Increased Risk Highlights Need for ESG Analysis in Municipal Bond Market

ESG factors are having an increasing impact on municipal bonds.

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Maria Elena Drew
Director of Research, Responsible Investing

Hugh McGuirk
Head of Municipal Bond Team

KEY INSIGHTS

- The generally high-quality, low-volatility profile of municipal bonds, and the tax-advantaged income generated, underscores the appeal of this asset class.
- Increasingly, environmental, social, and governance (ESG) factors are playing a key role in assessing the risk environment for the municipal bond market.
- The integration of ESG factors, alongside traditional fundamental credit analysis, is an increasingly crucial part of municipal bond investment decisions.

Understanding the impacts of climate change and growing economic inequality are key to assessing the risk landscape for municipal bonds.

As the United States continues to experience the impacts of climate change—wildfires, extreme storms, rising sea levels, hotter heat waves, longer droughts—we expect to see knock-on implications for the municipal bond market. It seems reasonable to suggest that, over time, state, city, and local governments will need to issue more bonds to finance the infrastructure required to build a more climate resilient country.

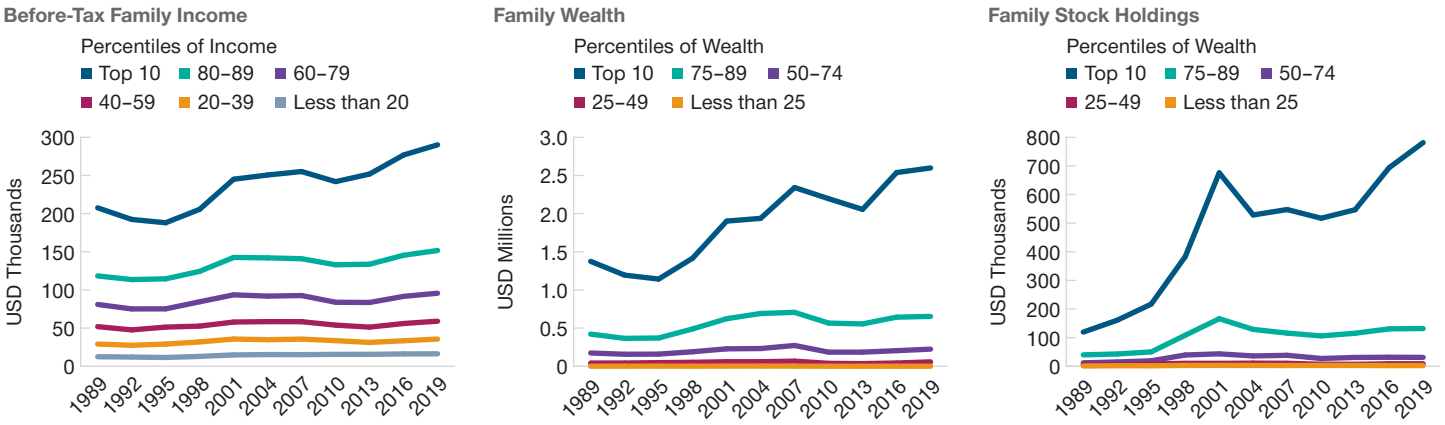
For example, the combination of population growth and changing precipitation patterns are threatening the sustainability of water supplies from the Colorado River, one of the most important water resources in the semiarid Western United States. Prolonged water shortages on the Colorado River will likely have a cascading effect on a wide range of factors, including agriculture, forestry, energy, drinking water, and tourism—these in turn will impact the fortunes of municipal bond issuers in the region in our view.

Another issue that is changing the risk landscape for municipal bonds is the rise of social inequality, which has sadly been amplified by the coronavirus pandemic. Every three years, the Federal Reserve releases its Survey of Consumer Finances. The latest report shows how rising income gains and home prices have fueled an improvement in overall personal finances—but it also highlights how that growth is concentrated in the top 10% (Figure 1).

Understanding how issues like climate change and inequality will affect municipal bond issuers is an increasingly more important part of a credit analyst's job. These are two issues that fall under the umbrella of environmental, social, and governance (ESG) analysis. At T. Rowe Price, we have embedded ESG analysis across our investment

Improvement in Overall Wealth has Been Concentrated in the Top 10%

(Fig. 1) The coronavirus has also amplified social inequality



As of December 31, 2019.
All figures are in U.S. dollars. Stock holdings include indirect ownership, including through 401(k) accounts.
Source: U.S. Federal Reserve.

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> *Head of Municipal Bond Team*

research platform. This includes developing a specific framework for municipal bond analysis.

The Appeal of Municipal Bonds

The U.S. municipal bond market is composed of sub-sovereign debt issued by cities, states, counties, or other local governments. Additionally, not-for-profit entities, such as hospitals and higher education institutions, also issue in the municipal bond market. The bonds are broadly divided into two categories: (i) general obligation bonds backed by tax inflows and (ii) revenue bonds backed by revenues from a specific project, such as toll roads. In addition to the generally high-quality and low-volatility profile of the municipal bond market, the tax-advantaged nature of the income generated further enhances the appeal of municipal bonds. At a minimum, income is exempt from federal tax, and depending on where the bonds are issued, may also be free of state and local taxes. (Note: federal alternative minimum tax (AMT) may apply for some investors.) With expectations of a higher tax environment in the U.S., the tax exemption is particularly attractive, especially for U.S.-based investors on a higher marginal tax rate.

At the same time, the municipal market is inherently ESG-focused, providing essential funding for key projects around the country. The proceeds from state and local government debt issuance often contribute to positive social and environmental outcomes, funding either new or upgraded physical infrastructure (water treatment plants, transportation links, hospitals, etc.) or improvements in the social infrastructure, such as in education, health care, and renewable energy.

Sustainability Risk Has Increased

The coronavirus pandemic created considerable headwinds for the municipal market, and while many issuers, with the assistance of federal aid, fared better than expected, it will take some time before the full impact of the crisis becomes clear. State governments' frontline health care spending, for example, were at greatly elevated levels, while a shift in housing preferences, out of cities, is also evident. As such, the integration of ESG factor analysis, alongside traditional fundamental credit analysis, serves as a crucial input in determining the overall credit quality of municipal bonds.

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We believe that governance factors, such as poor budgetary practices or corruption, will affect an issuer's ability to raise revenues from taxes or other types of income. Similarly, those issuers that think beyond immediate budgetary needs and make investments intended to strengthen the social fabric of their communities are likely to be advantaged, as inclusive communities tend to be more settled and harmonious and, thus, pose potentially lower risk for issuers. Meanwhile, environmental criteria, such as the carbon footprint of a state's energy production or the risk of natural hazards, will likely be key influences on creditworthiness. Where the latter is concerned, the California wildfires or the hurricanes that periodically batter the East Coast highlight the kind of natural event risk that can cause extreme damage to property and severely disrupt human and economic activity.

Regulation and Disclosure Standards

It is also important to note that municipal bonds are not subject to the same regulation and disclosure requirements as corporate bonds, for example. This further highlights the need for a bespoke, hands-on approach to ESG analysis within the municipal bond market in order to fully understand the potential risks associated with each issuer. This deep understanding is also key in navigating a path of engagement and encouraging good governance.

Our ESG Investing Approach

ESG analysis is one of the many building blocks that make up T. Rowe Price's investment research platform. We have invested heavily in people and systems to develop a comprehensive, systematic, and proactive process for evaluating ESG factors that could impact our investments.

Integrating ESG Factors to Enhance Investment Decisions

ESG analysis is integrated into our fundamental investment process, which means ESG factors are considered in tandem with traditional criteria, such as financial, valuation, macroeconomic, and other factors as part of investment decision-making (as appropriate to the strategy). Our philosophy is that ESG factors are a component of the investment decision: They are not the sole driver of an investment decision, nor are they considered separately from more traditional analysis.

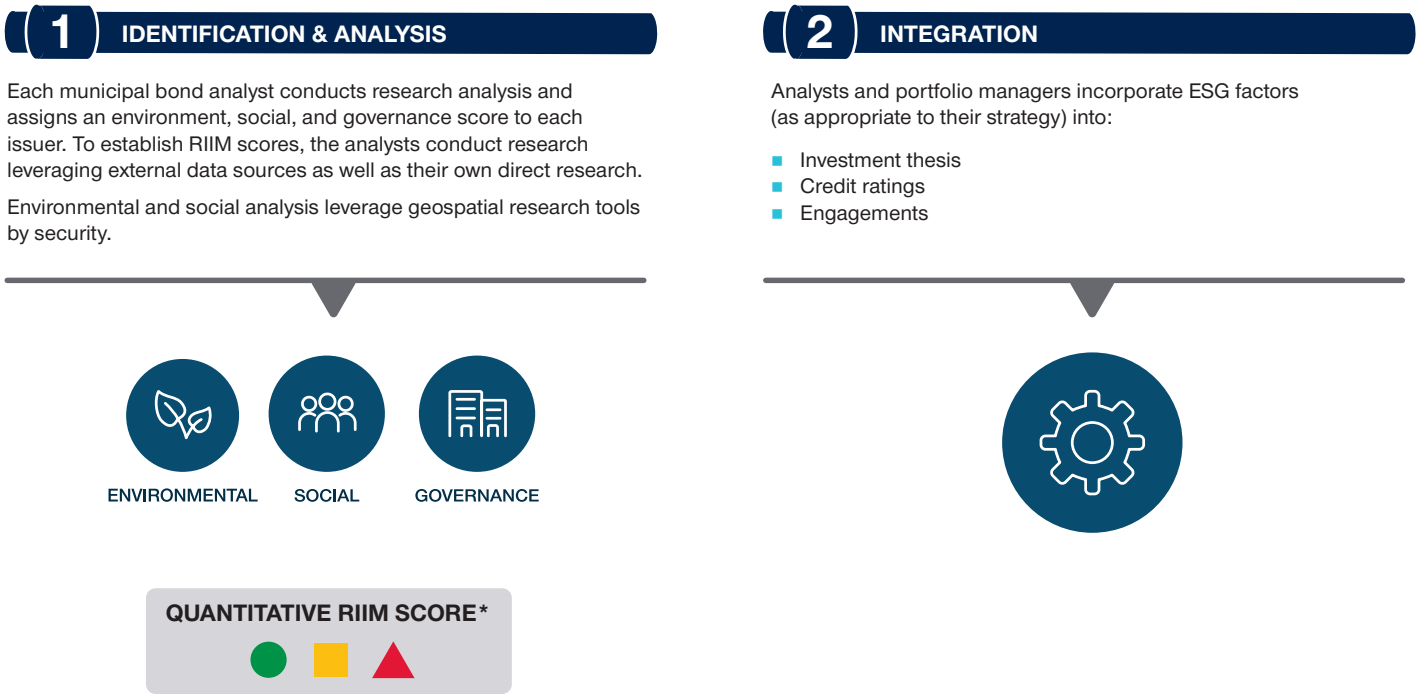
While governance and social risk are a big part of the municipal bond market and our analysts have long included analysis of these factors as part of their research, more recently we have added better capabilities to evaluate environmental risk. Additionally, we have formalized our ESG analysis with the development of a framework designed specifically for municipal bonds called the Responsible Investing Indicator Model (RIIM). Unlike other asset classes, quantitative ESG data sets are less developed for municipal bond issuers—so we have taken a differentiated approach to ESG analysis for this asset class. Our approach leverages the external research providers as well as the investment research conducted by our credit analysts and portfolio managers.

Importantly, our analysis focuses on the ESG factors deemed to have a material impact on the performance of investments in our clients' portfolios. The following graphic describes the two-stage integration process.

For credits with orange or red assessments, analysts must address the underlying reasons in their formal review of the credit and should include them in the conclusion and recommendation section of their report. Any red assessments are to be immediately brought to the attention of the portfolio manager(s).

Responsible Investing Indicator Model (RIIM) Framework for Municipal Bonds

(Fig. 2) The unique nature of municipal bonds requires a bespoke approach to ESG analysis



For illustrative purposes only.
*Green (circle) indicates no/few flags, orange (square) indicates medium flags, red (triangle) indicates high flags.

The example below is a high-level illustration of the ESG factors considered in our evaluation process and the scoring table that is included in each credit's formal review.

One of the benefits of applying a formalized ESG framework to our analysis is that it provides a way to measure these environmental, social, and governance factors. This makes it easier to compare issuers on what are oftentimes quite qualitative factors.

Another benefit to our RIIM municipal bond framework is that it has strengthened our environmental analysis, providing a deeper and more rounded perspective on the specific environmental risks of individual municipal bonds. Our analysis includes geospatial research tools provided by a third party that help identify if an issuer might be exposed to coastal flooding, drought, or other environmental risks. Once identified, our credit analysts can drill deeper to determine the materiality of that risk, considering things like the concentration of economic activity and the potential business disruption, as well as any mitigation policies or strategies in place should such a climate event occur.

Conclusion

For municipal bond investors, ESG risks incorporate the long-term sustainability of a project and the possibility of lower costs, reduced waste, and more efficiency over time, which will likely contribute to underlying credit strength. Research suggests that the implementation of sustainable practices can create efficiencies to potentially improve investor value and mitigate risk over time. Accordingly, we see the integration of ESG factors,

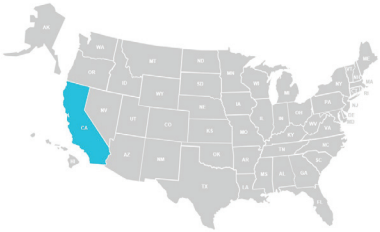
alongside traditional fundamental credit analysis, as a crucial part of the investment decision-making process. However, the unique and complex nature of the municipal bond market requires a bespoke approach to ESG analysis. Ultimately, we believe that integrating ESG analysis provides a more comprehensive view of issuer creditworthiness and a better understanding of broader risk factors over time.

ESG Integration in Action—Illustrative Example

(Fig. 3) State of California

OBLIGOR OVERVIEW

California's economy is the largest in the United States (USD 3.1 trillion). Major sectors include high technology, trade, entertainment, manufacturing, government, tourism, construction, and services. The relative proportions of the different industries of the California economy closely resemble the makeup of the U.S. economy.



INVESTMENT ANALYSIS

- General obligation bond appears to be undervalued versus historical levels and also relative to peer bond issues.
- Our belief is that the state's fiscal woes are not as dire as the consensus. We believe that state has benefited from prudent budgeting and strong economic growth.
- State is actively managing its elevated climate risks, and social dynamics are attractive.

ESG IN DEPTH

- The state is vulnerable to the impact of climate change, but its property value at risk is low.
- The state has had a climate adaptation strategy in place for over a decade.
- Housing affordability is problematic, but a high concentration of employment in technology means flexible working is increasing, allowing employees to move to more affordable areas.
- 44% of the state's population is employed by industries immediately impacted by the coronavirus; however, capital gains and personal income taxes make up a big portion of state revenues (the top 1% pays 50%).

ENVIRONMENT		SOCIAL		GOVERNANCE	
Climate	Preparedness	Demographics	Involvement	Management	Reporting
Climate Risk ▪ Property value at risk is low. ▪ Wildfires are intensifying in the state, but programs to address the problem are already having a meaningful impact on the budget. ▪ The state is also at high risk for increased droughts. **Preparedness** ▪ The state has had a climate adaptation strategy for well over a decade. ▪ Forest management measures are now being implemented.		**Demographics** Home affordability and homelessness are concerns in the state, particularly in urban areas. The median home value is 236% of the U.S. median and has been growing at a 5-year compound annual growth rate (CAGR) of 10.2%.		**Management Quality** ▪ Years of structural budget balance and buildup of reserves have positioned the state well to withstand the effects of the coronavirus crisis. Additionally, the state has strong expense-cutting ability. **Reporting Standards** ▪ California was the last of all 50 states to release its FY2019 comprehensive annual financial report (CAFR). ▪ Pension CAFRs lack clarity in terms of cumulative burden on the state.	

As of September 15, 2020.

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Source: T. Rowe Price.

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