IR+M INCOME RESEARCH + MANAGEMENT

IR+M UPDATE
History in the Making

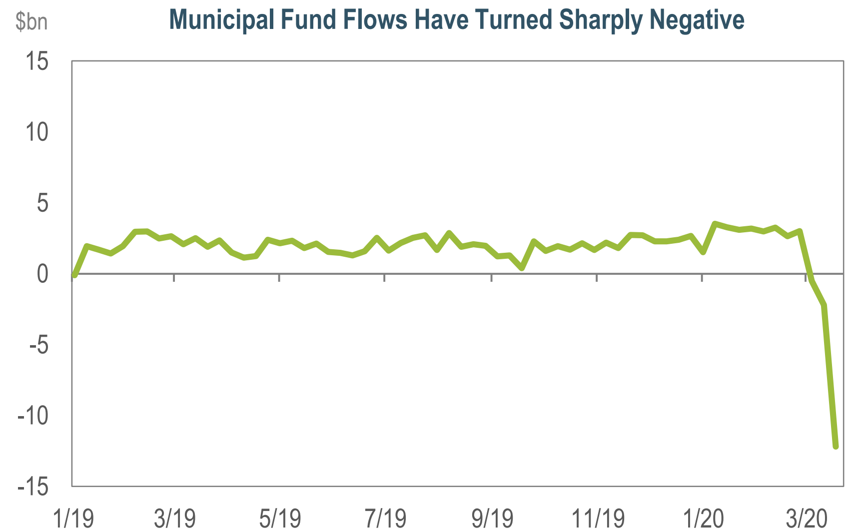
March 24, 2020

The municipal bond market is making history. Earlier in 2020, market performance was strong. Investor demand was robust – outstripping supply – as evidenced by 60 consecutive weeks of mutual fund inflows. Yields – and muni/Treasury ratios – were low across the curve. Overall credit fundamentals were solid. Then, the coronavirus gained momentum. As the virus evolved into a pandemic, investor concerns intensified, prompting a liquidity crunch that spread to the technically-driven municipal market. Even the highest quality credits were affected. While the municipal market may be temporarily dislocated, we believe that stability is forthcoming.

Where Has All the Liquidity Gone?

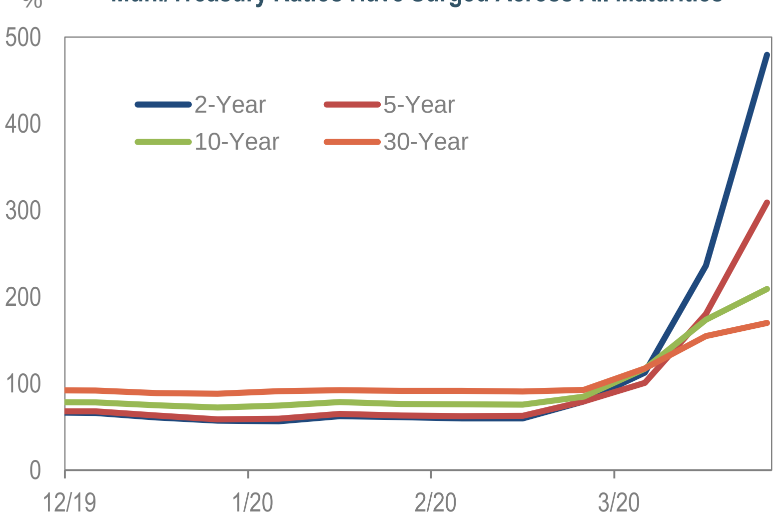
- The magnitude of municipal outflows in the period ending March 18th was unprecedented. After 60 successive weeks of inflows, muni bond funds experienced net redemptions for three straight weeks. Last week, muni bond funds returned a record $12.2 billion to investors, and sustained their worst one-week return (-4.8%) since October 2008 (-5.6%). For context, the $12.2 billion of outflows was approximately three times greater than the previous high.
- The muni market is not immune to the liquidity pressures facing many other asset classes. That selling pressure resulted in a flood of bids wanted in competition (an estimated $740 million) on March 19th.

Municipal Fund Flows Have Turned Sharply Negative



- As redemptions increased, so did dealers' balance sheets, which were largely comprised of variable rate demand obligations (VRDOs). Given that VRDOs were not eligible for the Federal Reserve's (Fed) Money Market Mutual Fund Liquidity Facility (MMLF), many investors exercised their put options, and tendered these securities back to the dealers.

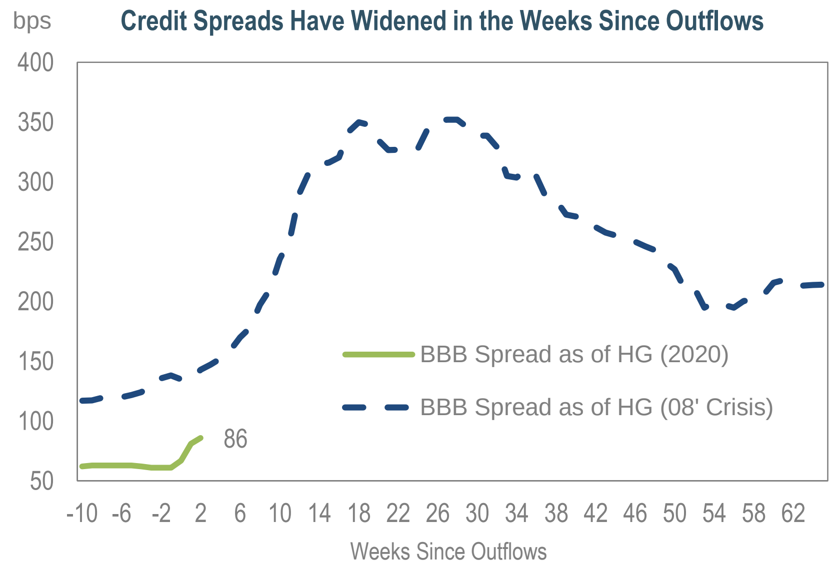
Muni/Treasury Ratios Have Surged Across All Maturities



- With a mounting inventory of VRDOs and no buyers, the SIFMA Index, which is a seven-day high-grade market index comprised of VRDOs, ballooned from 1% to over 5% in a two week period. Closing at 5.2% on March 20th, it was the highest weekly SIFMA reset rate since reaching nearly 8.0% in September 2008.
- Without long-term issuance, the market struggled to find a consensus on new levels – further stifling liquidity.
- In an atypical move, Municipal Market Data (MMD) raised the yields on its benchmark AAA scale by 50bps across the curve in one day. The 10-year muni yield rose to 2.3%, and the 10-year muni/Treasury ratio, which had been as low as 75% three weeks ago, exceeded 200%.

The Fed to the Rescue?

- On March 20th, the Fed expanded the MMLF from solely prime money market funds, which invest in short-term corporate bonds, to certain municipal money market funds. Additionally, the Fed will now accept highly-rated municipal debt with maturities of less than one year as collateral for the program.
- Presently, the Fed's intervention does not impact longer-dated munis, which are also under pressure. Help could be on the way in the form of the Municipal Bonds Emergency Relief Act, which was introduced in the Senate on March 20th. Under this act, the Fed could buy municipal debt under "unusual and exigent circumstances."
- It is too early to predict how the Fed's involvement will impact credit spreads. With the 2008 crisis as a guide, more widening is likely ahead.



Possible Turbulence Ahead

- We believe that the current pressure on the muni market is technical, and not yet fundamental, in nature. However, in response to the coronavirus turmoil, we feel that certain sectors should be viewed with enhanced caution. Our credit analysts have opined on two sectors that we believe are generating the most questions: Airports and Hospitals.
- Airports:
  - Coronavirus concerns continue to negatively impact enplanements as government restrictions, recommendations against travel, and tourist destination closures reduce demand.
  - Enplanements could decline an estimated 50% over the spring, and potentially 20% for 2020.
  - Airports have the ability to adjust airline charges and rates to maintain balanced operations. However, deteriorating airline fundamentals could impair carriers' ability to make timely stepped-up payments.
  - On average, large scale airports have over one year of liquidity in cash on hand, which may be used as airline relief in the upcoming months. This could lead to credit deterioration, especially for small and mid-size airports.
- Hospitals:
  - Moody's revised its outlook for US not-for-profit and public healthcare to negative, citing cash flow constraints.
  - Revenue will likely decline due to a rise in the cancellation of more profitable elective surgeries and procedures.
  - Expenses could rise in response to higher staffing and protective equipment costs, which could pressure margins.
  - Hospitals with already slim debt service coverage and/or days cash on hand could be at risk of breaching bond covenants.

We believe that we are living through extraordinary times, from both a health and financial perspective. As we prudently navigate this challenging landscape, we think that there are opportunities to be had for long-term investors. We endeavor to exercise carefully considered trades, while adhering to our core principal of capital preservation. As always, at IR+M, we take what the market gives us, and strive to do what is best for our clients.