

History of Municipal Bond Defaults

Over the course of history, during world wars, pandemics, financial crises, and deep recessions, municipal bond defaults have been an extremely rare occurrence. There have been less than 700 rated municipal bond defaults over the 100 years of public finance existence. As a point of comparison, we saw over 117 corporate defaults in 2019 alone. Moreover, roughly 90% of the total notional value of all municipal defaults, are tied to just four bankruptcies, which include Washington Public Power System (Whoops), Jefferson County, AL Water & Sewer, Detroit, MI, and Puerto Rico. Each of these defaults were predicted by our deep credit research and were, therefore, successfully avoided by our team.

Throughout the span of modern history, municipalities, across the country, have successfully navigated prior economic recessions by applying powerful tools including cutting expenses, consistent with the reduction in revenue and tax collections they experienced. Ongoing payrolls and benefits of public employees represent the primary source of expense for most municipalities. Therefore, during times of recession, and in the absence of additional revenue, municipalities are forced to make the difficult choices which include the termination of public employees and other civil servants. Unlike corporations, municipalities have the unique flexibility to raise revenues through taxes and fees.

Is this time different?

As we re-open our economy and attempt to restore normalcy in our lives, we are faced with the grim facts that COVID-19 has exacted a deep cost resulting in over 100,000 deaths in the U.S, while, at the same time, pushing unemployment claims have surpassed 40 million just since March. While it may be difficult to see through the fog of fear and uncertainty, and the risks associated with this crisis remain unknowable in many respects, we believe there are key economic truths from which we can draw comfort and confidence.

The near universal government actions to close the US economy to “flatten the curve” so as not to overwhelm the US healthcare system with COVID patients, has had devastating consequences. Stay at home orders have had dramatic negative effects on our movement, employment, discretionary spending, and investment. Cities and states have been directly impacted as a result. The Congressional Budget office estimated that State tax revenue losses could approach \$650 billion through Fiscal Year 2022. Having said that, the monetary and fiscal response, by the Federal Reserve and US government, has been on a scale and scope like nothing we have ever seen in our lifetimes. We firmly believe the swift action by the Fed, Congress, and the President will help offset many of the losses incurred to-date, while ongoing stimulus and Quantitative Easing by the Fed will continue to heal the deep wounds inflicted on the US economy by the current healthcare and financial crisis.

The measures taken to slow down the effects of this global pandemic are like nothing we’ve experienced in our lifetimes. Yet, there are important conclusions we can draw from prior periods of economic stress. In this regard we will closely evaluate at the powerful tools municipalities have used to manage through prior periods of extreme economic stress which will help dispel many of the misconceptions about municipal default risk.

Lessons Learned from the Great Depression

It is estimated that there were 4,770 municipal issuer defaults during the Depression era. The boom in municipal issuance during the early 20th century is largely attributable to the inception of the federal income tax in 1913 and the popularization of automobile travel. Municipal bond interest was exempt from income taxes, creating demand for these securities among high income investors. On the supply side, automobiles created a need for paved roads, which states, counties and cities often financed with bonds. Communities also used bonds to finance drainage, irrigation, and levee projects to support agricultural developments and to fund school construction.

1. Diversity of Revenue

Large cities and states were especially vulnerable to property tax delinquencies due to their heavy reliance on real estate taxes. According to 1927 Census Bureau property taxes accounted for over 77% of state and local revenues at the time. The over-reliance on one revenue source can be attributed to the relative lack of municipal finance sophistication at the time. For comparison purposes, according to the U.S. Census bureau in 2010, property taxes account for less than one third of state and local revenues. The diversity of revenues today among states and cities allow for much more flexibility to navigate downturns. New York, as an example, is proportionally split between property, sales and income tax today.

2. Not All Cities or States Are Treated Equally

The post-1913 boom in issuance and subsequent bust (in terms of defaults) were not spread uniformly across the nation. Seven of 48 states accounted for 59% of the municipal defaults over the 1920-1939 period. Several states recorded ten or fewer defaults; while Maryland, Delaware, Connecticut, Vermont, and Rhode Island had no reported defaults during this period. The states with the most defaults were not necessarily the largest. Indeed, the nation's most populous state at the time, New York, experienced only eight municipal defaults. Much like today, its imperative to understand the underlying fundamental strength of the credits you own and to continue to monitor them for signs of deterioration.

3. One State Default in the History of the Municipal Bond Market

In the 1920s, **Arkansas** began to increase its construction of roads as the automobile industry began to take off. To finance these projects, municipal bonds were issued to investors. In 1927, the state took over the task of building highways from local authorities, because the locals built far more roads than they could pay for, adding to the state's debt burden. That same year, the Mississippi River flooded, resulting in the destruction of a large amount of infrastructure, including several the newly constructed roads. The state lost many cotton fields as well. Cotton was an essential product in the State. By 1933 Arkansas accumulated \$160 million in debt. Of its annual \$14 million budget, the state spent \$13 million on debt service for roads. The state simply could not keep up with its bills. In 1933, Arkansas defaulted on its bonds — the only state to do so during the Great Depression. The State government functioned essentially on federal money for two years. Only after the State passed sales tax legislation did it begin to recover. The state stopped building roads for 16 years as a result. However, within 2 years of the default, all bondholders received 100% of their interest and principal payments.

Default History

As noted earlier, default rates for municipal bonds historically have been significantly lower than corporate bonds and recovery rates materially higher. According to Moody's, over the last 48 years, a total of 113 defaults have occurred with a notional value of \$72B. That translate into an annual cumulative default rate of 0.1% for all-rated municipal bonds during this 48 year period. For comparison purposes, All-Rated Corporate Bonds had a historical default rate of 10.13% during this period.

From an occurrence perspective, 76 defaults (67%) originated from Competitive Enterprises, which are typically of lower credit quality and small in issuer size, with the Housing Sector having the most frequent incidences (45.40%). In terms of notional value, the largest sector has been General Governments with \$53B (74%) with a total of 29 defaults (26%). It is important to highlight that \$50B (94%) of this category, and 69% of all municipal defaults, is attributed solely to Puerto Rico.

As the future may not repeat the past, at least on a historical basis municipal defaults have been few and far between. What can investors learn from this data? First, defaults rarely occur within the investment grade portion of the municipal market. Problems at the issuer level are known and typically become worse over time followed by a natural progression of downgrades over years, if not decades, giving investors ample warning and opportunity to exit the credit. Second, avoidance of the most speculative portions of the municipal market combined with credit research can greatly improve the outcome.

Recovery Rates

Understanding recovery rates is your margin of safety in the event a bond defaults. On rated general obligation bonds, the recovery rate on bonds is almost 100%. The reason is that if a municipal issuer defaults on general obligation debt, the issuer is obligated to use every bit of taxation power at their disposal to satisfy bondholders. The full faith and credit of the issuer is the guarantee that is backing the bonds. For instance, a local issuer may have to increase property taxes dramatically: a state may have to increase income taxes or corporate taxes, a county may have to sell off a major park, or a small town might have to sell buildings. Whatever means can be used to get the bondholders their money has to be exercised. In many states such as California, general obligation debt of the state is mandated by its state constitution to be paid back before fulfilling many of its other obligations.

Today's Environment

Having said all we have regarding the rarity of municipal bond defaults, the current environment is unlike anything any of us have ever seen before. Therefore, we must carefully consider what we know with certainty in order to avoid credits and sectors with elevated risk. We do know that municipal defaults, while rare, have been most frequent among bonds that have no rating at all, that is they are non-rated. We also know that the frequency of default is much higher in project finance issuers, land-backed deals, multi-family housing, prisons, student loans, and solid waste or resource recovery facilities. While infrequent, other incidences of default typically involve small, distressed communities and projects with lower levels of outstanding debt yet were not in a position to raise revenue through higher taxes or fees. We avoid each of these sectors due to the elevated risks, and as a rule, do not invest in non-rated securities, give the extremely limited liquidity associated with these bonds. Given their elevated default risk we do not believe they are appropriate for our clients.

Downgrade Risk

Credits in the municipal marketplace have been subject to several downgrades and outlook revisions since nationwide stay-at-home orders have taken effect. The three major agencies have issued sector-wide downgrades, and in the case of S&P the entire asset class has been put on negative watch. Despite the sweeping downgrades, we believe that it is ultimately more of an idiosyncratic risk. Across several municipal sectors, our credit research process has identified and selected names which we believe to be either less at risk for a downgrade or highly likely to quickly rebound.

Certain examples include the essential service utility sector, where we believe entities with a captive market or monopolistic position should see little to no credit impact as a result of stay-at-home orders. We have closely analyzed the transportation sector, including airports, transit systems, and toll roads; and see opportunity in specific credits. These include names with a strong competitive position to quickly recapture the market, ample liquidity to comfortably bridge a steep drop in utilization, and in some cases a location in political jurisdiction which have to this point been more aggressive in lifting stay-at-home orders. We have also found opportunity in the healthcare and continuing care retirement facility space. Despite negative press generated about these sectors during the public health crisis, we have closely tracked specific names with strong response protocols, adequate liquidity, and capacity to ramp back up quickly.

State-Specific Risk

Despite the negative impact of decreased tax revenue, we believe that, generally speaking, states are strongly positioned and have multiple levers to pull to increase revenue or cut expenditures in the face of an economic downturn.

One of the many consequences of the Great Recession of 2008-09 is that states began to far more seriously build up financial reserves to help soften the blow of the next economic downturn (oftentimes referred to as "rainy day funds"). A decadelong run of economic prosperity which brought about skyrocketing tax collections, combined with more responsible fiscal behavior, lead state financial reserves to be at an all time high on the eve of the coronavirus pandemic. A study by Pew Charitable Trust in early 2020 found that the 50 states combined to hold rainy day balances of \$74.9B in FY 2019, equal to approximately 7.7% of total state government spending. In 2007, this level was only 4.7% of total government spending. 34 of the 50 states had higher rainy day fund balances in FY 2019 compared to FY 2007, and Connecticut and California in particular have fortified their reserves during this time.

There are a number of revenue-raising initiatives in specific states which are being put to a vote or debate later this year. California's split-roll proposal and Illinois' graduated income tax both will be decided by voters at the ballot in November, while New Jersey's millionaire's tax and Connecticut's tolling plan are both being debated in their respective legislatures. Although we'll reserve political comment on the implications of any of these plans, we do ultimately feel that additional revenue, if used responsibly, helps to improve state fiscal health.

State Bankruptcy

Given recent comments by Senate majority leader Mitch McConnell, regarding his preference for states to declare bankruptcy, we felt it was important to address his statements directly. First and foremost, state bankruptcy is unconstitutional as it violates Article 1 Section 10 of the US Constitution, which prohibits States from impairing the obligations of contracts. The last time the notion of state bankruptcy was raised, during the Credit Crisis of 2008, it was roundly dismissed, on a by-partisan basis, together with Wall Street, state governors, and mayors. McConnell has already begun to qualify his comments as they appear to have been largely political in nature. He went on to discuss, in detail, his strong feelings toward unions and the unfunded pension plans for, what he considers, profligate states. We believe Senator McConnell was also setting the stage for difficult Congressional negotiations relating to a "phase four" Federal recovery bill which is expected to provide additional financial support directly to municipalities. Although the comments surely generated headlines and inquiry from investors, the reality, is that state default is one of the least likely outcomes, in our view, and remind us of the headline grabbing predictions for 100's of billions in defaults by Citi analyst Meredith Whitney in 2011.

Unprecedented Government Intervention

To forestall an even deeper economic recession, or perhaps even a depression, the President and Congress worked together to quickly pass historic legislation, including the \$2 trillion CARES Act. This money, in the forms of loans, grants and tax relief, will go further to supporting families, small businesses, not-for profits and municipalities during this difficult period of dislocation. Roughly \$250 billion will be given to municipalities and hospitals directly for recovery. In addition, the Cares Act provides authority to the Federal Reserve (Fed) to buy municipal bonds as part of its Quantitative Easing powers. The Fed also created the Municipal Lending Facility which will provide \$500 billion dollars in liquidity to municipalities as they seek to navigate the temporary period of delayed tax revenue. On April 27th, the Federal Reserve announced the expansion of scope and duration of this program allow more municipalities to borrow from this facility. Each of these steps was important and timely in order to ensure that municipalities didn't add to the tens of millions of citizens that are now out-of-work.

Phase 4: There seems to be bipartisan agreement and public support for a Phase 4 deal which will likely focus on providing direct assistance to municipalities and states to offset lost revenues and help with emergency and preparedness measures. There have been discussions of between 500billion-1 trillion in direct support to state and cities.

As history has shown and regardless of the outcome of future Gov't Stimulus, states and municipalities already have the powerful tools necessary to successfully navigate the current economic downturn. Without Federal support, municipalities will be forced to cut their budgets deeply, firing teachers, firemen and women, police, as well as all varieties of public employees. They will also raise revenue by increasing taxes and fees over time. We are confident that the administration and Congress are fully aware that deep cuts and higher taxes and fees would crush any hope of meaningful economic recovery in the near-term. Therefore, agreement on additional Federal aid to municipalities is the most likely outcome in our view. We, of course, will continue to monitor financial and economic conditions, as well public policy initiatives, very closely in the days and weeks ahead.