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ESG In U.S. Public Finance Credit Ratings: 2022 Outlook And 2021 Recap

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The Risks May Be More Material Next Year

With the evolving nature of environmental, social, and governance (ESG) factors, we believe certain risks may be more influential and material to creditworthiness for U.S. public finance (USPF) issuers in 2022 and could lead to credit pressure. At S&P Global Ratings we will continue articulating our credit views of these risks through distinct paragraphs within issuer-level credit reports, ESG Report Cards, ESG Briefs, commentaries dedicated to specific ESG credit factors, and a monthly cross-practice ESG in Credit Ratings newsletter where we highlight ESG-driven credit rating actions.

ESG Outlook For 2022 - What We're Watching

Climate transition risks

During the COP26 United Nations Climate Change Conference, commitments to limit global warming to well below 2 degrees Celsius as ratified in the Paris Agreement with an aim to target 1.5 degrees were hastened through various actions. Nearly 200 countries agreed to cut carbon dioxide emissions nearly in half this decade to meet the 1.5 degrees Celsius goal. In addition, at least 23 counties pledged to end public support for coal power by prioritizing clean energy transition.

These initiatives, coupled with the U.S. joining the Global Methane Pledge that targets a 30% reduction in methane gas emissions from 2020 levels by 2030, as well as President Biden's policy agenda that established a broader 50%-52% reduction in economywide net greenhouse gas pollution from 2005 levels by 2030, could lead to increasing credit pressure for USPF issuers from climate transition risks. While reduction in greenhouse gas emissions is positive in curtailing global warming conditions, certain sectors may have difficulty pivoting to accomplish these requirements. For example, although many public power utilities and investor-owned utilities have committed to significantly reduce greenhouse gas emissions over time to advance environmental

goals or comply with state directives, challenges with mitigating the intermittent output of renewable resources through the use of storage technologies represent barriers to decarbonization. In fact, California's power grid has encountered reliability issues associated with its growing dependence on intermittent, renewable resources. In addition, we believe that state regulatory frameworks could lead to an inconsistent approach to energy transition requirements at the local level.

Some states lead, while others are likely to lag. Some states, such as California, have been leaders in energy transition, as evidenced by the Renewables Portfolio Standard, a key program for advancing renewable energy. In addition, management teams have begun focusing on achieving net-zero emissions through building code changes for new development and transitioning fleets to electric vehicles. And some participants in the health care sector have begun modifying their carbon footprint by utilizing energy efficient technologies and changing supply chain providers to reduce emissions.

However, some states, like Alaska and Wyoming, that are heavily reliant on the energy sector to generate revenue to fund operating budgets or for economic growth, may be challenged to maintain financial stability in light of energy transition, and could be laggards in implementing regulatory changes. In 2022, we plan to investigate the variability in states' policy initiatives for energy transition and how funding from the Biden administration's Infrastructure Investment and Jobs Act could facilitate employment opportunities for individuals displaced by energy transition and support economic growth and resiliency through the green economy.

Physical risks

According to the U.S. Energy Information Administration, 2020 greenhouse gas emissions, the key contributor to global warming, was the lowest level since 1983, largely due to the COVID-19 pandemic and restrictions on travel. The transportation sector is the largest end-user for energy consumption and despite the one-year change in the trend, 2021's emissions have increased.

In S&P Global Ratings' view, global warming has contributed to more severe and frequent physical risks as well as hydrological variability that creates operational challenges for governments and not-for-profit enterprises. Acute physical risks, such as hurricanes, wildfires, and floods have led to some rapid credit rating deterioration while chronic risks, like sea level rise and drought, may begin taking an additional toll on creditworthiness over time. For example, limited water supply and natural capital constraints could dampen economic activity in communities experiencing substantial population growth. This situation could be exacerbated if development costs become unsustainable should utilities levy large fees for new connections to offset higher water acquisition expenditures.

Increasing insurance costs could hinder affordability. One outcome of the increasing frequency of acute and chronic physical risks is growing insured losses from extreme events. Insurers have begun pricing these risks into higher premiums (see "Risks In The Insurance Sector Ripple Through To U.S. Public Finance Rental Housing Projects," May 12) including actual insurance expenses for our rated rental housing projects that showed an uptick to $558 per unit in fiscal 2019 versus $330 in fiscal 2015. We believe higher insurance costs may constrain housing affordability in certain markets, leading to lower rates of economic growth or even economic decline over the long-term. While the Infrastructure Investment and Jobs plan provides $47 billion in dedicated funding for climate resilience, we expect to monitor how management teams consider climate adaptation--evaluating various climate scenarios over different time horizons--in their financial and capital planning with a goal of insulating operations and service areas from physical risks.

Successful implementation could support long-term credit stability. (See "Better Data Can Highlight Climate Exposure: Focus On U.S. Public Finance," Aug. 24, 2020.)

Human capital

Demographics are usually associated with social capital risks, including 2020 census data that showed the slowest increase in population and household formation reported in many decades at 7.5% and 9.0%, respectively. We have previously commented on U.S. demographics and how aging trends can potentially shrink the workforce in the long term as the youngest baby boomers begin reaching age 65. At the same time, we have discussed the impact of lower birth rates on the education sector and the effect on the student population in certain parts of the country.

While long term human capital risks may be driven by demographics, acute labor shortages--a lingering outcome from the COVID-19 pandemic--are beginning to challenge credit rating stability. The "great resignation" and labor participation rate have squeezed business capacity (see S&P Global's Economics' research "Where Are The Workers? Three Explanations Point To An Answer," Nov. 4), and the labor mismatch for the U.S. economy could be a structural rather than temporary shift that leads to credit pressure. Whether the explanation is location, skills, family and child care, retirement, employee burnout, or other constraints, some health care not-for-profit entities that suffered through clinician shortages at the height of the pandemic are reporting hourly wage escalation for skilled nursing and other positions. In some areas, the costs may be double pre-pandemic levels and are leading to tight financial margins. Labor shortages have also required some hospitals to periodically delay or pause surgeries and other services, similar to strategies employed over the past year and half during COVID-19 surges. While necessary, these efforts could potentially affect revenue at certain not-for-profit health care enterprises.

Labor shortages cut across USPF sectors. Human capital social risks have contributed to supply chain issues for transportation issuers, including moving cargo from congested ports of entry. Credit weakness could result if port customers avoid the bottlenecks, thereby reducing volume and operating revenue. Furthermore, as airport passenger traffic recovers from the pandemic trough, operators are faced with staffing difficulties that usually ensure a smooth travel experience as airlines add flights and routes back to the schedule. These labor constraints could curtail the upward demand trajectory that supports the market positions of our rated airport sector.

Beyond the transportation sector, the combined effects of front-line workers' exposure to the pandemic, social unrest, and focus on policies practices, have made recruitment of public safety employees more difficult for some governments. Employee preferences for working from home or remotely may also lead to additional recruitment challenges. Taken together, renumeration incentives could drive higher salary and benefit expenditures resulting in operating pressures from human capital social risks that may require enhanced budget balancing strategies for issuers in 2022.

Transparency and reporting

In 2017, as a result of the large-scale and complex nature of climate change, the Task Force for Climate-Related Financial Disclosure (TCFD) released climate-related financial disclosure recommendations focusing on corporate entities. However, with billions of dollars deployed to governments and not-for-profit entities through federal legislation dedicated to alleviating environmental and social matters, we believe additional transparency measures may be required

and could take hold in 2022.

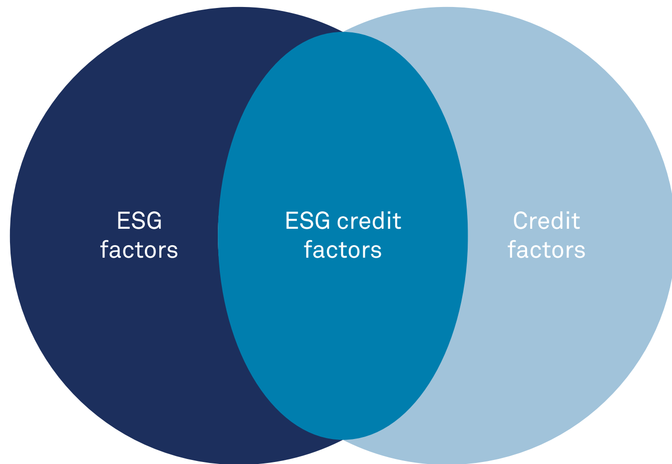
Various disclosure initiatives are underway. Although many initiatives focus on corporate disclosure, including the U.S. Treasury's endorsement of the TCFD framework and the Securities and Exchange Commission's solicitation of public comment on climate disclosure, improving transparency of climate-related risks will carry over to the municipal market in 2022. For example, in the past year, the Government Finance Officers Association published "Best Practices for ESG Disclosure" as a guide for issuers to assist with increasing transparency of environmental risks. The State of California also initiated efforts to implement statutory provisions to require better, more uniform disclosure on climate change risks, and President Biden's executive order on climate-related disclosure requirements and standards will likely advance transparency efforts. In our view, market participants would benefit from more robust disclosure tailored to an issuer's specific risk exposure that increases transparency and presents an opportunity for issuers to demonstrate the benefits of existing or planned resiliency and adaptation actions. Information in an issuer's primary disclosure document on ESG risks and opportunities, particularly at the time of a bond sale, can help guide management discussions and provide insight for our forward-looking view of an entity's readiness to mitigate chronic and acute risks associated with climate change.

This Year We Accelerated Providing Transparency Into Our Credit Ratings

In 2021, we accelerated providing transparency into how we incorporate ESG factors into our credit rating analysis, culminating in the publication of our cross-practice criteria "Environmental, Social, And Governance Principles in Credit Ratings" on Oct. 10. The criteria apply to all issues and issuers and reiterates that we incorporate ESG risks and opportunities through the application of our sector-specific criteria when we believe the ESG factors are, or may be, influential and material to credit ratings. The criteria also emphasizes that credit ratings are not a measure of sustainability performance.

The chart below depicts how we focus on ESG credit factors, which could materially influence the creditworthiness of a rated entity or issue when we have sufficient visibility and certainty to include these factors in our credit rating analysis.

The Intersection Of ESG And Credit



ESG--Environmental, social, and governance. Source: S&P Global Ratings.
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The October 2021 ESG cross-practice criteria complemented the transparency provided by our publication "Through the ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors," published April, 28, 2020, which included five principles that are integral to our credit rating analysis:

- Credit ratings do not have a pre-determined time horizon;
- The current and potential future influence of ESG credit factors on credit ratings can differ by industry, geography, and entity;
- The direction and visibility into ESG credit factors may be uncertain and change rapidly;
- The influence of ESG credit factors on credit ratings may change over time and are dynamic like our credit ratings; and
- Strong creditworthiness does not necessarily correlate with strong ESG credentials and vice versa.

ESG report cards

Report cards provide an in-depth perspective of the ESG risks and opportunities that we consider the most prevalent to creditworthiness for entities in each state or region. Our ESG USPF Report Cards For Governments And Not-For-Profit Enterprises were published in 2021 for:

- California (June 16), Florida (Sept. 9), and Texas (Sept. 23), which followed the publication of our New York-New Jersey-Connecticut tri-state report card on Oct. 28, 2020.
- Importantly, the materiality of ESG credit factors raised in the report cards is evaluated within the context of an individual entity's credit profile.
- We believe decisive planning and action by management is critical as issuers face evolving ESG risks. In addition, codified planning practices and our conversations with management teams can inform our opinion of an entity's approach to ESG risks (see "The Top 10 Management

Characteristics Of Highly Rated State and Local Borrowers: Through The ESG Lens," June 29).

ESG briefs

We also launched a publication series designed to provide market participants with a clear and concise credit view of how we incorporate certain ESG credit factors into our sector-specific criteria frameworks.

The "ESG Brief: Emerging Themes In U.S. Public Finance" (June 3), discussed how ESG credit factors like energy transition risk, social justice, and transparency and disclosure efforts could shape or alter USPF issuers' credit fundamentals. The inaugural ESG Brief highlighted the themes and examples of forward-looking analytical considerations we expect will continue informing our credit rating analysis in 2022.

In our June 28 ESG Brief we articulated how we evaluate an issuer's cyber risk management. Key considerations that support credit quality include:

- An issuer's preparation, response, and recovery to a cybersecurity event; and
- How issuers embed cybersecurity into their comprehensive risk management strategies, which we view as part of governance under our ESG credit factors.
- In the face of increasing sophistication and frequency, we believe municipal issuers' preparedness will support credit fundamentals and prevent significant financial or reputational fallout that could result from an attack.

Finally, we published our "ESG Brief: ESG Pension And OPEB Analysis In U.S. Public Finance," on Oct. 7, that aimed to identify:

- When our view of pension analytics and governance as part of ESG intersects with credit rating analysis.
- The overlap with ESG as part of an entity's risk management, culture, and oversight in our evaluation of the control framework of the pension and OPEB plans and legal flexibility to modify the benefit structures, and management's risk focus on whether techniques are considered to address cost escalation.

Targeted publications on E-risk

A prominent theme in several research commentaries was related to long-term credit risks associated with physical climate risks. On Aug. 18, "Could The Western U.S. Drought Threaten Municipal Credit Stability?," discussed how prolonged drought conditions are expected to become increasingly challenging for governments as well as water and public power utilities. It noted that:

- Credit pressure could result from higher and unexpected water supply costs for utilities and water scarcity could limit economic growth.
- Drought also exacerbates wildfire conditions, a particular risk for public power utilities in California that already wrestle with the "inverse condemnation" doctrine whereby a utility can be financially responsible for a wildfire if its facilities contributed to the cause of a wildfire, irrespective of negligence.

Wildfires in areas of historically low rainfall or drought conditions could lead to economic stagnation or decline if residents reconsider living in areas prone to such events. In "Wildfires Are

Becoming the New Normal In Western States; Their Unpredictable Nature Increases Long-Term Risk" (Sept. 28), we used data visualization from the ICE/risQ platform that quantified the potential for economic loss through property value at risk from wildfire damage for several western states.

Related Research

- ESG U.S. Public Finance Report Card: Tri-State Region Governments And Not-For-Profit Enterprises, Oct. 28, 2020
- ESG U.S. Public Finance Report Card: California Governments And Not-For-Profit Enterprises, June 16, 2021
- ESG U.S. Public Finance Report Card: Florida Governments And Not-For-Profit Enterprises, Sept. 9, 2021
- ESG U.S. Public Finance Report Card: Texas Governments And Not-For-Profit Enterprises, Sept. 23, 2021
- ESG Brief: Emerging Themes in U.S. Public Finance, June 3, 2021
- ESG Brief: Cyber Risk Management In U.S. Public Finance, June 28, 2021
- ESG Brief: ESG Pension And OPEB Analysis In U.S. Public Finance, Oct. 7, 2021
- The Top 10 Management Characteristics Of Highly Rated State And Local Borrowers: Through The ESG Lens, June 29, 2021
- Could The Western U.S. Drought Threaten Municipal Credit Stability?, Aug. 18, 2021
- For U.S. Public Power And Electric Cooperatives, There Are Hurdles On The Path To Decarbonization, Nov. 8, 2021
- U.S. Electric Cooperative Utilities’ Decarbonization Initiatives Improve Some ESG Risk Attributes, Feb. 17, 2021
- Wildfires Are Becoming The New Normal In Western States; Their Unpredictable Nature Increases Long-Term Risk, Sept. 28, 2021
- Credit FAQ: How Are California’s Wildfire Risks Affecting Utility Credit Quality?, June 30, 2021
- ESG in Credit Ratings Newsletter, Oct. 21, 2021
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021

This report does not constitute a rating action.

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