When U.S. Public Finance Ratings Change, ESG Factors Are Often The Reason

March 28, 2019

Key Takeaways

- Our criteria contain key credit factors that enable us to incorporate existing and emerging environmental, social, and governance (ESG) risks and opportunities into our ratings.

- For 2017 and 2018, we identified ESG factors as drivers for 34% of 3,315 U.S. Public Finance rating actions.

- Governance was the most dominant factor affecting credit quality (67% of rating actions), followed by social (28%) and environmental (5%).

- ESG-led rating actions were slightly more negative than positive, with 44% (or 495) being positive rating actions and 56% (or 621) negative.

- We expect ESG factors to become more explicit factors of rating actions as awareness by market participants grows and transparency and disclosure improve.

S&P Global Ratings performed a two-year review of environmental, social, and governance (ESG) factors in our criteria and how they influenced, positively or negatively, the credit profile of our U.S. public finance (USPF) entities. These include local governments and states, as well as health care, housing, higher education, charter school, utility, transportation, and public power enterprises. From Jan. 1, 2017, to Dec. 31, 2018, we found that ESG factors were primary credit drivers in 34% of the total 3,315 USPF rating actions.

Governance and management issues, at 67%, were the most likely factor to lead to a rating action across sectors, although some sectors (such as public power, utilities, and transportation) were more sensitive to environmental issues as well. Social issues were a factor in about 28% of the rating actions we took. We believe this overall distribution could change as transparency and disclosure practices of rated issuers improve.

This report is part of a series covering the impact of ESG factors in S&P Global Ratings' credit ratings (see "Related Research" section for more information). It complements "Through The ESG Lens: How Environmental, Social, And Governance Factors Are Incorporated Into U.S. Public Finance Ratings" (published Oct. 10, 2018, on RatingsDirect) and our subsequent sector-specific publication "For Water Utilities, ESG Is Just Business As Usual" (published Dec. 12, 2018), both of
Methodology

We define rating action as a change in a rating (upgrade, downgrade, or withdrawal if not at the issuer’s request), an outlook revision, or a change in CreditWatch status. Likewise, we define ESG factors as those positive or negative credit considerations associated with environmental; social and demographic; and management, governance, or institutional factors outlined in our criteria. When we view these considerations to be material and visible, we believe they can affect creditworthiness and, ultimately, an issuer’s ability to meet full and timely debt service. This can happen by influencing their capacity to serve the public (e.g., providing services, a public good, product, or infrastructure); and/or their long-term fiscal sustainability, physical resilience, responsiveness to public demands and market changes, or organizational effectiveness. Because public finance issuers provide essential services and infrastructure, we believe many ESG factors are fundamental to and embedded into our analysis and are often key credit determinants in our USPF ratings (see table 1).

Table 1

Rating factors:

<table>
<thead>
<tr>
<th>Environmental</th>
<th>Social</th>
<th>Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Sea level rise; extreme weather events, inland flooding;</td>
<td>– Demographics changes and population trends affecting need or demand for government services, not-for-profit enterprise’s product or infrastructure</td>
<td>– Federal/State framework</td>
</tr>
<tr>
<td>– Longer-term changes in climate affecting resiliency, water supply, agricultural production</td>
<td>– Income levels, income inequality, population trends</td>
<td>– Management &amp; policy framework</td>
</tr>
<tr>
<td>– Swings (positive or negative) to demand for a not-for-profit enterprise’s product, supply chain disruption, of necessary inputs to production or services</td>
<td>– Dependent populations</td>
<td>– Political discord/harmony</td>
</tr>
<tr>
<td>– Costs or benefits from a transition to newer, more environmentally beneficial production or user base; environmental regulation</td>
<td>– Affordability of service provided by enterprises</td>
<td>– Transparency of policies, information, decision-making, and disclosures</td>
</tr>
<tr>
<td>– Impact of regulations including managing carbon emissions</td>
<td>– Tax structure, taxing ability</td>
<td>– Headline risk: impacts of self-inflicted controversies, corruption &amp; misdealing, such as adverse publicity</td>
</tr>
<tr>
<td>– Environmental violations, consent decrees</td>
<td>– Exposure to labor unrest</td>
<td>– Organizational structure</td>
</tr>
<tr>
<td></td>
<td>– Exposure to political unrest/terrorism</td>
<td>– Risk culture and risk mitigation including cyber security</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Deferred maintenance requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>– Pension and OPEB exposure</td>
</tr>
</tbody>
</table>

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Our methodology consisted of reviewing over 3,300 credit rating actions posted to RatingsDirect from Jan. 1, 2017, to Dec. 31, 2018. We excluded rating actions following bond defeasances and withdrawals when they are at the issuer’s request. However, we included withdrawals related to insufficient disclosures and lack of timely information, which we consider a reflection of poor management and governance. We then analyzed the remainder using natural language processing tools to identify particular words or phrases relating to ESG factors, complemented by qualitative interpretation of the results. Examples include hurricane (E), enrollment (S), and management policies (G), which associate directly with the items listed in table 1.

We excluded several key credit factors. Notable examples include rating actions resulting from changes in financial performance, changes in nonsocioeconomic indicators, and changes because
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of new criteria implementation.

- For financial performance, changes in an issuer's budgetary performance, debt service coverage, flexibility, liquidity, and debt structure, were excluded unless they were specifically attributed to an ESG factor (such as an extreme weather event). This includes instances where issuers sustained long-standing financial challenges or structural imbalance. Likewise, when changes in management practices and policies were cited as factors in conjunction with financial performance (for instance, a drawdown of liquidity to levels no longer aligned with management policy targets), these instances were excluded from our count.

- For nonsocioeconomic indicators, we excluded rating actions driven by changes in the general economy, for example changes in real estate values or sales trends, unless they were specifically attributable to an ESG factor.

- Finally, any rating actions associated with the implementation of revised criteria were excluded from our count, including "U.S. Public Finance Charter Schools: Methodology And Assumptions," published Jan. 3, 2017; "U.S. And Canadian Not-For-Profit Transportation Infrastructure Enterprises," published March 12, 2018; the "Special Assessment Debt" criteria, published April 2, 2018; and the "Priority-Lien Tax Revenue Debt" criteria published Oct. 22, 2018.

It is important to note the difference between the number of ESG-related rating actions (1,116) identified and the number of ESG-related instances (1,185), which is slightly higher. This is because 69 rating actions (6% of the total) were driven by two or more E, S, or G factors, and therefore were counted more than once.

Results

Over the two-year time period, we identified approximately one or more ESG factors in 34% of 3,315 rating actions. Of these, governance was the dominant one (67% of a rating actions), followed by social (28%) and environmental (5%) factors (see charts 1 and 2).
Downgrades were slightly more elevated because of ESG factors, although the overall split between positive and negative factors was relatively balanced (see chart 3).

Most Frequent U.S. Public Finance ESG Factors

The 10 most frequently cited credit factors as the reason for a rating action were largely governance related factors (see table and chart 4). Our view of governance includes traditional...
considerations such as institutional framework, oversight and board structure, corruption, transparency and disclosure. In addition, we consider management practices and policies, insofar as they are clearly defined and well-structured, important governance indicators given their role in ensuring solid internal controls. This is a feature we consider relevant given the autonomous nature of local governments and nonprofit entities in the U.S., and the corresponding strong link between management and credit quality.

While there are obvious broader implications of taxing and rate-setting decisions on the public sector service populations and users, for the purpose of this analysis, we focus on the management framework as it relates to internal controls and policies, rather than the day-to-day decision-making and the impact on financial performance.

**Chart 4**

### Top 10 U.S. Public Finance ESG Factors In Rating Actions

<table>
<thead>
<tr>
<th>Factor</th>
<th>Positive Rating Action</th>
<th>Negative Rating Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage and Structure</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Disclosure</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Management</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>Performance</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Income Levels</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Natural Disasters</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Demand for Services</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Liabilities</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Defaults</td>
<td>5%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*Includes covenant violations (and corrections thereof).

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Enrollment was the prevalent social factor across rating actions due to its critical role in the rating criteria for education sectors, including kindergarten-grade 12 public school districts, charter schools, and higher education. Enrollment is linked to demographic changes in the area. Service needs for various entities and populations, changes in income levels and affordability, and employment levels follow closely behind.

In USPF, credit impacts from climate change affect public finance entities in different ways and have largely focused on the fallout from extreme weather events or natural disasters. S&P Global Ratings’ research has shown that, with some exceptions, natural disasters have had limited impact on municipal ratings in the U.S. Downgrades have been less common, even as the affected areas increasingly include large and growing population centers. Not surprisingly, issuers who have prepared for natural disasters by maintaining strong liquidity positions and building resilient infrastructure have seen credit stability. They have benefited from the economic activity from rebuilding, the availability of federal and state aid, federal policies supporting coastal development, and other factors mitigating risks to the long-term viability and composition of tax bases.

Historically, we have observed several local government and municipal enterprise downgrades following hurricanes when the economic and financial damage from the hurricanes was long-lasting and severe enough to change our view of their medium-term growth prospects and ability to generate sufficient tax revenues before exhausting external liquidity, as well as their long-term viability at their pre-disaster rating levels.
Irrespective of region or sector, the absence of a cited ESG factor in a rating action does not necessarily imply the absence of ESG considerations in the ratings.

For example, environmental factors play the largest part in public power, water and sewer utilities, and transportation ratings, while they have not for charter schools. Extreme weather events did have a large effect on the underlying finances or economy of several issuers, but as noted above other mitigating factors often counterbalanced the negative credit impact of the extreme weather event, leaving most issue ratings unaffected. Likewise, social factors were the most prevalent for higher education and charter school ratings, while they did not lead to any rating actions for the state sector during our two-year look-back period. Ultimately, the degree of environmental, social, or governance factor impact to rating actions varies across sectors, despite being a meaningful component of every public finance issuer’s overall creditworthiness and holistically considered in our criteria (see table 2).

Table 2

<table>
<thead>
<tr>
<th>Frequency of U.S. Public Finance ESG Factors in 2017 - 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Most frequently cited as a factor for rating action (10% or more)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Sometimes cited as a factor for the rating action (from 2% - 10% of rating actions)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Infrequently cited as factor for rating action (less than 2% of rating actions)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

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Higher education

Chart 5

Enrollment stood out as the largest factor of rating actions for higher education. The sector expects issues around weakening student demographics and declining student enrollment to continue in 2019. Within this sector, state funding, management practices, and ability to disclose information to us, which we view as a broader governance factor, also led to rating actions. Adverse publicity related to management and governance was also prevalent in 2018 (for more information, see "Global Not-For-Profit Higher Education 2019 Sector Outlook: Credit Pressures Proliferate," published Jan. 24, 2019).

Top 3 ESG factors for higher education:
1. (S) Enrollment
2. (G) Oversight and structure, including state funding
3. (G) Management and policy framework
Charter schools

Unsurprisingly, enrollment levels were also key factors for charter schools, due to demographic issues and increasing competition for students with public school districts. Governance-related risks associated to a charter school's ability to maintain its chartered status, state funding levels, and academic performance to meet state and authorizer standards are also credit factors in the sector (for more information, see "U.S. Charter Schools 2019 Sector Outlook: Despite A Stable Outlook, Disruptions Could Leave Their Mark," published Jan. 16, 2019).
Health care

Chart 7

Top 3 ESG factors for health care:
1. (G) Oversight and structure, including merger and acquisitions
2. (S) Demand for services
3. (E) Natural disasters

From a governance perspective, mergers and acquisitions dominate the sector, along with overall management practices. Furthermore, the sector is vulnerable to federal regulatory changes, with political tensions relating to the Affordable Care Act lawsuit remaining an ongoing risk to credit quality. While demand for health care services will always exceed supply, social factors underline a great many factors in overall credit quality, but are less prevalent as immediate reasons for rating actions. These factors, while integral to overall organizational identity and long-term credit quality, tend to take effect more gradually, and therefore are slower to lead to rating action changes.

Environmental risks, captured primarily through natural disasters, also affected the sector. While largely prepared in the event of an emergency, hurricanes, tornadoes, floods, and other natural disasters had a disproportionately negative impact on the operating profiles and infrastructure of some issuers if the facility was directly hit or if the patients or employees therein were impacted directly, even if the facility itself survived the natural disaster intact. (For more information, see "U.S. Not-For-Profit Health Care 2019 Sector Outlook: Stable Overall, Yet Key Risks Remain," published Jan. 10, 2019.)
Governance factors dominate the top reasons for ESG-related rating actions within the housing sector. Across all subsectors, including housing finance agencies (HFA), community development financial institutions, and public housing authorities, most of the identified rating actions relate to unenhanced affordable housing projects, which we expected given the rating stress in the field (for more information, see "For U.S. Affordable Housing Issuers, Debt Service Payments Are Key To Ratings, But What Else Matters?," published Oct. 2, 2018). Management and governance—either directly through a deterioration or lack of oversight and structure, or indirectly through disclosure issues—were primary rating action factors. Furthermore, some housing subsectors, in particular HFAs, expect management teams to have plans dealing with extreme weather events. (For more information on the sector, see "U.S. Municipal Housing 2019 Sector Outlook: Stable For Now," published Jan. 23, 2019.)
Local governments

Chart 9

Top 3 ESG factors for local governments:
1. (G) Disclosure issues
2. (G) Oversight and structure, including state funding for school districts, and institutional framework
3. (G) Management and policies framework

Governance factors were frequently cited in local government rating actions—upwards of 70% of cases in both 2017 and 2018. We include kindergarten-grade 12 school districts, cities and counties, and special districts such as municipal utility and library districts. Governance includes policies and practices as well as delays in financial documentation and disclosure, and was generally the most influential ESG factor. We consider the impact of state funding on schools as a governance factor as well. Managing pension costs and the assumptions behind those pension plans, can also fall under this umbrella of analysis.

Therefore, our view of governance captures issues that affect local governments, both positively and negatively. Social issues, representing a smaller proportion (about 20% in both years), include factors such as enrollment and changes in income. Although they are rating action factors less frequently, we believe social issues are still highly relevant for our overall credit analysis. Environmental issues, captured mostly through natural disasters, affected only a small percent of rating actions, reflecting the small-but-concentrated impact natural disasters and environmental risk have had to date. (For more information on the sector, see "U.S. Local Government 2019 Sector Outlook: Showers For Some, Downpours For Others," published Jan. 9, 2019.)
Because fossil fuels are a principal input for electric utilities, environmental factors play a key role in our analysis of public power utilities. The focus of legislators, regulators and the public on climate change contributes to initiatives for controlling power plant greenhouse gas emissions, utilities’ use of bodies of water to cool power plants, and their disposal of the byproducts of producing electricity with coal and nuclear fuel. Similarly, liability issues arising from the intersection of drought conditions in California, sparking utility power lines and California’s expansive interpretation of responsible parties are also important to S&P Global Ratings’ analysis of environmental issues. (For more information, see "California Public Power Utilities Are Better Able To Temper Wildfire Related Liability Exposures Than IOU Counterparts," published Feb. 28, 2019.)

Governance considerations are also important factors in our assessments of electric utilities. The evolving regulatory and legislative environmental frameworks for electric utilities task management teams with the need to develop strategic solutions that enable utilities to conform to regulatory mandates while serving customers with economical and reliable power. Cybersecurity risks also represent important governance issues for utility management.

Nuclear construction projects in Georgia and South Carolina provide a salient example of the influence of governance on electric utility ratings. The projects’ significant delays and cost overruns underscore project stewardship issues. The resulting political fallout and litigation among the project participants that challenge cost responsibility and the owners’ right to cost recovery are also important governance considerations. In addition, cost recovery issues point to the social element of our ESG analyses, as do the effects of the projects’ costs on the affordability of consumers’ retail electric rates.

(For more information, see "U.S. Public Power And Electric Cooperative Utilities 2019 Sector Outlook: Ratings Stability Persists In A Difficult Era," published Jan. 22, 2019.)
Governance factors dominated ESG-related rating actions across states with pensions being the most frequent factor of the reviewed rating actions. Our outlook for states shows that, despite expected near-term stability, pensions will continue to be a contributing factor in weaker credit quality for some states. Other governance factors that arose less frequently relate to default of scheduled interest payments as well as political and regulatory risks.

While we view social factors as major rating considerations for the sector, these are less frequent and not the primary issue in the reviewed rating actions, given their more gradual impact. Similarly, extreme weather events and natural disasters can affect any state but not necessarily be major contributing factors to rating actions. States typically have considerable flexibility to absorb short-term effects of climate-related events given the size of their budgets and have instituted strong response plans, which limits the impact on ratings. The ongoing fiscal relationship that provides emergency federal aid directly to states has also been significant in addressing natural disasters effectively. We expect these risks to continue, although the relative distribution of their impact on rating actions could change. (For more information, see "U.S. State Sector 2019 Outlook: Caution - Slower Speeds Ahead," published Jan. 8, 2019.)
As public owners and operators of mass transit agencies and transportation assets (such as airports, toll roads, ports, and parking facilities), this sector is indirectly exposed to regulation affecting greenhouse gas emissions and directly exposed to climate change because of its impact on current and future infrastructure (for instance, building more resilient roadways and bridges). They are highly exposed to extreme weather events, that can disrupt operations and affect financial performance, albeit typically for short durations often well-mitigated through insurance. We captured instances where we view extreme weather events to result in diminished credit quality over the medium-to-long term in our look-back analysis. We anticipate this risk will rise to the extent extreme weather events increase in severity and frequency. Exposure to demographic trends and known social risks reflected in changes in demand-customer preferences are more gradual and allow for management to adjust, although the risks from disruption from terrorism, pandemics, and other shocks are always present. Most of the rating actions in the sector during this sample two-year period (which coincided with implementation of new criteria) were associated with the hurricanes that hit the U.S. Virgin Islands constituted the main environmental factor in our analysis. (For more information, see "U.S. Transportation Infrastructure 2019 Sector Outlook: Mostly Stable, Despite Expected Slower Growth And Unlikely Investment Package," published Jan. 17, 2019.)
In our view, ESG aligns perfectly with the core mission of water and sewer utilities, and most often manifests in management’s effectiveness of its risk and financial management, typically associated with long-term planning and actions (for more information, see "For Water Utilities, ESG Is Just Business As Usual"). Governance is also reflected through risks and opportunities associated to organizational structure. Utilities take action to gain economies of scale through consolidation of regional water service systems and mergers between water district’s and neighbouring cities. ESG will remain a standard of the practice in 2019, because the role of water utilities is to balance the provision of essential services with environmental stewardship, affordability, and maintaining financial integrity. Furthermore, with the proliferation of green bonds and investment, we expect some of the environmental risks to be mitigated, helping issuers adapt to climate change. (For more information, see "U.S. Municipal Water And Sewer Utilities 2019 Sector Outlook: Stable, Although Potential Disruptions Are Not Making Planning Easy," published Jan. 15, 2019.)

Top 3 ESG factors for water and sewer:

1. (G) Disclosure issues
2. (G) Oversight and structure, including changes to ownership, entity consolidation, reliance on third parties, and merger and acquisition activity
3. (E) Resource management
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ESG In USPF - Connecting The Dots

Environmental, Social or Government related factors contributed to 34% of rating actions in 2017 and 2018.

We expect ESG factors to become more explicit drivers of rating actions as awareness increases and transparency and disclosure improve.

Top 10 US Public Finance ESG Factors in Rating Actions

All Ratings Actions: Negative (56%) Versus Positive (44%)

Our existing criteria contains key credit factors that enable us to incorporate existing and emerging ESG factors.

Rating factors:

*Includes covenant breaches and corrections thereof. **Negative outlook revisions inclusive of stable from positive, negative from stable. ***Positive outlook revision inclusive of stable from negative, positive from stable. Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.
Related Research

- How Environmental, Social, And Governance Factors Help Shape The Ratings On Governments, Insurers, And Financial Institutions, Oct. 23, 2018
- How Social Risks And Opportunities Factor Into Global Corporate Ratings, April 11, 2018
- How Environmental And Climate Risks And Opportunities Factor Into Global Corporate Ratings - An Update, Nov. 9, 2017
- Credit FAQ: Understanding Climate Change Risk And U.S. Municipal Ratings Oct. 17, 2017

This report does not constitute a rating action.
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