The $1.9 trillion American Rescue Plan Act (ARP), which was enacted in March 2021, has and will provide significant support to municipal bond issuers nationwide. Through economic stimulus and direct aid, we believe the funds will meaningfully increase near-term revenues for state and local governments, schools, and transit systems. Most municipalities proved to be resilient over the past 12 months, as tax revenues did not decline as much as had been expected, and many came into the pandemic with sizable rainy-day funds. Therefore, it is our view that the aid will not only support economic recovery but likely will also stimulate future growth.

The ARP is the third in a series of stimulus packages that also included the $1.8 trillion CARES Act passed in March 2020 and the $900 billion Consolidated Appropriations Act (CAA) passed in December 2020. (See Figure 1.)

Although state and local governments received $150 billion of direct aid through the prior two plans, those monies could only be spent to offset COVID-related expenses already incurred. ARP directs $351 billion to state and local governments and provides them with a wider discretionary berth. The only limitations are that the funds cannot be used to offset tax-rate decreases or to pay down funding pension liabilities.

The impact of the stimulus funding for state and local governments will be felt over a two-year period, as 50% of the funds will be paid within 60 days of enactment and the other 50% no earlier than one year later. The legislation also requires that the monies be spent by 2024.

Pursuant to the ARP, $195 billion will be allocated among the states based on each state’s relative unemployment rate. According to Moody’s, this is equivalent to nearly 16% of fiscal 2019 state own-source revenue. Highly rated states like California, Texas, New York, and Florida will all receive more than $10 billion each. Lower rated states like Illinois and New Jersey will receive $7.5 billion and $6.4 billion, respectively. The state aid amounts are sufficient to cover recorded fiscal 2020-21 budget cuts and budget expenditure increases for every state.

Local governments will directly receive a total of $130 billion, which will be distributed based on a formula that incorporates growth, population, housing, and poverty. Some of the largest city allocations include New York- $4.3 billion, Philadelphia- $1.1 billion, Chicago- $2.0 billion, and Los Angeles- $1.3 billion.

Stimulus funding from the ARP is not limited to state and local governments. Other major provisions include $126 billion for K-12 education, $40 billion for higher education, $30 billion for mass transit, $8 billion for rural hospitals, and $8 billion for airports. Municipal issuers will also benefit indirectly through the ARP provisions, which send checks to individuals and expand unemployment insurance, both of which should stimulate economic activity.

Although the stimulus payments will close budget gaps for many governments in the short term, it will not change the long-term credit fundamentals of those that have structural imbalances. The aid is a one-time infusion of money, so it is important that the funds are not used for recurring programs that will require new funding sources once the stimulus runs out. Ideally, they should be used for such purposes as paying down debt, offsetting COVID-19-related expense spikes, and offsetting short-term tax revenue loss.

How might individual municipal issuers benefit from the ARP stimulus? Here, we provide three case studies.

School District: Los Angeles Unified School District

Los Angeles Unified School District (LAUSD) is the second largest school district in the United States, with an enrollment of over 450,000 K-12 students. LAUSD has a very large tax base and good finances yet faced significant operating challenges because of the pandemic and the shift to online learning.
From March 2020 through December 2020, the school district incurred approximately $700 million of additional costs related to the pandemic. In addition, enrollment has been declining for the past several years, and this was exacerbated by the pandemic. Fortunately, the fiscal 2020-21 state budget included a hold-harmless provision for the purpose of calculating state funding, which is tied to enrollment levels. However, this provision is not expected to continue beyond 2021-22, and LAUSD was projecting a structural budget imbalance in fiscal 2023.

Favorably, the federal government has provided states and local governments, including school districts, with a large pool of stimulus funding. Through various relief bills, LAUSD has been allocated nearly $5 billion in funding. Of that amount, $2.7 billion comes from the ARP, which features flexible spending requirements. In total, stimulus funding equates to approximately 55% of LAUSD’s fiscal 2020 revenues and 150% of fiscal 2020 fund balance. On an interim basis LAUSD reports an operating surplus, even when excluding the most recent stimulus dollars. The additional federal funding provides LAUSD with significant flexibility to address its projected structural imbalance.

<table>
<thead>
<tr>
<th>Sector</th>
<th>American Recue Plan (March 2021)</th>
<th>December 2020 Stimulus</th>
<th>CARES Act (March 2020)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>States ^1</td>
<td>219,800,000,000</td>
<td>-</td>
<td>150,000,000,000</td>
<td>369,800,000,000</td>
</tr>
<tr>
<td>Locals ^2</td>
<td>132,000,000,000</td>
<td>-</td>
<td>-</td>
<td>132,000,000,000</td>
</tr>
<tr>
<td>School Districts</td>
<td>126,000,000,000</td>
<td>54,300,000,000</td>
<td>13,500,000,000</td>
<td>193,800,000,000</td>
</tr>
<tr>
<td>Healthcare Providers ^3</td>
<td>8,500,000,000</td>
<td>3,000,000,000</td>
<td>175,000,000,000</td>
<td>186,500,000,000</td>
</tr>
<tr>
<td>Higher Education ^4</td>
<td>39,600,000,000</td>
<td>21,200,000,000</td>
<td>14,000,000,000</td>
<td>74,800,000,000</td>
</tr>
<tr>
<td>Airlines</td>
<td>15,000,000,000</td>
<td>15,000,000,000</td>
<td>25,000,000,000</td>
<td>55,000,000,000</td>
</tr>
<tr>
<td>Airports</td>
<td>8,000,000,000</td>
<td>2,000,000,000</td>
<td>10,000,000,000</td>
<td>20,000,000,000</td>
</tr>
<tr>
<td>Transit</td>
<td>30,500,000,000</td>
<td>14,000,000,000</td>
<td>25,000,000,000</td>
<td>69,500,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>579,400,000,000</strong></td>
<td><strong>109,500,000,000</strong></td>
<td><strong>412,500,000,000</strong></td>
<td><strong>1,101,400,000,000</strong></td>
</tr>
</tbody>
</table>

Source: Lord Abbett. Data compiled March 22, 2021. For illustrative purposes only.

From March 2020 through December 2020, the school district incurred approximately $700 million of additional costs related to the pandemic. In addition, enrollment has been declining for the past several years, and this was exacerbated by the pandemic. Fortunately, the fiscal 2020-21 state budget included a hold-harmless provision for the purpose of calculating state funding, which is tied to enrollment levels. However, this provision is not expected to continue beyond 2021-22, and LAUSD was projecting a structural budget imbalance in fiscal 2023.

Favorably, the federal government has provided states and local governments, including school districts, with a large pool of stimulus funding. Through various relief bills, LAUSD has been allocated nearly $5 billion in funding. Of that amount, $2.7 billion comes from the ARP, which features flexible spending requirements. In total, stimulus funding equates to approximately 55% of LAUSD’s fiscal 2020 revenues and 150% of fiscal 2020 fund balance. On an interim basis LAUSD reports an operating surplus, even when excluding the most recent stimulus dollars. The additional federal funding provides LAUSD with significant flexibility to address its projected structural imbalance.
Health System: CommonSpirit Health

CommonSpirit Health is the largest not-for-profit hospital system in the United States, with nearly $30 billion in annual operating revenue and operations in 21 states. Like almost all healthcare providers, CommonSpirit saw a precipitous drop in patient volume in April 2020, as many states imposed temporary bans on elective procedures. During that month, CommonSpirit’s admissions dropped to less than 70% of pre-pandemic levels. Recovery began in May 2020, but as of December 31, 2020, volumes were still below pre-pandemic levels.

Despite the loss of patient volume, CommonSpirit’s financial performance through December 31, 2020 was stronger than the prior-year period. Financial support from the federal government in the form of CARES Act grants was an important driver to performance. In total, CommonSpirit received $1.4 billion of these stimulus payments. Without these funds, CommonSpirit notes in their financial disclosure that the EBITDA (earnings before interest, taxes, and depreciation & amortization) margin would have been 30% lower. The CARES Act funds were an important lifeline for many healthcare systems, hospitals, and other providers during the pandemic, and importantly, the CARES Act grants do not need to be repaid to the federal government.

In addition to the CARES Act funds, CommonSpirit received $2.7 billion of advance payments from Medicare. The Medicare Accelerated and Advanced Payments Program distributed approximately $100 billion to healthcare providers in the early months of the pandemic. Unlike the CARES Act grants, these advance payments will be recouped by the federal government over a period of 29 months, beginning one year from the date a provider received the advance payment. It is important to note, however, that by advancing these funds, the federal government provided critical liquidity support during a period of tremendous pandemic-induced strain. This allowed hospitals and health systems to focus on managing their clinical operations.

<table>
<thead>
<tr>
<th>CARES Act Grants</th>
<th>Medicare Advances</th>
<th>EBITDA Margin Excluding CARES Act Grants</th>
<th>Total Cash and Investments</th>
<th>Days Cash on Hand</th>
<th>Days Cash on Hand Excluding Medicare Advances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,400,000,000</td>
<td>2,700,000,000</td>
<td>9.2%</td>
<td>6.4%</td>
<td>17,910,000,000</td>
<td>224</td>
</tr>
</tbody>
</table>


Airport: Los Angeles International Airport

As a vital transportation sector, airports are key to a broader U.S. economic recovery. During the pandemic, the federal government recognized airports’ importance and offered significant fiscal support through the stimulus programs.

Like all airports, Los Angeles International Airport’s (LAX) passenger traffic ground to a halt at the start of the pandemic—it was 96% lower in April 2020 compared to April 2019. Enplanements have slowly recovered over the past year, although traffic in the month of March 2021 was still 65% lower than pre-pandemic levels. Prior to the pandemic, approximately 30% of enplanements were for international travel, which has recovered much more slowly than domestic traffic due to travel restrictions.
Despite the large decline in enplanements, LAX’s credit fundamentals remain strong due to the infusion of a large amount of federal fiscal stimulus. LAX was allocated $324 million of CARES Act grants, which represents around 24% of annual operating revenues. The federal aid package passed in December 2020 allocated an additional $72 million for LAX. Additional funding through the ARP will also be allocated to LAX, although the federal government has not yet released allocation amounts. Funding through the federal stimulus programs is being used by LAX to address near-term operating pressure caused by the pandemic, to help cover operating expenses, and to maintain debt service coverage levels. Liquidity levels remain very strong; as of November 30, 2020, the airport held over 500 days cash on hand.

Social bonds represent a growing segment of the global bond market with approximately $148 billion of issuance in 2020, a significant increase from the $18 billion issued in 2019. Social bonds raise funds to finance or refinance projects that mitigate a specific social issue or seek to achieve positive social outcomes. These bonds can be self-designated (assessed and quantified by the issuer) and/or verified by an external party.

These types of bonds are not new to the municipal bond market, but rather most have been issued for decades, so we have a lot of experience analyzing them. The only difference today, in most cases, is that they are now getting explicitly characterized as social bonds to make sure the public can understand that many of the issuers that have historically borrowed money through the municipal bond market have always been strong ESG issuers.

The International Capital Market Association (ICMA) has published a set of “social bond principles” that provide criteria for eligible projects to be considered social bonds. According to the ICMA, social projects typically fall into the following categories:

- Affordable basic infrastructure
- Access to essential services
- Affordable housing
- Employment generation and programs developed to prevent or alleviate unemployment stemming from socioeconomic crises
- Food security and sustainable food systems
- Socioeconomic advancement and empowerment

ICMA's social bond principles call for an analysis of the use of proceeds, the issuer's process for project evaluation and selection, and the active management of proceeds and annual reporting until full allocation. Appropriate management of proceeds is accomplished by crediting proceeds of a borrowing to subaccounts or otherwise tracking the funds to ensure intended use. In addition, the ICMA recommends an external review to provide a second party opinion, verification, certification, or a scoring/rating.

Current Focus: Housing and Education

Most of the social bond issuance thus far has been in the housing and education sectors. Affordable housing is one of the project-specific areas highlighted by the ICMA. There are a variety of affordable housing programs financed in the municipal bond market by social bonds including multifamily housing, which restricts occupancy to low-income renters; workforce housing, which restricts occupancy to middle-income renters; and single-family housing loan portfolios backed by loans to income-qualified buyers. Charter schools have qualified as well due to the social benefits of education coupled with the socioeconomic advancement and empowerment of students from underserved communities.

A recent example of a social bond is the April 2021 $100,000,000 Residential Mortgage Revenue bonds issued by the Texas Department of Housing and Community Affairs. Oregon-based financial consultancy Kestrel Verifiers provided a second-party opinion to the Department's social bond designation. The use of proceeds aligns with the goals of affordable housing, access to essential services, and socioeconomic advancement by providing financing for low- and moderate-income, first-time homebuyers. Proceeds of the bonds will be used to construct housing for low- and moderate-income individuals and families.

Thus far, the largest charter school social bond was issued in August 2020 by Equitable School Revolving Fund (ESRF) in the amount of $171 million. The bonds were also verified by Krestel Verifiers. The transaction provided funding for 22 different charter school projects across the country serving low-income and underserved students and intended to improve public education for children. Use of proceeds conformed to essential services and socioeconomic advancement project categories.

ESG: Getting to Know Social Bonds

The social bond designation is an important starting point in our detailed assessment of municipal securities' adherence to ESG criteria.

by Yeida Reyes, Research Analyst and Derek Gabrish, CFA, Research Analyst
How Does the Social Bond Designation Relate to ESG?

Social impact is a key component of the ESG score we use when assessing potential investments. While there is significant overlap between the social bond framework and broader ESG frameworks, at Lord Abbett, we look beyond a project-based approach analysis and review the issuer/obligor holistically to assign an internal ESG score. We apply the spirit of the United Nations’ Sustainable Development Goals (SDGs) to assess the social benefits generated by an obligor.

Our scoring of municipal debt issued by charter schools offers an example of our approach. While charter schools in general are set up to address the growing disparities in educational opportunities and academic outcomes among students of different economic backgrounds, our ESG score attempts to rank entities relative to one another across the following SDGs:

- **Quality Education (SGD 4)** – we look at academic performance as measured by school ratings and test scores as compared to local school districts, student retention, teacher retention, teacher credentials, parent satisfaction, and other similar metrics.

- **Poverty Reduction and Economic Growth (SDG 1 & 8)** – high school graduation rates, post-graduation outcomes, and breadth of offerings such as technical education programs are all factors that we consider.

- **Reduced Inequalities (SDG 10)** – programs such as bilingual education and English proficiency, mental care and college/career counseling, and the concentration of low-income students served as measured by percentage of students qualifying for free or reduced lunch are key factors. We also evaluate the response to acute events like the COVID-19 pandemic, where an entity’s ability to acquire and deploy the necessary resources to adapt and shift to remote learning without leaving the most vulnerable students behind has been critical.

Charter schools with the strongest social scores tend to operate in under-resourced communities and provide strong educational outcomes. This aligns with lower credit risk because an academically high-performing school will typically show robust demand (waitlists) and is less likely to face obstacles such as charter reauthorizations.

On a project level, we take a deeper dive beyond the social bond designation by analyzing factors such as environmental impacts of a project and climate change risk. For example, a housing project analysis would prompt a review of any environmental studies that accompany that project. In certain areas such as California, we also look at seismic reports, given the increased risk of earthquakes.

A Final Word

Every time we review a new investment, we assign it an ESG rating, and for as long as we hold it, we review our ESG rating at least annually and sometimes more frequently. While sectors such as housing and charter schools clearly have strong social intentions, our ESG methodology goes deeper to compare entities’ actual performance to help us determine a more meaningful, results-based rating.

Article sources:
- [https://sdgs.un.org/goals](https://sdgs.un.org/goals)
The COVID-19 pandemic has arguably made the senior living industry a challenging segment of the municipal bond market. Although most continuing care retirement communities (CCRCs) faced stress, the impact on individual facilities was not uniform. Amid the pandemic, some have had to contend with increased costs for staff and equipment as well as move-in restrictions from state health agencies, causing significant declines in occupancy. In 2020, some $766 million of municipal bonds issued for senior living communities defaulted, with an additional $425 million doing the same in 2021 (through May 2021), according to data compiled by Bloomberg. But context is important here: This is a relatively low default rate of approximately 3% when considering that there are approximately $36 billion of CCRC bonds outstanding. Within the municipal bond market, this sector has been one of the very few facing any distress. Negative headlines and media reports have had a material impact on sales in the industry, and key indicators such as overall inquiries from prospective residents, and facility operators’ Web traffic, have seen a significant decline.

While the sector remains under pressure, signs of recovery are emerging. A high rate of vaccination among the elderly is alleviating the public’s fears about these facilities. Move-in moratoriums are being lifted, and operators are once again receiving inquiries from prospective residents, which should drive a gradual increase in occupancy. Be that as it may, the recovery is likely to take at least a year, and certain organizations are better positioned for success than others.

The onset of the pandemic forced investors to reassess their senior living bond portfolios, a process that continues as credit selection takes on greater importance. We believe that organizations with certain features and capabilities will succeed, and we have over-weighted such specific credits in our high-yield portfolio while underweighting the sector overall. Those credits with strong liquidity cushions, successful marketing strategies, and tools to address the dramatic challenges in the senior nursing segment are expected to withstand the ongoing challenges related to COVID-19.

Help from the Government

Senior living organizations were the recipients of significant government stimulus funds, with most receiving monies from both the CARES Act and the Paycheck Protection Program. Most of these stimulus funds will not need to be repaid and have served as a meaningful buffer to organizations’ liquidity. While most CCRCs benefited significantly from this assistance, many of them nonetheless maintain a modest liquidity position relative to operating expenses. We believe those organizations that entered the pandemic with strong liquidity and additionally benefited from stimulus funds are the best positioned to withstand the operating volatility accompanying the COVID-19 pandemic.

In addition, those organizations that tailored their marketing strategies in response to the pandemic have seen more success in retaining the interest of prospective residents and are likely to see a relatively faster pickup of reservations and move-ins in the coming months. Strategies have included sharing videos of existing residents or early depositors, hosting events that form connections between existing and potential residents, and offering prospective residents online tools to select units. In addition, facility operators have expanded their reach through an enhanced digital presence to appeal to younger seniors and their adult children.
There are typically three types of units in a CCRC, which are independent living, assisted living, and skilled nursing. While occupancy has remained somewhat stable in the first two types, occupancy in the skilled nursing units remains challenged due to lower elective cases at hospitals, more rigorous admission protocols, and changing consumer preferences. As hospital referrals to CCRCs’ skilled nursing units all but dried up during the pandemic, management teams have had to rethink their skilled nursing strategies, including size, staffing, and bed configuration. Management teams may need to consider rightsizing these facilities, as home health increasingly becomes CCRCs’ main competitor, a trend accelerated by the COVID-19 pandemic. In addition, hospital discharge planners are strongly advising CCRC residents to only go into private rooms, which could force CCRC facilities to convert double rooms into single rooms.

A Final Word
The CCRC sector has weathered a formidable storm. We have witnessed a remarkable resilience among operators, particularly those with experienced and proactive management teams. Overall, the demographics of the baby boomer generation reaching retirement age remains a positive tailwind for this sector and an attractive reason for continuing to review investments in the sector. Lord Abbett will continue to opportunistically select attractive CCRC investments for its high-yield portfolio to ensure that we only hold those senior living credits we believe are positioned to thrive in a changing landscape.
How the Airport Sector Held Steady Through the Pandemic

Despite a sharp drop in passenger volumes, airports’ revenue structure, robust liquidity positions, and capital spending flexibility helped them maintain a strong financial footing.

by Roman Schuster, Associate Research Analyst

The airport sector has shown tremendous resilience during the past year despite strong headwinds from the coronavirus pandemic. Travel ground to a halt during the onset of the global outbreak, with April 2020 enplanements (a measure of passenger boarding) down 95% versus the same month in the prior year, due to a combination of shelter-in-place orders and travel restrictions (from the Transportation Security Administration). Despite what would seem like a near-total shutdown of the sector, most airports did not experience material financial stress over the past year.

Why? The first reason is that airport revenues are not directly linked to enplanements. Instead, they are mainly derived from the use agreements that these facilities establish with airlines and concessionaires; the most common form of these agreements provides for cost-sharing mechanisms. This means that when enplanements fall, and there are accordingly fewer flights scheduled to land, and thus fewer customers for airport-linked businesses like car-rental agencies, the airport does not have to shoulder the full burden of these revenue declines but gets to pass on the cost in the form of higher terminal fees to airlines. It also means that aid to airlines under various government programs related to COVID-19 relief, which has amounted to nearly $54 billion since March 2020, indirectly benefits airports because it lessens the chance that the airlines will be unable to pay their required fees.

A second reason why airports have remained resilient is that they entered the pandemic with historically strong liquidity positions, and, like their airline tenants, received significant federal aid over the past year. The average amount of cash and investments held by airports we cover amounted to 575 days cash on hand as of the end of fiscal 2019, and has not materially declined, based on 2020 audits that have been released. Airports’ persistently strong liquidity reflects (1) their revenue structure; (2) the $10 billion in federal aid distributed to operators in the CARES act; and (3) the fact that the airports were able to quickly cut expenditures as traffic began to crumble. Many airports temporarily closed terminals and cut contracted services, and due to the expansionary nature of their capital plans, were able to significantly reduce capital expenditures and push back plans for additional debt.

The final big factor that will continue to benefit airports is essentiality. Airports have no significant competition for long-distance domestic and international travel except each other, and when travel returns to pre-pandemic levels, airline passengers will be reaching their destinations through the same airports they always have. Airports are not only essential to travelers, but to airlines as well. Prior to the pandemic we had considered diversity in airline mix as a credit strength for airports, as it reduced reliance on one or two large payers. However, during the pandemic we saw that concen-
Summing Up
We continue to believe that airports will remain strong credits as the recovery continues. Enplanement recovery has started to accelerate since March 2021, as vaccines have become widely available in much of the United States. After stalling out at 60% below 2019 levels for the entirety of November 2020 through February 2021, year-over-year enplanements were down just 47% in March and 40% in April; thus far in May, the decline has fallen to around 36%. Airports that have a higher percentage of domestic travel have recovered more rapidly, but as other countries are able to vaccinate their populations, we expect international travel to recover as well.
MUNI MARKET MONITOR
As of May 28, 2021

Returns for Bloomberg Barclays Municipal Bond Indexes*

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>through 05/28/2021</th>
<th>3-Year Annualized Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal Index</td>
<td>0.78%</td>
<td>5.07%</td>
</tr>
<tr>
<td>Municipal Index GO Bond Index</td>
<td>0.36%</td>
<td>5.11%</td>
</tr>
<tr>
<td>Municipal Index Revenue Bond Index</td>
<td>1.03%</td>
<td>5.22%</td>
</tr>
<tr>
<td>Municipal Index High Yield</td>
<td>4.80%</td>
<td>6.58%</td>
</tr>
<tr>
<td>Municipal Index 1-5 Yr.</td>
<td>0.33%</td>
<td>2.87%</td>
</tr>
<tr>
<td>Municipal Index 3-15 Yr, Blend</td>
<td>0.46%</td>
<td>4.83%</td>
</tr>
<tr>
<td>Municipal Index Long Bond (22+)</td>
<td>1.63%</td>
<td>6.15%</td>
</tr>
<tr>
<td>Municipal Index California Tax Exempt</td>
<td>0.40%</td>
<td>5.01%</td>
</tr>
<tr>
<td>Municipal Index New Jersey Tax Exempt</td>
<td>1.98%</td>
<td>5.99%</td>
</tr>
<tr>
<td>Municipal Index New York Tax Exempt</td>
<td>1.15%</td>
<td>4.66%</td>
</tr>
</tbody>
</table>

Source: Bloomberg.
*As represented by Bloomberg Barclays indexes for each category (see “Important Information” below).

Past performance is no guarantee of future results. Due to market volatility, the asset classes depicted in this table may not perform in a similar manner in the future. For illustrative purposes only and does not represent any specific portfolio managed by Lord Abbett or any particular investment. Indexes are unmanaged, do not reflect the deduction of fees or expenses and expenses, and are not available for direct investment.

- Municipal bonds (as represented by the Bloomberg Barclays Municipal Bond Index) produced positive returns of 0.78% for first five months of 2021. Municipal bonds outperformed Treasuries, as the Bloomberg Barclays U.S. Treasury Bond Index had negative returns of 3.20% during the same period.
- The broader Bloomberg Barclays U.S. Aggregate Bond Index returned negative 2.29%, underperforming the municipal index. Further, because municipal bond interest is not federally taxable, municipal bond return outperformance was more significant on an after-tax basis.
- Treasury rate increases, particularly during February and March, drove negative returns across most fixed income asset classes. The increase in Treasury rates reflected U.S. investor optimism about coronavirus vaccines and Democrats’ proposed new round of economic stimulus.
- Even with the rise in Treasury rates, municipal bonds had positive returns due to constructive supply/demand dynamics.
- High yield bonds had the best performance in the municipal market, as the Municipal High Yield Index returned 4.80%.
- Investment-grade general obligation bonds posted lower returns than investment-grade revenue bonds, while longer duration high-grade bonds generally outperformed short and intermediate bonds.

Yield Curve Changes for ‘AAA’ Rated General Obligation Bonds

- Except for the first two years, municipal yields moved higher at all points on the curve during the first five months of 2021.
- The municipal bond yield curve steepened at the short and intermediate parts of the curve and flattened at the long end. While the spread between the 10-year and the 30-year bond yield decreased by 16 basis points (bps), the spread between the 2 year and the 10-year bond yield increased by 32 bps.
- That said, the municipal bond curve remains flatter than the Treasury curve. The yield difference between the one-year and 30-year maturities for municipal bonds was 144 bps, as compared to 223 bps for Treasury bonds.
• Fund flows for the first five months of 2021 were $48 billion. The current year-to-date inflow is the fourth highest among full-year, calendar inflows since the inception of the data in 1992.
• Demand for tax-exempt municipal bonds continues to be spurred in large part by fiscal stimulus, the positive outlook for the economy, and the possibility of higher income tax rates.
• Fund flows have been strongest for long-term funds, with high yield funds seeing significant flows for the past several months as well.

Municipal Bond Yield Ratios versus U.S. Treasuries of Comparable Maturity

<table>
<thead>
<tr>
<th>Maturity</th>
<th>12/31/2020</th>
<th>5/28/2021</th>
<th>'21 YTD High</th>
<th>'21 YTD Low</th>
<th>5-Year High</th>
<th>5-Year Average</th>
<th>5-Year Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Yr.</td>
<td>116.7%</td>
<td>66.7%</td>
<td>166.7%</td>
<td>38.9%</td>
<td>801.8%</td>
<td>93.7%</td>
<td>38.9%</td>
</tr>
<tr>
<td>5-Yr.</td>
<td>61.1%</td>
<td>60.0%</td>
<td>86.9%</td>
<td>39.3%</td>
<td>625.3%</td>
<td>82.9%</td>
<td>39.3%</td>
</tr>
<tr>
<td>10-Yr.</td>
<td>77.2%</td>
<td>62.3%</td>
<td>81.6%</td>
<td>54.6%</td>
<td>363.6%</td>
<td>91.3%</td>
<td>54.6%</td>
</tr>
<tr>
<td>30-Yr.</td>
<td>84.2%</td>
<td>66.5%</td>
<td>84.3%</td>
<td>65.1%</td>
<td>252.0%</td>
<td>97.8%</td>
<td>65.1%</td>
</tr>
</tbody>
</table>

Source: Thomson Reuters MMD.

• While ‘AAA’-rated muni/Treasury ratios have decreased at all parts of the curve, they declined most significantly at the long end, and they remain below the five-year averages. However, these levels are more in line with ratios that were reported prior to 2008.
• Technicals remain constructive for municipal bonds, as there were strong, positive fund flows and a manageable level of municipal bond issuance during the first five months of 2021. New issuance was $178 billion for the first five months of 2021, up 13% from the year-earlier period. In addition, taxable municipal bonds accounted for $44 billion of new issuance (25% of total), as compared to $38 billion (24% of total) for the same period in 2020.
• Year over year, new money issuance increased by 42%, while refundings decreased by 21%. The decline in refundings reflects the U.S. tax law enacted in late 2017 which prohibited the use of tax-exempt bonds for advance refundings. However, this has also resulted in an increase in issuance related to the advance refunding of tax-exempt bonds with taxable bonds.
ABOUT THE AUTHORS

Eric M. Friedland, CFA
As Director of Municipal Bond Research, Mr. Friedland is responsible for managing Lord Abbett’s municipal bond research group, which makes credit recommendations to the portfolio managers for the purchase of municipal bonds in the primary and secondary market. In this role, he also oversees credit surveillance of the municipal bonds held in the mutual funds and separately managed accounts.
Mr. Friedland began his career in the financial services industry in 1985 and joined Lord Abbett in 2015.
Mr. Friedland earned a BA from the State University of New York at Albany, an MS from Northeastern University Graduate School of Accounting, and an MBA from Duke University Fuqua School of Business. He also is a holder of the Chartered Financial Analyst® (CFA) designation.

Sarah V. Ali, MPA
Sarah Ali is a Research Analyst for Lord Abbett’s Municipal Bond Research team, which supports all the tax-free, fixed-income capabilities.
Ms. Ali joined Lord Abbett in 2019. Her previous experience includes serving as Vice President - Municipal Credit Analyst (Healthcare) at PIMCO; Director, Municipal Credit Analyst at Metlife Investments; and various roles at Moody’s Investors Service. She has worked in the financial services industry since 2005.
She earned a BA in political science from the University of Notre Dame and an MPA from New York University.

Derek A. Gabrish, CFA
Derek Gabrish is a Research Analyst for Lord Abbett’s Municipal Bond Research team.
Mr. Gabrish joined Lord Abbett in 2016. His prior experience includes serving as Municipal Analyst and Associate Research Analyst Fixed Income at Federated Investors. He has worked in the financial services industry since 2010.
He earned a BS in finance from The Pennsylvania State University and is a holder of the Chartered Financial Analyst® (CFA) designation.
Kari T. Gauster
Kari Gauster is a Research Analyst for Lord Abbett’s Municipal Bond Research team.
Ms. Gauster joined Lord Abbett in 2011. Her previous experience includes serving as Treasury Associate, International Insurance and Investments at Prudential Financial Inc; Public Finance Surveillance Analyst at Financial Guaranty Insurance Group; and Associate Analyst at Moody’s Investors Service. She has worked in the financial services industry since 2005.
She earned a BA in German studies from Lawrence University and an MPA from New York University’s Robert F. Wagner Graduate School of Public Service.

Yeida S. Reyes
Yeida Reyes is a Research Analyst for Lord Abbett’s Municipal Bond Research team.
Ms. Reyes joined Lord Abbett in 2015. Her previous experience includes serving as Vice President, Education & Nonprofits Division at U.S. Bank N.A. and Associate, Municipal Underwriting Group and Analyst, Municipal Oversight Group at Financial Security Assurance. She has worked in the financial services industry since 2005.
She earned a BS in accounting from New York University’s Leonard N. Stern School of Business.

Roman Schuster
Roman Schuster is an Associate Research Analyst for Lord Abbett’s Municipal Bond Research team.
Mr. Schuster joined Lord Abbett in 2016. He has worked in the financial services industry since 2016.
He earned a BA in economics from the University of Pennsylvania.
IMPORTANT INFORMATION

This commentary may contain assumptions that are “forward-looking statements,” which are based on certain assumptions of future events. Actual events are difficult to predict and may differ from those assumed. There can be no assurance that forward-looking statements will materialize or that actual returns or results will not be materially different from those described here.

This material is provided for general and educational purposes only. It is not intended as an offer or solicitation for the purchase or sale of any financial instrument, or any Lord Abbett product or strategy. References to specific asset classes and financial markets are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations or investment advice.

This material is provided for general and educational purposes only. It is not intended as an offer or solicitation for the purchase or sale of any financial instrument, or any Lord Abbett product or strategy. References to specific asset classes and financial markets are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations or investment advice.

Past performance is not a reliable indicator or a guarantee of future results.

A Note about Risk: The value of an investment in fixed-income securities will change as interest rates fluctuate and in response to market movements. As interest rates fall, the prices of debt securities tend to rise. As rates rise, prices tend to fall. Investing in the bond market is subject to risks, including market, interest-rate, issuer, credit, inflation risk, and liquidity risk. The municipal bond market may be impacted by unfavorable legislative or political developments and adverse changes in the financial conditions of state and municipal issuers or the federal government in case it provides financial support to the municipality. Income from the municipal bonds held could be declared taxable because of changes in tax laws. Certain sectors of the municipal bond market have special risks that can affect them more significantly than the market as a whole. Because many municipal instruments are issued to finance similar projects, conditions in these industries can significantly affect an investment. Income from municipal bonds may be subject to the alternative minimum tax. Federal, state and local taxes may apply. Investments in Puerto Rico and other U.S. territories, commonwealths, and possessions may be affected by local, state, and regional factors. These may include, for example, economic or political developments, erosion of the tax base, and the possibility of credit problems.

GLOSSARY OF TERMS

Treasuries are debt securities issued by the U.S. government and secured by its full faith and credit. Income from Treasury securities is exempt from state and local taxes.

A basis point is one one-hundredth of a percentage point.

The CARES (Coronavirus Aid, Relief, and Economic Security) Act is a $2 trillion stimulus passed by the U.S. Congress in March 2020, to blunt the impact of an economic downturn set in motion by the global coronavirus pandemic.

Environmental, social, and governance (ESG) criteria are a set of standards for a company’s operations that socially-conscious investors use to screen potential investments.

As defined by the World Bank, green bonds are fixed-income securities that support the financing of climate-friendly projects worldwide.

General obligation (GO) bonds are municipal bonds backed by the “full faith and credit” of a government, and are issued by entities such as states, cities, counties, and school districts.

Revenue bonds are municipal bonds backed by revenues from a specific projects or facilities (such as toll roads, water/sewer systems, or airports).

Yield is the annual interest received from a bond and is typically expressed as a percentage of the bond’s market price. Spread is the difference in yield between two different investments.

Yield curve is a line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates. The most frequently reported yield curve compares the three-month, two-year, five-year and 30-year U.S. Treasury debt. This yield curve is used as a benchmark for other debt in the market, such as mortgage rates or bank lending rates. The curve is also used to predict changes in economic output and growth.

The Bloomberg Barclays Municipal Bond Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. Bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two ratings agencies. They must have an outstanding par value of at least $7 million and be issued as part of a transaction of at least $75 million. The bonds must be fixed rate, have a dated-date after December 31, 1990, and must be at least one year from their maturity date.

The Bloomberg Barclays General Obligation Municipal Bond Index and Bloomberg Barclays Revenue Bond Municipal Bond Index are category-specific subgroups of the Bloomberg Barclays Municipal Bond Index.

The Bloomberg Barclays Municipal Bond Short 1-5 Year Index is the Muni Short 1-5 year component of the Bloomberg Barclays Municipal Bond index.

The Bloomberg Barclays High Yield Municipal Bond Index is an unmanaged index consisting of non-investment-grade, unrated or below Baa1 bonds.

The Bloomberg Barclays Long Current Coupon (22+ Years) Municipal Bond Index is a total return benchmark designed for long-term municipal assets. The index includes bonds with a minimum credit rating of BAA3, issued as part of a deal of at least $50 million, with an amount outstanding of at least $5 million and a maturity of 22 years or greater, with a dollar price of $96 to $104, and issued after December 31, 1990.

The Bloomberg Barclays U.S. Aggregate Bond Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment-grade, fixed-rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. Total return comprises price appreciation/depreciation and income as a percentage of the original investment.

The Bloomberg Barclays U.S. Treasury Bond Index measures US dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Indexes are unmanaged, do not reflect the deduction of fees or expenses, and are not available for direct investment.

Source: Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively “Bloomberg”). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, “Barclays”), used under license. Bloomberg or Bloomberg’s licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.

The Thomson Reuters Municipal Market Data (MMD) AAA Curve is a proprietary yield curve that provides the offer-side of “AAA” rated state general obligation bonds, as determined by the MMD analyst team. The “AAA” scale (MMD Scale), is published by Municipal Market Data every day at 3:00 p.m. Eastern standard time, with earlier indications of market movement provided throughout the trading day. The MMD AAA curve represents the MMD analyst team’s opinion of AAA valuation, based on institutional block size ($2 million+) market activity in both the primary and secondary municipal bond market. In the interest of transparency, MMD publishes extensive yield curve assumptions relating to various structural criteria which are used in filtering market information for the purpose of benchmark yield curve creation.

The credit quality of the securities in a portfolio is assigned by a nationally recognized statistical rating organization (NRSRO), such as Standard & Poor’s, Moody’s, or Fitch, as an indication of an issuer’s creditworthiness. Ratings range from ‘AAA’ (highest) to ‘D’ (lowest). Bonds rated ‘BBB’ or above are considered investment grade. Credit ratings ‘BB’ and below are lower-rated securities (junk bonds). High-yielding, non-investment-grade bonds (junk bonds) involve higher risks than investment-grade bonds. Adverse conditions may affect the issuer’s ability to pay interest and principal on these securities.

This may contain information obtained from third parties, including ratings from credit ratings agencies such as Standard & Poor’s. Reproduction and distribution of third party content in any form is prohibited except with the prior written permission of the related third party. Third party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. THIRD PARTY CONTENT PROVIDERS GIVE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. THIRD PARTY CONTENT PROVIDERS SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, EXEMPLARY, COMPENSATORY, PUNITIVE, SPECIAL OR CONSEQUENTIAL DAMAGES, COSTS, EXPENSES, LEGAL FEES, OR LOSSES (INCLUDING LOST INCOME OR PROFITS AND OPPORTUNITY COSTS OR LOSSES CAUSED BY NEGLIGENCE) IN CONNECTION WITH ANY USE OF THEIR CONTENT, INCLUDING RATINGS. Credit ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the suitability of securities or the suitability of securities for investment purposes, and should not be relied on as investment advice.
INVESTMENT-LED. INVESTOR-FOCUSED.

OUR FIRM
A singular focus on the management of money since 1929

OUR MISSION
Delivering superior long-term investment performance and a client experience that exceeds expectations

OUR DIFFERENTIATORS
Independent Perspective
Commitment to Active Management
Intelligent Product Design

IMPORTANT INFORMATION

The information provided is not directed at any investor or category of investors and is provided solely as general information about Lord Abbett’s products and services and to otherwise provide general investment education. None of the information provided should be regarded as a suggestion to engage in or refrain from any investment-related course of action as neither Lord Abbett nor its affiliates are undertaking to provide impartial investment advice, act as an impartial adviser, or give advice in a fiduciary capacity. If you are an individual retirement investor, contact your financial advisor or other fiduciary about whether any given investment idea, strategy, product or service may be appropriate for your circumstances.

The opinions in this commentary are as of the date of publication, are subject to change based on subsequent developments, and may not reflect the views of the firm as a whole. The material is not intended to be relied upon as a forecast, research, or investment advice, is not a recommendation or offer to buy or sell any securities or to adopt any investment strategy, and is not intended to predict or depict the performance of any investment. Readers should not assume that investments in companies, securities, sectors, and/or markets described were or will be profitable. Investing involves risk, including possible loss of principal. This document is prepared based on the information Lord Abbett deems reliable; however, Lord Abbett does not warrant the accuracy and completeness of the information. Investors should consult with a financial advisor prior to making an investment decision.

Investors should carefully consider the investment objectives, risks, charges, and expenses of the Lord Abbett Funds. This and other important information is contained in the Fund’s summary prospectus and/or prospectus. To obtain a prospectus or summary prospectus on any Lord Abbett mutual fund, contact your investment professional, Lord Abbett Distributor LLC at 888-522-2388 or visit us at lordabbett.com. Read the prospectus carefully before you invest.

For more information, visit us at lordabbett.com.

NOT FDIC INSURED—NO BANK GUARANTEE—MAY LOSE VALUE

Copyright © 2020 by Lord, Abbett & Co. LLC/Lord Abbett Distributor LLC. All rights reserved.