MUNICIPAL CREDIT OBSERVATIONS

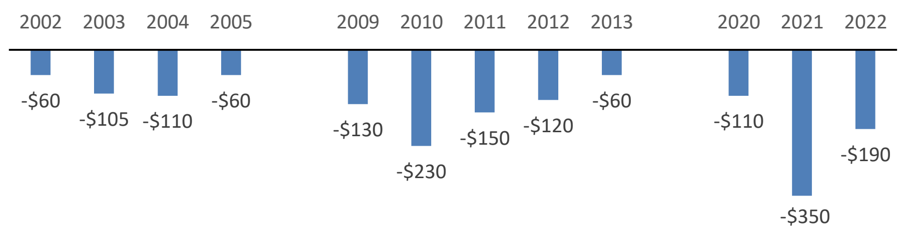
MAY 5, 2020

An Economic Downturn Impacts Municipalities

The ramifications of a global curtailing of economic activity have been profound and the ultimate severity and length of the recession remain uncertain. US real GDP declined during Q1 at a quarter-over-quarter annualized rate of 4.8% and La Salle Economics Inc. projects a 26% annualized drop in Q2 and a 5.5% decline for FY 2020.

Municipalities are facing considerable fiscal challenges due to lost sales and income taxes, user fees, and delayed tax payments. The Center for Budget and Policy Priorities projects $350 billion in state budget shortfalls in FY 2021, far greater than was incurred in recent recessions. Given this backdrop, municipal credit is an understandable investor concern. Below we discuss Appleton's conservative approach to credit research, scenario analysis, and how we feel your holdings are positioned.

COVID-19 Budget Shortfalls Likely to Surpass Prior Recessions
State Budget Shortfalls ($ billions)



Source: The Center for Budget and Policy Priorities

The Value of Essentiality, Size and Revenue Diversification

At Appleton, we have always managed high quality portfolios comprised of what we feel are credit resilient municipal entities. We look for municipal and service essentiality, size and breadth, and revenue diversification. Experience has demonstrated that issuers with these attributes are better able to maintain credit stability in the face of financial adversity.

Revenue bonds within our research universe provide essential services. Our belief is that when economic stress demands difficult decisions, municipalities will be much more likely to retain financial and political support for projects, facilities and services that meet critical constituent needs. Water & sewer, public power, hospitals, and public transportation entities represent examples of services that are often considered vital to the public good.

Among our GO holdings, we prefer large, well-established issuers with diverse revenue sources. Issuers of this nature can typically draw upon sizeable cash reserves, retain efficient access to the public markets, and have greater flexibility to adjust budgets. Today's environment, while extreme, speaks to why we have always tended to avoid bond issuers with greater reliance on single revenue streams, particularly those whose services lack essentiality.

Stress-Testing Offers Credit Confidence

The $3.8 trillion municipal market is broad and diverse, and certain investment grade sectors currently face greater credit stress than others. Revenue bonds are under the microscope as fee-based revenue derived from airports, toll roads, ports and healthcare facilities have plummeted during the lockdown. Our Credit Research team has proactively stress-tested individual Appleton holdings based on sector-specific factors that we feel are most important to preserving creditworthiness, such as cash flow margin, service breadth, and revenue mix.

For example, stress-testing indicated that our holdings in the Port sector could withstand a 100% loss of revenue for 20 months while still meeting their debt obligations and covering normalized operating expenses by drawing upon balance sheet reserves. Actual economic data points to a much more modest 19% average revenue decline in March, and expectations are for a stronger April with Chinese factories opening up. Our average Sales Tax-backed bond holding collects revenues that are 4.6x annual debt service, suggesting an ability to withstand a 78% reduction in revenues for an entire year before needing to rely on reserves.

This scenario analysis collectively points to a broad ability to manage a prolonged economic downturn based on liquidity, budget flexibility and financial resources. As new data becomes available, we will update our models and incorporate those findings into our investment decisions.

We Do Not Expect Any Defaults in Appleton Portfolios

Based on a conservative approach to credit, a preference for investing in large, high-quality names, and ongoing stress-testing, we do not expect any defaults in Appleton portfolios. Historically, default rates across the tax-exempt credit spectrum have been rare.

Since 1970, there have been 117 defaults by Moody's rated issuers, representing only 0.16% of issuers. As the chart on the following page illustrates, assuming more extreme scenarios involving multiples of historical default rates, we would still expect very few municipal defaults relative to the size of the market. While we have already seen isolated cases in this cycle, they involved lower grade, specialized issuers and we believe additional defaults will remain concentrated in sectors that were already challenged pre-COVID-19, such as senior living and speculative project financings.

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MAY 5, 2020

The impact of today's fiscal challenges will not be experienced uniformly. Differentiating credit vulnerability from resilience has never been more important, and we believe the larger, well established bond issuers in which we invest are far better situated than smaller entities with fewer resources and tools at their disposal. The issuers we favor benefit from broad and diverse economies, a diversity of revenue sources, experienced management teams, and robust financial resources.

There will be difficult budgetary decisions in the coming weeks and months, but drawing on our conservative approach to credit, we expect all your holdings to remain creditworthy.

Economic Recession Multiplier	1x	2x	3x	4x	5x
Default Rate	0.16%	0.32%	0.48%	0.64%	0.80%

Moody's Investor Services, "US Municipal Bond Defaults and Recoveries, 2017-18"

A Look Back at the Financial Crisis

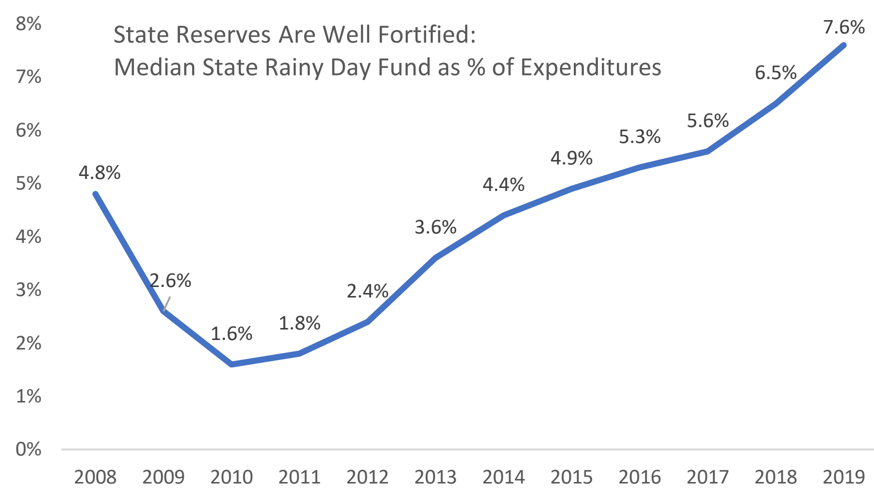
Although today's circumstances are likely to be more severe, only a dozen years ago US municipalities also faced considerable economic challenges. Revisiting that period can be helpful in understanding how states and local municipalities respond to financial shortfalls.

From October 2008 to September 2009, states experienced an $87 billion drop in tax revenues, an 11% reduction compared to the prior 12 months. In response, reserves were drawn upon, 33 states increased taxes, while expenses were cut in 42 states by a cumulative 9% in 2009 and 2010. These measures, coupled with spending cuts, helped bridge budgetary gaps even though most municipalities entered the Financial Crisis with weaker balance sheets than today.

Facing Challenges from a Position of Strength

Today's economic conditions followed an extended period of strong municipal cash flow and balance sheet repair. This has solidified most issuers' credit standing and enhanced the flexibility needed to manage through what may be a deep recession.

State and local government tax revenue grew in 35 of the last 40 quarters through Q4 '19 and the states collectively held over $100 billion in reserves as of FY 2020.[1] Median state rainy-day funds equaled 7.6% of expenses in 2019 vs. only 4.8% in 2008.[2] Median local municipal rainy-day funds equaled 22% of expenses as the COVID-19 shutdown began.



Source: National Association of State Budget Officers, Fall 2019 survey

DC Cushions the Blow

Although our credit stress testing is conservative and does not factor in external support, the Federal Reserve and Congress have already stepped up in an unprecedented manner with further aid likely. The ongoing Federal response has been far larger and much more rapid than during the 2008-09 period.

The Federal Reserve deemed short-term municipals eligible for its Money Market Mutual Fund Liquidity Facility. Congress also made $320 billion in aid available to states and municipal entities through the CARES Act. The allocation to states averaged 12% of revenue during Q2.[3] More recently, the Municipal Liquidity Facility ("MLF") gave the Fed an ability to buy up to $500 billion of eligible municipal notes on a direct basis, generating a liquidity and confidence boost.

The MLF program extended eligibility guidelines on 4/27 by reducing the county population threshold from 2M to 500k and cities from 1M to 250k. All 50 states are eligible, while 140 counties and 97 cities now qualify. We see Federal support as a necessary liquidity resource, particularly since today's state budgetary strains are primarily a result of timing given the extension of state tax filings and payments to 7/15. Politics aside, public officials appear to fully understand that the health of states and local governments is instrumental to economic recovery.

APPLETON PARTNERS, INC.

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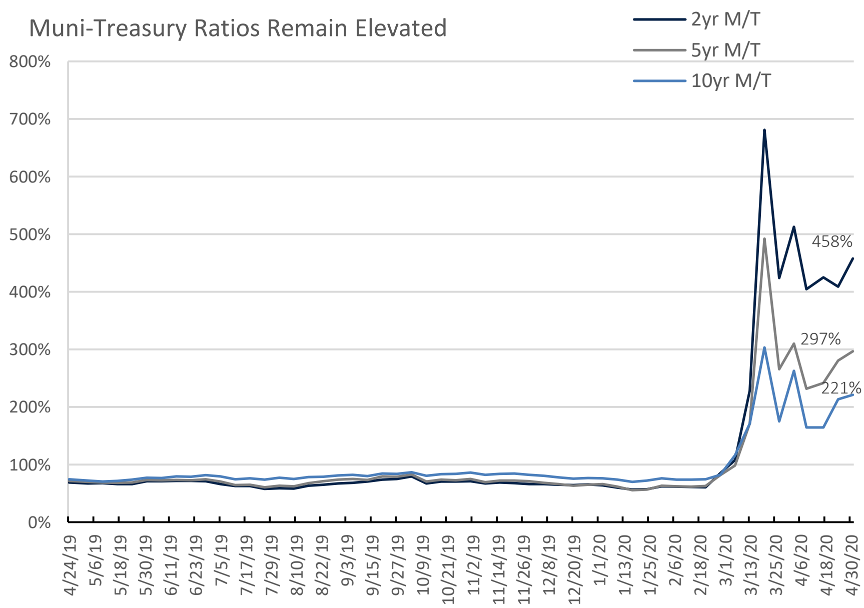
Dislocation Facilitates Value Creation

Economic fears have contributed to a flight to quality, causing UST yields to plummet to near record lows. Forced selling and illiquidity caused municipal yields to spike in Q1, although they have since receded well off March highs. Nonetheless, the AAA muni/UST yield ratio remains extremely elevated. As of 5/1, the 2Yr ratio stood at 458%, the 5Yr ratio was 297%, and the 10Yr ratio 221%.

This suggests that credit concerns are being priced-in and we feel high-quality municipals are undervalued given their ability to weather the downturn.

Market volatility presents opportunities as bond prices react to changes in risk appetite and other supply and demand dynamics. Ultimately, markets converge back to underlying long-term value. Drawing upon our credit research, we are selectively buying credits in which we maintain a high degree of confidence when bonds are available at attractive prices.



Source: Thomson Reuters

1. National Association of State Budget Officers
2. National Association of State Budget Officers, Fall 2019 survey
3. Strategas, 4/13/20

Accessibility and communication are important in any environment, although these attributes are especially valuable during uncertain and volatile times. Appleton Partners is committed to sharing our market and portfolio management perspectives as developments unfold. We hope these briefs are helpful and also invite you to reach out to us directly and/or visit www.appletonpartners.com/Insights for additional commentary and insights.

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