U.S. Municipal Bond Market

REVISED: The Municipal Market in 2022, Due to the COVID-19 Paradigm Shift

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- Our public finance credit outlook is more optimistic now that we have entered the month of February compared to when we published our 2022 outlook in the beginning of December.
- We are raising our credit sector outlooks on the State, Local Government and School District sectors to "Positive" from "Stable."
- We also review some relative value propositions sector by sector.
- There is a paradigm shift in how markets, policymakers, and health experts view COVID-19 as Omicron cases continue to fall and deaths rise.
- Society will begin to chart a different version of normal life as this new era of COVID begins.

HilltopSecurities Municipal Sector Outlooks

Sector	Hilltop Credit Outlook	Feb 2022 Action(s)	Key Sector Trends
State Government	Positive	Raised one notch	Generally insulated from ups and downs we could see from new variant peaks and valleys
Local Government	Positive	Raised one notch	Generally insulated, only slight more exposed from new variant peaks & valleys, mostly because of themes like remote work, other relationships that evolve over time
School Districts	Positive	Raised one notch	AV growth has been surprisingly strong through COVID, $130 billion plus will flow directly to schools per the Rescue Plan Act
Airports	Stable	None	Enplanement return to pre-COVID levels could be pressured by continual variant pressures, we expect more ups and down in data than in typical recoveries
Health Care	Negative	None	Health care could be the sector most negatively impacted by continual variant pressures, lack of future federal relief unless it materializes
Higher Education	Private: Negative Public: Cautious	None	Campuses are not as safe as we expected from virus spread, the sector will continue to be pressured in the near to medium term, labor/attendance difficulty could occur b/c of continual variant pressures
Housing	Positive	None	Strong relative value remains in this sector. State Housing Finance Agencies (HFA) were less impacted than other sectors and will continue to be strong going forward
Public Power (Elec.)	Stable	None	Recovery in usage ongoing, federal support has provided a base
Tobacco	Negative	None	We continue to expect more downside risk in this sector going forward, despite MSA numbers coming in stronger than expected
Toll Facilities	Stable	None	We saw vehicle miles traveled fall to 2004 levels, full recovery will take even longer and be more uneven considering the continual variant pressures we could see
Water and Sewer	Stable	None	Essentiality remains important driver, one of the approved uses of the Rescue Act funds is for water and sewer infrastructure. More funds approved in BIP too.

Source: HilltopSecurities

There is a paradigm shift in how investors, policymakers and health experts are seeing COVID-19 as the number of cases from the fifth Omicron wave continue to fall.

We are Raising Our State, Local, & School District Outlooks to Positive

Our public finance credit outlook is more optimistic now that we have entered the month of February. Why? The economic backdrop is much different now even compared to two months ago, especially where the COVID-19 pandemic is concerned.

Although COVID-19 related deaths are still rising, that reality is not influencing new policy that could result in new waves of shutdowns or other social distancing measures that would further slow economic activity.

Another reason, and maybe an even more important motivation of why we are even more upbeat on public finance credit, is because a paradigm shift with how many now view COVID-19 has occurred. Although COVID-19 related deaths are still rising, that reality is not influencing new policy that could result in new waves of shutdowns or other social distancing measures that would further slow economic activity. This evolution in thinking about the COVID-19 pandemic should be considered a turning point. The virus is not going away. Future variant waves are likely, and a different version of life is what is in store. This is not the end of the COVID era, it is only the beginning.

What Changed Since Our December 2021 Municipal Outlook?

Toward the beginning of December of last year we published The Municipal Market in 2022, which was essentially our outlook for this year. We highlighted that we expected, among other themes such as:

- The Golden Age of Public Finance will continue into 2022.
- The discovery of the Omicron variant provides yet another test to the resilience of public finance, and
- We expected public finance upgrades to outpace downgrades.

We still expect these themes to mostly hold true, but we want to add some additional context based on the change in circumstances we have seen evolve over just the past two months.

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- The Golden Age of Public Finance will continue into 2022, and we think The Golden Age will be supercharged even more by this paradigm shift in thinking about COVID-19.
- Public finance has been resilient in the face of Omicron. How sectors like health care, higher ed, and mass transit fare during repeated interruptions from other variants over the next few years remains to be seen. These public finance sectors are among those most at risk due to this paradigm shift.
- We not only still expect public finance upgrades to outpace downgrades, we believe the relationship is going to occur at a pace high enough where we needed to raise our sector outlooks on the state, local government and school district sectors. We raised all three outlooks to "Positive."

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Recent Municipal Market Volatility- "We've Seen this Movie Before"

Municipal yields have pushed higher by 40 basis points or more over the past month. And while investors have been clamoring for higher yields for some time the circumstances are not as cut and dry as they appear. The Fed has been warning that its liftoff "will soon be appropriate," (please see Hilltop's Scott McIntyre's and Greg Warner's account of choices the Fed has to consider.) The financial markets have been trying to digest what Fed actions could amount to in coming months. This uncertainty has hammered the supply and demand equilibrium in the municipal bond market. Over the past three weeks municipal investors have withdrawn over $4.5 billion from municipal funds as a result. The Wall Street Journal covered the circumstances in Investors Sour On Muni Funds With Fed's Shift (Feb. 1) even before the largest outflow of about $2.9 billion which was reported on Thursday Feb. 3.

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We are constructive if not optimistic on the municipal asset class from a technical standpoint. "From a short-term perspective, positive seasonal patterns should help municipal performance as $45 billion in reinvestment proceeds—coupon and principal payments—will be reinvested from cash flows in January and February," wrote Hilltop's Justin Hoogendoorn in Municipal Rebound? Yes, We've Seen this Movie Before last week. Hoogendorn also notes, "Taking a longer-term perspective, municipals typically bounce back from these periods of underperformance with an extended period of outperformance."

Relative Value in the Municipal Bond Market

There is not only an encouraging technical argument to be made in favor of municipals, there are also strong relative value circumstances that exist within different public finance sectors. What we are seeing sector-by-sector is as follows:

State Government: We favor states with deep, diverse economies which have exhibited superior financial resilience despite the effects of the pandemic and former economic downturn. It is important to remember that although state credit quality is on an upward trend now, state governments experienced a decade prior to COVID-19 of unprecedented credit deterioration. Therefore, fiscal balance is a priority. Additional key credit strengths we look for in the state government sector include:

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- Income & sales tax revenues that have met or surpassed projections;
- The prudent use of federal relief to provide budgetary support and plan for the future;
- Situations where solid rainy-day funds exist for a future cushion against uncertainty;
- Circumstances where state governments have not had an issue with pension liabilities, or have realistically addressed pension liabilities.

A **state government** relative value play to consider in some cases: state-appropriation bonds.

Airports: In the beginning of the COVID-19 crisis we wrote often about the cash balances the airport sector built up after years of record enplanements. Now, in the face of the uncertainty new waves of variants may exhibit, we like large-hub airports with deep origin and destination (O&D) markets, maintain a diverse network of carriers, and possess well-managed capital programs that will help sustain a competitive position. Stable cargo volume also is a factor that rose in importance in recent years, this is something we look at closely at as well. We expect that bonds from large gateway or hub airports can outperform as regional economies and enplanement levels recover. In past downturns it took years for enplanements to return to previous levels. This recovery could take even longer this time around and it could be even more bumpy because of the potential for waves from additional variants, but we expect the general upward trend will continue.

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An **airport** sector relative value play: subordinate-lien general airport revenue bonds of large-hubs.

Health care: While we anticipate the overall health care industry and health care in the public finance sector to remain challenged by labor shortages, increased operating costs and protracted impacts of the pandemic, we still are finding value in higher-rated health care sector names that are exhibiting strong metrics that include a leading market share position, superior operating margins, possess solid debt coverage and maintain healthy liquidity levels.

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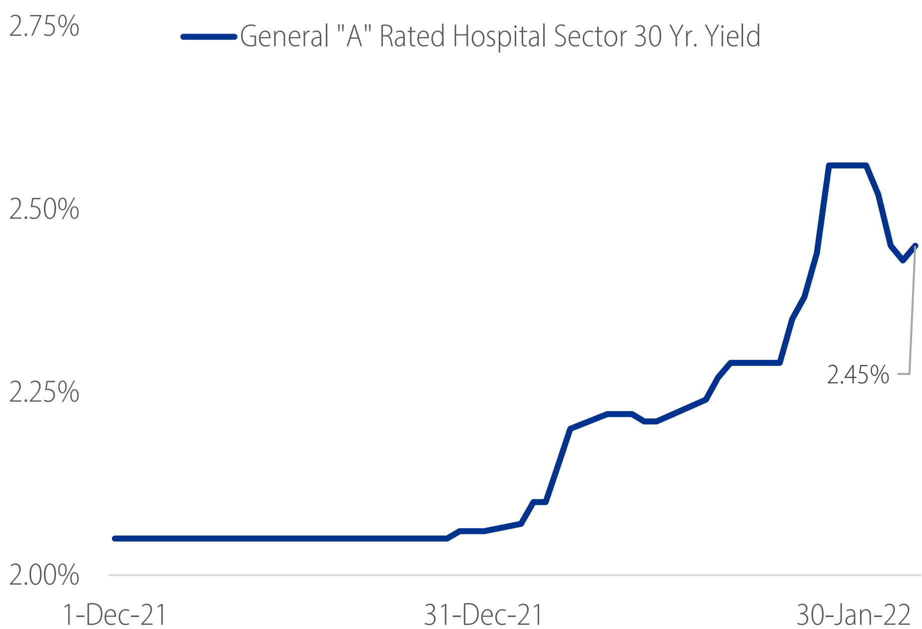
"A" Rated Hospital Yields Have Risen Over the Last Month



Source: Refinitiv and HilltopSecurities.

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Higher Education (Public and Private): At the beginning of the 2021-2022 school year we expected that U.S. college campuses were going to be among the safest places from the spread and infection of COVID-19. They were not as safe as we anticipated. Now, most U.S. colleges and universities have returned to a mix of in-person and occasional hybrid classes. Campus activities (including athletic events) largely resumed with normal attendance levels. In the sector which possessed a "Negative" credit outlook even before COVID-19 we like investments with strong demand and brand recognition. Deep endowment levels are surely a plus as well.

Higher Education sector relative value play: consider longer-dated "AA" rated and higher.

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Toll Facilities: We continue to like the COVID-19 rebound story. The new paradigm illustrates that this rebound could be bumpy, and take longer than previously expected. The toll facilities sector is probably one of the best representatives of the economic rebound story. Over the past year, traffic and revenue numbers of select toll-facilities have significantly improved. Some have even approached 2019 levels while a select few have even exceeded pre-pandemic levels. Commercial truck traffic, which support the critical supply chain of the nation, typically pay the highest of toll rates. This has been an important stabilizing theme in the sector. Furthermore, some toll-facilities have autonomous rate setting flexibility. We continue to believe that many toll facility names stand to benefit, as the nation's economy rebounds.

Toll Facilities sector relative value play: credit selection is vital; we think most traditional municipal bond investors should only be considering the larger, established toll corridors.

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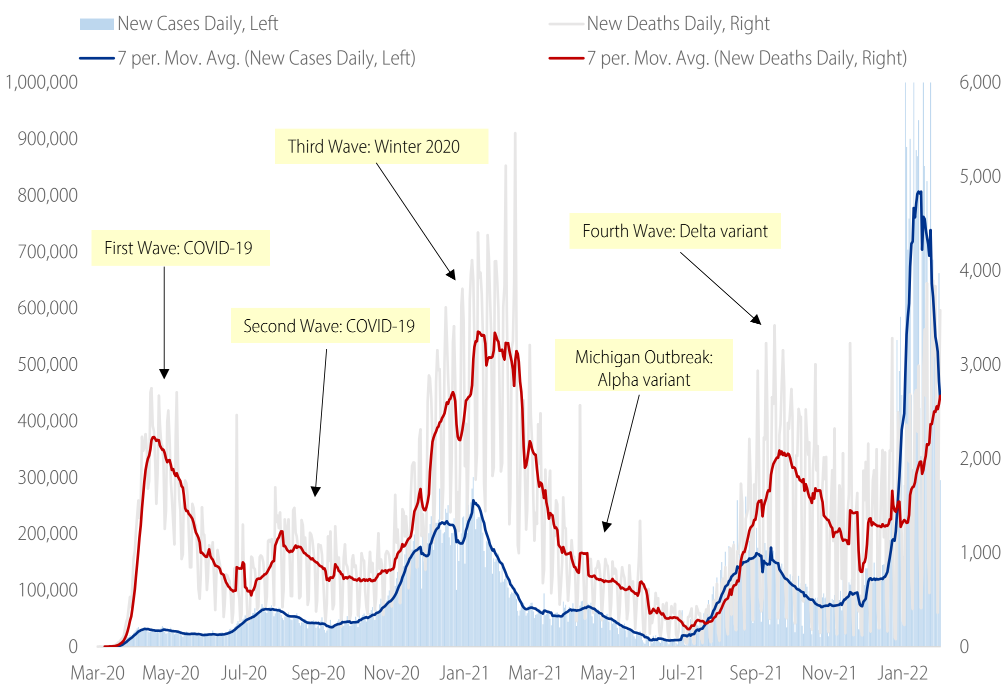
Paradigm Shift in Thinking and Policy Approach Toward COVID-19

The economic backdrop is much different now even compared to two months ago, especially where the COVID-19 pandemic is concerned. Coming off of the U.S. Thanksgiving holiday warnings about the Omicron told us that the new variant was more contagious, but less lethal on a statistical basis. This has proved true, even though the number of deaths per day (as of Feb. 1 about 2,600 per day) have in fact risen above where they were at the peak of Delta. Deaths per day were about 2,000 a day back in October 2021 after Delta peaked. Deaths per day peaked at around 3,300 a day after the Third Wave that occurred in the winter of 2020.

Cases are Falling, Deaths Averaging About 2,600 Per Day in the Wake of Omicron



Source: New York Times through Feb. 2 and HilltopSecurities.

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Friday's Jobs Report Surprises, Reinforces Economy's Opinion of COVID

On Friday, non-farm payrolls rose by +467k in January, which is well above the median forecast of +125k. "Adding to the surprising January payroll print was a massive +709k upward adjustment to the previous two months. Suddenly, the labor market, which had been looking peaked, seems to have perked up," wrote Hilltop's Scott McIntyre and Greg Warner. Please see their Friday report, Yields Rise Sharply on Unexpectedly Strong (but Noisy) Labor Report for more details. Even the leisure and hospitality sector, which should have been hit the hardest in January because of the

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spread of Omicron, was up +151k jobs in January, not down.

Very soon after Friday's non-farm payroll number for January was released Jason Furman, an economist at Harvard's Kennedy School of Government and a former chair of President Obama's council of economic Advisors tweeted:

> "January 2022 will be remembered as the month the virus ceased to be boss. It wreaked havoc & death at a terrible scale. But the economy no longer cares. People returned to the workforce. The economy added jobs. Wages rose. You would barely know it happened from the economic data."

Some may have thought that investors and strategists were only paying attention to the Fed in January, and that might have been partly true to a degree. But, they have also been watching policy makers' opinions shift about how to combat the spread of the virus. More on this shift below.

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Policy Makers are Lifting Mitigation Policies

Although COVID-19 related deaths are still rising, that trend is not influencing new policy that could result in new waves of shutdowns or other social distancing measures that would further slow economic activity. In fact, some measures in the U.S. are being relaxed. The CDC has shortened the number of days recommended for isolation, for example. Some lawmakers are beginning to shift also. New Jersey Governor Phil Murphy last week (Jan. 30) on Meet the Press said, "We're not going to manage this to zero. We have to learn to live with it." Today the Governor is taking action to back up that statement. Governor Murphy this afternoon (Monday Feb. 7) is expected to announce that the Garden State is lifting its school mask mandate as a follow-up to his call about the importance of the shift back to normalcy.

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COVID-19 Deaths Compared to Deaths from All Causes in U.S.

Age Group	COVID-19 Deaths	% of Total COVID Deaths	Deaths from All Causes	% of Total Deaths from All Causes	COVID Deaths / All Deaths
0-17 years	770	0.09%	69,463	0.99%	1.11%
18-29 years	5,476	0.62%	132,185	1.89%	4.14%
30-39 years	16,067	1.82%	194,854	2.79%	8.25%
40-49 years	38,432	4.36%	291,987	4.18%	13.16%
50-64 years	165,438	18.79%	1,184,157	16.94%	13.97%
65-74 years	201,292	22.86%	1,426,935	20.42%	14.11%
75-84 years	225,952	25.66%	1,689,074	24.17%	13.38%
85 years & over	227,060	25.79%	1,999,995	28.62%	11.35%
All Ages	880,487	100%	6,988,650	100%	

Source: CDC and HilltopSecurities. From 2020 to Feb. 2, 2022.

Science/Health Community Shifting as Well

Health experts are also redefining where the world and the U.S. is to begin 2022. Almost two years into the pandemic opinions from these specialists are beginning to shift as well, mostly because of the effectiveness of vaccines. In the U.S. 64% of those eligible are fully vaccinated. Those fully vaccinated differ widely by age and geographic area. That being said, now that vaccines and boosters have been available for almost one entire year health experts are recognizing that the environment is different to begin 2022.

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For example, during an interview during the Davos Agenda 2022 panel discussion that occurred on Jan. 17, 2022 titled, COVID-19: What's Next? (Video, and Transcript) Annelies Wilder-Smith, Professor of Emerging Infectious Diseases, London School of Hygiene and Tropical Medicine described that the backdrop to begin 2022 is much different than in past years.

> "Well, let me share a word of optimism. We are in a different space than we were two years ago. Two years ago, we had a population of 7.7 billion people with zero immunity to this virus. Now, more than 50% of the world's population has received two doses, and this is further strengthened with now the rapid autoimmunity being built up by natural infection. So we're in a different space, and we now need to rethink and re-evaluate some of our strategies," said Wilder-Smith.

At the beginning of COVID-19, in March of 2020 Leana Wen, a former health commissioner of Baltimore said, "Stay home to prevent the spread of coronavirus." While a few weeks ago Dr. Wen was quoted in an article in the Economist as sharing a similar sentiment as Dr. Wilder-Smith above. "This is a very different virus than the one that we saw earlier on in the pandemic," explained Wen. "The risk to most [vaccinated] individuals right now of Omicron is very low. The risk that Omicron is causing society in terms of widespread dysfunction is very high."

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Over the weekend, Dr. Scott Gottlieb, former FDA Commissioner said that he in fact expected governors would begin to lift mandates in place when the numbers of cases fell to acceptable levels. Dr. Gottlieb stressed the importance of restoring the normal school experience for students during his interview on Face the Nation.

And this morning, Dr. Gottlieb reinforced the above attitude shared yesterday. When discussing the move the New Jersey governor is expected to announce this afternoon he said, "It's prudent that governors think about what the off-switch looks like as well as what the on-switch looks like when it comes to this mitigation. We can't just implement these kinds of provisions and not have a very clear metric of when we're going to lift them," during an interview on CNBC's Squawk Box.

There is a paradigm shift in how investors, policymakers and health experts are seeing COVID-19 as the number of cases from the fifth Omicron wave continue to fall. How is the economy likely to react in the midst of the sixth or seventh wave? Currently there is no way to know, because there is no way to know how severe the next wave or any economic disruption may in fact be. What we know is that for now, there is going to be a different version of normal life that society will begin to chart as this new era of COVID begins.

There is a paradigm shift in how investors, policymakers and health experts are seeing COVID-19 as the number of cases from the fifth Omicron wave continue to fall. How is the economy likely to react in the midst of the sixth or seventh wave?

Definitions of HilltopSecurities Municipal Sector Credit Outlooks

Positive: HilltopSecurities Municipal Research believes there are factors which point towards improving issuer or sector credit quality which may result in a higher level of credit ratings upgrades versus downgrades.

Stable: HilltopSecurities Municipal Research believes there are factors which point towards stable issuer or sector credit quality which are likely to result in an even level of credit ratings upgrades versus downgrades.

Cautious: HilltopSecurities Municipal Research believes there are factors which introduce the potential for declines in issuer or sector credit quality that may result in potential credit ratings downgrades only slightly outnumbering upgrades.

Negative: HilltopSecurities Municipal Research believes there are factors which point towards weakening issuer or credit quality that will likely result in a higher number of credit ratings downgrades versus upgrades.

Recent HilltopSecurities Municipal Commentary

- Municipal Rebound? Yes, We've Seen this Movie Before, Feb. 3, 2022
- State and Local Labor Market Weakness Continues in Dec. 2021, Trend Likely to Persist Into Beginning of 2022, Jan. 7, 2022
- 2021 Municipal Bond Analyst Survey, Dec. 14, 2021
- State and Local Employment Down For Fourth Straight Month in November, Dec. 3, 2021

Readers may view all of the HilltopSecurities Municipal Commentary here.