to investment vehicles available to them by virtue of their large pools of investment assets. This underscores a theme that ties in

closely with the comparative strength of some credits, and could perhaps most succinctly be summed up by the old adage, “the rich get richer, the poor get poorer.” Institutions that entered the pandemic from a position of financial strength and revenue flexibility could more effectively deploy or keep investment assets deployed throughout the pandemic to take advantage of market opportunities. The comparative strength of these schools, as well as those that excel in their respective niches as a result of exceptional market awareness and governance, allow them to better adapt to volatility.

Due to the realities of recruiting students during the pandemic, almost all schools were forced to adapt their recruiting and admissions procedures in some shape or form. In many cases, colleges and universities relaxed selectivity and increased institutional discounting as a means of stabilizing enrollments, and the degree to which institutions were forced to rely on these tools, and their ability to do so, depended largely on their pricing power vis-à-vis student demand and their institutional wealth in the form of endowments.

Application and enrollment data is not as favorable across the whole of the higher education space. Overall applications via Common App dropped by 8% in 2020, with public four-years and private four-years experiencing 11% and 5% application volume reductions, respectively, driven predominantly by undergraduate enrollments. Enrollment for the most recent tabulated academic semester of spring 2021 dropped by 3.5% from 2020, according to Nation Student Clearinghouse data. With a shrinking applicant pool, those schools with the weakest market strength and financial resources suffered most, as they were forced into emergency measures which, for private schools, included increasing institution discounting (that is to say, utilizing the school’s own financial resources to subsidize tuition revenues) or freezing tuition and relaxing selectivity and standards at

the risk of dramatic reductions in class sizes and hurting the school’s reputation and draw, along with reducing in much-needed revenues to support academic operations. Such steps are not easily reversed and can lead to spiraling credit deterioration.

These circumstances have been observable in a number of credits that have seen significant drops in enrollment, with commensurate increases in tuition discounting and weakening selectivity and matriculation. Public universities, particularly those that are not “tier-one” land grant or flagship universities in their states, may also face considerable pressure as their applicant pools decline and enrollments fall, especially where there is a reduction of state aid, which comprises approximately 25% of revenues on average across public higher education.

The public schools most at risk in these instances are often those access-oriented institutions that have no recourse to adjusting admissions standards and are often bound by statutory regulation of tuition revenues. These same schools tend to serve highly regional student bases that may be challenged by demographic shifts. For example, the Pennsylvania State System of Higher Education (PASSHE) recently released data indicating a 5.6% drop in enrollment across its 14 campuses from 2020 to 2021, bringing aggregate system enrollment to 88,651 from a high of nearly 120,000 in 2010. The enrollment challenges faced by PASSHE can be attributed in some part to the impact of the pandemic but, more importantly, in terms of demographic shifts and the relative strengths, weaknesses and positioning of certain institutions within a system that is the largest provider of access to higher education in the state—a fact not lost upon its governing body, which had already embarked on a reorganization of the schools in the system, a process that has benefitted other states faced with managing regional colleges and universities amid demographic shifts, particularly in the Northeast and Midwest.

Recent positive trends in state finances, as well as improvement in public-pension-funded ratios (by virtue of market returns in 2021), stand to benefit public higher education in terms of stabilizing the aid dollars that states devote to higher education and lowering unfunded liabilities allocated to their schools. State aid appropriated to public higher education remained relatively stable in 2021, which, given the scope and potential for massive revenue shortfalls at the state level, was a positive outcome, according to Moody's. This varied by state, underscoring the idiosyncratic, region-by-region nature of the higher education sector and municipal credit as a whole.

Dividing Lines

As the sector continues to evolve, schools that anticipate changes in their markets will be the most competitive—something that applies to all areas of the sector, from flagship systems to smaller, liberal arts schools to specialty credits and local-government sponsored systems. Those schools that fail to adapt due to poor planning, diminishing financial resources, vulnerable market positioning or a lack of pricing power will not be sustainable. That is likely to become more apparent over the next several years, with the potential for volatility in the sector as whole, underscoring the importance of careful credit selection, especially given the current environment characterized by spread compression. As an example, two-year community college systems have seen dramatic overall enrollment drops in recent years, including a 9.5% drop last year, according to National Student Clearinghouse Research data.

Whereas a large number of community colleges operate with outdated curriculums and depend on outdated market assumptions, others have benefitted by meeting the needs of local industries and businesses for targeted training. In other cases, schools have benefitted from strategic integrations with state institutions, which illustrates the need to evaluate each of these credits on a case-by-case basis, factoring in both school enrollment trends and the financial health of the institution and its sponsoring government. Affiliation and support relationships are critical for all types of higher-education credits, ranging from community colleges to auxiliary revenue systems and off-balance-sheet student housing projects. The ability to identify relative value and discern those credits that are likely to underperform or deteriorate depends on evaluating how the school functions and demonstrates its capabilities within its particular market.

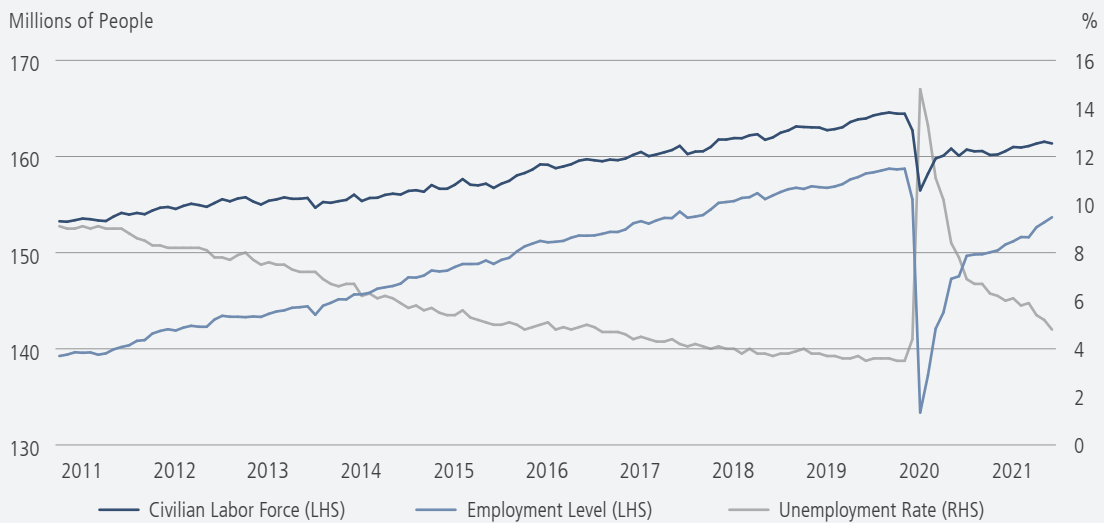
It is also important to understand the potential impact of macroscopic developments, including, for example, policy in the federal student loan space, as evidenced by recent measures directed toward the Public Service Loan Forgiveness and Total and Permanent Disability loan programs, as well as federal initiatives to subsidize and increase the affordability of higher education.

While we believe these measures will have a relatively limited impact on the industry, it is possible we will see more comprehensive initiatives with the potential to alter the credit calculus for certain sectors of higher education.

Municipal Insights

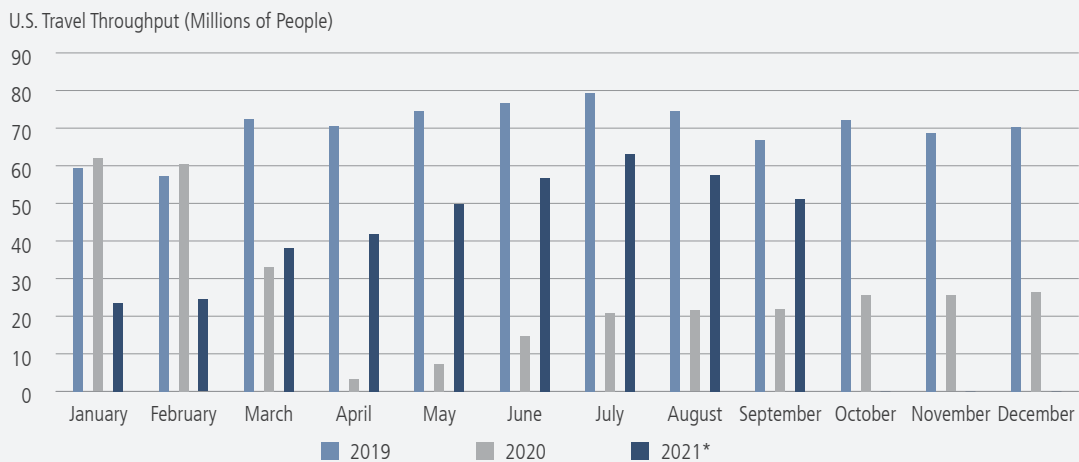
Key Data to Watch

UNEMPLOYMENT HAS EASED BUT LABOR PARTICIPATION IS STILL BELOW PRE-COVID LEVELS



Source: U.S. Bureau of Labor Statistics, through September 2021.

ECONOMIC RECOVERY IS REFLECTED IN INCREASED TRAVEL



Source: TSA. *2021 data through September.

This material is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice. This material is general in nature and is not directed to any category of investors and should not be regarded as individualized, a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. Investment decisions and the appropriateness of this material should be made based on an investor's individual objectives and circumstances and in consultation with his or her advisors. Information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. The firm, its employees and advisory accounts may hold positions of any companies discussed. All information is current as of the date of this material and is subject to change without notice. Any views or opinions expressed may not reflect those of the firm as a whole. Neuberger Berman products and services may not be available in all jurisdictions or to all client types.

This material may include estimates, outlooks, projections and other "forward-looking statements." Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed. Investing entails risks, including possible loss of principal. Investments in hedge funds and private equity are speculative and involve a higher degree of risk than more traditional investments. Investments in hedge funds and private equity are intended for sophisticated investors only. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results.**

This material is being issued on a limited basis through various global subsidiaries and affiliates of Neuberger Berman Group LLC. Please visit www.nb.com/disclosure-global-communications for the specific entities and jurisdictional limitations and restrictions.

The "Neuberger Berman" name and logo are registered service marks of Neuberger Berman Group LLC.

NEUBERGER	BERMAN
-----------	--------

Neuberger Berman
1290 Avenue of the Americas
New York, NY 10104-0001