S&P Dow Jones Indices

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Research

Should Municipal Bonds Be Considered "Core"?

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In the current financial environment, the often misunderstood municipal bond market is not considered to be a "core" asset class by many investors, nor is it labeled as such by institutions offering financial products to investors. However, it could be argued that investment-grade municipal bonds meet some qualifications to be "core."

In this paper, we have examined some of the reasons U.S. investment-grade municipal bonds could be considered a "core" asset class.

LARGE AND DIVERSE MARKET

According to the Securities Industry and Financial Markets Association (SIFMA), the municipal bond market had over USD 3.7 trillion outstanding as of June 2019. There are approximately 1.6 million different municipal bonds outstanding, from tens of thousands of different issuers.

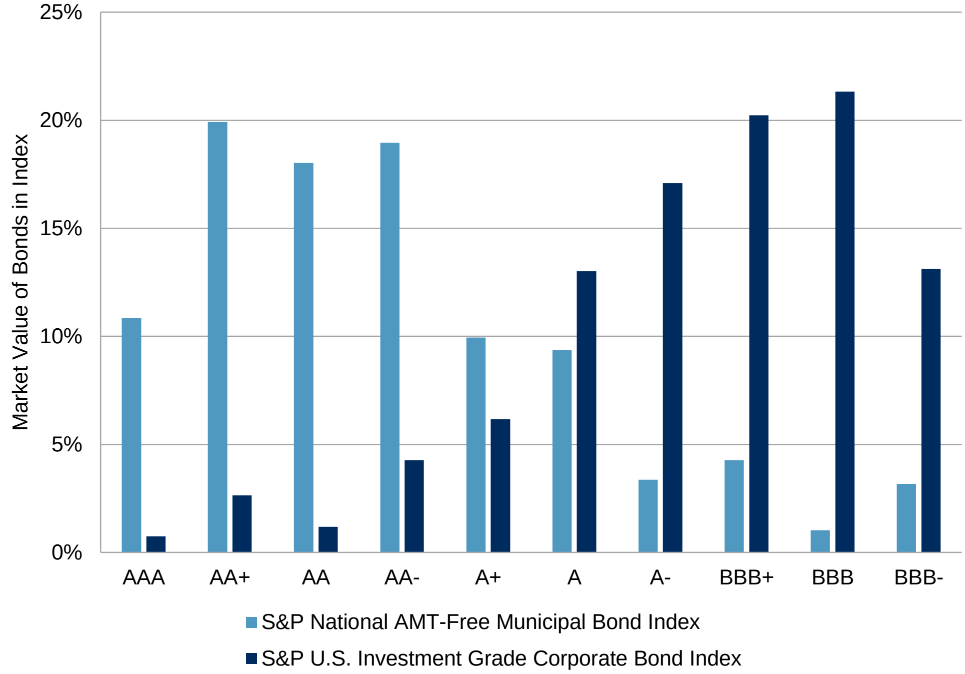
HIGH QUALITY

The average rating (from Moody's, S&P Global Ratings, or Fitch) of investment-grade bonds in the S&P National AMT-Free Municipal Bond Index is higher than the average rating of bonds in the S&P U.S. Investment Grade Corporate Bond Index. The low interest rate environment following the global financial crisis spurred many corporations to take on more leverage. As a result, the composition of the U.S. investment-grade corporate bond market changed dramatically—as of July 31, 2019, over 55% of the U.S. investment-grade corporate bond market was BBB-rated. Exhibit 1 compares the credit profile of the investment-grade municipal bond market to the U.S. investment-grade corporate market.

As of June 2019, there were approximately 1.6 million different municipal bonds outstanding…

…from tens of thousands of different issuers.

Exhibit 1: Investment-Grade Ratings of Municipal Bonds versus Corporate Bonds



Source: S&P Dow Jones Indices LLC. Data as of July 31, 2019. Chart is provided for illustrative purposes. Notes: Pre-refunded accounts for 0.5% of the 10.8% municipal AAA.

LOW DEFAULT RATE

Municipal bonds have had some of the lowest default rates among U.S. bond categories.

According to our research, the mid-year 2019 12-month trailing default rate for municipal bonds was 0.05% (as measured by the number of defaults versus the number of bond deals outstanding). Apart from U.S. Treasuries, it would be difficult to find another category of U.S. bonds that has had a lower a default rate (see Exhibit 2).

Exhibit 2: 12-Month Trailing Default Rates

<table>
<tr><th rowspan="2">YEAR</th><th>NEW MONETARY DEFAULTS</th><th colspan="2">S&P MUNICIPAL BOND INDEX</th><th colspan="2">S&P MUNICIPAL BOND HIGH YIELD INDEX</th><th>U.S. SPECULATIVE-GRADE CORPORATE BONDS</th></tr>
<tr><th>NUMBER OF DEALS ENTERING DEFAULT*</th><th>TOTAL NUMBER OF DEALS IN INDEX</th><th>DEFAULT %</th><th>TOTAL NUMBER OF DEALS IN INDEX</th><th>DEFAULT %</th><th>DEFAULT %</th></tr>
<tr><td>2016</td><td>27</td><td>21,822</td><td>0.12</td><td>2,916</td><td>0.93</td><td>5.21</td></tr>
<tr><td>2017</td><td>49</td><td>30,489</td><td>0.16</td><td>2,890</td><td>1.70</td><td>3.09</td></tr>
<tr><td>2018</td><td>34</td><td>34,688</td><td>0.10</td><td>3,863</td><td>0.88</td><td>2.42</td></tr>
<tr><td>YTD (As of June 2019)</td><td>18</td><td>35,349</td><td>0.05</td><td>4,304</td><td>0.42</td><td>2.36</td></tr>
</table>

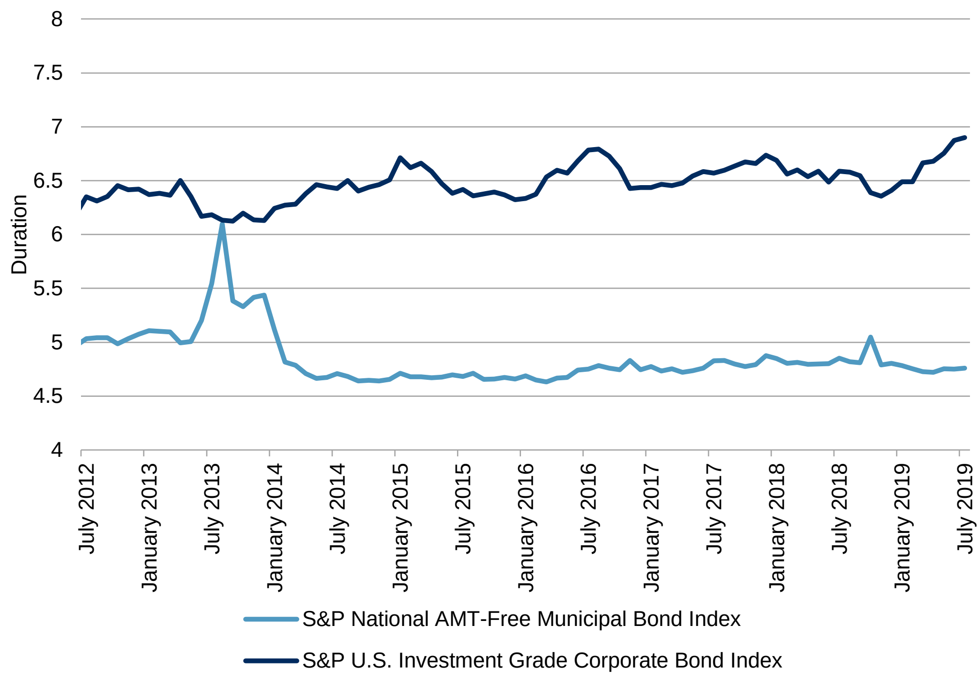
Source: S&P Dow Jones Indices LLC, S&P Global Ratings Research. Data as of June 30, 2019. Table is provided for illustrative purposes. Past performance is no guarantee of future results. *Deals in index defaulting on principal and/or interest for the first time.

DURATION

It is a common misconception that municipal bonds have longer durations than corporate bonds.

It is a common misconception that municipal bonds have longer durations than corporate bonds. As of July 31, 2019, the modified duration of the S&P National AMT-Free Municipal Bond Index (tracking only investment-grade bonds) is two years shorter than the modified duration of the S&P U.S. Investment Grade Corporate Bond Index. Again, low interest rates have resulted in U.S. corporations not only borrowing more, but locking in those low interest rates for longer maturities. All else being equal, a shorter duration may indicate less drastic price movements when rates rise or fall.

Exhibit 3: Duration of Investment-Grade Municipal Bonds versus U.S. Corporate Bonds



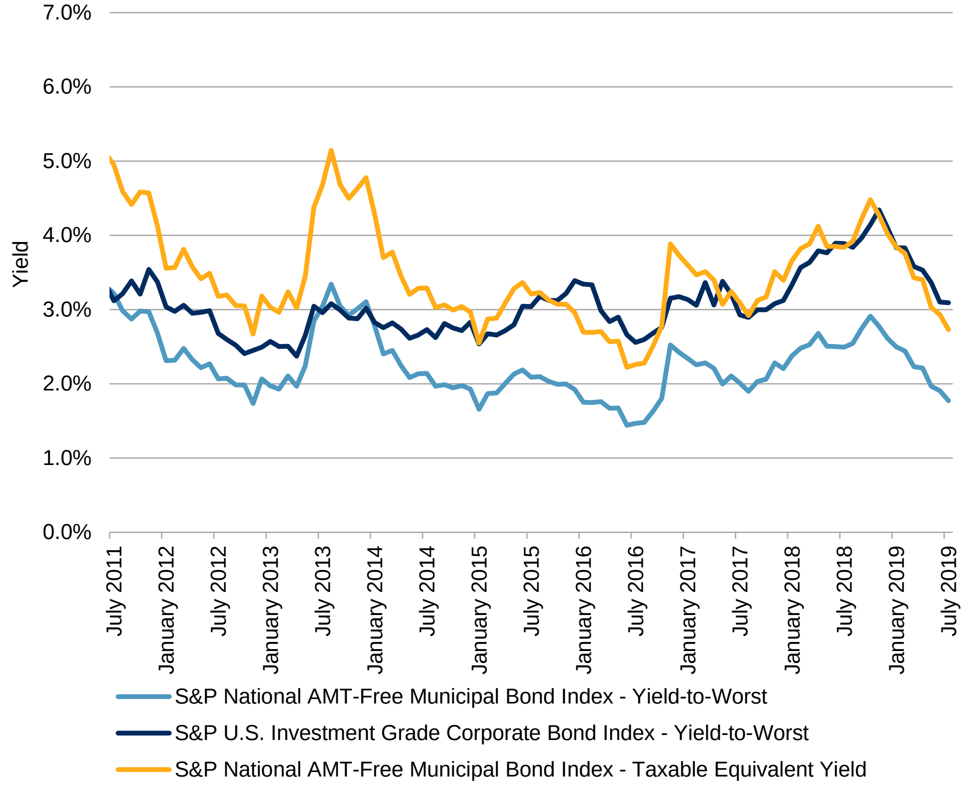
Source: S&P Dow Jones Indices LLC. Data as of July 31, 2019. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

YIELD

The taxable equivalent yield of municipal bonds is competitive with that of taxable bonds.

The nominal yield of tax-exempt municipal bonds is generally lower than that of corporate bonds. However, when studied from the perspective of how much return an investor actually keeps after taxes, the story is different. Taxable equivalent yield (TEY) is the yield at which a taxable bond would have to return for the investor to keep the same return as a tax-free municipal bond. The TEY of municipal bonds is competitive with that of taxable bonds (see Exhibit 4).

Exhibit 4: Yield of Municipal Bonds versus U.S. Corporate Bonds



Source: S&P Dow Jones Indices LLC. Data as of July 31, 2019. TEY is calculated using a 35% tax rate. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information on the inherent limitations associated with back-tested performance.

Most municipal bonds have a smaller par amount than corporate bonds.

LIQUIDITY

However, investment-grade municipal bonds are far from illiquid.

U.S. municipal bonds are less liquid than their corporate bond counterparts, and that lower liquidity may play an important role in the yields and prices of municipal bonds. The liquidity penalty is difficult to measure. Most municipal bonds that are sold in the market have a smaller par amount than corporate bonds. In addition, due to the number of different issuers and the number of municipal bonds outstanding, there are usually a larger number of unique municipal bonds available in the market than in the corporate bond market. However, investment-grade municipal bonds are far from illiquid. During the 12-month period ending July 2019, an average of 66.6% of the more than 10,500 bonds in the S&P National AMT-Free Municipal Bond Index traded each month. The average traded size of those bonds during that period was over USD 250,000.[1]

[1] Sources: S&P Dow Jones Indices LLC and the Municipal Securities Rule Making Board (MSRB). Data as of June 30, 2019.

PUBLIC GOOD

U.S. municipal bonds serve as an important infrastructure funding source.

U.S. municipal bonds serve as an important infrastructure funding source. Public works such as roads, highways, bridges, tunnels, airports, ports, and schools are built and maintained because they are funded by bonds.

CONCLUSION

Investment-grade municipal bonds have many of the characteristics that are considered to be "core."

The large and diverse municipal bond market shows an overall higher quality and has historically shown a low default rate when compared with U.S. corporate bonds. The relatively short durations seen in municipal bonds also draw attention to the asset class, along with its competitive yield characteristics. Municipal bonds could be an option for a wide range of investors, and their liquidity and relevance to U.S. infrastructure could make them increasingly important as time goes on. In summary, investment-grade municipal bonds have many of the characteristics of other asset classes that are considered to be "core."

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The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

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