

2020 (Muni) Vision: Nearsighted or farsighted?

Overview

The municipal bond market finds itself in the heart of the COVID-19 pandemic storm. While we wish we had a crystal clear vision for the future of the market, we are not “flying blind” through these truly unique times. Here we will address some of the most pressing questions which should provide comfort that over the course of the next year, the muni market will likely find stability.

Despite upcoming challenges at the state and local level, as the economic recovery begins, municipal bonds offer attractive valuations today. We believe caution is warranted and careful security selection and sector allocation along with professional oversight can lead to reward for muni investors. That said, there will likely be downgrades and

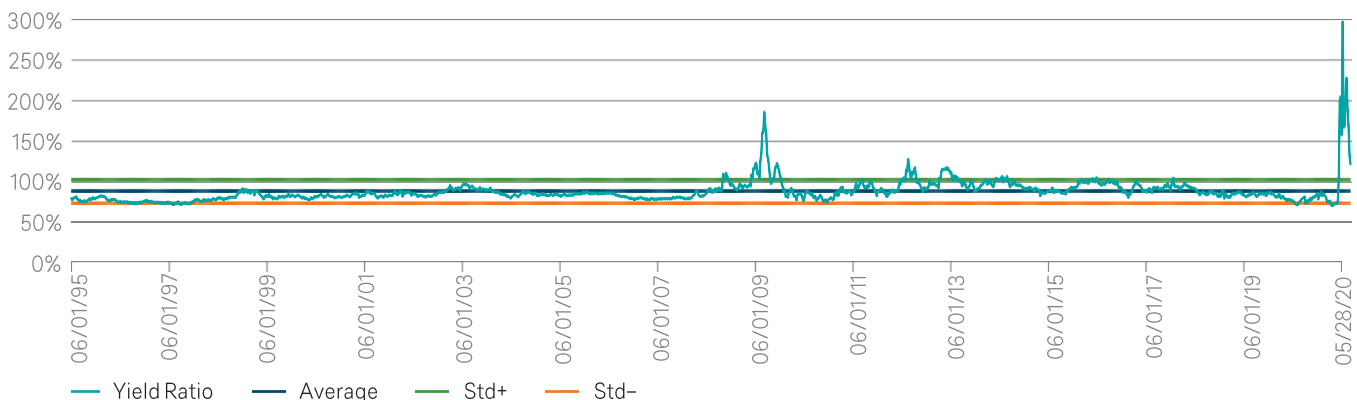
select defaults in the months and year ahead. Our views are evolving based on the severity and duration of the recession.

– DWS Municipal Bond Team

Are current valuations compelling?

While the muni market has staged an impressive rally, munis are still cheap relative to historical valuations on numerous fronts. Take, for instance, the 10 year AAA muni to 10 year U.S. Treasury yield ratio. Historically over the last 25 years, 10 year AAA munis have yielded 89% of comparable 10 year U.S. Treasuries. As of 5/31/20, that relationship is 129% (see chart).

10 YEAR AAA MUNI/U.S. TREASURY YIELD RATIO



Source: Thomson Reuters Municipal Market Data as of 5/31/20. Past performance may not be indicative of future results.

In fact, munis are cheap relative to all points on the yield curve. In addition, comparing A-rated munis to A-rated corporate bonds, munis are also cheap with a spread of +17 basis points (bps) compared to the 5 year average spread of -57bps.

Credit spreads have also widened over the course of the COVID 19 crisis with BBB spreads at 270 bps vs AAA bonds, measured by the Bloomberg Barclays AAA and BBB Municipal Bond Indices as of the end of May. In contrast, back in February, the spread between BBB and AAA-rated munis was 70bps. In high yield, as of 5/31/20, the index yield to worst is 5.33%, for a spread of +436bps compared to the Bloomberg Barclays Municipal Bond AAA Index. Comparing these levels to the previous spread widening which occurred in late 2008/early 2009 (see chart) the high yield (HY) muni index appears cheap relative to pre-COVID levels but still tighter than the previous Global Financial Crisis levels when spreads widened to as much as +746bps in January 2009. That said, we believe that as the market continues to stabilize and the economy begins to recover from the deep decline, select HY munis offer attractive total return opportunity despite potential near-term volatility.

HY-AAA SPREAD



Source: Bloomberg as of 5/31/20. As represented by the Bloomberg Barclays AAA Municipal Bond Index and Bloomberg Barclays High Yield Municipal Bond Index See end of report for index definitions. Past performance may not be indicative of future results.

How has the COVID-19 crisis impacted state and local governments?

The fiscal condition of states most likely will deteriorate over the coming months as tax collections fall drastically with shelter-in-place orders while facing increasing social service costs associated with the economic downturn. Likewise, cities face shortfalls with reduced sales and other tax collection and the potential for increased property tax delinquencies. Furthermore, due to the equity market volatility this year, pension plans are further stressed. According to Wilshire Trust Universe Comparison Service, public pension plans posted record quarterly losses in Q1 2020, with a median return of -13.2%. Aggregate state pension funding levels are now at the 30 year low.¹ We anticipate that this fiscal stress will be reflected in negative rating outlooks and downgrades from the rating agencies. Rating agencies have already moved to a negative outlook on both states and local governments.

Will a state or a major city default on its debt service obligations over the next year?

No. While state and local governments face a fiscal challenge potentially greater than what they experienced during the last recession, we believe that cities and states have the willingness and ability to make all schedule debt service payments.

For states and local governments (cities/counties), our confidence stems from the following factors:

States

- _ Many states entered this period in very good financial shape with budget reserves at record levels approaching 8.0% of General Fund spending.²
- _ Spending flexibility allows states to dramatically reduce spending—even mid-year—to achieve budgetary balance.
- _ States have revenue raising flexibility, though this can be difficult to implement during a recession.
- _ Debt service constitutes a relatively small portion of states' expenditures—roughly 4% on average—and therefore will be manageable even during periods of severe austerity.³

¹<https://www.pionline.com/pension-funds/funding-ratio-state-plans-lowest-30-years-wilshire>
<https://www.wsj.com/articles/public-pension-fund-losses-set-record-in-first-quarter-11589240175>

²(NASBO – Fall of 2019 Fiscal Survey of the States)/Slide in the DWS 2020 State Sector Outlook.

³2019 Moody's State Debt Median Report median is 4.1%. https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBM_1172874

Local governments

- _ Most local issuers are reliant on property taxes, a more steady income than personal income and sales taxes which are quicker to decline at the onset of a recession. Local governments will experience less immediate difficulties and many have already collected property taxes for fiscal year 2020.
- _ Local governments have less budget flexibility, so they often carry higher reserve levels than state governments to compensate for this weakness.⁴

The CARES Act and other already enacted federal assistance will help cover a portion of the extensive COVID-19 costs, as well as increase the matching funds for Medicaid for states. Additionally, the Municipal Liquidity Facility (MLF) will allow states and large local governments to borrow from the Federal government to manage impending note maturities and gaps caused by lost revenues due to COVID-19.⁵ There will likely be additional Federal support to back fill for lost tax revenue and forestall tens of thousands of layoffs of teachers and other first responders.

Furthermore, municipal issuers value their credit standing and will do what is necessary to preserve it and access to capital market. Also keep in mind that historically municipal bond defaults are extremely rare with the long term investment grade municipal default rate at 0.10% vs. investment grade corporate default rate at 2.3%.

Which municipal sectors face the biggest test to credit fundamentals?

Healthcare/Senior living

A primary area of stress has been in the health care space, including non-profit hospitals. Increased expenses—for supplies/personal protective equipment (PPE) as well as labor/staffing (in an already tight labor environment)—have stressed health care providers. Going into the pandemic, roughly 50% of hospital revenue was derived from outpatient sources and elective surgeries; with new restrictions this revenue has been dramatically reduced. Re-opening is an ongoing slow and strategic process for hospitals, and legal restrictions aside, people may be reluctant to go to hospitals for fear of the virus. Hospitals that were experiencing financial trouble going into the pandemic are most at risk of credit distress and spread widening. We prefer large, diversified

systems with solid liquidity and leading market positions. We note that the pandemic has brought to light the stark under-preparedness of the health care system.

Senior living communities with a heavy emphasis on skilled nursing services are facing many similar challenges to those experienced by hospitals. For these credits we similarly focus on the entity's liquidity as the most important determinant of an obligor's ability to manage through these turbulent times.

That being said, it is important to note that the vast majority of standalone nursing homes that have dominated headlines in recent months as a result of COVID-19 outbreaks are for-profit entities and are not representative of facilities financed by municipal bonds. Most non-profit senior living communities also offer residents housing options (either independent living if they are still physically able or assisted living if the resident needs aid with certain daily activities). While these housing segments of senior living communities may also face certain challenges in the medium-term given the close tie-in to real estate markets that may be impacted by a recession, the revenue diversity from the different segments helps provide a hedge to the negative near-term impacts within the skilled nursing component of the community. We continue to find value in large systems with solid liquidity levels. In addition, according to Ziegler and Company, 60% of senior living providers have received loans under the Paycheck Protection Program (PPP), which will provide necessary funding for operations during the shutdown.

Higher education

College and university issuers in the muni market are facing challenges as a result of coronavirus disruptions, however we believe that the vast majority – institutions that in some cases have been through multiple world wars, conflicts, and recessions – will not face lasting material impact. We continue to find strong credit quality and stability in large flagship public research universities and private universities with strong wealth levels, attractive niches such as STEM or healthcare, vibrant demographic locations, and positive student outcomes. Institutions with pre-existing weak credit profiles we believe will continue to deteriorate, but that is more related to demographic shifts, unsustainable financial operations, poor academic and post-graduate outcomes, and student preferences that have been evolving for some

⁴(https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBM_1222763 / Slide in DWS 2020 Local Government Sector outlook.

⁵https://www.moody.com/researchdocumentcontentpage.aspx?docid=PBM_1223924. Past performance is not indicative of future results.

time. Small private schools in the Mid-west and Northeast with weak balance sheets along with smaller regional public institutions in weak demographic areas that rely on significant levels of state support will face the most pressure. Virtual education has played an important role during this pandemic; however, we believe that the experience reaffirms our view that, at least in the short to medium term, online education will be an enhancement to successful traditional higher education and not an outright replacement.

Which public sectors are better positioned in this environment?

We expect that essential service utilities—which include water and sewer and public power—will manage through today’s challenges and maintain stable credit quality. Water and sewer systems operate as natural monopolies, which limits competitive pressures. Most enjoy sole rate-setting authority, and can raise rates as needed to cover the costs of operations and maintenance, and to maintain solid debt service coverage. The water and sewer sector is comprised of highly-rated credits with a history of almost no defaults. We note that systems with significant exposure to commercial customers may be more pressured than others.

A sector with most issuance in the high yield space that we believe offer relative value is charter schools. While the sector is small and quite idiosyncratic which makes it difficult to broadly generalize, charter school financial performance was largely unaffected in fiscal year (FY) 2020 as states maintained funding levels. Moving into fall 2021 is more uncertain specifically in terms of both enrollment levels and state aid, the combination of which provide the lion’s share of revenue for the sector. We believe that, given the essentiality of K-12 education state funding for charter schools will be one of the resilient items in state budget cut scenarios. In particular, we think that schools located in states that are more supportive of charters (TX, AZ, FL, for example) may outperform relative to schools located in states with a more adversarial political environment for charters. Furthermore, we have recently seen specific examples of charter schools in our portfolios that have shown agility and flexibility in delivering

a high level of virtual learning to students. This academic performance could attract parents and students in the future over competing charters and traditional public school districts that may have been slower to deliver, which highlights how fragmented the sector can be.

Which sector may surprise investors to the upside?

The pandemic negatively impacts the transportation sector. However, certain sub-sectors are insulated from risk at this time. Surprisingly, despite air travel being significantly reduced, airports remain healthy. CARES Act stimulus funding provided U.S. airports a considerable amount of cushion to weather the storm—\$10 billion in direct aid to U.S. airports, which represents roughly 37% of sector-wide revenue.⁶

Additionally, airport balance sheets are at record levels of strength. Airport unrestricted cash balances and the stimulus funding account for nearly 100% of 2018 aggregate airport revenue.⁷ Furthermore, airports generally have long-term use and lease agreements with airlines to cover debt service and, though some airports have temporarily suspended these payments, airports will continue to receive revenues from airlines this year. We also note that airlines are receiving \$25 billion of grant funding for salaries and \$25 billion of loans or loan guarantees via the CARES Act, which is supportive. Within the sector, we are concerned about small airports in weak demographic areas with high reliance on single airlines and high levels of connecting traffic. Though the ultimate impact of coronavirus disruptions on airport credit quality will depend on its duration, airports are currently well positioned.

What about defaults in the high yield segment of the muni market?

There has been an uptick in defaults in below investment grade (and non-rated) credits in sectors such as senior living and industrial development bonds (IDBs), with 21 issuers defaulting for the first time YTD. We expect to see additional senior living centers, project revenue bonds, and retail shopping mall credits facing distress and potential default.

⁶CARES stimulus = \$10 billion (\$7.4 billion for any legal purpose and \$2.6 billion for construction grant funding). According to the FAA, fiscal year 2018 (the most recent year for which we have full data) airport sector-wide revenues totaled \$26.8 billion, so stimulus funding represents 37% of FY 2018 sector-wide revenues.

⁷FAA data shows \$16.1 billion in unrestricted cash and investments at FYE 2018. Taken together, airport unrestricted cash balances and stimulus funding would provide 97% of 2018’s revenues.

Still we see today’s high yield market as firm, stable, attractively priced broadly speaking, yet dependent on mutual fund inflows, and idiosyncratic, with some names performing well and some facing default. Over time, performance of HY munis has depended largely on credit fundamentals and flows into or out of high yield mutual funds. For the past few years, technical factors—mutual fund flows—have outweighed fundamental factors, resulting in tight credit spreads and many HY deals coming to market with weak security provisions. After a record \$11.5 billion in outflows from HY funds in March, and with worsening economic prospects due to the coronavirus and associated shutdowns, both fundamental and technical factors impacted valuations. Since the early sell-off, HY spreads have stabilized and tightened from the recent wides with improved liquidity compared to March. Recently, overall municipal bond mutual fund flows have been positive with quarter-to-date inflows of \$2.3 billion. Yet a reversal in investor sentiment and a return to outflows could quickly destabilize the fragile market state, resulting in a return to spread widening.

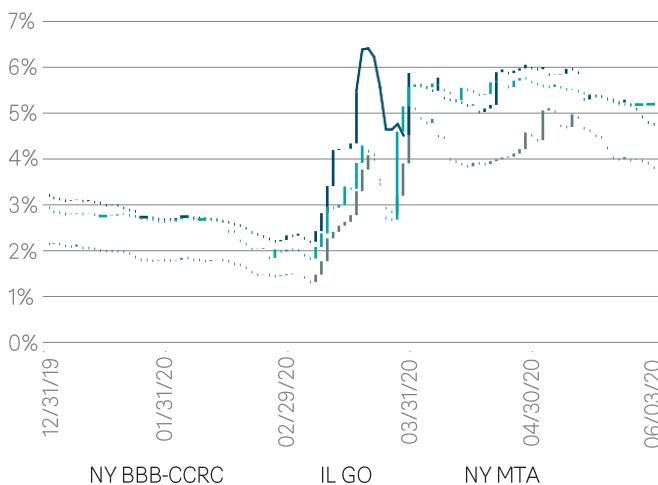
2008 HY muni defaults will be surpassed?

We believe that defaults in the current cycle will be greater than those experienced during the Global Financial Crisis when defaults rose to 3.8% in August 2009 (see chart). The period leading up to the current pandemic-induced recession saw a slew of speculative-grade municipal bond transactions that financed a host of waste-to-energy/recycling project finance deals, senior living facilities, and mega mall development projects. These high yield risky municipal bond transactions were in high demand as money poured into HY municipal bond funds and exchange traded funds (ETFs). Given the demand, bankers often underwrote the projects with razor thin margins of protection i.e. debt service coverage and relied on rosy economic forecasts for even modest success. We anticipate that many of these transactions face uncertain futures as the economic outlook is challenged, and the likelihood of achieving breakeven debt service coverage levels for some of them is very low. Moreover, many of the project finance transactions relied on unproven – at-scale technology that is making commercial success even less likely. Worse yet for all these projects is that bondholders enjoy

very limited legal remedies meaning that recoveries following default may be very limited.

Today’s investors are pricing in significant downside risk to many lower-rated credits. There are some A and BBB rated credits—New York Metropolitan Transportation Authority (MTA) and IL general obligation (GO) most notably—that in early Q2 had been priced as if their credit quality were lower than the stated rating. (see chart of IL, MTA, continuing care retirement community (CCRC) spreads) In some instances the wider spreads were warranted, as many issuers face significant financial challenges. In our opinion, investors to levels we view as too cheap given specific issuers’ credit fundamentals. We are taking an approach to security selection that is research intensive, considers an issuer’s unique credit circumstances, takes the bond’s liquidity into consideration, and includes an assessment as to the specific security’s value compared to its market price.

YIELD TO WORST COMPARISON



Source: Bloomberg as of 5/31/20 May not be indicative of future results.

One year from now, we expect spreads for much of the market including many HY names to be tighter than today. In the interim, we expect volatility in muni HY, with spreads possibly widening during part of the period compared to where they were at the end of May.

TRAILING 12-MONTH SPECULATIVE-GRADE DEFAULT RATES



Source: Moody's Investors Service as of 12/31/17 (Latest data available). May not be indicative of future results.

Reasons to consider munis for the long-term?

The coronavirus shutdown and resulting recession presents municipal issuers, like corporate borrowers, with challenges. Municipal credits have demonstrated resilience over the long term, and we see that dynamic continuing through the present

crisis. We expect more stimulus from the federal government to aid in the recovery. Security-specific experiences will differ, with a wider dispersion of outcomes in high yield credits, and we believe detailed research is important now more than ever.

We enter the summer months in a good market position: attractive valuations of tax-exempt and taxable municipals compared to other fixed-income asset classes, attractive credit spreads for many names, mutual fund inflows and favorable seasonal factors. We expect municipals will continue to offer diversification benefits to investors, as returns over the long term typically are negatively correlated to equity returns. As we said at the outset, we don't have 2020 vision into the future, but we're pretty sure tax rates aren't headed down any time soon. The tax-exempt feature offered by most munis should continue to be sought after by investors.

Definitions

One basis point (bp) equals 1/100 of a percentage point.

The Coronavirus Aid, Relief, and Economic Security Act (Cares Act) provides fast and direct economic assistance for American workers, families, and small businesses, and preserve jobs for our American industries.

Credit quality represents the higher rating of either Moody's Investors Service, Fitch Ratings or Standard & Poor's and is their opinion as to the quality of the securities they rate. Credit quality does not remove market risk and is subject to change. Junk bonds are any bond that carries a rating lower than BB is said to be speculative or a 'junk bond.

The Great Financial Crisis refers to the prolonged economic downturn in much of the world after the financial crisis of 2007–2008.

The Municipal Liquidity Facility (MLF) is an initiative by the Federal Reserve to provide up to \$500 billion of credit to state and local governments that have seen their revenues collapse during the COVID-19.

The Paycheck Protection Program (PPP) is a loan designed to provide a direct incentive for small businesses to keep their workers on the payroll.

Personal protective equipment (PPE) is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses.

The spread is the difference between the quoted rates of return on two different investments, usually of different credit quality.

A yield curve is a representation of the relationship between market rates and the remaining time to maturity of debt securities, also known as the term structure of interest rates.

Index definitions

Bloomberg Barclays AAA Municipal Bond Index tracks the performance of investment-grade, fixed-rate municipal bonds with maturities greater than two years. It is not possible to invest directly in an index.

Bloomberg Barclays BBB Municipal Bond Index covers the universe of BBB-rated municipal bonds.

Bloomberg Barclays High Yield Municipal Bond Index is an unmanaged index made up of bonds that are non-investment grade, unrated, or rated below Ba1 by Moody's Investors Service with a remaining maturity of at least one year. It is not possible to invest directly in an index.

The opinions and forecasts expressed here are those of the DWS Municipal Bond Team, are as of June 2020, and may not actually come to pass. This information is subject to change at any time, based on market and other conditions, and should not be construed as a recommendation of any specific security.

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Investment products: No bank guarantee | Not FDIC insured | May lose value

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