Subject: Fwd: State of Utah's Official Response to S&P Global Ratings' ESG Credit Indicators
Date: Thursday, April 21, 2022 at 6:59:54 AM Mountain Daylight Time
From: Brittany Griffin <bngriffin@utah.gov>
To: Kirt Slaugh <kslaugh@utah.gov>, Carissa Larsen <carissalarsen@utah.gov>, Aaron Waite <aaronmwaite@agutah.gov>, rob_axson@lee.senate.gov <rob_axson@lee.senate.gov>, john_shelton@lee.senate.gov <john_shelton@lee.senate.gov>, Kelsey_Berg@romney.senate.gov <Kelsey_Berg@romney.senate.gov>, Bornstein, Jake <Jake.Bornstein@mail.house.gov>, Madsen, Cam <Cam.Madsen@mail.house.gov>, Wagley, Rachel <rachel.wagley@mail.house.gov>, Derrick, Will <Will.Derrick@mail.house.gov>, Johnson, Paul <Paul.Johnson@mail.house.gov>, Yost, Alex <Alex.Yost@mail.house.gov>, Kathy Bounous <kathybounous@utah.gov>, John Dougall <jdougall@utah.gov>, bradwilson@le.utah.gov <bradwilson@le.utah.gov>, Casey Gilmartin <cgilmartin@le.utah.gov>, Stuart Adams <jsadams@le.utah.gov>, Mark Thomas <mthomas@le.utah.gov>, Ann Pedroza <apedroza@utah.gov>, Kathy Wilkey <kwilkey@utah.gov>, Diana Artica <dartica@utah.gov>, Jason Nielsen <jnielsen@utah.gov>, Allen Rollo <arollo@utah.gov>, Katherine Nuttall <knuttall@utah.gov>, Dennis Johnston <dljohnston@utah.gov>, Deidre Henderson <dmh@utah.gov>, Marlo Oaks <moaks@utah.gov>, Mueller, Arielle (Romney) <arielle_mueller@romney.senate.gov>, lonsberry@lee.senate.gov <lonsberry@lee.senate.gov>, Liam.Anderson@mail.house.gov <Liam.Anderson@mail.house.gov>
Attachments: 04-21-22 Utah Letter_S&P Global_ESG Indicators.pdf, Talking Points - ESG Metrics Politicize and Distort Markets FINAL.pdf, ESG Credit Indicator Definitions and Application.PDF, Through the ESG Lens 3.0.PDF, RatingsDirect_ESGCreditIndicatorReportCardUSStatesAndTerritories_51118280_Mar-31-2022.PDF

Good Morning,

Treasurer Oaks sent the letter from the State of Utah to S&P Global regarding the publication of ESG credit indicators this morning. Bloomberg published an article on the letter. We are currently working with other national and local media on the story, including pitching an op-ed to the Wall Street Journal.

- State of Utah Letter to S&P Global: https://treasurer.utah.gov/wp-content/uploads/04-21-22-Utah-Letter_SP-Global_ESG-Indicators.pdf
- Bloomberg article: https://www.bloomberg.com/news/articles/2022-04-21/utah-blasts-s-p-global-over-politicized-state-esg-indicators?fbclid=IwAR29duGkQCxNa3F9SXAIOUPwUX9-E1NhBBMXeHMS76XWMI-6Uw9Y4vjPWe4

I have attached some background information to this email for your reference, as well as a copy of the letter, the S&P ESG Indicators Report Card, and some additional information from S&P.

Please let me know if you have any questions or concerns.

Sincerely,

Brittany Griffin
Policy and Communications Deputy
Utah Office of State Treasurer
(801) 918-1411
bngriffin@utah.gov

Follow the Utah Office of State Treasurer on social media:

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---------- Forwarded message ---------
From: **Marlo Oaks** <moaks@utah.gov>

Date: Thu, Apr 21, 2022 at 5:31 AM
Subject: State of Utah's Official Response to S&P Global Ratings' ESG Credit Indicators
To: <douglas.peterson@spglobal.com>, <martina.cheung@spglobal.com>
Cc: Melissa Holyoak <melissaholyoak@agutah.gov>, Legnos, Jillian <jillian.legnos@spglobal.com>, Hitchcock, David <david.hitchcock@spglobal.com>, Uboytseva, Anna <anna.uboytseva@spglobal.com>

April 21, 2022

Dear Mr. Peterson and Ms. Cheung:

Please see the attached official letter sent on behalf of the State of Utah regarding S&P Global Ratings' publication of ESG credit indicators.

A response to the letter is requested.

Respectfully,

Marlo M. Oaks, CFA, CAIA

Treasurer

Utah Office of State Treasurer

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moaks@utah.gov

State of Utah
Spencer J. Cox, Governor
Deidre M. Henderson, Lt. Governor
Sean D. Reyes, Attorney General
Marlo M. Oaks, Treasurer
John Dougall, Auditor

Utah Legislature
J. Stuart Adams, Senate President
Brad R. Wilson, Speaker of the House

State of Utah
Salt Lake City, Utah
84114-2315

United States Senate
Michael S. Lee, Senator
Mitt Romney, Senator

United States House of Representatives
Blake D. Moore, Utah First District
Chris Stewart, Utah Second District
John R. Curtis, Utah Third District
Burgess Owens, Utah Fourth District

April 21, 2022

Douglas L. Peterson
President and CEO
S&P Global Ratings
55 Water Street
New York, NY 10041

Martina L. Cheung
President
S&P Global Ratings
55 Water Street
New York, NY 10041

Re: ESG Credit Indicators - State of Utah

Dear Mr. Peterson and Ms. Cheung,

On behalf of the State of Utah, we object to S&P Global Ratings' ("S&P" or "you") publishing of ESG credit indicators as part of its credit ratings for states and state subdivisions. To call them "credit indicators" attempts to legitimize a dubious and unproven exercise in developing a political ratings system that is based on indeterminate factors. Traditional public finance entity credit ratings already incorporate financially material factors, including ESG factors.[1] Consequently, we were alarmed to learn of S&P's plans to publish ESG credit indicators to "augment" its credit ratings.[2]

We categorically object to any ESG ratings, ESG credit indicators, or any other ESG scoring system that calls out ESG factors separate from, in addition to, or apart from traditional credit ratings. We object further to the E-3, S-2, and G-2 credit indicators that S&P assigned to

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[1] S&P Global Ratings, Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors (Mar. 2, 2022), https://www.spglobal.com/ratings/en/research/articles/220302-through-the-esg-lens-3-0-the-intersection-of-esg-credit-factors-and-u-s-public-finance-credit-factors-12287505.
[2] S&P Global Ratings, S&P Global Ratings To Enhance Transparency In U.S. Public Finance Credit Analysis With ESG Credit Indicators (Feb. 16, 2022), https://www.spglobal.com/ratings/en/research/articles/220216-s-p-global-ratings-to-enhance-transparency-in-u-s-public-finance-credit-analysis-with-esg-credit-indicators-12279206.

Utah[3] and demand that S&P withdraw those credit indicators and cease to publish any ESG factors, ratings, indicators, or other scoring system related to or referencing Utah. Considering recent global events, the current economic situation in the U.S., and the unreliability and inherently political nature of ESG factors in investment decisions, we view this newfound focus on ESG as politicizing the ratings process. It is deeply counterproductive, misleading, potentially damaging to the entities being rated, and possibly illegal. Utah is very protective and proud of its credit rating. Indeed, we have proactively taken steps to improve our debt management, further strengthen our credit, avoid structural imbalance, and pass legislation recently creating a State Finance Review Commission.[4] This new entity will review and approve various borrowings, ensure proper disclosures are provided under SEC rules, and publish an annual debt affordability study.

S&P acknowledges that "having a social mission and strong ESG characteristics does not necessarily correlate with strong creditworthiness and vice versa."[5] S&P's ESG credit indicators politicize what should be a purely financial decision. This politicization has manifested itself in the capital markets where, for example, banks are pressured to cut off capital to the oil, gas, coal, and firearms industries. ESG is a political rating and should be characterized as such. This is clear when recognizing the two layers of indeterminacy that make ESG an exercise in servitude: 1) which "ESG factors" are chosen, and 2) the "correct" answer to any given factor. Whoever answers those questions has all the power in achieving a desired outcome.

These are not technocratic questions; they are normative questions. No financial firm should substitute its political judgments for objective financial analysis, especially on matters that are unrelated to the underlying businesses, assets, and cash flows it evaluates. This is especially true of a properly regulated independent entity like S&P that is charged with providing objective clarity and insight. The use of ESG-related quantitative metrics and analytical frameworks confounds the distinction between subjective normative judgments and objective financial assessments. It is therefore unconscionable for S&P to weigh in on indeterminate and normative questions. Moreover, the answers to the normative factors can and do change depending on circumstances. We believe this entire exercise in identifying, evaluating, and publishing ESG factors is highly intrusive and leads to manipulation, coercion, and misleading outcomes.

We are concerned that the normative assessment and disclosure of ESG factors will unfairly and adversely affect Utah's credit rating and the market for Utah's bonds, especially where the alleged indicators are not indicative of Utah's ability to repay debt. While it may be difficult to deliver "forward looking opinion[s] about the capacity and willingness of an entity to meet its financial commitments as they come due,"[6] integrating this analysis with the political

[3] S&P Global Ratings, ESG Credit Indicator Report Card: U.S. States And Territories (March 31, 2022), https://www.spglobal.com/ratings/en/research/articles/220331-esg-credit-indicator-report-card-u-s-states-and-territories-12322702.

[4] 2022 General Session H.B. 82, State Finance Review Commission, https://le.utah.gov/~2022/bills/static/HB0082.html.

[5] S&P Global Ratings, Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors (Mar. 2, 2022), at 2.

[6] S&P Global Ratings, Credit Ratings, https://www.spglobal.com/ratings/en/products-benefits/products/credit-ratings.

whims of the day is unacceptable. If they are not political, but are instead financially material, then they would be captured in the traditional credit analysis. ESG indicators are, therefore, not necessary. Certainly, disclosure requirements proposed by this administration lay the groundwork for greater securities litigation against corporations and governments whose public disclosures about ESG policies do not match actual action. On point, one recent article noted this growing trend of lawsuits based on ESG filings and determined 1,800 climate-related lawsuits have been filed worldwide with three quarters of those filings happening in the United States.[7]

S&P should have already learned the costly lesson that undue influence over its credit ratings can lead to disaster—both for the company and the nation. The failure of credit rating agencies, including S&P, to accurately assess mortgage-backed securities and related credit default swaps in the lead up to the financial crisis of 2007-2008 contributed to the proliferation of these products and the resulting catastrophic collapse of the financial system[8] and the global economy along with it. Indeed, S&P admitted in its $1.375 billion state Attorney General and Department of Justice settlement that it succumbed to conflicts of interest in rating these products by prioritizing business relationships with issuers over accuracy in its models and ratings.[9] Many Americans suffered because of S&P's failures. These failures should have resulted in S&P's greater commitment to sound financial practices rather than extraneous political impulsions.

It therefore troubles us to learn that S&P may be repeating the mistakes of its past by once again prioritizing peripheral concerns ahead of its core mission. This time, S&P appears to choose politicization over accuracy in its ratings. Even advocates of ESG accept that there is no agreed-upon standard for ESG reporting and that various ESG sub-components are inherently incommensurable.[10] How, for example, should environmental goals be prioritized over social ones, or governmental goals over environmental ones? This is to say nothing of what factors may populate the social realm of future ESG indicators. These may be legitimate questions for the people to answer in an open marketplace of ideas. They certainly are not appropriate for a credit rating agency, the purpose of which is to make impartial determinations about credit risk. This disturbing trend once again endangers S&P and those who rely on its ratings.

Nevertheless, S&P has pressed ahead and in the process generated some truly baffling results. For example, S&P gave Russian-controlled energy producers higher ESG ratings than

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[7] Chike-Obi, Nneka and Marina Petroleka, ESG litigation risk: Climate lawsuits dominate, but scope is widening (February 21, 2022), https://www.miningreview.com/health-and-safety/esg-litigation-risk-climate-lawsuits-dominate-but-scope-is-widening/.

[8] *See* Lawrence J. White, A Brief History of Credit Rating Agencies: How Financial Regulation Entrenched this Industry's Role in the Subprime Mortgage Debacle of 2007-2008, Mercatus Policy Brief (Oct. 2009), https://www.mercatus.org/publications/monetary-policy/brief-history-credit-rating-agencies-how-financial-regulation.

[9] Press Release, Justice Department and State Partners Secure $1.375 Billion Settlement with S&P for Defrauding Investors in the Lead Up to the Financial Crisis, Dep't. of Justice (Feb. 3, 2015), https://www.justice.gov/opa/pr/justice-department-and-state-partners-secure-1375-billion-settlement-sp-defrauding-investors.

[10] *See, e.g.*, Robert S. Kaplan & Karthik Ramanna, How to Fix ESG Reporting, Harvard Business School Working Paper 22-005 (2021) at 2, https://www.hbs.edu/ris/Publication%20Files/22-005revised_ed6ac430-c3ca-4ba6-b0be-ca48c549aaf2.pdf ("[T]he absence of a common framework for the E, S and G elements produces contradictions even within a single ESG report. . . . The difficulty of reconciling across various ESG activities emanates from the challenges of objectively making the underlying moral judgments.").

similar entities in the U.S. Russian energy giants Gazprom[11] and Rosneft[12] outscored American energy companies ExxonMobil[13] and Chevron[14] on S&P's ESG scale. This despite the fact that Vladimir Putin's Russian government is the majority owner of Gazprom[15] and owns a 40% stake in Rosneft[16]—the same government that recently invaded neighboring Ukraine in an unprovoked and unjustifiable attack, in violation of international law. That attack appears to be degenerating into a total war on all Ukrainians, including noncombatant civilians, in violation of the Geneva Conventions, and has resulted in thousands of civilian casualties[17] and over 10 million displaced persons to date.[18] While S&P recently removed all Russian company scores from their website,[19] it is inconceivable how these energy giants, controlled by a corrupt and reckless regime[20]—and having been sanctioned for that regime's misadventures before[21]—managed to cobble together ESG scores up until a few weeks ago that exceeded those of law-abiding American companies critical to U.S. energy security. Following renewed aggressive sanctions by Western governments,[22] any investor who relied on S&P's ESG ratings will be left to wonder whether those ratings—the "social" component in particular—accurately captured the actual risk attributable to the Russian government's longstanding and documented disregard for human rights and international law. Indeed, S&P also gave the Chinese state-owned China Petroleum &

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[11] S&P Global, Public Joint Stock Company Gazprom, https://www.spglobal.com/esg/scores/results?cid=4157223 (ESG score of 47) (last visited March 16, 2022).

[12] S&P Global, Public Joint Stock Company Rosneft, https://www.spglobal.com/esg/scores/results?cid=4157443 (ESG score of 47) (last visited March 16, 2022).

[13] S&P Global, Exxon Mobil Corporation, https://www.spglobal.com/esg/scores/results?cid=3007562 (ESG score of 36).

[14] S&P Global, Chevron Corporation, https://www.spglobal.com/esg/scores/results?cid=4004170 (ESG score of 39).

[15] Fitch Ratings, Fitch Affirms Gazprom at 'BBB'; Outlook Stable (Nov. 17, 2021), https://www.fitchratings.com/research/corporate-finance/fitch-affirms-gazprom-at-bbb-outlook-stable-17-11-2021.

[16] Mason Bissada, BP Drops Nearly 20% Stake in Russian-Owned Oil Firm After Invasion of Ukraine, Forbes (Feb. 27, 2022), https://www.forbes.com/sites/masonbissada/2022/02/27/bp-drops-nearly-20-stake-in-russian-owned-oil-firm-after-invasion-of-ukraine/?sh=424d5043ecb8.

[17] United Nations, Ukraine: Civilian Death Toll Demands Full Investigation and Accountability, Security Council Told (Mar. 17, 2022), https://news.un.org/en/story/2022/03/1114182.

[18] Alan Cullison, Isabel Coles, & Matthew Luxmoore, Russia's Assault on Ukraine Uproots 10 Million People, The Wall Street Journal (Mar. 20, 2022), https://www.wsj.com/articles/russias-halting-progress-in-attack-on-ukraine-puts-focus-on-resupply-efforts-11647775418.

[19] https://www.spglobal.com/esg/solutions/data-intelligence-esg-scores.

[20] Vindobona, Vienna International News, How Gazprom Helps the Kremlin to Manipulate Austria (March 8, 2022), https://www.vindobona.org/article/how-gazprom-helps-the-kremlin-to-manipulate-austria; The Conversation, How Vladimir Putin uses natural gas to exert Russian influence and punish his enemies (June 23, 2021), https://theconversation.com/how-vladimir-putin-uses-natural-gas-to-exert-russian-influence-and-punish-his-enemies-162413; and The Economist, How Gazprom helps the Kremlin put the squeeze on Europe (Feb. 26, 2022), https://www.economist.com/business/how-gazprom-helps-the-kremlin-put-the-squeeze-on-europe/21807841.

[21] Press Release, Announcement of Expanded Treasury Sanctions within the Russian Financial Services, Energy and Defense or Related Materiel Sectors, Dep't of Treasury (Sept. 12, 2014), https://www.treasury.gov/press-center/press-releases/Pages/jl2629.aspx; Baker & McKenzie, EU Updates Sanctions Against Russia and Crimea (Jan. 2015), https://www.bakermckenzie.com/-/media/files/insight/publications/2015/01/eu-updates-sanctions-against-russia-and-crimea/files/read-publication/fileattachment/al_germany_sanctionsrussiacrimea_jan15.pdf.

[22] Press Release, Fact Sheet, White House (Feb. 24, 2022), https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/24/fact-sheet-joined-by-allies-and-partners-the-united-states-imposes-devastating-costs-on-russia/.

Chemical Corporation a higher ESG score[23] than ExxonMobil and Chevron, despite human rights violations by the Chinese.[24]

We also note that Russia's leading bank, Sberbank was sanctioned by both the U.S.[25] and the European Union[26] in response to Russia's annexation of Crimea in 2014, and was cut off from the U.S.-led financial system upon Russia's invasion of Ukraine this year.[27] Inexplicably, however, Sberbank's S&P ESG score[28] was higher than that of the largest American bank, J.P. Morgan.[29] One would have thought that a state-owned bank in an aggressor nation *that had already been sanctioned because of Russia's previous violations of national sovereignty* was a more significant risk than the largest bank in the United States. Clearly it should have been: since the start of this year, following the war and the sanctions that resulted, Sberbank stock has lost 99.9% of its value on the London Stock Exchange, and one of its European subsidiaries failed.[30] S&P's ESG ratings misled the public to the extent they suggested otherwise.

From an investment perspective, ESG is demonstrably unproven and therefore unreliable as an investment tool. Worse, we fear that just as conflicts of interest drove S&P's ratings disaster during the financial crisis, undue political influences may be skewing S&P's judgment once again. Gazprom, Rosneft, and Sberbank are not the only Russian companies that boast higher ESG ratings than their U.S. peers.[31] Especially in light of its admitted misconduct in the lead up to the financial crisis, S&P's opaque ESG activities raise serious questions about its impartiality and commitment to its lawful purpose.

As a nationally recognized statistical rating organization under federal law, S&P is "prohibited from having a conflict of interest relating to the issuance or maintenance of a credit rating."[32] More fundamentally, we are concerned that S&P's ESG activities may violate the law. To the extent S&P's ESG activities are driven by its membership in the Net Zero Financial

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[23] S&P Global, China Petroleum & Chemical Corporation, https://www.spglobal.com/esg/scores/results?cid=5576887 (ESG score of 41).

[24] *See, e.g.*, Lindsay Maizland, China's Repression of Uyghurs in Xinjiang, Council on Foreign Relations (Mar. 1, 2021), https://www.cfr.org/backgrounder/chinas-repression-uyghurs-xinjiang, and Who are the Uyghurs and why is China being accused of genocide?, BBC News (June 21, 2021, https://www.bbc.com/news/world-asia-china-22278037.

[25] *See supra* note 15.

[26] *See supra* note 15.

[27] *See supra* note 16.

[28] S&P Global, Sberbank of Russia, https://www.spglobal.com/esg/scores/results?cid=4144827 (ESG score of 53) (last visited March 16, 2022).

[29] S&P Global, JPMorgan Chase & Co., https://www.spglobal.com/esg/scores/results?cid=100201 (ESG score of 40).

[30] Elliot Smith, Russia's Sberbank Collapses 95% on London Stock Exchange as It Exits Europe, CNBC (March 2, 2022), https://www.cnbc.com/2022/03/02/russias-sberbank-collapses-95percent-on-london-exchange-as-it-exits-europe.html.

[31] For example, Rostelecom's ESG score is higher than Verizon's; Magnit's is higher than Costco's, and Inter RAO (an electric utility) has a higher ESG score than NRG Energy. *See* S&P Global, Rostelecom PJSC, https://www.spglobal.com/esg/scores/results?cid=4308411 (ESG score of 40) (last visited March 16, 2022); S&P Global, Verizon Communications Inc., https://www.spglobal.com/esg/scores/results?cid=4057229 (ESG score of 37); S&P Global, Public Joint Stock Company Magnit, https://www.spglobal.com/esg/scores/results?cid=4912023 (ESG score of 33) (last visited March 16, 2022); S&P Global, Costco Wholesale Corporation, https://www.spglobal.com/esg/scores/results?cid=4126080 (ESG score of 20) (last visited March 16, 2022).

[32] 17 C.F.R. § 240.17g-5(a).

Service Providers Alliance[33] or intended to support similar social causes, S&P may be participating in unlawful anticompetitive activities.[34] Securities laws provisions, including the prohibition on making false or misleading statements, and state antitrust, or UDAP statutes may also be relevant.

Accordingly, Utah wholly objects to S&P's disclosure of public finance ESG credit indicators. We will not participate in a politicization of your statutorily privileged role. For the reasons discussed above, your focus on "ESG factors" rather than material factors suggests the potential for bias and conflicts of interests. A review of your publications on ESG in U.S. public finance further weakens our confidence in your impartiality and freedom from undue influence. We demand that you withdraw the ESG credit indicator report card.

Furthermore, we request information from you about your consideration of ESG factors in public finance credit ratings, including, without limitation the following:

1. You state that you "incorporate environmental, social, and governance (ESG) credit factors into [your] credit ratings analysis."[35] Please:
    a. State the date that you first began to incorporate ESG credit factors into your credit ratings (the "ESG Launch Date");
    b. Identify what outside sources were consulted in determining what ESG factors would be used in this initial analysis;
    c. Identify each ESG credit factor that you now incorporate into your credit ratings that you also incorporated into your credit ratings before the ESG Launch Date; and
    d. Identify each ESG credit factor that you now incorporate into your credit ratings that you did not incorporate into your credit ratings before the ESG Launch Date. For each such ESG credit factor, state whether the factor is material to your credit ratings analysis.
2. You state that "[b]ecause public finance issuers provide essential services and infrastructure, many ESG credit factors are fundamental to and embedded into our credit rating analysis and are often key credit determinants in our credit rating outcome."[36] Please identify each ESG credit factor that is "fundamental to and embedded into" your credit rating analysis in connection with U.S. public finance credit analysis, and please identify the date on which each such factor was first incorporated into your credit rating analysis. For each ESG factor that is not embedded into your credit rating, please provide the rational basis for its inclusion in the ESG score but not in the credit rating.
3. You state that "[w]e incorporate in our credit rating analysis those ESG factors that materially influence creditworthiness and for which we have sufficient visibility and

[33] Net Zero Financial Service Providers Alliance, Signatories, https://www.netzeroserviceproviders.com/signatories/.
[34] *See, e.g.*, C. Boyden Gray, Corporate Collusion: Liability Risks for the ESG Agenda to Charge Higher Fees and Rig the Market, Texas Public Policy Foundation (June 2021), https://www.texaspolicy.com/wp-content/uploads/2021/06/2021-06-RR-Gray-LP-Corporate-Collusion.pdf.
[35] *See supra* note 1.
[36] S&P Global Ratings, Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors (Mar. 2, 2022), at 5.

certainty."[37] Please identify all such factors in connection with U.S. public finance credit analysis.

4. How, if at all, and to what extent does a company's relationship to authoritarian governments and/or governments that violate human rights or international norms affect the company's ESG score?
    a. How, if at all, and to what extent does such a relationship affect any ESG credit factor?
    b. How, if at all, and to what extent does such a relationship affect the company's ESG score, in particular in comparison with environmental factors?
    c. In addition to providing general answers, please answer questions 4, 4(a) and 4(b) specifically with respect to Gazprom, Rosneft, Sperbank, Rostelecom PJSC, and Magnit.
5. You state that "[c]limate transition risk and physical risk-related factors may be among the most significant ESG credit factors that affect the creditworthiness of rated entities. This is primarily because of policymakers' efforts to reduce emissions or to ensure that greenhouse emissions reflect their full social costs ('climate transition risk') and climate change, which is leading to more frequent and severe extreme weather events ('physical risk')."[38] How, if at all, and to what extent do your models relating to or incorporating "climate transition risk" incorporate factors relating to geopolitical conflict and resulting political developments?
    a. For example, how, if at all, and to what extent did your models relating to or incorporating "climate transition risk" predict the U.S.'s and Germany's recent calls for increased domestic energy production following Russia's invasion of Ukraine?
    b. How, if at all, and to what extent do your models relating to or incorporating "climate transition risk" incorporate the possibility that the U.S. would have to meet the world's energy needs without reliance on energy from countries under authoritarian governments and/or governments that violate human rights or international norms?
    c. How, if at all, and to what extent does the energy independence of free and democratic countries factor into your models, including without limitation, the "social" factor in your ESG scores or ESG credit factors? For example, energy production, including oil, gas, and coal production, by domestic producers may be important to the ability of free and democratic countries to avoid the depredations of countries under authoritarian governments and/or governments that violate human rights or international norms. How, if at all, and to what extent are such possibilities incorporated into your models, including, without limitation, the "social" factor in your ESG scores or ESG credit factors?
6. How do your models weight "social" factors vis-à-vis "environmental" factors? Please explain in detail the method by which you assign relative priority among "social" and

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[37] S&P Global Ratings, S&P Global Ratings to Enhance Transparency in U.S. Public Finance Credit Analysis with ESG Credit Indicators (Feb. 16, 2022), at 2.

[38] *See supra* note 1.

"environmental" ESG credit factors, including without limitation in generating ESG scores.

7. How, if at all, and to what extent do your models account for the possibility of sanctions against China in the event of an invasion of Taiwan? Please include in your answer a detailed description of the effect, if any, such an event would have on the ESG score and credit rating of companies dependent on renewable energy components from China.
8. Please describe any communications you have had with The Children's Investment Fund or any related person or entity regarding the incorporation of ESG factors into your credit ratings or otherwise into your business.[39]
9. What factors did you consider in addition to water supply when deciding on an E-3 indicator for Utah? If, as you state in the report card, "Utah's ongoing demonstration and commitment to planning for long-term water challenges helps to alleviate additional pressure within our credit rating analysis," why did Utah not receive the neutral indicator of E-2?
10. Please describe any communications you have had with the Securities and Exchange Commission, the Municipal Securities Rulemaking Board, the Department of Treasury, any other governmental agency or regulatory authority, and/or any related person or entity regarding incorporation of ESG factors into your credit ratings or otherwise into your business.
11. Please identify what sources S&P is consulting for determining future ESG factors, with particular attention to S and G factors.
12. Please identify what sources S&P is consulting for determining how governments and corporations will be judged regarding ESG factors.

Please provide detailed responses to the requests above, together with your models, assumptions, and related information, so that they can be evaluated for undue political bias and conflicts of interest.

We reserve all rights, remedies, and claims.

Respectfully,

Spencer J. Cox
Governor

Deidre M. Henderson
Lieutenant Governor

Sean D. Reyes
Attorney General

Marlo M. Oaks, CFA, CAIA
State Treasurer

John Dougall
State Auditor

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[39] *See* Carlos Tornero, Chris Hohn's TCI Files Climate Resolutions at S&P and Moody's in New 'Say on Climate' Campaign, Responsible Investor (Nov. 23, 2020), https://www.responsible-investor.com/chris-hohn-s-tci-files-climate-resolutions-at-s-and-p-global-and-moody-s-part-of-new-say-on-climate-campaign/.

Michael S. Lee
United States Senator

Mitt Romney
United States Senator

Blake D. Moore, Congressman
Utah First District

Chris Stewart, Congressman
Utah Second District

John R. Curtis, Congressman
Utah Third District

Burgess Owens, Congressman
Utah Fourth District

J. Stuart Adams, President
Utah State Senate

Brad R. Wilson, Speaker
Utah House of Representatives

MARLO M. OAKS
UTAH STATE TREASURER

ESG Metrics Politicize and Distort Markets

What is ESG?

ESG stands for Environmental, Social, and Governance. It is a subjective criteria investors use to rate public companies, and now government organizations, on how well they adhere to ESG standards. In practice, ESG is a political score that, intentionally or not, can result in market participants using economic force to drive a political agenda.

S&P Global Credit Indicators

In a move that politicizes state and local government credit ratings, the largest of the Big Three credit-rating agencies, S&P Global Ratings, has created ESG credit indicators. S&P's focus on ESG when evaluating state and local governments threatens to obscure real investment risks, undermine faith in the impartiality of credit ratings, and penalize states whose politics do not align with the political interests behind the ratings system.

Utah was recently recognized as the state with the best economic outlook for the 15th year in a row, and we are frequently cited as one of the top states for business, GDP growth, and quality of life. We have one of the top-funded pension plans in the nation. Our large and small cities are some of the nation's top-performing cities. And last year, we were even cited as having the nation's smallest wealth gap. How does a state that is consistently recognized as a leader in the nation for its broad fiscal and economic success receive an overall moderately negative ESG score? Investors know if they want to get paid back, they invest in Utah debt.

S&P should be concerned about whether investors will get paid back, not whether a state policy lines up with their political beliefs, whatever those may be. Utah has methodically and carefully managed revenues and debts over decades to maintain the best credit rating in the world, which allows us to borrow money at the lowest rates in the market and save taxpayer dollars. We view our triple-AAA rating as a key asset of the state. But those financial factors may not matter if we extract "too much" oil, if our gun laws are "too loose," or if we are "too resistant" to kindergarten sexual instruction. Financially material environmental and governance factors are already captured in the traditional credit analysis. ESG isolates and inappropriately weights political factors.

ESG is Highly Subjective

ESG is a highly subjective, dubious, and unproven exercise that is based on indeterminate and often unquantifiable factors. ESG evaluators from different organizations using the same matrix often disagree on ESG scores[1], which can and do change on a whim. Various ESG sub-components are inherently incommensurable.[2] How, for example, should environmental goals be prioritized over social ones, or governmental goals over environmental ones? This is to say nothing of what factors may populate the social realm of future ESG scores.

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[1] Christensen, Dane M. and Serafeim, George and Sikochi, Anywhere, Why is Corporate Virtue in the Eye of the Beholder? The Case of ESG Ratings (February 26, 2021). The Accounting Review, https://doi.org/10.2308/TAR-2019-0506, Available at SSRN: https://ssrn.com/abstract=3793804

[2] *See, e.g.*, Robert S. Kaplan & Karthik Ramanna, How to Fix ESG Reporting, Harvard Business School Working Paper 22-005 (2021) at 2, https://www.hbs.edu/ris/Publication%20Files/22-005revised_ed6ac430-c3ca-4ba6-b0be-ca48c549aaf2.pdf ("[T]he absence of a common framework for the E, S and G elements produces contradictions even within a single ESG report. . . . The difficulty of reconciling across various ESG activities emanates from the challenges of objectively making the underlying moral judgments.").

ESG has Two Layers of Subjectivity

ESG has two critical layers of subjectivity: the determination of the ESG factors themselves and the answers to those factors. There is no universal agreement about what factors should be used. Even if there was agreement on the factors, the answers as to what should constitute a "good" or a "bad" score for a particular factor differ depending on who is asked. ESG, therefore, cedes power to the person or entity who is determining these two central questions: the factors and what determines a good or bad outcome.

ESG Politicizes Financial Decisions

ESG politicizes what should be purely financial decisions. This politicization has manifested itself in the capital markets where, for example, banks are pressured to cut off capital to the oil, gas, coal, and firearms industries. Since our nation's founding, we have maintained separate systems for our financial industry and our political process.

In a functioning democracy, questions of social values, like abortion and gun control, should be appropriately left to the people to resolve through their elected representatives. These decisions should not be the purview of credit rating agencies in the financial sector. ESG should concern every American citizen who cares about our pluralistic institutions, our unparalleled record of innovation, and our ability to determine through democratic processes how we solve the social questions of our day. Those who support the current ESG agenda should ask themselves: What if the government under different party control changed ESG factors and decided to use capital to favor donations to pro-life groups?

ESG Threatens Americans' Retirement Security

Anyone who has investments in a 401(k) should be petrified and enraged by proposed changes to the fiduciary standard under the guise of ESG. This standard protects participants by requiring those who make decisions on their behalf consider only the beneficiaries' financial best interest. A proposed Department of Labor rule would allow 401(k) administrators to consider other subjective factors, like climate change, above retirees' financial security. This means that regardless of your politics those in power could use your money to pursue their interests without concern for workers' retirement security.

ESG Leads to the Misallocation of Capital, the Central Issue of the 2008 Financial Crisis

When power is centralized, society suffers. Pluralistic institutions like free capital markets protect us from the tyranny of elite power. When elites determine how capital is allocated economy-wide for a strategically critical industry like energy, less wealth is generated, innovation suffers, freedoms decline, and national security is threatened. ESG leads to the misallocation of capital and asset bubbles. When the federal government's social justice lending program, which included strong-arming banks to provide mortgages to high-risk borrowers, came to an end in 2008 we all suffered when our financial system nearly collapsed.

ESG is Not the Right Solution

Cutting off capital to traditional energy companies in the United States and seeking such resources elsewhere around the world is demonstrably harmful to the global environment. U.S. oil extraction follows more environmentally friendly practices than do companies in other countries. In addition, U.S. natural gas burns 40% cleaner than Russian natural gas. A more enlightened strategy would call for greater U.S. extraction of these resources and the exportation of U.S. natural gas globally to replace the Russian alternative. Moreover, the U.S. accounts for a relatively small amount of harmful pollutants. However, the cost of implementing ESG will be very high with marginal benefit. Developing countries are much larger polluters and are not held to ESG standards.

MARLO M. OAKS
UTAH STATE TREASURER

Q&A: S&P Global's ESG Credit Indicators

Objective of Utah Letter to S&P Global

We are not aware of another letter in the state's history that forges a united front from all of the state's top political leaders on an issue like ESG. Utah's #1 goal in this effort isn't to get S&P Global to withdraw the ESG credit indicators assigned to Utah and cease to publish any ESG factors, ratings, indicators, or other scoring systems related to or referencing Utah; although we are demanding S&P Global do that. It is to get as many states as possible to join us in standing up to the ESG tidal wave sweeping our markets and demand it stop. We can not be successful in this effort without a significant number of states joining us.

Will states and municipalities lose investors for pushing back against ESG?

One of ESG proponents' key strategies is to make it appear like the market is universally demanding ESG disclosures. They want us to believe we won't get investment dollars unless we go along with the new system. We believe this is FALSE. Although ESG assets under management have grown, we believe investors are still seeking to achieve the best return for a given level of risk. We believe the vast majority of institutional investors have that objective or operate under fiduciary standards to do just that. Investors are generally not trying to pursue a political agenda, like ESG. We are willing to take the risk of not supplying ESG information and call on corporations, consultants, investment managers, states, and other capital markets' participants to join us in this push-back and stop supplying the market with or demanding the disclosure of ESG factors.

Treasurer Oaks has heard that one of the largest investment managers in the world asked their institutional clients if they wanted them to implement ESG across their platform, and 90% of them said "No." Another large institutional investment manager recently said the vast majority of foundations, the most liberal part of the market in terms of policies and programming support, do not want to follow ESG in their portfolios. They want managers to get the best return for a given level of risk because they look at peer rankings.

We believe many investment managers who appear to be ESG proponents do not feel they can stand up because they could lose business. It is therefore incumbent on those who can stand up to do so and begin to build safety for those in the private sector, so they can stand up and say no, also.

How can states push back against ESG?

As Benjamin Franklin purportedly said, "We must all hang together, or, most assuredly, we shall all hang separately." Our collective success depends on other states joining Utah and saying they also want S&P to withdraw ESG indicators for their state and cease to publish any ESG factors, ratings, indicators, or other scoring systems for state and local governments. This new system risks politicizing the ratings process and is deeply counterproductive, misleading, and potentially damaging to the entities being rated.

A recent article noted a growing trend of lawsuits based on self-reported corporate ESG filings and determined 1,800 climate-related lawsuits have been filed worldwide with three-quarters of those filings happening in the United States.[1]

In a conversation Treasurer Oaks had with one of the largest investment banks two weeks ago, they indicated many blue states and municipal entities in those states pushed back against the MSRB's proposed disclosures of ESG information—it is too burdensome. Getting blue states on board will be a game-changer, so we need to make it safe for them to stand up. This needs to be a bi-partisan issue. It is about preserving our American systems of free-market capitalism and constitutional form of government.

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[1] Chike-Obi, Nneka and Marina Petroleka, ESG litigation risk: Climate lawsuits dominate, but scope is widening (February 21, 2022), https://www.miningreview.com/health-and-safety/esg-litigation-risk-climate-lawsuits-dominate-but-scope-is-widening/.

S&P Global
Ratings

RatingsDirect®

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors

March 2, 2022

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Key Takeaways

- S&P Global Ratings incorporates environmental, social, and governance (ESG) risks and opportunities into the credit rating analysis of U.S. public finance (USPF) entities based on factors embedded in our sector-specific criteria.
- ESG credit factors can materially influence the creditworthiness of a rated entity or issue when we have sufficient visibility and certainty to include in our credit rating analysis.
- Our long-term credit ratings do not have a pre-determined time horizon and ESG credit factors incorporate qualitative and quantitative analysis to determine materiality within our credit rating analysis.
- Even as additional data become available, reflecting ESG risks and opportunities within our credit rating analysis will require a qualitative view of an entity's capacity to anticipate and plan for a variety of emerging risks that could disrupt its credit fundamentals.
- We have updated this sector-by-sector analysis originally published in April 2020 to provide additional insight on how ESG credit factors intersect with aspects of our criteria frameworks shown throughout this article. The examples are not exhaustive and represent where the risks could be most material to our credit rating analysis.

S&P Global Ratings has a long record of incorporating ESG factors into its credit rating analysis of entities. To provide additional transparency highlighting how the most relevant ESG factors affect an entity's creditworthiness, we added dedicated ESG paragraphs to our issuer-level credit reports beginning in April 2020 and published our criteria "Environmental, Social, And Governance Principles In Credit Ratings," on Oct. 10, 2021. We also regularly update our views regarding how ESG risks and opportunities affect our credit ratings analysis in commentaries (see "ESG In U.S. Public Finance Credit Ratings: 2022 Outlook And 2021 Recap," published Nov. 29, 2021, on RatingsDirect).

ESG Credit Factors Intersect With USPF Credit Factors

We believe public entities and not-for-profit enterprises possess unique considerations in regard to ESG credit factors, given their role as providers of safety-net social services and essential public goods, often with multilayered governance and institutional frameworks, as well as political accountability. However, having a social mission and strong ESG characteristics does not necessarily correlate with strong creditworthiness and vice versa. For example, spending by governments or not-for-profit enterprises intended to enhance social programs, increase educational offerings, expand affordable housing, improve pension funding levels, or build resilient infrastructure, can achieve an organization's public mission or mandate, enhance its long-term sustainability, and be viewed as a positive ESG characteristic. However, allocating resources to these purposes could also result in negative implications for operations and pressure financial performance that could lead to a credit rating our outlook change.

Charts 1 through 3 illustrate examples of ESG credit factors identified in our ESG Principles criteria and detailed in "ESG Credit Factors: A Deeper Dive," published Nov. 17, 2021. We have included situations that could be applicable to USPF entities and where they would be captured under ESG credit factors. Furthermore, while slight variations exist between each of our sector-specific criteria, overall, these frameworks enable S&P Global Ratings to incorporate ESG credit factors that we view as material and influential in evaluating the obligor's ability to operate and pay debt on time and in full. We identify ESG credit factors as:

Environmental

- Climate transition risks
- Physical risks
- Natural capital
- Waste and pollution

Social

- Health and safety
- Social capital
- Human capital

Governance

- Governance structure
- Risk management, culture, and oversight
- Transparency and reporting

Chart 1

Environmental ESG Credit Factors

Climate transition risks

- Costs or benefits from transitioning to net-zero away from carbon-based energy supply
- Policy or regulatory changes related to managing carbon and curtail greenhouse gas emissions

Physical risks

- Acute (i.e., increased severity of extreme weather events such as hurricanes, flooding, wildfires, and drought and their impact on water supply, economic or service areas, and facilities and/or infrastructure)
- Chronic (i.e., longer-term shifts in climate patterns including precipitation and temperature that may result in chronic heat and cold waves and their impact on water supply, economic or service areas, and facilities and/or infrastructure, as well as sea level rise)
- Natural disasters (e.g., earthquakes, tornados)

Natural capital

- Water scarcity or supply limitations that affect operations or an entity's economic base or service area
- Biodiversity and land use related to development patterns in protected or preserved areas

Waste and pollution

- Environmental considerations relative to sewer overflows; consent decrees stemming from pollution issues
- Impact of environmental regulations related to water or wastewater

Source: S&P Global Ratings.

Chart 2

Social ESG Credit Factors

Health and safety

- Demand, revenue, or expense driven changes related to health and safety events that alter social behaviors
- Emerging contaminants in water supply as well as lead and copper pipes that could affect residents in the enterprise's service area

Social capital

- Demographic and population trends that affect a government's services or demand for a not-for-profit enterprise's product or infrastructure
- Income levels, income inequality, disparity in access to services by vulnerable groups
- Affordability of services provided by an enterprise
- Political unrest stemming from community or social issues

Human capital

- Operational pressures related to renumeration, recruitment or retention of an entity's workforce
- Exposure to labor unrest or challenges and costs related to union negotiations and settlements
- Diversity and succession planning when it broadly affects a government or not-for-profit enterprise

Source: S&P Global Ratings.

Chart 3

Governance ESG Credit Factors

Governance structure

- Elected or appointed board relationship with management
- Federal/state regulatory framework
- Key person succession planning
- State government support (or lack of support) for distressed entities, typically considered as part of the Institutional Framework score for municipalities and counties

Risk management, culture, and oversight

- Vulnerable financial management assessments when it stems from pervasive budgetary imbalances or missed debt service payments
- Cyber security protocols or lack of preparation when results in operational or financial impacts
- Pension/OPEB plan governance related to legal flexibility to modify benefits, adherence to a control framework that controls the liability funding schedule
- Headline risk: self-inflicted corruption and mis-dealings, adverse publicity that results in reputation risk or operational pressure

Transparency and reporting

- Adherence to reporting standards as identified in policies and practices
- Transparency of information provided to stakeholders related to key decision making
- Lack of statutory requirements for certain types of accounting standards that results in credit weakness or transparency concerns

Source: S&P Global Ratings.

Governance: integral to our analysis

Although governance is an integral component of our analysis, not all management decisions are considered within the scope of the "G" in our view of ESG in credit ratings. For example, while management decisions can positively or negatively influence credit quality and financial performance, the positive or negative outcomes of day-to-day decision-making is typically not considered a governance risk across USPF. Ultimately, our assessment of management's decision-making will be guided by its ability to avert financial deterioration to ensure the payment of debt service in full and on time while facing other environmental and social risks.

ESG credit factors are incorporated into all elements of our criteria frameworks and analysis; below, we more explicitly identify where they could most likely affect the credit rating outcome. Although not highlighted below, these and other ESG credit factors can also influence our credit rating cap and override decisions, particularly if one is applied as an outlier within the sector.

States And Local Governments

ESG credit factors can influence a government's capacity to serve its population, respond to service demands, or ensure physical resilience from the acute and chronic effects of climate change. These, in turn, can affect long-term fiscal sustainability, economic development efforts, and the ability or inability to implement revenue enhancements when necessary. Because public finance issuers provide essential services and infrastructure, many ESG credit factors are fundamental to and embedded into our credit rating analysis and are often key credit determinants in our credit rating outcomes. As a result, we incorporate ESG credit factors in nearly all aspects of the criteria frameworks. Certain elements within each criteria framework may be more heavily influenced by ESG credit factors, particularly when considering the difference in size between a state and local government's economy, budget framework, and nominal level of reserves. For example, although a state and a local government may each issue a significant amount of debt to rebuild roads, facilities, or other assets following a severe weather event, a local government's debt profile may deteriorate more significantly resulting from the localization of damage and lead S&P Global Ratings to reconsider the credit rating or outlook. Furthermore, in some cases a local government's economy may be more negatively affected by its location and exposure to climate transition risk or physical risks like forest fires or coastal flooding, whereas a state's economic diversity and large physical boundary may allow it to better absorb a ESG risk without an impact on its credit rating. Therefore, the ESG factors represented in charts 4 and 5 differ slightly from each other when considering the impact the risks have on our rating outcomes.

Environmental

Bound by geography, public entities are on the front lines of responding to extreme weather events, natural phenomena, rising sea levels, and other environmental and climate-related physical risks. Our opinion of management's long-term planning and preparation, risk assessments, and insurance coverage are primarily represented in our management, budgetary performance, and debt and liability assessments. All aspects could be constrained by environmental risks or we may view very strong management and planning activities as mitigating these risks. For example, given the size and scope of a state's budget and relative autonomy to manage expenditures while maintaining substantial financial flexibility, it is generally well positioned to absorb costs associated with acute and chronic environmental risks.

Social

S&P Global Ratings incorporates social capital factors to inform its economic and demographic analysis, a key rating input, as well as the service needs of a given dependent population. We evaluate per capita income, household income, and other measures of wealth and income equality that affect changes in demand for services and economic activity which, in turn, influences financial performance. The interplay between income levels and affordability of tax rates influences the ability of the government to support operations and meet capital needs. Exposure to political unrest and crime rates is also a consideration in our evaluations of economic drivers to financial metrics and are typically captured under social capital related to a government's relationship with its community.

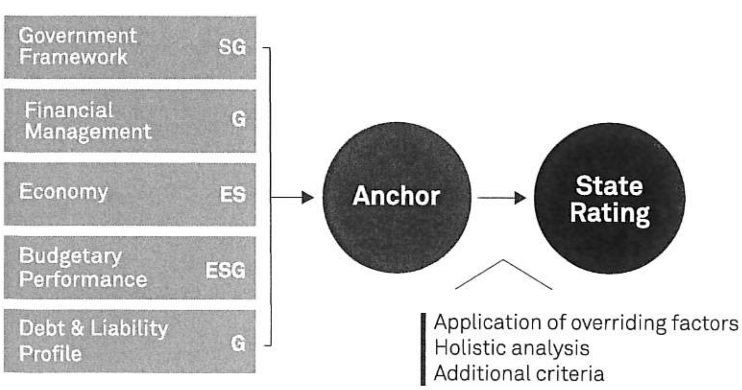
Demographic trends have also led to human capital challenges for governments related to retirements and the ability to recruit and retain employees in the face of competition with the private sector. Labor shortages, whether they are acute or long-term, could lead to higher renumeration costs that could require management teams to implement additional strategies to maintain budgetary balance.

Governance

Beyond the policy setting, a key factor we examine with governments is how management teams balance sometimes competing interests between achieving the government's mission and prudently using public resources. For example, we include governance of pension liabilities and other postemployment benefits as a primary risk for governments in public finance, particularly because escalating contribution costs can crowd out other financial resources available to support ongoing operations or debt obligations. We believe management's inability to contain the liability or balance increasing contributions is a long-term credit risk and illustrates poor risk management and failure to develop a strategy to support long-term budgetary balance. Conversely, management's proactive approach to funding or modification of plan assumptions can support our view of strong governance.

Chart 4

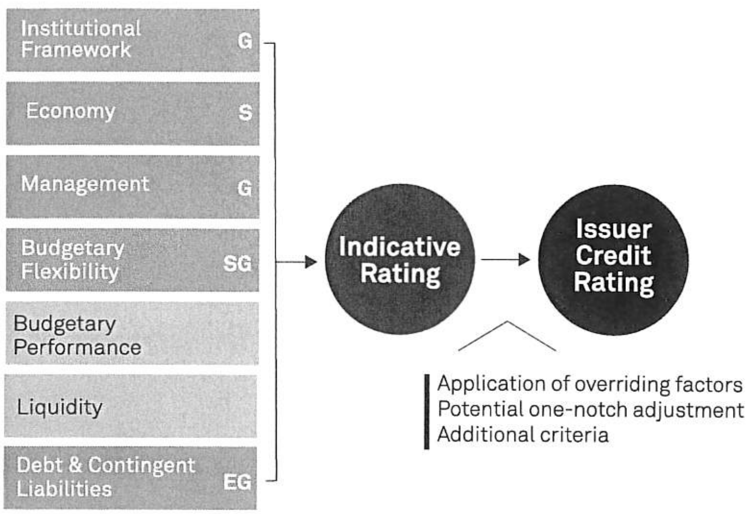
U.S. States



Criteria: U.S. State Ratings Methodology

Chart 5

U.S. Local Governments



Criteria: U.S. Local Governments General Obligation Ratings: Methodology and Assumptions

Water And Sewer, Solid Waste, Public Power And Electric Cooperative Utilities

For municipal water and sewer utilities, ESG risks influence the core business operations. Considerations related to environmental risks, social capital affordability pressures, and adaptation to changing governance and regulatory demands are explicitly referenced in our criteria. The urgency to harden infrastructure to meet the rising pressures associated with climate change and other emerging risks may pressure affordability and balancing these objectives will be key to maintaining financial performance.

When viewing public power and electric cooperative utilities through the ESG lens, we focus on the emissions and byproducts of generation resources, which can negatively affect an entity's long-term operational viability and its ability to support debt obligations. Similar to governments, we reflect ESG factors in the economic fundamentals of the service area, market position, and operational and financial management assessment as well as coverage and liquidity financial metrics.

Environmental

Municipal water and sewer utilities as well as public power electric, wholesale, and cooperative utilities criteria have long evaluated exposure to environmental regulations. For electric utilities in particular, we assess the extent of a utility's reliance on carbon-intensive production and its transition to different energy resources. In addition, resource adequacy and supply diversity are environmental risks captured in our operational management assessment. Moreover, severe weather can result in damage to critical utility infrastructure.

Furthermore, natural capital risks such as water scarcity and physical risks such as wildfires and severe weather can affect the availability of or the quality of supply. These dynamics also affect wastewater facilities, increasing the likelihood of overflows, watershed issues, and operational challenges.

Social

Utilities assess the relative burden of the utility bill to household disposable income as a way of gauging the capacity to raise user rates. Within market position, we evaluate the affordability of rate increases relative to the service area economic fundamentals to determine if management has sufficient rate-setting flexibility. In addition, health and safety social risk can stem from the presence of pollutants in the water supply such as "forever chemicals." Exposure to lead and copper pipes also can create outsized health and safety risks that pressure a water utility's financial capacity should it require additional debt or expenditures to remediate the exposures. We believe safety concerns can result in a loss of confidence in its ability to effectively serve its population, which can hinder ratemaking flexibility and is a substantial risk to its operations.

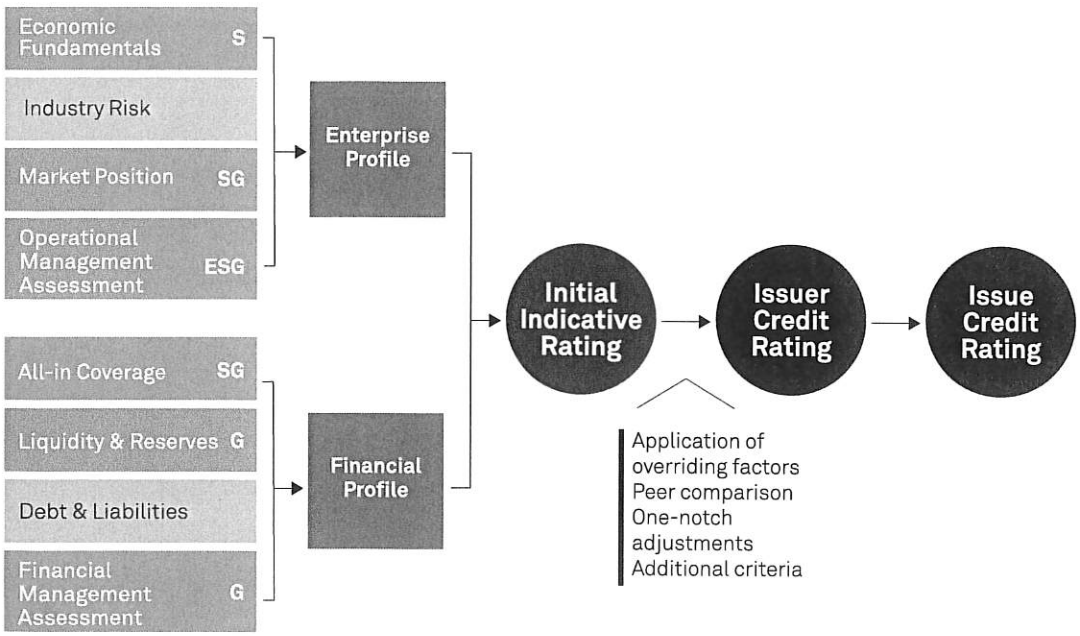
For public power and electric cooperative utilities, transitioning from conventional resources to renewable resources can impose both costs and operational challenges that create additional financial pressure for utilities and, in turn, their customers, thus further affecting affordability. Similarly, climate change could expose some power utilities and cooperatives to near and long term risks related to the safe and reliable distribution of electricity.

Governance

Given the highly regulated environment in which utilities operate, governance structure risks are prevalent within a utility's market position, operational management assessment, and various aspects of the financial profile. Evaluating asset stewardship, disaster mitigation, regulatory compliance and foresight, health and safety (quality of water supply), sufficiency of water supply (drought management planning), cyber security planning (both financial and operational), and power supply diversity can all affect a utility's ability operate efficiently and economically. In addition, transparency and reporting is a critical attribute of a utility's governance as it underscores management's credibility and can result in stronger relationships with stakeholders. Furthermore, particularly with electric utilities, reliance on coal for power supply and generation can negatively expose operations to changing regulations designed to reduce reliance on a fuel with meaningfully negative environmental attributes. In addition, because utilities generally operate as a component of a related government, we view the related government's decision to transfer cash out of the utility to support the primary government's operations as a key governance structure and risk management concern as it can deplete the utility's ability to reinvest in the system and reduces budgetary certainty.

Chart 6

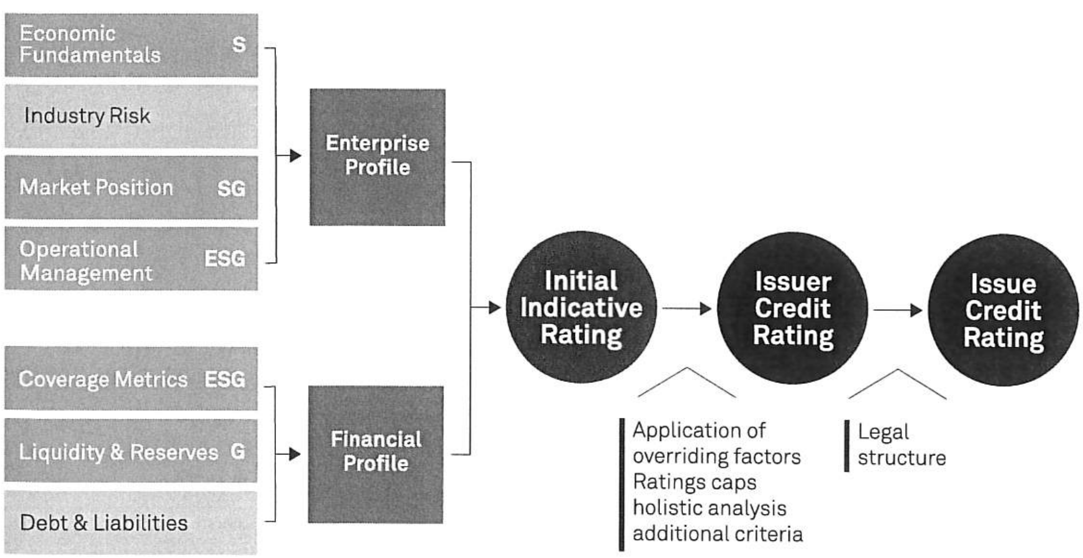
U.S. Public Finance Waterworks, Sanitary Sewer, And Drainage Systems
U.S. Solid Waste System Financings



Criteria: U.S. Public Finance Waterworks, Sanitary Sewer, and Drainage Utility Systems: Rating Methodology and Assumptions; Solid Waste System Financings

Chart 7

U.S. Municipal Retail Electric And Gas Utilities Framework



Criteria: U.S. Municipal Retail Electric and Gas Utilities: Methodology and Assumptions

Health Care

Hospital care systems and standalone facilities provide a fundamental service to U.S. residents through access to health care that is beneficial to the population as a whole. However, similar to municipal utilities, the system's or facility's economic fundamentals and market position can be positively or negatively affected by ESG credit factors, which ultimately could constrain or support its operations and financial profile.

Environmental

Generally we view concentration of facilities in an area prone to physical climate risks as exposing a facility's financial and operational performance to short- and long-term environmental risks. The lack of facility or geographic diversity can more adversely disrupt operations when acute or chronic events occur.

Social

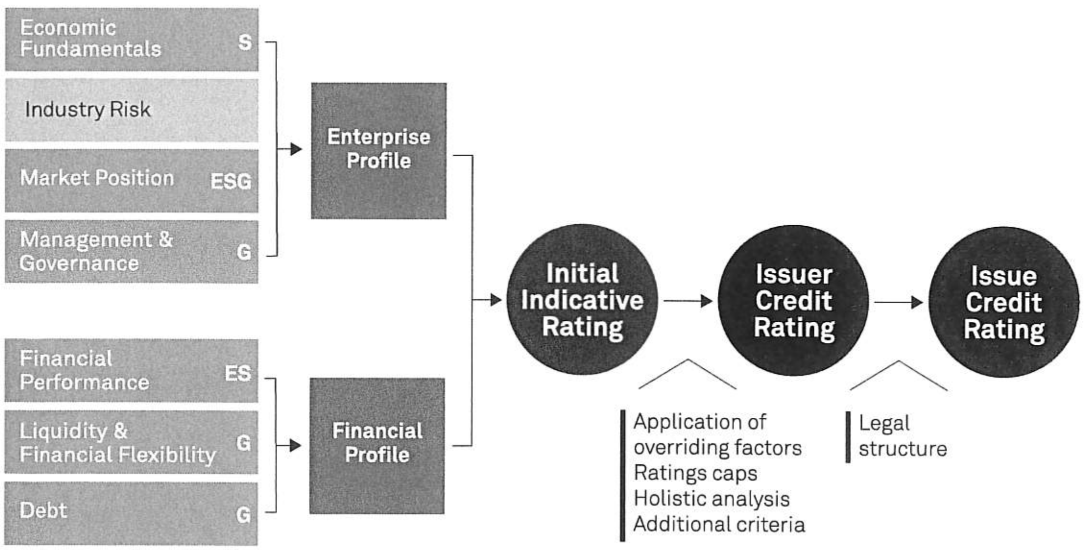
Our analysis of payor mix and service area demographics are key social factors we evaluate within market position that can affect the credit quality of not-for-profit health care enterprises. Within the sector, revenue and profitability can be constrained by an outsized reliance on government-sponsored programs, such as Medicare and Medicaid, which typically offer reimbursement rates that do not fully cover the hospital or system's cost of providing services. Aging demographics and weakness in the economy can further accentuate reliance on Medicare and Medicaid, respectively. In addition to payer mix, human capital social factors, such as the ability to recruit and retain qualified clinicians and doctors, could affect the facility's or system's ability to generate sufficient revenue to cover operations and debt obligations. For those health care entities with labor union exposure, labor strikes could impact a provider's short-term and medium-term finances if relationships between unions and management are challenged. Finally, a pandemic, such as COVID-19, can pressure a hospital's operational resources and financial performance when pivoting to serve affected patients where expenditures associated with the event crowd out other necessary or elective services. Furthermore, it can result in increased stress to the workforce, resulting in additional pressure to a hospital's overall salary and benefit expenses and weakening the overall provision of patient care.

Governance

Changes in care delivery, reimbursement models, and consumer expectations have caused hospitals and systems to reassess their strategies in order to ensure their long-term competitiveness. As a result, certain strategic initiatives and alliances and mergers can be viewed as a governance structure risk, particularly if credit quality is affected by what we view are riskier strategies. Strategies that result in exposure to a more challenged payor mix or weaker demographics without appropriate mitigants could be viewed negatively in our credit rating analysis. In addition, governance structure can affect the health care sector resulting from its highly regulated operating environment and heightened legislative attention, requiring management teams to adeptly comply with complex rules and manage their organizations in an evolving regulatory and legislative landscape. In addition, health care providers must factor cyber security risk management into their operations given the sensitive nature and the patient information they collect. Cyberattacks could expose health care providers to financial and reputational risks and will require management teams and boards to devote additional time and resources to bolster the protection of their information technology systems.

Chart 8

Not-For-Profit Health Care Systems And Standalone Facilities



Criteria: U.S. And Canadian Not-For-Profit Acute Care Health Care Organizations

Charter Schools

Charter schools face unique governance challenges given their reliance on charter standing to ensure continued operations. In addition, state-specific statutory frameworks may lead to a charter school's ability to operate effectively being either enhanced or limited. For these reasons, we view governance and social factors as higher risks than environmental for U.S. charter schools. Similar to health care and higher education institutions, charter schools face short and long-term risks associated with the location of their facilities.

Environmental

Environmental risks for charter schools are primarily captured in the location of the school's facilities. Because charter schools have boundary-based locations, we think some schools could be more susceptible to impacts from hurricanes, wildfires, or flooding, and have higher physical climate risks compared to schools not located in specific areas. Acute environmental risks associated with severe weather events can cause damage to facilities, which are usually the school's largest asset and can disrupt the day-to-day operations of a school.

Social

One of the key rating factors for charter schools is the strength of a school's demand profile. Changing demographic and population trends can represent a social capital risk or opportunity, depending on the resulting impact for school aged children that could correspond with enrollment trends. Indicators of changing enrollment and demand trends include enrollment levels, the school's reputation, retention, and waitlist as a percent of enrollment, and academic quality as evidenced by a school's statewide ranking and graduation rates.

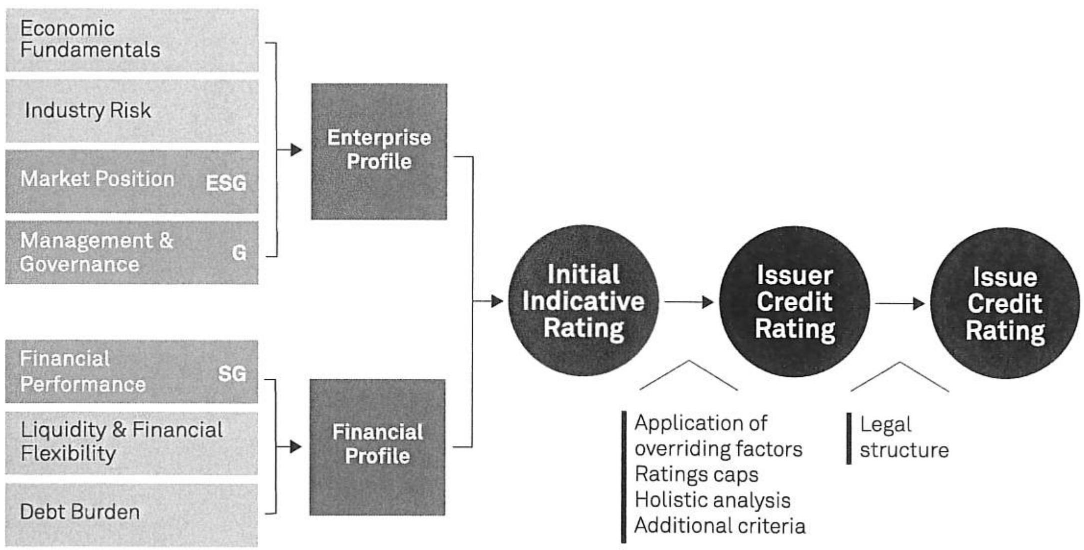
The pandemic, which we view as a health and safety social factor, has had varying impacts to our rated universe, and has led to changing educational preferences, with some charter school enrollment and demand profiles strengthening given their ability to educate in person. Other pandemic related financial considerations include increased expenses to operate safely during the pandemic as well as varying changes with per pupil funding across the country. So far, charter schools within our rated universe have not experienced human capital risks related to teacher shortages, but some schools are struggling to fill other positions such as bus drivers. If this risk accelerates, schools could face higher personnel expenses or be required to implement programmatic changes to address the shortages.

Governance

Within a charter school's market position, key charter risks can be identified through governance factors such as governance structure, risk management, culture, and oversight and transparency and reporting. We believe a school's strategic positioning, financial management, organizational effectiveness, and charter standing (as measured by charter term, charter review findings, and authorizer support) are important rating considerations. Because charter schools are required to have and to maintain a charter contract in order to operate, we believe this is a fundamental governance structure consideration. Most frequently, risks that can jeopardize a school's charter contract are deficiencies in the school's academic performance, financial management, or issues regarding reporting and disclosure. Charter non-renewal or revocation can result in a school or campus closure and cause a cessation of operations if the school is unable to secure authorization under a different authorizing institution. Furthermore, any potential reputational risk to the charter could negatively affect demand, the key social risk for charter schools.

Chart 9

U.S. Charter Schools



Criteria:

U.S. Public Finance Charter Schools: Methodology And Assumptions

Higher Education

The U.S. higher education sector provides a very important service while playing a key economic and social role by meeting national and global demand for post-secondary education and critical research. These institutions participate in a competitive and increasingly international marketplace for students with predominately social and governance factors influencing their risks and opportunities and driving credit quality.

Environmental

Similar to other boundary-based or specific asset locations, environmental risks for higher education entities are primarily captured in the location of the school's facilities. Depending on location, we think some colleges and universities are more susceptible to impacts from hurricanes, wildfires, or flooding, and have higher physical climate risks compared to schools not located in specific areas. One-time environmental risks associated with severe weather events can cause damage to facilities, which are usually an important asset and damage to these facilities can also disrupt the day-to-day operations.

While environmental risks are generally not a material ESG credit factor, we believe the sector is becoming more energy efficient, and reducing energy consumption when upgrading facilities, which can produce operational savings. While important from a climate transition risk perspective in reducing an institution's carbon footprint, these actions might not necessarily correspond with a higher credit rating. Exposure to extreme weather events or natural disasters is a physical risk for higher education globally, most damage costs are usually covered by insurance or some type of mitigation plan and are unlikely to negatively affect institutions over the long term.

Social

Higher education institutions are established to provide education services which we view as essential and key contributors to community cohesion, which strengthens the resilience of social opportunities for global communities. These traits often result in legislative and other forms of governmental as well as philanthropic support. Higher education institutions are also affected by social capital changes in demand and enrollment trends. Furthermore, demographic changes, affordability, policy changes, and an institution's reputation can all contribute to long-term demand and retention, matriculation, and graduation rates--all captured in an institution's market position. The education sector also faces moderate risk exposure to human capital risks given the need for skilled personnel being key in determining the education quality, sponsored research activities, and depth and breadth of academic offerings.

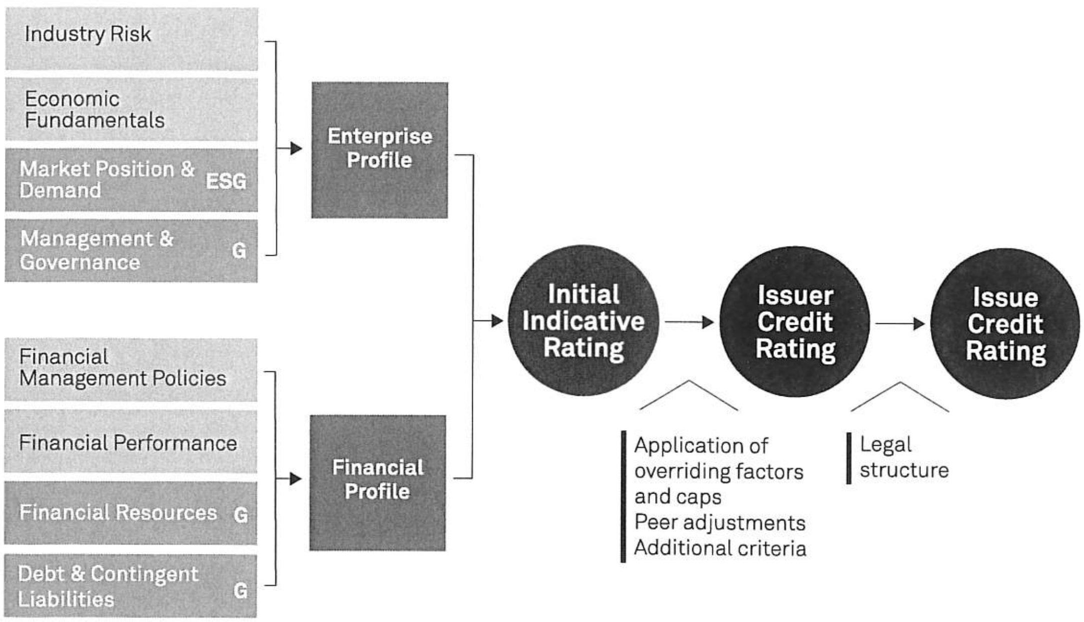
The higher education sector was disproportionately exposed to health and safety social risks stemming from the pandemic. The sector experienced credit rating pressure from implementation of flexible modes of instruction as well as financial impacts from lost revenue from limited campus activities or refunds driven by campus closures at the onset in 2020. Favorably, much of this financial impact has been offset with material allocations of federal funding. Finally, institutions face health and safety risks by keeping its study body safe from high impact events, that could also result in governance weaknesses if risk management practices were viewed as inadequate.

Governance

We believe an institution's market position is fundamentally affected by governance decisions or risks. For example, accreditation, fundraising capacity, and an institution's reputation that drives demand, matriculation, and retention rates, are all key aspects of the sector's ability to operate effectively and meet its debt service obligations. Furthermore, we reflect one-time scandals that have occurred in the industry typically as a risk management, culture, and oversight governance factor. While these scandals may be a low probability event, they potentially have a high and negative impact on enrollment trends that could exacerbate social risks.

Chart 10

Not-For-Profit Public And Private Colleges And Universities



Criteria: Not-For-Profit Public And Private Colleges And Universities

Transportation

Transportation infrastructure enterprises are public owners and operators of asset classes including mass transit agencies, airports, toll facilities, ports, and parking facilities that play a very important role in facilitating economic and social activities as part of local, regional, and often global networks. As providers or facilitators of mobility, these operators generally possess strong or monopolistic business positions within their service area, can be significant employers in their own right and benefit from strong political support but also have political accountability or oversight.

Environmental

The environmental profile of transportation infrastructure assets reflect their direct exposure to growing intensity and severity of extreme weather events as well as the indirect exposure to emissions and pollution associated with their users which collectively account for 14% of global greenhouse gas emissions. In addition, given their large footprints, transportation infrastructure providers are uniquely exposed to environmental regulations, particularly related to water, wastewater, air quality, and noise. Physical risk is a growing consideration in our analysis of infrastructure assets as a result of transportation assets' fixed locations. While airports, ports, and transit systems are likely more exposed to physical risks than other asset classes, the credit impact on airports has so far been moderate and limited as operators have taken steps to implement mitigation plans against these events.

Additionally, the implications of physical risk from extreme weather events can extend beyond the infrastructure assets and can consider the impact of the event on the region or service area. For example, when we lowered the rating on New Orleans Aviation Board by two notches on Aug. 29, 2005, following the damage from Hurricane Katrina, the rating action reflected concerns regarding the pace of recovery in the regional economy, including employment and tourism that could impact air travel demand. The airport's credit quality recovered several years later as demographic trends stabilized and financial performance improved.

Climate transition risks are important for the transport sector, but generally have a benign credit influence on infrastructure operators because emissions are mainly indirect (scope 3 under the GHG Protocol) among its users (airlines, cars, trucks, and shipping). We view exposure to scope 3 emissions from airlines as a longer-term risk for the aviation sector and will likely have the effect of reducing long-term growth rates. While this may be relevant when analyzing major capacity additions to existing airports or construction of new ones, the risk of secular change to replace the provision of services is low in our view, despite the transition to a low-carbon economy. However, mass transit entities play a crucial role in regional decarbonization efforts of their respective service areas, and the amount of general tax support provided to cover such investments underscores this importance.

Social

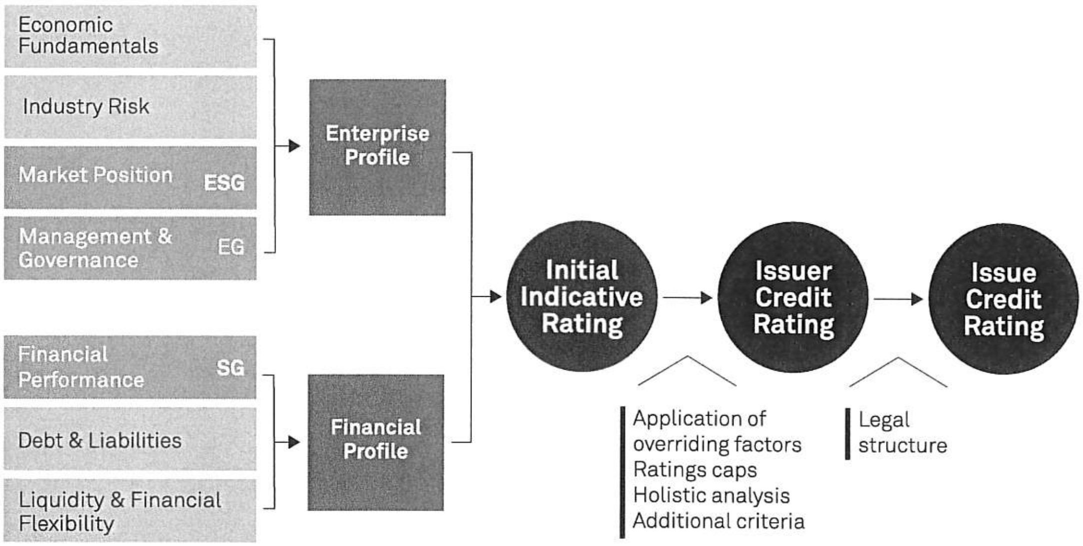
Transportation infrastructure is a heterogeneous industry that includes various subsectors with different exposures to social factors, such as health and safety, and social capital, given the impact on--and relations with--adjacent communities. Airports and transit systems face higher exposure to health and safety factors compared to other asset classes, stemming from events such as the COVID-19 pandemic, which caused many negative rating changes since the onset in early 2020. Ensuring the safety and security of employees, users and the population at-large is critical to the long-term existence of transportation infrastructure operators. They must also be responsive to user/consumer preferences, technical disruption and innovation, and broad demographic factors that affect future mobility and transportation mode choices. The acceptability and affordability of tolls, user fees, and transit fares is an increasingly important social factor, particularly when considering affordability within the context of the service area's underlying demographics. Labor relations and human capital risks including safety for employees are of critical importance, particularly for labor-intensive asset classes such as mass transit. Finally, transportation infrastructure is often a target of various shocks across the ESG spectrum including cyberattacks (governance), physical disruptions (environmental), and low probability but high severity accidents or acts of terrorism (social).

Governance

We view the regulatory framework and political environment that transportation enterprises operate within, as well as federal policy actions as governance structure risks. Airports and transit operators receive significant grant funding to support operations. Changes in these state and federal programs could substantially affect how transportation enterprises fund operations and infrastructure investment. Furthermore, management's rate-setting autonomy and ability to implement timely rate adjustments is a governance factor we evaluate within the context of an enterprise's market position and financial performance. Finally, given the operational risks inherent with transportation enterprises, we believe management's technical expertise, tenure, sophistication, and succession planning efforts are instrumental to ensure the long-term viability of the enterprise.

Chart 11

Not-For-Profit Transportation Infrastructure Enterprises



Criteria: U.S. And Canadian Not-For-Profit Transportation Infrastructure Enterprises: Methodologies And Assumptions

Housing Finance Agencies And Social Enterprise Lending Organizations, Social Housing Providers, Federally Enhanced Housing Bonds, Single-Family Whole Loan Bonds, And Rental Housing Bonds

The housing sector includes a range of both organizations and asset backed securities that provide a key economic and social need for the U.S, providing stable housing options by financing or operating affordable housing. Like many other sectors, we reflect ESG credit factors in our assessment of economic fundamentals, market position, operational risk, program management, management and governance, as well as our evaluation of the quality of the assets, coverage, and liquidity. In addition, in cases where our sector-specific criteria allows, we may reflect ESG credit factors in a holistic adjustment to the initial anchor.

Environmental

Across our housing criteria, the main environmental risk is a concentration of loan portfolios and pools or projects in an area or community where known environmental or climate-related risks exist (e.g. extreme weather events, sea level rise, forest fires). The potential lack of asset diversity exposes the portfolios or projects to credit and liquidity deterioration should an event occur. Furthermore, for rental housing bonds, unmitigated environmental risks could affect the long-term viability of the projects. Finally, for single-family whole loans, environmental risks could affect the quality of assets reviewed and assumptions that could negatively affect S&P Global Ratings' cash flow analysis and rating outcome.

Social

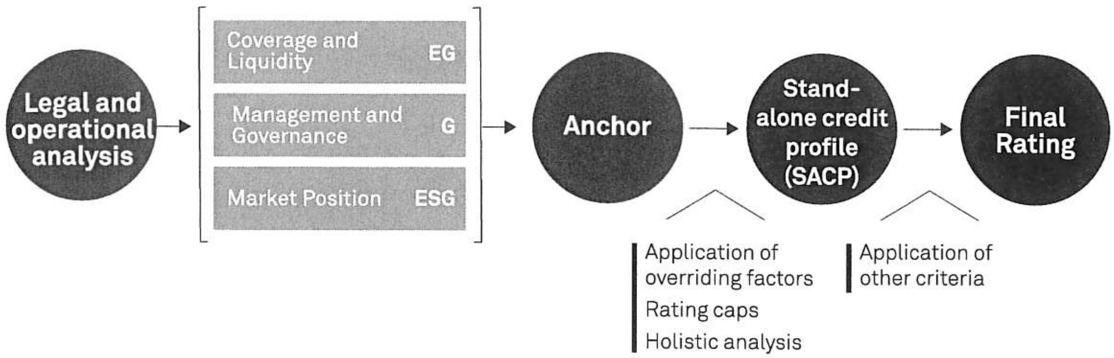
Housing finance agencies (HFAs), social enterprise lending organizations (SELOs), and social housing providers (SHPs), including public housing authorities (PHAs), generally operate with a deep social mission that underpins the loan portfolios and properties maintained by these organizations. For nearly all housing credits, payment performance related to a service area's exposure to real estate market volatility, unemployment levels, or economic concentration might affect asset quality or delinquencies, thereby enhancing or hindering a portfolio's or project's cash flow analysis or coverage and liquidity analysis. Our evaluation of bonds backed by single-family and multifamily loans consider the impact of demographic and income factors on the supply and demand dynamics in the relevant housing market which may affect our credit quality analysis. Additionally, for rental housing bonds, our market position assessment includes how curb appeal of a project affects occupancy and demand, and whether demand is affected by the affordability of the project's required rent. For PHAs and SHPs, organizations that offer lower rents compared to market rents score better within our economic fundamentals and market dependencies assessment to reflect their competitive advantage. Finally, although unexpected, we consider whether a social risk related to health and safety, for example, could disrupt the timing of the guarantee or insurance by a government entity or government sponsored enterprise for federally enhanced housing bonds.

Governance

Governance has proven to be a key rating driver across the sector--as a strength for many rated organizations and as a weakness for certain stand-alone rental housing bond credits. For HFAs, SELOs and PHAs, we consider the effectiveness of an organization's strategic plan and the level of support afforded to the organization from federal, state and local governments; this support also considers whether any legislative action could affect management's autonomy in operating its loan portfolio or projects. We also consider whether there exists a mismatch between management's experience and its responsibilities including for mission driven lenders, its program administration, and the risk profile of the portfolio, which could be factored into our analysis of operational risk, program management or assessment of management and governance. Furthermore, across the range of organizations, a history of delayed or inaccurate filing of regulatory reports, or lack of regular cash flow monitoring, may affect our program management and operational risk analysis.

Chart 12

U.S. Public Finance Rental Housing Bonds



Criteria: Methodology For Rating U.S. Public Finance Rental Housing Bonds

Related Research

- Key Trends That Will Drive The ESG Agenda In 2022, Jan. 31, 2022
- Credit Outlook For U.S. Public Finance: Positive Momentum Continues, Jan. 26, 2022
- ESG In U.S. Public Finance Credit Ratings: 2022 Outlook And 2021 Recap, Nov. 29, 2021
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- The Top 10 Management Characteristics Of Highly Rated State And Local Borrowers: Through The ESG Lens, June 29, 2021

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S&P Global Ratings

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ESG Credit Indicator Report Card: U.S. States And Territories

March 31, 2022

We are disclosing in this report our ESG credit indicators for the U.S. states and territories sector. Our ESG credit indicators provide additional disclosure and transparency at the entity level and reflect our opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are applied after the credit rating has been determined. They are not a sustainability rating or an S&P Global Ratings ESG evaluation.

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Portfolio Snapshot - U.S. States And Territories

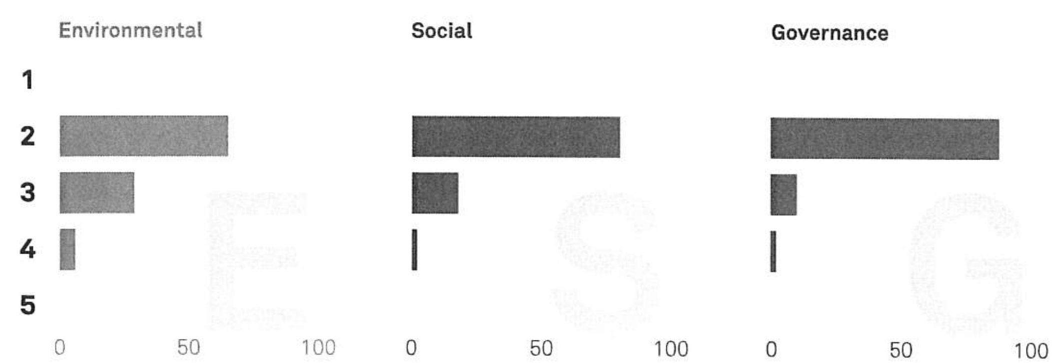
Most Influential ESG Factors

Physical risks
Many states face exposure to acute and chronic physical risks resulting from their fixed, boundary-based locations as well as exposure to coastlines, wildfires, prolonged drought conditions, and intermittent inland flooding that can lead to disruptions in economic activities and, by extension, budgetary performance.

Social capital
Demographic trends underscore economic influence for U.S. states and territories. This factor influences nearly half the portfolio but may result in a 'net' neutral view when considering offsetting positive factors in our credit rating analysis. The age and income levels of the population base and changes in it over time are also considerations due to the high proportion of state spending tied to education and social service programs, such as Medicaid.

Risk management, culture, and oversight
We incorporate our view of the legal, constitutional, and practical impediments that some states face in governing pension and other postemployment benefit plans as a factor that may lead to a moderately negative view of governance in our credit rating analysis. In some cases, moderately negative influence from this governance factor reflects the impact on a state's debt and liabilities components and its budgetary performance stemming from requirements to absorb high fixed-cost pressures without the ability to modify benefits or statutory provisions that govern the plans.

Distribution Of ESG Credit Indicators (%)



1 = positive | **2** = neutral | **3** = moderately negative | **4** = negative | **5** = very negative.
Our opinion of the influence of ESG factors on our credit rating analysis is reflected on a 1-5 scale. Source: S&P Global Ratings.

Key Takeaways

- U.S. states and territories typically have broad tools and comprehensive risk management strategies embedded within their legal or statutory frameworks that help mitigate risks, including those stemming from environmental, social, and governance factors. As a result, our existing credit rating analysis for most of them generally incorporates an overall neutral influence.
- Climate transition and physical risks can severely influence one or more components of the criteria framework in our credit rating analysis. For some states, the combined influence of these risks results in a moderately negative (E-3) or negative (E-4) credit indicator.
- We observe limited variability in our assessment of state government frameworks, the element in our criteria framework where we typically incorporate governance factors. The autonomy to manage operations and operational flexibility for the sector is tempered by countervailing pressures from reduced federal government funding or unfunded mandates that increase service level requirements that could influence state spending. This dynamic reflects why we did not apply any G-1 credit indicators.

Our ESG Credit Indicators

Table 1

ESG Credit Indicators

Influence on credit rating analysis	Environmental credit indicator	Social credit indicator	Governance credit indicator
Positive	E-1	S-1	G-1
Neutral	E-2	S-2	G-2
Moderately negative	E-3	S-3	G-3
Negative	E-4	S-4	G-4
Very negative	E-5	S-5	G-5

In our ESG credit ratings criteria, "Environmental, Social, And Governance Principles In Credit Ratings," published Oct. 10, 2021, we articulate the principles that S&P Global Ratings applies to ESG credit factors in our credit ratings analysis. In that criteria we define ESG credit factors as those ESG factors that can materially influence the creditworthiness of a rated entity or issue and for which we have sufficient visibility and certainty to include in our credit rating analysis. We note that when sufficiently material to affect our view of creditworthiness, ESG credit factors can influence credit ratings.

In "ESG Credit Indicator Definitions And Application" (Oct. 13, 2021), we discuss the introduction of ESG credit indicators as a complement to our existing narrative to enhance transparency by providing additional disclosure by reflecting our opinion of how material the influence (on a 1-5 scale) of ESG factors is on our credit rating analysis. We assess these indicators on a net basis, meaning that we take a holistic view of exposure to environmental, social, and governance factors and related mitigants on the credit rating analysis. They are applied after the credit rating is determined. They are not a sustainability rating or an S&P Global Ratings ESG evaluation.[1]

Accordingly, the application--or change--of an ESG credit indicator cannot in itself trigger a credit rating or outlook change. However, the impact of ESG factors on creditworthiness could contribute to a rating action, which in turn could lead to a change in the ESG credit indicator. Through the release of ESG credit indicators, we aim to further delineate and summarize the relevance of ESG factors to our credit analysis by isolating our opinion of their influence and separating it from the non-ESG factors affecting the credit rating.

The scale for environmental credit indicators is identical for social and governance credit indicators. It has a negative skew, which reflects our view that environmental, social, and governance considerations (including risks outside of an entity's control) typically have a negative influence more often than a positive one. An ESG credit indicator of E-2, S-2, or G-2 means that it is currently a neutral consideration in our credit rating analysis. This does not necessarily mean that ESG factors are not relevant, rather that they are currently not sufficiently material to alter the credit rating analysis or that positive ESG considerations are offset by ESG-related risks.

Also, entities may have identical ESG credit indicators, even if they diverge on ESG characteristics and performance. This may be the case because we only incorporate in our credit rating analysis those ESG factors that materially influence creditworthiness and for which we have sufficient visibility and certainty or because the differentiation in ESG characteristics is not in our view sufficiently material to warrant a different ESG credit indicator outcome.

For more information on how we incorporate ESG risks and opportunities in our credit rating analysis, please see:

- Through the ESG Lens 3.0: The Intersection of ESG Credit Factors and U.S. Public Finance Credit Factors, March 2, 2022
- ESG Brief: Incorporating Climate Transition Risk in U.S. States Credit Ratings, March 22, 2022
- ESG Brief: ESG Pension and OPEB Analysis in U.S. Public Finance, Oct. 7, 2021
- ESG Brief: Cyber Risk Management in U.S. Public Finance, June 28, 2021

[1] ESG credit indicators are separate and distinct from S&P Global Ratings ESG evaluations. An S&P Global Ratings ESG evaluation is not a credit rating or component of our credit rating methodology. Rather, it indicates our view of an entity's relative exposure to observable ESG-related risks and opportunities, and our qualitative opinion of the entity's long-term sustainability and readiness for emerging trends and potential disruptions. Moreover, the ESG evaluation considers the impacts and dependencies on the environment and society across the value chain for a wide range of stakeholders, regardless of current credit materiality. (For more on ESG evaluations, see "Environmental, Social, And Governance Evaluation Analytical Approach," Dec. 15, 2020.)

Sector Overview

Environmental Credit Factors

In the sector, 25% have a moderately negative (E-3) or negative (E-4) influence from physical risks within our credit rating analysis. In some cases, a state's physical risks are relatively localized, which can help mitigate the effect in the credit rating analysis, while in other cases the prevalence or magnitude of the exposure, following a low probability but high impact event, could result in a material change to the influence of the risk in our credit rating analysis, which reflects an E-3 credit indicator. We may also apply an E-4 credit indicator depending on the severity of influence on one or multiple criteria components in our credit rating analysis. Despite the growing frequency of physical risks and rising costs for states, we believe the federal-state partnership activated in response to an event, including assistance from the Federal Emergency Management Agency, is an important mitigant preventing an application of an E-5 credit indicator.

In addition, 16% of the sector has a moderately negative or negative influence from climate transition risks, reflecting certain states' relative economic and financial exposure to high fossil fuel (coal, oil, and natural gas) production and energy generation. These mineral producing states face ongoing risk from increasing regulations of carbon emissions and an accelerating energy transition to renewable energy. Over time, we expect these evolving credit risks to exert negative pressure on state operating environments. The credit rating analysis for three states (Alaska, Texas, and Louisiana) is influenced by both climate transition and physical risks.

Furthermore, 8% of the sector faces moderately negative influence from natural capital risks due primarily to inherent water supply scarcity that could constrain economic growth. This could necessitate long-term resource planning and require states to undertake more substantial capital investments that could affect its debt and liability profile to mitigate the effects of drought and other related natural resource pressures.

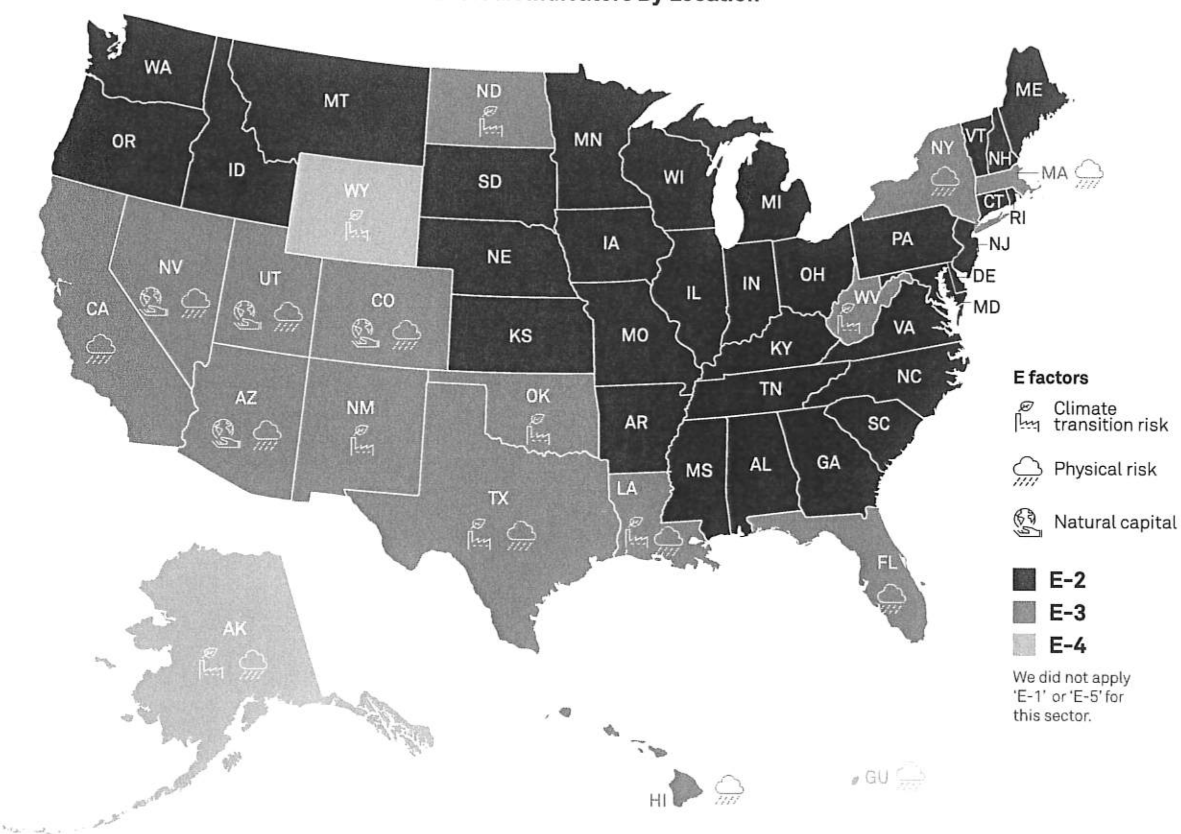
Chart 1

Environmental Credit Factors Distribution
% of sector

Climate transition risk	Physical risk	Natural capital	Waste and pollution
16%	**25%**	**8%**	**0%**

Chart 2

U.S. States And Territories - Environmental Credit Indicators By Location



E-1 = positive | **E-2** = neutral | **E-3** = moderately negative | **E-4** = negative | **E-5** = very negative. Source: S&P Global Ratings.

Social Credit Factors

We view the risk for 20% of the sector as moderately negative (S-3) or negative (S-4), particularly when demographic trends (e.g. population growth, age dependency, income levels) are notably below national averages and influence the economic component of our criteria. States with strong demographic growth are typically better positioned to attract economic development and exhibit stronger activity levels that help generate revenue from income, sales, and other user taxes and fees. Strong and sustained population growth trends and a favorable age dependency ratio can contribute to a positive, long-term trajectory for gross state product and personal income levels that support revenue growth, although this can also affect affordability and is often offset by growth-related costs that arise from capital infrastructure and service demands that results in a net neutral influence in our credit rating analysis.

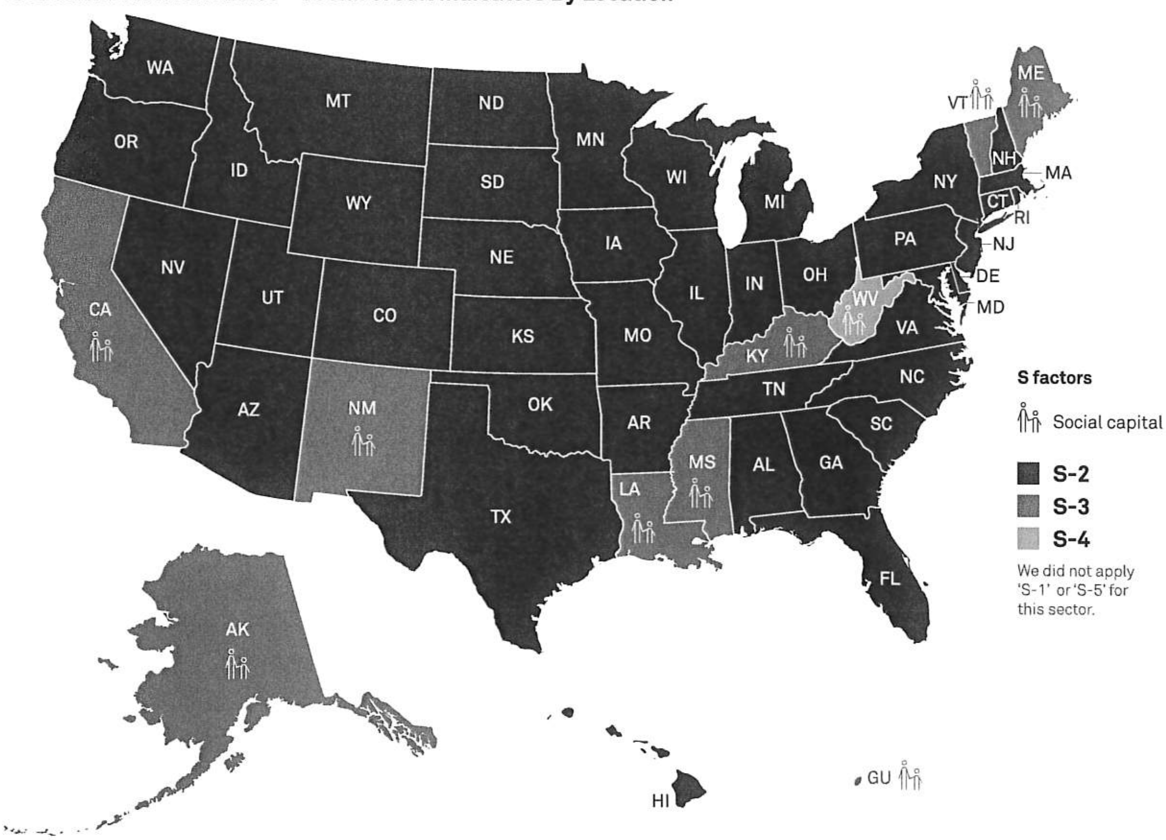
Chart 3

Social Credit Factors Distribution
% of sector

Health and safety	Social capital	Human capital
0%	**20%**	**0%**

Chart 4

U.S. States And Territories - Social Credit Indicators By Location



S-1 = positive | **S-2** = neutral | **S-3** = moderately negative | **S-4** = negative | **S-5** = very negative. Source: S&P Global Ratings.

Governance Credit Factors

We generally take a neutral view of governance in our credit rating analysis for the sector (resulting in application of a G-2 credit indicator). We view 12% of the sector as having a moderately negative (G-3) or negative (G-4) influence from a governance factor, given the overlap of risk management, culture, and oversight risks that influence a state's debt and liability profile. Typically, this risk is incorporated in our analysis of a state's pension and OPEB plan governance, and by extension, the potential for increased annual contributions that could influence budgetary performance. Through the lens of this governance factor, we consider a state or territory's forward-looking plan governance decisions, risk mitigation planning, its legal flexibility and practical ability to implement of assumption changes and plan reforms, and prioritization of plan contributions in our credit rating analysis.

Chart 5

Governance Credit Factors Distribution
% of sector

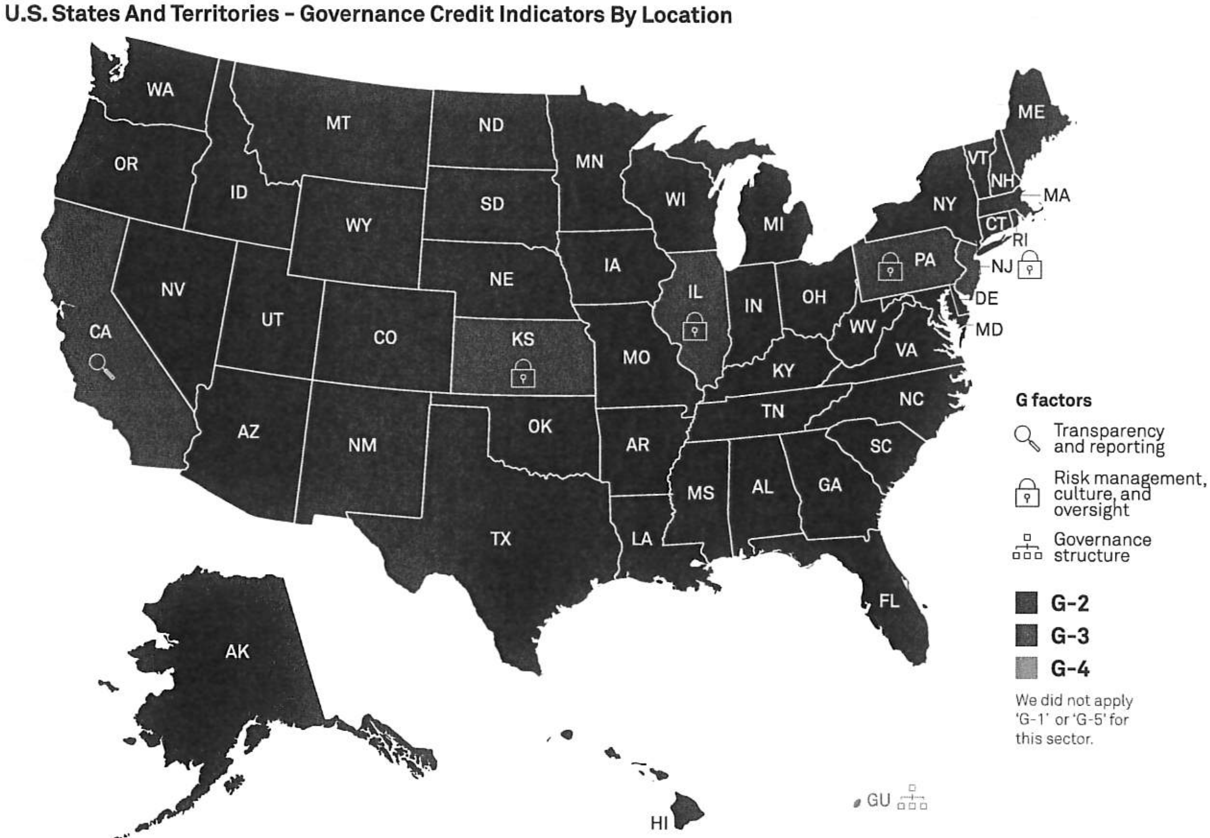
Governance structure **2%**

Risk management, culture, and oversight **8%**

Transparency and reporting **2%**

Chart 6

U.S. States And Territories - Governance Credit Indicators By Location



G-1 = positive | **G-2** = neutral | **G-3** = moderately negative | **G-4** = negative | **G-5** = very negative. Source: S&P Global Ratings.

ESG Credit Indicators By U.S. State and Territory

Table 2

ESG Credit Indicators For U.S. States And Territories

Issuer	Credit indicators			ESG credit factors	ESG comments
	E	S	G		
Alabama	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Alabama. The state's steady population growth (albeit slower than the U.S.), favorable business climate, and management's use of economic development initiatives continue to attract business investment and support annual growth trends in GSP and personal income metrics relative to the nation. We believe these factors offset potential social capital risks stemming from the state's higher age-dependency ratio (65.6) and aging workforce projections and regional risks that exhibit population out-migration, poverty, and unemployment rates that lag the state and the nation.
Alaska	E-4	S-3	G-2	Climate transition risk, physical risks, social capital	Environmental factors are a negative consideration in our credit rating analysis for Alaska. The state's countercyclical economy from the high concentration in the oil and gas industry including reliance on 40% of its unrestricted budgeted revenue from energy related taxes exposes it to economic and budgetary pressures given policy and regulatory changes to decarbonize the economy. Furthermore, physical climate-related risks include exposure to weather events and rising sea levels, which negatively affects fisheries and marine products that accounts for more than 35% of exports in 2020. Social factors are moderately negative considerations in our credit rating analysis. Social risks stem from elevated unemployment levels at 1% above the national average and below-average population growth. In addition, more than one-third of the state's population is enrolled in Medicaid as of July 2021. The dependent population represented in the Medicaid roll could lead to higher service costs and budgetary balance challenges. Finally, although the state is following its statutory balanced budget requirements, it will need to address budgetary pressures while facing uphill political and practical limitations to diversify its economic base and revenue sources relative to the energy sector concentration, which we believe raises risk management concerns.
Arizona	E-3	S-2	G-2	Physical risk, natural capital	Environmental factors are a moderately negative consideration in our credit rating analysis for Arizona. We view the state as having an elevated natural capital risk due to droughts and as limited supplies of drinking water, primarily sourced from Lake Mead in its largest MSA, compete with a growing population. However, we view proactive measures to secure rights to additional water sources, including the Colorado River, to support its fast-growing population as mitigating this risk. We believe the state has strong demographic trends compared with the nation, specifically continued significant population growth at more than twice the U.S. rate in the last 10 years, although this is somewhat offset by a higher age dependent population (68.0 ratio)) as well as the corresponding growing need for investment in education and social services which could have implications on state finances. The state plans to invest about 29% more in education by 2023 compared to 2021 levels.
Arkansas	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Arkansas.
California	E-3	S-3	G-3	Physical risk, social capital, transparency and reporting	ESG factors are a moderately negative consideration in our credit rating analysis for California. The exposure to various climate-related events such as wildfires and drought and natural disasters such as earthquakes can affect the state's economy and disrupt population migration should these areas become undesirable. The state incorporates increased spending in response to these risks within its long-term financial and capital planning. Furthermore, the shortage of affordable housing, high social service costs, and income disparity have challenged demographic trends. In addition, about one third of the state's population relies on Medicaid. However, we believe the state is addressing these concerns through increased funding for various social programs, such as bond financed programs for housing of the homeless mentally ill, changes to residential zoning laws, and increased social service spending. Finally, the state has persistently provided audited results well after the end of the fiscal year. For the fiscal year ended June 30, 2020, audited results were released Feb. 2, 2022, which we consider very late.
Colorado	E-3	S-2	G-2	Physical risk, natural capital	Environmental factors are a moderately negative consideration in our credit rating analysis for Colorado. The state has elevated risk of wildfires, as well as water scarcity stemming from drought conditions and as limited supplies of Colorado River drinking water compete with a growing population, which we expect the state to factor into its long-term plans. Social factors have an overall neutral influence on our credit rating analysis. We believe the state has strong demographic trends compared with the nation, specifically population growth faster than the nation and a lower age dependency ratio of 57.5% compared to 63.1% for the nation, although this is somewhat offset by rising home prices, which may slow future growth, and the need for increased education spending as school enrollment grows.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators E	S	G	ESG credit factors	ESG comments
Connecticut	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Connecticut. Although fixed costs will likely comprise 50% or more of its budget and could constrain expenditure flexibility and financial performance in the future if left unmitigated, we view a continuing commitment to budgetary requirements to contribute excess revenues above its volatility and reserve caps to pay down long-term liabilities, statutory allowances to pre-fund OPEB liabilities, and a strong framework for forecasting fixed cost growth demonstrate Connecticut's ability to manage these risks over the long-term. Furthermore, we believe recent in-migration trends and agency-level planning and increased funding for various social programs that anticipate future service needs mitigate demographic pressures, including aging and essentially flat growth of its working age population.
Delaware	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Delaware. The geographical exposure to ocean storms and Delaware and Christiana River flooding could lead to higher infrastructure costs affecting the state's debt and liability profile. However, the state's recently adopted climate action plan focuses on reducing greenhouse gases and maximizing resilience to climate change, we view as a step towards mitigating the risk.
Florida	E-3	S-2	G-2	Physical risk	Environmental factors are a moderately negative consideration in our credit rating analysis for Florida. The vast coastline as a peninsular state exposes it to chronic and acute physical risks including flooding and long-term sea-level rise. Given that three-fourths of the state's population reside in its 35 coastal counties, and represent nearly 80% of its economic output, evolving environmental changes could result in longer-term credit deterioration. However, we believe this risk is mitigated by the creation of state-sponsored insurance entities to provide for a stable market and recent measures to address environmental protection including $846 million for targeted water quality improvements, $629 million to support Resilient Florida initiatives, and $522 million for Everglades restoration (fiscal year 2022). Social factors have an overall neutral influence in our credit analysis. Although the state's age dependency is above the national average by four percentage points, which could lead to higher service costs, its demographic growth has supported positive economic activity and employment trends overall.
Georgia	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Georgia.
Guam	E-4	S-3	G-4	Physical risk, social capital, governance structure	Environmental factors are a negative consideration in our credit rating analysis for Guam. As an island located on the pacific tectonic plate, the territory's exposure to physical risks is exacerbated by the size of the island, the significant concentration of the economy in the tourism sector, and historically weak finances which limit the territory's ability to recover quickly from economic disruptions. Social factors are moderately negative due to social capital concentrations in tourism which creates an exposure to the island's budget and economy. Finally, governance factors are negative reflecting our view of Guam's weaker policy and fiscal relationship with the federal government compared to states as well as its significantly high debt and liability burden relative to its tax base.
Hawaii	E-3	S-2	G-2	Physical risk	Environmental factors are a moderately negative consideration in our credit rating analysis for Hawaii. As an island located on the Pacific tectonic plate, the state is exposed to acute and chronic physical climate risks that could lead to economic and budgetary stress following a high impact event. However, we view the following mitigants as helping to alleviate additional pressure within our credit rating analysis: strong financial management incorporating these risks in its long-term plan including establishing hurricane relief fund to support private property insurance, and statewide coordination and oversight through its Emergency Management Agency. While we view social factors as neutral overall, its social capital risks are slightly higher than the sector given somewhat elevated aging demographics and substantially higher cost-of-living metrics that could affect the state's economy in the long-term if trends intensify.
Idaho	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Idaho.
Illinois	E-2	S-2	G-3	Risk management, culture, and oversight	Governance factors are a moderately negative consideration in our credit rating analysis for Illinois. Constitutional limits constrain the state's legal flexibility to modify or implement pension benefit reforms. In addition, the statutory funding policy framework requiring contributions sized to achieve a 90% funded ratio in 2045 has led to persistent underfunding that does not meet S&P Global Ratings' static funding measurement. In our view, this creates an annual near-10% structural gap in the budget. Illinois recently began fully funding the statutory contribution requirements and expects pension costs should remain stable at roughly 25% of the general fund expenditures.
Indiana	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Indiana.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators E	S	G	ESG credit factors	ESG comments
Iowa	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Iowa.
Kansas	E-2	S-2	G-3	Risk management, culture, and oversight	Governmental factors are a moderately negative consideration in our credit rating analysis for Kansas. The state's costs associated with long-term liabilities puts credit pressure on Kansas following previous years of underfunding pension contributions at levels below actuarial recommendations, which, in our opinion, will lead to contribution escalation and the potential for budgetary pressure. However, the state plans to begin making actuarially determined contributions in fiscal 2022 and expects to adhere to this plan following its recent issuance of pension obligation bonds. Although the state's demographic trends somewhat lag those of the nation, its central location in the country, access to numerous interstates, and commitment to e-commerce demand help alleviate credit pressure stemming from social capital risks.
Kentucky	E-2	S-3	G-2	Social capital	Social factors are a moderately negative consideration in our credit rating analysis for Kentucky. Kentucky's population growth continues to lag the U.S. and its demographics show an age dependency ratio of 64.8, 1.7% above that of the nation. We also view these trends as potentially affecting service-level costs associated with Medicaid eligibility and caseloads where one in three residents are covered under this program. With recent changes to Kentucky's Teachers Retirement System as discussed in "Teachers' Pension Plan Changes Are A Step Forward for Kentucky's Finances," published Jan. 25, 2022, and reduced reliance on one-time items to balance the budget, our view of governance factors is neutral within our credit rating analysis.
Louisiana	E-3	S-3	G-2	Climate transition risk, physical risk, social capital	Environmental and social factors have a moderately negative consideration in our credit rating analysis for Louisiana. The state's coastline along the Gulf of Mexico exposes it to extreme weather events and long-term sea-level rise. The state ranks second behind Texas for most billion-dollar storms since 1980. Given its history of significant natural disasters, the state has developed long-term mitigation and resiliency plans to minimize climate-related risks including a recently adopted climate action plan. Furthermore, its comparatively greater penetration of energy-related activities from the oil and gas sector and the potential for increasing regulatory challenges or costs as some sectors of the global economy transition to more renewable energy adds risk to replace revenue generated from the industry. Compared to the nation, Louisiana's population growth in the past decade was 4.3 percentage points lower and effectively flat in the last five years. These trends could hinder economic diversification as the state undertakes efforts to support employment displaced by energy transition.
Maine	E-2	S-3	G-2	Social capital	Social factors are a moderately negative consideration in our credit rating analysis for Maine. Demographic pressures, including the state's age dependency (65.6) and more than one-fifth of the population age 65 or older could limit economic and business growth relative to other states as the prime working-age population declines, and finances could become constrained by higher service levels (e.g., health care, transportation, and other aging support services) or contribute to long-term revenue stagnation due, in part, to declining household incomes at retirement. We view mitigants, including state agencies' active planning and policy framework related to addressing needs of an aging population and an increase in Maine's population over the past five years due to improved net domestic and international in-migration help to alleviate additional pressure within our credit rating analysis.
Maryland	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Maryland. Located along the Atlantic Ocean and home to Chesapeake Bay, Maryland faces risk from rising sea levels. However, we believe the risk is addressed by the state's active management of the Chesapeake watershed and runoff, enacted fees to provide funding for state and local resilience projects, and adopted legislation with the goal of reducing greenhouse gas emissions.
Massachusetts	E-3	S-2	G-2	Physical risk	Environmental factors are a moderately negative consideration in our credit rating analysis for the Commonwealth of Massachusetts. The state has coastal exposure, with about two-thirds of its population in the Boston MSA and substantial property value in the combined Boston and Cape Cod area, exposing the state to significant economic disruption following a high-impact event. However, we note that the commonwealth has been addressing environmental risks since 2004 through its Climate Protection Plan.
Michigan	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Michigan. Although water quality and lead pipe issues have negatively affected local communities including Flint, the state is supporting the mitigation of waste and pollution concerns through improved oversight and grant programs to help offset infrastructure costs. In addition, without the state's focus on correcting this issue, we believe its credit profile could be pressured should reputational and potential health and safety risks associated with aging infrastructure negatively affect economic development or cause population growth to stall.
Minnesota	E-2	S-2	G-2		ESG factors have no material influence our credit rating analysis for Minnesota.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators			ESG credit factors	ESG comments
	E	S	G		
Mississippi	E-2	S-3	G-2	Social capital	Social factors are a moderately negative consideration in our credit rating analysis for Mississippi. In our view, the state's demographics challenge Mississippi's long-term economic growth potential while suppressing income levels. The state's educational attainment levels are among the lowest in the country while poverty levels are among the highest. IHS Markit reports only 85% of Mississippians over the age of 25 are high school graduates (3 percentage points lower than the national average) and only 33% in that age group have an advanced degree (compared with 41% for the country). In addition, the state has recorded a cumulative population decline of 0.01% from 2011 to 2020, while the nation's population has grown by 0.63% over the same period, according to the U.S. Census Bureau.
Missouri	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Missouri.
Montana	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Montana. Montana has largely mitigated its exposure to the energy sector through diversification efforts into renewable energy production. Natural resource taxes declined to $69.7 million, or only 2.9% of general fund revenue in 2020, down from $126.3 million, or 8.1% in 2010; and the state has absorbed the revenue loss without negative influence on its budgetary balance. Also, Montana produces 45% of its energy from renewables, which ranks among the top 10 states in the nation. It is also the sixth-largest producer of hydroelectric power, potentially mitigating the effects on its credit profile from the transition to net-zero.
Nebraska	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Nebraska.
Nevada	E-3	S-2	G-2	Physical risk, natural capital	Environmental factors are a moderately negative consideration in our credit rating analysis for Nevada. We view the state as having an elevated risk of water scarcity due to droughts and as limited supplies of drinking water compete with a growing population, which we expect the state to factor into its long-term plans. Social factors have an overall neutral influence, which considers the state's strong demographic trends compared with the nation, specifically continued significant population growth at more than twice the U.S. rate in the last 10 years and a lower age dependent population. However, these strengths are somewhat offset by the state's employment concentration in tourism which creates an exposure to its budget and economy as well as the growing need for spending on education and social services which could affect future budget considerations.
New Hampshire	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for New Hampshire.
New Jersey	E-2	S-2	G-3	Risk management, culture, and oversight	Governance factors are a moderately negative consideration in our credit rating analysis for New Jersey. The state's poorly funded pension plans reflect decades of significantly underfunding contributions including years where the state did not make any contributions. However, following reforms in 2011, the state began slowly increasing its contributions and statutory changes in 2017 allowed lottery revenue to supplement general fund appropriations. In part due to these changes, the state paid its full actuarily determined contribution in fiscal 2022 for the first time in more than two decades, demonstrating improved governance. Although the state faces environmental risks from its coastal exposure, it is engaged in mitigation efforts including statewide storm water management plans, beach replenishment efforts, and bayside bulkhead projects. Social risks stem from court mandates regarding school funding in low-income districts, although recent reforms mitigate impact on the budget.
New Mexico	E-3	S-3	G-2	Climate transition risk, social capital	Environmental and social factors are a moderately negative consideration in our credit rating analysis for New Mexico. The state is the third-largest crude oil producer in the nation with $3 billion in energy related taxes collected in fiscal 2021, representing 35% of general fund revenue. Concentration in carbon emission-intensive industries could negatively affect financial operations given policy and regulatory efforts to transition to net-zero. Favorably, the state can diversify its revenue sources by raising taxes via three-fifths vote by the legislature as per the state constitution and has undertaken efforts to expand job diversification through the solar power industry. Currently, 40% of the state's population is enrolled in Medicaid, which ranks it the highest in the country as of July 2021. We believe this is indicative of the state's service needs that could challenge budgetary performance, particularly in times of economic stress.
New York	E-3	S-2	G-2	Physical risk	Environmental factors are a moderately negative consideration in our credit rating analysis for New York. The state has coastal exposure particularly in New York City and Long Island, with about 40% of the state's population and a high concentration of the state's economic activity (roughly half of the jobs in the state). A high impact event in this region, such as Superstorm Sandy or Hurricane Ida that caused significant flooding, could disrupt the state's economy and budgetary balance if revenue collections are curtailed.
North Carolina	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for North Carolina.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators E	S	G	ESG credit factors	ESG comments
North Dakota	E-3	S-2	G-2	Climate transition risk	Environmental factors are a moderately negative consideration in our credit rating analysis for North Dakota. At 3.7%, the state's mining and logging employment composition is well above the U.S. at 0.4%. Oil, gas, and coal taxes comprised nearly 64% of state exports in 2020 and approximately 14% of 2021 general fund revenue. Despite the influence of the energy sector in the state's economy and budget, we believe the risks are largely mitigated through reduced general fund reliance on the sector and economic diversification, particularly in the state's eastern metro areas. The state limits general fund revenue from oil, gas, and coal taxes to $400 million (9% of biennial general fund expenditures) per biennium leading to greater diversification in revenue sources that support the state's operating profile..
Ohio	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Ohio. In our view, the state's strong financial and budgetary management--informed by regular economic and financial forecasting--provide the state with a longer-term planning horizon to address potential demographic risks, and its extensive capital planning and policy efforts aimed at diversifying Ohio's economic base remain key state-level mitigants to social capital risks. However, we view social capital risks stemming from regional or localized demographic pressures, such as declining aging prime working-age population, out-migration, and low population-replacement rates, could be influential for local government credit ratings.
Oklahoma	E-3	S-2	G-2	Climate transition risk	Environmental factors are a moderately negative consideration in our credit rating analysis for Oklahoma. The state has a higher penetration of carbon-intensive oil and natural gas production within its economic profile compared to the U.S. states sector. A shift in national and global policy and demands to reduce carbon-intensive energy production and transition to renewable energy could reduce mining employment (4.75x the U.S. average) and gross state product (12% of state GSP). While direct gross production taxes comprise just 6% of the state's general revenue, income and sales taxes exhibit sensitivity to declines in mining sector activity, given that income from oil and gas production trend above average personal income for the rest of the state. However, Oklahoma's economic diversification efforts, including its position as the nation's third largest wind energy producer, and longstanding constitutional and budget management requirements help alleviate additional pressure within our credit rating analysis.
Oregon	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Oregon. Although Oregon has some environmental risks including wildfires in the state's expansive forests and flooding along its estuaries, we believe these risks are mitigated by the state's wildfire recovery and preservation efforts include funding for projects related to water infrastructure, fire, and public safety infrastructure, among others.
Pennsylvania	E-2	S-2	G-3	Governance structure	Governance factors are a moderately negative consideration in our credit rating analysis for Pennsylvania. The commonwealth has a history of acrimonious budget negotiations that have resulted in budget impasses under multiple administrations and legislatures. Notably, these impasses have previously and temporarily affected the state's liquidity by creating internal borrowing challenges that led to short-term delays in some payments (excluding debt service). However, we believe, even despite budget impasses, the commonwealth maintains substantial legal ability to adjust revenues, expenditures, and disbursements. Furthermore, we believe the commonwealth maintains sufficient access to external liquidity, if needed.
Rhode Island	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for Rhode Island. Rhode Island's vast 400-mile coastline adjacent to Narragansett Bay and the northern Atlantic Ocean exposes the state to acute physical risks (e.g. hurricanes), and chronic physical risks (e.g. sea level rise) that could affect its economic profile. However, key mitigants include proactive and strategic resiliency action planning in state agencies, capital investments to harden critical infrastructure, and initiatives to reduce greenhouse gas emissions. Furthermore, we view social risks as somewhat elevated, although credit neutral, with demographic pressures stemming from slowing population growth, net out-migration, and an aging workforce that may alter service demands and limit future economic growth prospects.
South Carolina	E-2	S-2	G-2		ESG factors have an overall neutral influence on our credit rating analysis for South Carolina. The state's exposure to the Atlantic coast and related physical climate risks - including severe storms, hurricanes, and inland and coastal flooding has, in the past, resulted in severe economic and financial disruption. The South Carolina Emergency Division reports that from 2012 to 2019, five major flooding disasters caused nearly $4.4 billion in damage. Coastline communities that are largely economically dependent on tourism and densely populated often face the greatest risks, including Charleston, Hilton Head Island, and Myrtle Beach. However, we view state efforts, including the establishment of a Floodwater Commission in 2018 created to recommend projects to reduce the impact of future storms, improve coordination across agencies, and seek federal grant funding as mitigants that help offset the risk.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators E	S	G	ESG credit factors	ESG comments
South Dakota	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for South Dakota.
Tennessee	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Tennessee. We note however, that Tennessee's governance has typically reflected a culture of well-embedded risk management, particularly its proactive nature and discipline in funding its long-term liabilities, robust oversight and reporting requirements, and incorporation of strategic planning around emerging risks.
Texas	E-3	S-2	G-2	Climate transition risk, physical risk	Environmental factors are a moderately negative consideration in our credit rating analysis for Texas. Environmental risks are primarily two-fold: energy transition and physical risks stemming from severe weather events and sea-level rise. The state has a comparatively greater penetration of energy-related activities from the oil and gas sector, which could lead to increasing regulatory challenges or costs as some sectors of the global economy focus on reducing greenhouse gas emissions through renewable energy. However, the state is one the country's leaders in renewable energy, principally wind energy with an installed capacity more than only four countries: China, the U.S. (with Texas), Germany, and India. The state's leadership in our view provides a pathway for future economic and employment opportunities in a green economy. Favorably, the state's chief operating fund does not depend on severance taxes though its rainy-day reserve and state highway fund receive the bulk of the revenue, which to-date have given the state substantial flexibility to manage through economic cycles. Given the state's large coastline along the Gulf, physical risks are elevated, but are more localized for communities in this region versus the state as a whole.
Utah	E-3	S-2	G-2	Physical risk, natural capital	Environmental factors are a moderately negative consideration in our credit rating analysis for Utah. Utah, situated in the upper Colorado River basin, shares water usage with several other states along the river. We believe the state faces elevated natural capital risk due to long-term challenges regarding water supply, which could remain a constraint for its economy and demographic profile as resources are projected to remain suppressed, particularly given pervasive drought conditions in the western U.S. Furthermore, IHS Markit reports Utah's population grew by 17% over the last 10 years, making it the fastest growing state during this period. However, we believe Utah's ongoing demonstration and commitment to planning for long-term water challenges helps to alleviate additional pressure within our credit rating analysis. These efforts include consolidating various action plans and directing both state and federal funds to water infrastructure and conservation projects.
Vermont	E-2	S-3	G-2	Social capital	Social factors are a moderately negative consideration in our credit rating analysis for Vermont. In our view, the state's demographics, which are among the oldest in the nation, could limit long term economic growth. Data from the Census Bureau indicate that in 2020, the median age of the Vermont population was 42.8 years, 4.3 years older than the national average median age of 38.5 years. Furthermore, the state has recorded a cumulative population decline of 0.04% from 2011 to 2020, while the nation's population has grown by 0.63% over the same period. The state has pursued several initiatives aimed at mitigating demographic challenges including workforce development initiatives to attract and retain remote workers. In our view, the state's focus on addressing this challenge over the years helps to alleviate additional pressure within our credit rating analysis.
Virginia	E-2	S-2	G-2		ESG factors have no material influence in our credit rating analysis for Virginia. The Hampton Roads region, represented by the Virginia Beach-Norfolk-Newport News, VA-NC, metropolitan statistical area (MSA), is exposed to the Atlantic coast and related physical climate risks - including rising sea levels and flooding. The MSA represents less than one-quarter of the commonwealth's population and about 18% of the annual GSP. Despite the economic and population concentration in Hampton Roads, we believe exposure remains relatively localized and less acute for the commonwealth as a whole.
Washington	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Washington. Although the state faces a combination of exposures from rising sea levels along the state's vast coastline and risk of wildfires in its expansive forests, we believe these risks are mitigated by Washington's planning and practices including tasking state agencies with studying the impacts of climate change and incorporating climate studies into economic and revenue forecasting, among others.

Table 2

ESG Credit Indicators For U.S. States And Territories (cont.)

Issuer	Credit indicators			ESG credit factors	ESG comments
	E	S	G		
West Virginia	E-3	S-4	G-2	Climate transition risk, social capital	Social factors are a negative consideration in our credit rating analysis for West Virginia. Based on 2020 Census figures, the state's compound annual population growth rate over the past decade was negative 0.3% compared to growth for the nation of 0.7%, ranking it as the slowest-growing state. Wealth and income indicators also rank poorly, with per capita personal income at $45,109 in 2020, only 76% of the U.S. average. With a high age dependency ratio of 68.1, we expect the state's demographics to remain a challenge to economic development. Environmental factors are a moderately negative consideration in our credit rating analysis of West Virginia. Since 2009, West Virginia has lost 56% of its mining jobs, and as economies continue to transition to renewables, we expect the downward trend to continue and potentially lead to economic and revenue decline.
Wisconsin	E-2	S-2	G-2		ESG factors have no material influence on our credit rating analysis for Wisconsin. The state's well-embedded risk management and oversight practices provide considerable legal and practical flexibility to control long-term pension and OPEB costs, which remain an important mitigant to Wisconsin's moderate-to-moderately high debt and cyclical financial pressures. Wisconsin Retirement System shares contribution volatility risks across employers and active participants, and its emphasis on steady funding discipline with assumptions and actuarial methods that reduce the likelihood of contribution cost escalation, position Wisconsin to sustain one of the nation's best-funded pension plans.
Wyoming	E-4	S-2	G-2	Climate transition risk	Environmental factors are a negative consideration in our credit rating analysis for Wyoming. The state is exposed to significant climate transition risks due to its dependence on the coal, oil, and gas mining industries for both tax revenue and employment. In 2020, 6.0% of Wyoming's non-farm employment was in mining and logging, compared to 0.4% nationally. As national and global economies trend toward net-zero, we believe the reliance on this sector for economic growth exposes the state to potential budgetary challenges given that about 24% of the state's fiscal 2020 school program aid fund, and 27% of general fund revenue on a GAAP basis was derived from this sector, even after a 30% drop in mineral severance tax compared to 2019. To-date the state maintains very large financial reserves, despite the recent volatility in revenues due to oil price performance.

This report does not constitute a rating action.

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ESG Credit Indicator Definitions And Application

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*(**Editor's Note:** This article has been updated to reflect the application of ESG credit indicators in our credit rating analysis of U.S. public finance and covered bond issuers.)*

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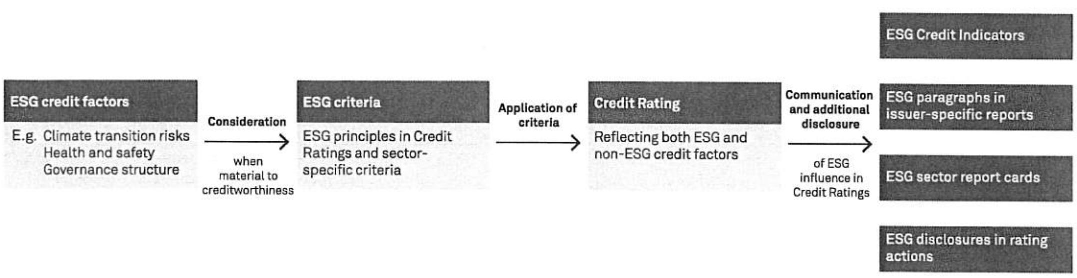
Following our recently published methodology on environmental, social, and governance (ESG) principles in credit ratings (see "Environmental, Social, And Governance Principles In Credit Ratings," published Oct. 10, 2021), we intend to provide additional disclosure and transparency by applying ESG credit indicators to publicly rated entities. We published ESG credit indicator report cards for the corporate and infrastructure, banking, and insurance sectors from mid-November to January for individual companies, and we will begin implementation of other asset classes in spring 2022 continuing into 2023. Following the initial release of the report cards, we plan to incorporate and update the ESG credit indicators in our issuer-specific credit rating publications to complement our existing credit rating analysis and surveillance. Below we explain the definitions and application in determining the ESG credit indicators.

Chart 1

ESG In Our Credit Rating Analysis



Source: S&P Global Ratings.

Our ESG criteria seek to enhance transparency in how and where we capture ESG factors in credit ratings through the application of sector-specific criteria. Our ESG credit indicators provide additional disclosure by reflecting our opinion of how material the influence of ESG factors is on the various analytical components in our rating analysis through an alphanumerical 1-5 scale (see Table 1). ESG credit indicators are applied after the ratings have been determined.

Given an ESG credit indicator is an alphanumeric representation of the qualitive assessment of ESG factors' impact on creditworthiness produced as part of the ratings process, accordingly the application of--or change of--an ESG credit indicator cannot in itself trigger a credit rating or outlook change. However, the impact of ESG factors on creditworthiness could contribute to a rating action, which in turn could lead to a change in the ESG credit indicator. Through the release of ESG credit indicators, we aim to further delineate and summarize the relevance of ESG factors to our credit analysis by isolating our opinion of their credit influence and separating it from the non-ESG factors affecting the credit rating.

Table 1

ESG Credit Indicators

Influence on credit rating analysis	Environmental credit indicator	Social credit indicator	Governance credit indicator
Positive	E-1	S-1	G-1
Neutral	E-2	S-2	G-2
Moderately negative	E-3	S-3	G-3
Negative	E-4	S-4	G-4
Very negative	E-5	S-5	G-5

Source: S&P Global Ratings.

The above scale has a negative skew. This is deliberate and reflects our view that ESG considerations that are material to our rating analysis have a negative influence more often than a positive one. A neutral ESG credit indicator (E-2, S-2, or G-2) does not necessarily mean that ESG factors are not relevant; it only means that it is currently a neutral consideration in our Credit Rating analysis. For example, a negative environmental consideration in one area of our analysis (such as industry risk), may be counterbalanced by a positive environmental consideration reflected in another area of our analysis (such as competitive position if the entity is better positioned than its industry peers).

Environmental, Social, And Governance Credit Indicator Definitions

Table 2

Environmental Credit Indicators

Credit indicator	Definition
E-1	Environmental factors are, on a net basis*, a positive consideration in our credit rating analysis, affecting at least one analytical component¶.
E-2	Environmental factors are, on a net basis*, a neutral consideration in our credit rating analysis.
E-3	Environmental factors are, on a net basis*, a moderately negative consideration in our credit rating analysis, affecting at least one analytical component¶.
E-4	Environmental factors are, on a net basis*, a negative consideration in our credit rating analysis, affecting more than one analytical component¶ or one severely.
E-5	Environmental factors are, on a net basis*, a very negative consideration in our credit rating analysis, affecting several analytical components¶ or one very severely.

*"On a net basis" means that we take a holistic view on exposure to environmental factors and related mitigants. ¶Analytical components include criteria scores and subscores (including the key analytical elements to assess them). "Affecting" means leading to a different outcome for an analytical component or lower/higher headroom for an analytical component.

Table 3

Social Credit Indicators

Credit indicator	Definition
S-1	Social factors are, on a net basis*, a positive consideration in our credit rating analysis, affecting at least one analytical component¶.
S-2	Social factors are, on a net basis*, a neutral consideration in our credit rating analysis.
S-3	Social factors are, on a net basis*, a moderately negative consideration in our credit rating analysis, affecting at least one analytical component¶.
S-4	Social factors are, on a net basis*, a negative consideration in our credit rating analysis, affecting more than one analytical component¶ or one severely.
S-5	Social factors are, on a net basis*, a very negative consideration in our credit rating analysis, affecting several analytical components¶ or one very severely.

*"On a net basis" means that we take a holistic view on exposure to social factors and related mitigants. ¶Analytical components include criteria scores and subscores (including the key analytical elements to assess them). "Affecting" means leading to a different outcome for an analytical component or lower/higher headroom for an analytical component.

Table 4

Governance Credit Indicators

Credit indicator	Definition
G-1	Governance factors are, on a net basis*, a positive consideration in our credit rating analysis, affecting at least one analytical component¶.
G-2	Governance factors are, on a net basis*, a neutral consideration in our credit rating analysis.
G-3	Governance factors are, on a net basis*, a moderately negative consideration in our credit rating analysis, affecting at least one analytical component¶.
G-4	Governance factors are, on a net basis*, a negative consideration in our credit rating analysis, affecting more than one analytical component¶ or one severely.
G-5	Governance factors are, on a net basis*, a very negative consideration in our credit rating analysis, affecting several analytical components¶ or one very severely.

*"On a net basis" means that we take a holistic view on exposure to governance factors and related mitigants. ¶Analytical components include criteria scores and subscores (including the key analytical elements to assess them). "Affecting" means leading to a different outcome for an analytical component or lower/higher headroom for an analytical component.

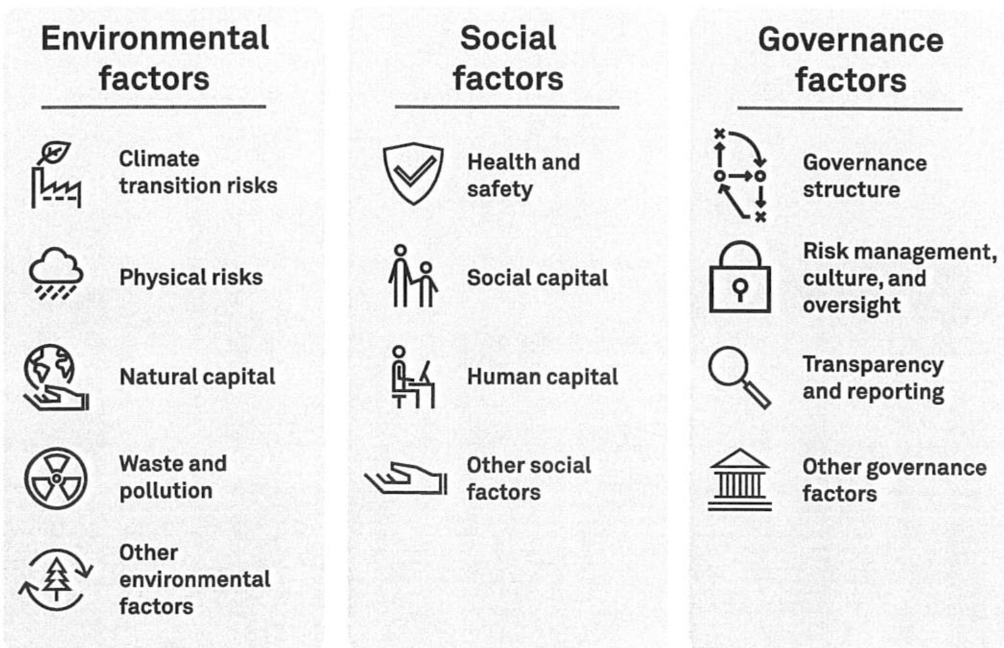
ESG credit indicators relate to an entity's stand-alone analysis or, in the case of a parent company, the group credit profile. An entity's ESG credit indicator does not reflect the influence of ESG factors on the related parent or government owner (even if the rating on the latter could affect the entity rating). As such, the ESG credit indicator could diverge from that of its related parent or government. For instance, the environmental credit indicator of a renewable energy company that is a subsidiary of a larger oil and gas group could be E-1 if we conclude that environmental factors have a positive influence on its stand-alone credit profile (SACP), even if the environmental credit indicator of the parent or group could be E-4 to reflect the overall predominantly negative influence of environmental factors on our assessment of the group's industry risk. Similarly, a state-owned bank could have a G-2 governance credit indicator, pointing to an overall neutral influence of governance factors, even if we lowered the rating on the related sovereign due to governance deficiencies (even if the sovereign rating may cap the rating on the bank). Because the distinction is less evident for government-related entities (GREs) with an almost certain likelihood of extraordinary support under our criteria, we will not apply--at least initially--ESG credit indicators to such entities in our upcoming report cards. In addition, we are typically not applying

ESG credit indicators to entities that do not have an SACP because we do not undertake a stand-alone analysis on such entities.

Finally, we list below examples of the key ESG credit factors we currently assess, as stipulated in our ESG criteria. The ESG credit indicators will be accompanied by these factors to flag the actual areas of material influence we considered.

Chart 2

Examples Of ESG Credit Factors



ESG--Environmental, social, and governance. Source: S&P Global Ratings.

Corporates And Infrastructure

Primary author: Karl Nietvelt

We assess the impact of ESG factors through our corporate criteria. When material, they are most likely to influence scores such as industry risk, competitive advantage, scale, scope, diversity, profitability, cash flow/leverage, and comparable ratings analysis. For governance, we have an explicit management and governance (M&G) score in our corporate criteria, even though other areas--such as country risk and comparative rating analysis--can also reflect governance considerations.

In our view, environmental factors have a direct negative influence on 15 out of our 38 corporate and infrastructure industry risk criteria scores (see Table 5). We capture climate transition risks, physical risks, and waste and pollution or biodiversity risks in our credit rating analysis through our forward-looking qualitative assessments of secular change and substitution risks, as well as through profit margin and growth trends. For the oil and gas as well as unregulated power industries, we consider such risks as most pronounced and severely affecting such industry criteria subscores. According to the ESG credit indicator definition, such negative influence could imply a higher number of entities in these sectors getting an environmental credit indicator of E-4. That said, industry risk is just one of multiple components in our rating analysis. Consequently, environmental factors for a power generator with a high share of renewable generation assets could be an overall neutral consideration in our credit rating analysis because the negative influence on industry risk could be offset by positive environmental considerations in its competitive position score because of more advantageous (environmentally supported) regulations or contracted revenues. This could lead to an E-2 credit indicator for the entity rather than E-4.

Table 5 outlines our opinion as to the different degrees to which environmental considerations have affected the qualitative subscores of our industry assessment for corporate and infrastructure ratings.

Table 5

Environmental Influence On S&P Global Ratings' Corporate And Infrastructure Industry Risk Subscores

	Profit margin trends	Risk of secular change and substitution	Risk in growth trends	Environmental influence on industry risk subscore
Oil and gas integrated, exploration and production	High risk	Medium risk	High risk	Environmental factors affecting industry subscores severely
Oil and gas refining and marketing	High risk	Medium risk	High risk	
Oil and gas drilling equipment and services	High risk	Medium risk	High risk	
Unregulated power and gas	High risk	Medium risk	High risk	
Transportation cyclical	High risk	Medium risk	Medium risk	Environmental factors affecting industry subscores moderately
Oil and gas midstream	Medium risk	Medium risk	Medium risk	
Metals (downstream)	High risk	Medium risk	Medium risk	
Mining	Medium risk	Low risk	Medium risk	
Auto OEMs	High risk	Medium risk	Medium risk	
Auto suppliers	High risk	Medium risk	High risk	
Commodity chemicals	High risk	Medium risk	Medium risk	
Agribusiness and commodity foods	High risk	Medium risk	Medium risk	
Forest and paper products	High risk	Medium risk	High risk	
Building materials	Medium risk	Medium risk	Medium risk	
Homebuilders and developers	High risk	Medium risk	Medium risk	

Source: S&P Global Ratings.

Social factors are principally influencing entity-specific components of our analysis rather than differentiating industry scores. We believe this is because the influence of social risks becomes more important when assessing an entity's specific exposure to and management of social risks, as it often relates to its own staff, communities, and customer base. The one exception is the mining industry, which has exposure to community opposition and safety risks that moderately negatively influence our industry subscores, notably growth and profit trends.

The limited impact of social factors on our industry scores is also due to the heterogeneous nature of some of our industry risk scores. For instance, the "transportation cyclical" industry combines both shipping, with its low health and safety exposure, and airlines, which have high such exposure. As a result, the average impact of social factors on our "transport cyclical" industry score is limited. However, the final social credit indicator for airlines will likely be weaker than S-2, as the credit ratings on all airlines are negatively affected by the pandemic and safety considerations more generally (whether through profitability, cash-flow performance, or other entity-specific business drivers).

Governance credit indicators are strongly linked to our management and governance (M&G) criteria score. (See "Methodology: Management And Governance Credit Factors For Corporate Entities," published Nov. 13, 2012, for more details.) We may assign a strong M&G score to reflect, among other factors, our positive assessment of management's ability to anticipate, monitor, and rapidly adapt to changing operating or financial conditions and successfully execute its strategy. Such positive credit influence translates into a governance credit indicator of G-1. A satisfactory M&G score would generally reflect a neutral view of governance factors on creditworthiness and would therefore correlate to a G-2 credit indicator, whereas a weak M&G score under our criteria would generally reflect that governance factors are a very negative consideration on creditworthiness, therefore correlating to a G-5 credit indicator.

For entities with a fair M&G score, we differentiate governance credit indicators further--from G-2 to G-4, depending on how the underlying management and governance subfactors have been assessed. The most important governance considerations in our M&G criteria relate to governance subfactors such as board effectiveness; entrepreneurial or controlling ownership; management culture; regulatory, tax, and legal infractions; internal controls; communication of messages; and financial reporting and transparency. However, we also consider the following management subfactors as governance-related: the strategic planning process, consistency of strategy with capabilities, execution of strategy, and risk management standards and tolerances. If we view particular weaknesses in any of these M&G subfactors, this would generally reflect either a moderately negative or negative view of the impact of governance on creditworthiness and would therefore correlate to a G-3 or G-4 credit indicator, depending on the severity. Conversely, we likely view governance as an overall neutral credit consideration, correlating to a G-2 credit indicator, if the fair M&G assessment did not identify any material weakness among these M&G subfactors.

In addition, in almost all instances, entities controlled by a financial sponsor or private equity firm that have been assigned a fair M&G score, will generally be seen as reflecting a moderately negative view of the impact of governance on creditworthiness therefore correlating to a G-3 credit indicator. This is because we believe that the company's highly leveraged or aggressive financial risk profile points to corporate decision-making that prioritizes the interests of the controlling owners, given its focus on maximizing shareholder returns and often finite holding periods.

Table 6

Governance Credit Indicators Are Largely Derived From Our Management And Governance Criteria*

Strong	A strong M&G assessment tends to correlate to a G-1.
Satisfactory	A satisfactory M&G assessment typically results in a G-2.
Fair	A fair M&G assessment could result in 1) G-2, when there are no material weaknesses in the M&G subscores*; 2) G-3, if there is a moderate weakness in the M&G subscores*; or 3) G-4 if there is a more severe weakness in one or more M&G subscores* (including when an SACP of 'a-' or higher was negatively affected).
Weak	A G-5 corresponds to a weak M&G assessment.

*The most important governance-related subfactors in our M&G criteria are board effectiveness; entrepreneurial or controlling ownership; management culture; regulatory, tax, or legal infractions; internal controls; communication of messages and financial reporting and transparency; strategic planning process; consistency of strategy with capabilities; and execution of strategy and risk management standards and tolerances.

Finally, governance factors might affect other analytical components of our rating analysis. This could result in some deviation from the above-outlined correlation to our M&G scores (the exception being a G-5, which we only apply when the M&G assessment is weak). An area of governance-related exposure in our rating analysis relates to the potential high institutional, political, or transparency risks for countries with high or very high country risk or rule-of-law-related regulatory/operating risks in certain countries that feature negatively in our competitive position assessment. Governance weaknesses may also be captured in our comparable rating analysis.

Banks

Primary author: Emmanuel Volland

We assess ESG factors for banks through our applicable criteria, including our Banking Industry Country Risk Assessment (BICRA) and bank criteria. Although these factors can influence our assessment of any analytical component (criteria scores) described in these methodologies, they are most likely to influence (when material) criteria scores such as the economic resilience and institutional framework of our BICRA methodology (when at system or country level) and business position or risk position (when at the entity level).

Environmental factors

In our view, environmental factors currently have a very limited influence on our credit rating analysis of banks, and therefore we expect that most banks would have an environmental credit indicator that correlates to E-2. However, we recognize that climate is likely to become a more important credit consideration for banks given the evidence that climate change and the energy transition are becoming a greater focus for policymakers. If this were to materially affect our credit rating analysis (through some analytical components), it is likely that we would view the impact of environmental factors weighing more negatively on creditworthiness and that correspondingly the environmental credit indicator of some banks would transition to weaker categories (E-3, E-4, and E-5).

We believe that the most relevant environmental factors for banks are climate transition and physical risks. When material, the influence of these factors is more likely to be captured under the economic risk score of our BICRA analysis (when it is system- or country-specific) or under our scoring of business position or risk position (when it is entity-specific).

Overall, there is a high correlation between the geographical location of a bank's assets and the materiality of some environmental factors. Some countries are regularly adversely affected by natural disasters, such as hurricanes and earthquakes, that cause significant damage to critical infrastructures and disrupt economic activity. Due to these geographic concentrations, the customers of banks operating in these countries are likely subject to heightened physical risks that ultimately affect their creditworthiness and could lead to weaker credit-quality metrics. This negative environmental consideration, if material enough, is reflected in a weaker economic resilience score under our BICRA analysis, weighing on domestic banks' anchor. This impact could result in environmental credit indicators of E-3, E-4, or E-5, depending on the severity of these risks and the influence they have in our credit rating analysis.

The exposure to environmental factors is also evident at the individual bank level. Climate transition risks would be higher for banks displaying a high exposure to economic sectors most exposed to climate change. For instance, a bank with a high concentration of customers in the oil and gas sector is more vulnerable to shifts in policies and to climate change, even if this risk is not material at country or sector level. We therefore expect some correlation between our environmental credit indicators of banks and the climate-exposed sectors or entities they lend to.

Social factors

The influence of social factors is most likely to be bank-specific instead of country-specific. Overall, we see social factors as a neutral consideration in our credit rating analysis for a majority of banks.

The positive influence of social factors could stem from the specific function that some banks play in the economy. For example, some government-owned banks have a public mission that can directly be linked to social considerations. This could be the case when their role is to improve financial inclusion or finance specific sectors of the economy, including social housing. This feature is not a reason in itself for a bank to be viewed as having its creditworthiness positively affected by social factors and an S-1 credit indicator outcome. The latter would more likely apply to some GRE banks if we believe their social mission means they benefit from a greater likelihood of extraordinary government support (as assessed through their GRE-related role and link under our GRE criteria).

Social factors could also have a negative influence in our bank analysis. For example, we view banks with a high proportion of lending to subprime customers as more exposed to social factors, as they usually face heightened compliance, reputational, and regulatory risks. These risks can be more or less pronounced depending on the country in which they operate. For instance, we believe that these risks are more pronounced in the U.S. than in emerging markets. We would apply a social credit indicator of S-3, S-4, or S-5 if one or more analytical component (for instance, the risk position) is negatively influenced by this element, depending on its severity.

Governance factors

We assess the influence of governance factors at system and entity levels through our BICRA and bank criteria. Unlike corporates and insurance, our bank methodology does not have an explicit M&G score. Banks are subject to a higher level of regulation and supervision than most other economic sectors, meaning that the quality of their governance tends to be overall stronger. This will be reflected in governance credit indicators that are expected to be, on average, stronger than for corporate entities.

We analyze the quality of governance at the system level in our BICRA analysis when assessing the institutional framework. This assessment is based on the analysis of the following three factors: banking regulation and supervision, regulatory track record, and governance and transparency. The initial assessment is based on the first two subfactors, but it can be worsened by one category if we've scored governance and transparency as weak. Therefore, our governance credit indicators would be partly driven by the assessment of this subfactor, even if other governance-related analytical components could also have an influence (positive or negative). Most banks that would be expected to have a governance credit indicator of G-3, G-4, or G-5 would likely be based in some emerging markets for which we have a negative view for governance and transparency in our BICRA analysis.

However, some banks in mature markets could also have weak governance credit indicators. At the individual bank level, we analyze the quality of the governance through our scoring of the business position. Indeed, management and corporate strategy is one of the three subfactors. Typically, good governance does not have a material positive influence on our bank ratings, as it is expected for these entities (and embedded in our rating construct through the high level of some bank anchors) given that they are highly regulated and supervised.

Covered Bonds

Primary author: Antonio Farina

We assess ESG factors through our applicable criteria, including our covered bonds criteria. Although these factors can influence our assessment of any analytical component described in these methodologies, they are most likely to influence (when material) our collateral support analysis and the issuer credit rating (ICR) on the issuing entity. ESG factors can influence ratings, outlooks, and credit enhancement required for the assigned rating. Environmental and social factors typically affect the quality of the assets in the cover pool and the results of our collateral analysis. Governance factors, on the other hand, usually affect the uplift that we assign to a covered bond program above the ICR of the issuing entity. The ICR may be affected by financial and nonfinancial factors including ESG considerations. We are typically not applying ESG credit indicators to entities--such as certain mortgage banks--that do not have an stand-alone credit profile (SACP), because we do not undertake a stand-alone analysis on such entities. Where the issuer is not rated but belongs to a group with a rated parent and we determine the ICR using our "Group Rating Methodology," published July 1, 2019, we would typically consider the ESG factors relevant to the parent company as starting point for the influence of ESG factors in our covered bond rating analysis.

Environmental factors

In our view, environmental factors currently have a very limited influence on our credit rating analysis of covered bonds, and therefore we expect that most programs would be assigned an environmental credit indicator of E-2.

Cover pools could be positively exposed to environmental credit factors via mortgage loans granted to increase the underlying property's energy efficiency. However, we generally would only consider the inclusion of these loans in the cover pool as positive in our credit rating analysis if higher updated property valuations decrease the estimated loss severity and, ultimately, the credit enhancement required for the rating. On the other hand, we would consider the exposure of the mortgaged properties to climate change and natural disaster risk as a negative factor if it leads to a greater credit enhancement to achieve the same rating uplift.

Climate change will likely become a more important credit consideration for banks given climate change and the energy transition are becoming a greater focus for policymakers. If this materially affected our credit rating analysis for banks, it is likely that we would view the impact of environmental factors as more negative for covered bond creditworthiness and that consequently the environmental credit indicator for some programs would transition to a weaker category.

We believe that the most relevant environmental factors for banks and covered bonds are climate transition and physical risks.

Social factors

We believe that the most relevant social factor for covered bonds is social capital. Social benefits include guarantees provided by government-related entities to support underbanked borrowers, such as "Nationale Hypotheek Garantie" loans in the Netherlands, and loans to social housing providers. We also view the funding of hospitals, educational buildings, and other essential community facilities as a potential supportive social credit factor if it positively influences an entity's creditworthiness.

Covered bonds' exposure to social risk largely stems from measures that regulators may impose to treat customers fairly, which may include provisions to decrease interest payments or delay property foreclosures.

Governance factors

Governance is an important component of our analytical framework for assessing the rating uplift that we can assign to a covered bond program above the ICR of the issuing entity. We look at several factors, including the originator's underwriting and servicing policies, the quality of the data provided, and the availability of liquidity and overcollateralization provisions, which would allow us to assign the maximum collateral-based uplift. We would, for example, identify the lack of liquidity provisions in a legal framework as a governance factor if it negatively affects either the ratings on the program or the number of unused notches – the number of notches the issuer rating can be lowered without resulting in a downgrade of the covered bonds. Some of those issues are systemic and affect all the covered bond programs in a given country, such as liquidity provisions in the relevant legal framework, while others are program specific, such as overcollateralization provisions at the program level.

Insurance

Primary author: Dennis Sugrue

We assess ESG factors through our insurance rating methodology. Although these factors can influence our assessment of any analytical component (criteria scores) described in these methodologies, they are more likely to be reflected under components such as competitive position, capital and earnings, risk exposure, and governance (when material at the entity level) and in the insurance industry and country risk assessment (IICRA; when material at the country level).

Environmental factors

We believe that the most relevant environmental factor for insurers is physical risk, particularly for non-life re/insurers. Our assessment of a re/insurer's risk exposure considers material risks that could make an insurer's capital and earnings significantly more volatile. Concentrations in natural catastrophe exposure, and as a result physical risk, have been a source of significant capital and earnings volatility for many non-life re/insurers over the years, and we typically reflect these concentrations with a risk exposure assessment of moderately high or high. For companies with a risk exposure assessment that is primarily driven by potential volatility from physical risks, we are likely to apply an E-3 or worse environmental credit indicator, depending on the severity of these risks and the negative impact they have on our analysis. In addition, in some markets we have observed that the impact of natural disaster risk manifests at an industry level through its impact on profitability across the non-life sector in that country. For insurers in these markets, such as Japan, physical risk exposure is captured in our IICRA and likely to result in an E-3 or worse environmental credit indicator for non-life insurers in those markets.

At the same time, in our view, environmental factors are currently having a limited influence in our credit rating analysis of insurers more generally, and therefore we expect that most insurers would have an E-2 credit indicator applied. Climate is likely to become a more important credit factor for insurers given the evidence that it is changing and policymakers' efforts to reduce greenhouse gas emissions. If so, this could eventually affect our rating analysis and ultimately result in a lower environmental credit indicator.

Social factors

The influence of social factors for insurers is most likely to be company-specific instead of country-specific. Social factors are a neutral consideration in our credit rating analysis for the majority of insurers.

The positive influence of social factors could stem from the specific function that some insurers play in the economy. Some insurers (including some that we are likely to consider a GRE under our criteria) provide a benefit to the economy that can directly be linked to social considerations. This could be the case, for example, when a GRE's role is to improve financial inclusion or provide coverage for certain risks that the private market would otherwise not insure at an affordable price for citizens. We also observe the positive influence of social factors in insurers with activities that generate measurable externalities that have an impact beyond just their client base. These characteristics in themselves are not a reason for an insurer to be viewed as having its creditworthiness as being positively affected by social factors and an S-1 credit indicator outcome. Indeed, the latter would only be considered if we assess that this specific role is a positive consideration in our credit rating analysis. This would be the case for some GRE insurers if we believe their social mission means they benefit from greater government support (as assessed through their GRE-related role or link under our GRE criteria) or for private insurers with social activities that provide benefits to their competitive positions through higher customer retention, improved brand awareness, or stronger earnings.

Governance factors

Our assessment of the quality of an insurer's governance (and its related factors) is done both at a system and entity levels through our IICRA and governance assessments, respectively. Insurers, like banks, are subject to a much higher level of regulation and supervision than most other economic sectors, meaning that the quality of their governance tends to be stronger overall. This will be reflected in governance credit indicators that are expected to be, on average, stronger for insurers than for corporate entities.

Our governance criteria factor in our insurance rating methodology assesses an insurer's risk culture and how it is governed; its relationship with shareholders, creditors, and other stakeholders; and how its internal procedures, policies, and practices can create or mitigate risk. Typically, good governance does not have a material positive influence on our insurance ratings, as it is expected for entities that are highly regulated and supervised. For insurers where we identify shortcomings in or severe risks posed by the governance structure, we typically expect to apply governance credit indicators of G-3 or worse.

We assess the quality of governance at system level in our IICRA analysis when scoring both the institutional framework under our industry risk assessment and country risk. If our industry risk analysis suggests that the institutional framework is not supportive of profitability, we would expect the governance credit indicators for insurers in that market to typically have a governance credit indicator applied of G-3 or worse. In addition, there are instances when country risk is assessed as high or very high due to concerns about the potential for significant institutional or political risks or weak transparency that cannot be sufficiently mitigated by prudential regulation. Accordingly, we expect insurers in these markets to typically have governance credit indicator applied of G-3 or worse.

U.S. Public Finance

Primary author: Nora Wittstruck

We assess the impact of ESG factors through U.S. public finance (USPF) sector-specific criteria. When material, they are most likely to influence our credit rating analysis of a government or not-for-profit enterprise's economy, market position or service area characteristics, budgetary performance and flexibility, and our debt and liabilities criteria components.

Management teams and the governance that they adhere to in terms of policies and practices, taking a forward-looking view of managing risks through comprehensive risk management strategies, and the transparency of information they provide to stakeholders, are all particularly relevant and can be distinguishing factors within our credit rating analysis for U.S. public finance issuers.

Environmental credit factors can have an acute and negative influence on our credit rating analysis by affecting an entity's economy or service area location. Climate transition risk and physical risks are generally the most influential environmental credit factors to our credit rating analysis as these risks can disrupt revenue collected within a specific boundary that supports operations and debt service payments. In addition, utilities may need to substantially invest in infrastructure or modify operations to accommodate net-zero policy initiatives, which could require additional leverage and that leads to lower debt service coverage. Furthermore, rated entities with significant coastal exposure may have more difficulty completely offsetting the exposure to physical risks, considered within the economic and market position components in our credit rating analysis. If an entity is exposed to a low probability but high-impact event, we may apply an E-3 credit indicator because operations could be significantly disrupted. We may also apply E-3 if an entity's location is exposed to more frequent and severe hurricanes, wildfires, and other weather events, as well as chronic risks like sea level rise and flooding.

While physical risks in the U.S. can have a very negative impact on our analysis of rated entities, we view the support provided by the Federal Emergency Management Agency (FEMA) as an important mitigant. Because of the general availability of FEMA funding for USPF issuers, we may rarely apply an environmental credit indicator of E-5 (the highest impact on the scale) in this sector. Instead, we will typically apply E-3 or E-4 depending on the severity or number of components we view as being affected by the risks. We could apply E-2 when entities have implemented additional related mitigants like climate action plans, insurance, and comprehensive capital planning strategies to harden infrastructure to protect assets and the economic base from the effects of climate change. In addition, we may apply E-2 when an entity's large physical boundary allows an entity to absorb the risks or when climate transition and physical risks are more material to a smaller, local area or specific asset location.

Social capital is fundamental to our credit rating analysis across USPF and we analyze it by evaluating specific information within the entity's credit profile and relative to other rated entities. Assessing an entity's specific exposure to and management of social capital risks, often relates to characteristics of residents or how specific trends affect an enterprise's customer base. The area where governments draw economic activity and that creates demand for not-for-profit enterprises is largely driven by demographic trends. We evaluate demographic trends in our credit rating analysis and typically compare them to the broader U.S. Demographic information can underscore economic expansion, demand for utility connections, passenger air traffic, demand for health care procedures and elective surgeries, and enrollment growth for charter schools and public and private elementary schools and higher education institutions. As a result, when demographic trends are generally consistent with the U.S. in terms of population, income, and affordability of services or tax structure, we would likely apply an S-2 credit indicator, indicating growth is manageable and similar to the nation. When these trends fall below the U.S. or regional statistics and lead to pressure in a rated entity's credit rating analysis, we may apply S-3 or S-4. Whether we apply S-3 or S-4 would typically be based on the entity's the economy or market position and whether these trends have also hindered revenue-raising flexibility to increase property taxes or user fees like utility rates or tuition charges to support services and infrastructure costs that can lead to budgetary imbalances.

While we view the flexibility to adjust revenue positively, we also consider the affordability of services relative to the underlying wealth and income within the region or service area. We may apply a social credit indicator of S-3 to reflect affordability issues such as high housing, tax, or user fees related to the costs of doing business, or living in a particular area leading to population out-migration, business relocation, or hindering future revenue increases because costs are already high relative to the area's demographics.

Governance is an integral aspect in our credit rating analysis and is primarily reflected in our financial and operational management assessments for governments and not-for-profit enterprises. Typically, we view governance factors for rated entities in USPF as neutral within our credit rating analysis (and therefore apply a G-2 credit indicator) given the expertise and sophistication of the policies and practices most management teams use. Generally, our assessments reflect management teams that are adept at handling emerging risks, as governments and not-for-profit enterprises have typically been on the front lines of responding to physical risks, protecting communities and customers from health and safety events, and ensuring vulnerable populations have access to services.

For state and local governments, the government and institutional frameworks are important in understanding how different layers of government can influence the operations of another. For example, we may view positively a state statutory framework that supports a local government in fiscal distress. However, states may also have the operational flexibility to reduce payments to local governments in times of budgetary pressure, leading to greater uncertainty in a local government's financial resources. Because the structure between governments may have both a positive and negative influence on our credit rating analysis, we would usually apply a G-2 credit indicator to reflect an overall neutral view of the relationship.

Furthermore, we observe limited variability in our assessment of state government frameworks. The generally clear and active fiscal policy frameworks that allow states the autonomy to manage their operations under the federalist system results in a fairly cohesive and neutral view of governance in our credit rating analysis (leading to the application of a G-2 credit indicator in most cases). In addition, we believe states' operational flexibility can offset risks when the federal government sequesters funding or implements federal mandates without a corresponding revenue source to fill the potential budget gap related to required expenditures.

When we view the appointed or elected boards that govern an entity as operating in a weak risk management culture, or when governments have created long-term financial pressure by not adhering to a legal and control framework that ensures good oversight of pension and other post-employment benefits for instance, we would reflect these risks in the credit rating analysis and application of the governance credit indicator. The severity of the situation and its impact on the credit rating analysis would be reflected in either a moderately negative (G-3) or negative (G-4) credit indicator. Finally, while cyber security issues cut across all sectors in the economy, governments and not-for-profit enterprises are regular targets resulting from the essential infrastructure and personal information they maintain. Should a cyber attack lead to our view that risk management, culture, and oversight may be inadequate, we would likely apply a G-3 or G-4 credit indicator.

For more information on how we incorporate ESG credit factors into our credit rating analysis, please see "Through the ESG Lens 3.0: The Intersection of ESG Credit Factors and U.S. Public Finance Credit Factors," published March 2, 2022.

This report does not constitute a rating action.

U.S. Public Finance Webinar: Municipal Sustainable Debt & ESG Credit Indicators

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1

Examples of ESG Credit Factors

Published in the ESG Principles Criteria

Examples Of ESG Credit Factors

Environmental factors	Social factors	Governance factors
Climate transition risks	Health and safety	Governance structure
Physical risks	Social capital	Risk management, culture, and oversight
Natural capital	Human capital	Transparency and reporting
Waste and pollution	Other social factors	Other governance factors
Other environmental factors		

While all ESG Credit Factors could be relevant to credit quality for USPF issuers, typically most material as reflected in historical credit rating actions:

Environmental:
- Climate Transition
- Physical Risks

Social:
- Social Capital
- Health & Safety (pandemic driven)

Governance:
- Governance Structure
- Risk Management, culture, and oversight

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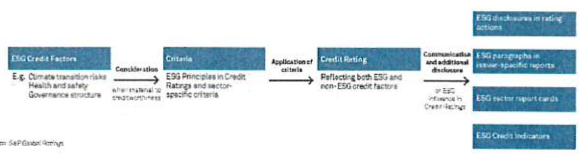
ESG Credit Indicators | Key Concepts

Where ESG Credit Indicators Fit Within S&P Global Rating's Overall Transparency Initiatives



Source: S&P Global Ratings

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3

ESG Credit Indicators | Key Concepts

Reflect Influence of ESG Factors in our Credit Rating Analysis on a Scale of 1-5

Range Of ESG Credit Indicators

Influence on credit rating analysis	Environmental indicator	Social indicator	Governance indicator
Positive	E-1	S-1	G-1
Neutral	E-2	S-2	G-2
Moderately negative	E-3	S-3	G-3
Negative	E-4	S-4	G-4
Very negative	E-5	S-5	G-5

- ☑ Assess the influence that ESG credit factors have in our credit rating analysis.
- ☑ Negative bias reflects S&P Global Ratings' view that ESG is generally considered a risk rather than opportunity in our credit rating analysis.
- ☑ ESG Credit Indicators may not align with the rating level as they reflect the isolation of ESG credit factors in our broader credit rating analysis that incorporates other criteria components.

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ESG Credit Indicators | Key Concepts

They add transparency regarding S&P Global Ratings' view on ESG credit factors

- ☑ Provide additional disclosure, as they are applied after the credit rating has been determined.
- ☑ Following the initial application, will be reviewed as part of our normal credit ratings surveillance processes and if warranted, typically changed in a rating committee.
- ☑ They are NOT a sustainability rating nor an S&P Global Ratings ESG evaluation.

ESG Credit Indicators

Examples Of Credit influence

Positive	Neutral	Moderately negative	Negative	Very negative	ESG factor
E-1	E-2	E-3	E-4	E-5	Physical Risk
S-1	S-2	S-3	S-4	S-5	–
G-1	G-2	G-3	G-4	G-5	Transparency & Reporting

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Examples of How E-Credit Factors Affect USPF Issuers

Climate transition risks
- Costs or benefits from transitioning to net-zero away from carbon-based energy supply
- Policy or regulatory changes related to managing carbon and curtail greenhouse gas emissions

Physical risks
- Acute (i.e., increased severity of extreme weather events such as hurricanes, flooding, wildfires, and drought and their impact on water supply, economic or service areas, and facilities and/or infrastructure)
- Chronic (i.e., longer-term shifts in climate patterns including precipitation and temperature that may result in chronic heat and cold waves and their impact on water supply, economic or service areas, and facilities and/or infrastructure, as well as sea level rise)
- Natural disasters (e.g., earthquakes, tornados)

Natural capital
- Water scarcity or supply limitations that affect operations or an entity's economic base or service area
- Biodiversity and land use related to development patterns in protected or preserved areas

Waste and pollution
- Environmental considerations relative to sewer overflows/ consent decrees stemming from pollution issues
- Impact of environmental regulations related to water or wastewater

Source: S&P Global Ratings

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Examples of How S-Credit Factors Affect USPF Issuers

Health and safety
- Demand, revenue, or expense driven changes related to health and safety events that alter social behaviors
- Emerging contaminants in water supply as well as lead and copper pipes that could affect residents in the enterprise's service area

Social capital
- Demographic and population trends that affect a government's services or demand for a not-for-profit enterprise's product or infrastructure
- Income levels, income inequality, disparity in access to services by vulnerable groups
- Affordability of services provided by an enterprise
- Political unrest stemming from community or social issues

Human capital
- Operational pressures related to renumeration, recruitment or retention of an entity's workforce
- Exposure to labor unrest or challenges and costs related to union negotiations and settlements
- Diversity and succession planning when it broadly affects a government or not-for-profit enterprise

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Source: S&P Global Ratings.

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Examples of How G-Credit Factors Affect USPF Issuers

Governance structure
- Elected or appointed board relationship with management
- Federal/state regulatory framework
- Key person successinn planning
- State government support (or lack of support) for distressed entities, typically considered as part of the Institutional Framework score for municipalities and counties

Risk management, culture, and oversight
- Vulnerable financial management assessments when it stems from pervasive budgetary imbalances or missed debt service payments
- Cyber security protocols or lack of preparation when results in operational or financial impacts
- Pension/OPEB plan governance related to legal flexibility to modify benefits, adherence to a control framework that controls the liability funding schedule
- Headline risk: self-inflicted corruption and mis-dealings, adverse publicity that results in reputation risk or operational pressure

Transparency and reporting
- Adherence to reporting standards as identified in policies and practices
- Transparency of information provided to stakeholders related to key decision making
- Lack of statutory requirements for certain types of accounting standards that results in credit weakness or transparency concerns

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Source: S&P Global Ratings

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ESG Credit Indicators

Utah

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Utah

ESG Credit Indicators

ESG Credit Indicators By Issuer For U.S. States

	Credit indicator				
Issuer	E	S	G	ESG credit factors	ESG comments
Utah	E-3	S-2	G-2	Physical risk, natural capital	[See "Expected language within our report card" below]

Expected language within our report card:

Environmental factors are a moderately negative consideration in our credit rating analysis for Utah. Utah, situated in the upper Colorado River basin, shares water usage with several other states along the river. We believe the state faces elevated natural capital risk due to long-term challenges regarding water supply, which could remain a constraint for its economy and demographic profile as resources are projected to remain suppressed, particularly given pervasive drought conditions in the western U.S. Furthermore, IHS Markit reports Utah's population grew by 17% over the last ten 10 years, making it the fastest growing state during this period. However, we believe Utah's ongoing demonstration and commitment to planning for long-term water challenges helps to alleviate additional pressure within our credit rating analysis. These efforts include consolidating various action plans and directing both state and federal funds to water infrastructure and conservation projects

From our last report (Feb. 15, 2022):

"In our view, the state's environmental risk is elevated, similar to that of regional peers, given long-term concerns regarding access to water. This is especially relevant, in our opinion, because water levels have declined in recent years while the state has recorded strong population growth. As Utah's population increases, we expect management will factor this growth into the state's long-term plans for water access and storage, which could become increasingly important to credit quality. We believe Utah has continually demonstrated commitment to planning for long-term water challenges. We understand that over the past few decades, the state has developed various action plans related to its water challenges. A recently launched "Coordinated Action Plan for Water" aims to consolidate these plans and develop actionable items in line with Utah's long-term water strategy. In addition, the state has allocated significant one-time federal funding from ARPA toward water infrastructure projects, with the largest portion of this funding going toward water conservation.

We view Utah's social and governance risks as being in line with our view of the sector as a whole."

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S&P Global Ratings To Enhance Transparency In U.S. Public Finance Credit Analysis With ESG Credit Indicators

February 16, 2022

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Key Takeaways

- We will begin publishing ESG Credit Indicators for rated entities in U.S. public finance this spring. We expect the sector-by-sector implementation to extend into 2023.
- ESG Credit Indicators do not affect existing credit ratings. Rather, they reflect how influential ESG factors are to our credit analysis.
- We will host a live webcast on March 3 at 2:00 p.m. ET to discuss ESG Credit Indicators. Please see below for registration.

S&P Global Ratings recognizes external stakeholders' increasing desire for more information about how environmental, social, and governance (ESG) factors influence our credit rating analysis. In 2021, we underscored these efforts in various ways, including publication of the criteria "Environmental, Social, And Governance Principles In Credit Ratings," on Oct. 10, and updating certain sector-specific criteria to provide examples of how we incorporate ESG factors into our credit rating analysis. In U.S. public finance (USPF) we republished the following criteria with these examples: "U.S. State Ratings Methodology," "U.S. Local Governments General Obligation Ratings: Methodology And Assumptions," and "U.S. Public Finance Waterworks, Sanitary Sewer, And Drainage Utility Systems: Rating Methodology And Assumptions." Also, since April 2020, USPF has included dedicated ESG paragraphs in our issuer-level credit rating reports that describe in a narrative format our opinion of the influence that ESG factors have on credit rating analysis. We also aim to provide information on ESG factors when they are key drivers of our credit rating actions.

S&P Global Ratings remains committed to providing additional transparency as to how we incorporate ESG factors into our credit ratings methodology and analytics. We have already enhanced our communication to the market with implementation of ESG Credit Indicators in our Corporates and Infrastructure, Banks, and Insurance ratings practices. Our ESG Credit Indicators provide additional disclosure and transparency at the entity level and reflect our opinion of the influence that ESG factors have on our credit rating analysis. Beginning in November 2021 and through January 2022, we published 33 ESG Credit Indicator Report Cards detailing sector trends as well as application of ESG Credit Indicators for individual rated entities in those practices.

Importantly, ESG Credit Indicators do not affect our existing credit ratings. Rather, they reflect how influential ESG factors are to our credit rating analysis. We incorporate in our credit rating analysis those ESG factors that materially influence creditworthiness and for which we have sufficient visibility and certainty. ESG Credit Indicators do not affect a rating committee's decision nor change our approach to credit ratings. They are applied after the credit rating has been determined. They are not a sustainability rating or an S&P Global Ratings ESG evaluation. Following initial implementation, ESG Credit Indicators will typically be reviewed as part of our ongoing surveillance of our credit ratings and changed by a rating committee.

USPF will supplement our existing disclosure and transparency efforts with implementation of ESG Credit Indicators, as shown in table 1. ESG Credit Indicators are intended to communicate, similar to our current narrative format, how ESG factors affect the credit rating analysis but in a supplementary format that may be more easily digestible and readily comparable. Our current narrative (descriptive) format and the ESG Credit Indicators combine to communicate how--for a specific entity--ESG factors influence our credit rating analysis.

We will begin publishing ESG Credit Indicators for USPF rated entities in spring 2022, with implementation planned for throughout 2022 and into 2023 on a sector-by-sector basis. The article "ESG Credit Indicator Definitions And Application," published Oct. 13, 2021, will be updated to include a section specific to USPF regarding how we assess ESG credit factors through our criteria and those ESG credit factors we consider most likely to influence the credit rating analysis. This update will be published prior to releasing any entity-level ESG Credit Indicators.

We disclose separate Credit Indicators for E, S, and G that range from E-1 to E-5, S-1 to S-5, and G-1 to G-5, depending on the magnitude and direction of the influence on our credit rating analysis. ESG Credit Indicators are not intended be used as a measure of how entities are positioned in terms of ESG performance. Instead, they reflect our qualitative assessment about whether ESG factors have a neutral, positive, or negative influence on the key components of our credit rating analysis identified within our sector-specific criteria. The scale below has a negative skew, which reflects our view that ESG considerations often have a more negative than positive influence within our credit rating analysis when they are not considered neutral. A neutral ESG Credit Indicator does not necessarily mean that ESG factors are irrelevant, it just means that currently they do not materially influence our credit rating analysis.

Table 1

Range Of ESG Credit Indicators

Influence on credit rating analysis	Environmental Indicator	Social Indicator	Governance Indicator
Positive	E-1	S-1	G-1
Neutral	E-2	S-2	G-2
Moderately negative	E-3	S-3	G-3
Negative	E-4	S-4	G-4
Very negative	E-5	S-5	G-5

Table 2 shows an example of how ESG Credit Indicators are disclosed through an example for an entity where environmental and governance factors negatively influence our credit rating analysis. E-4 indicates that environmental factors (physical risk, in this case) have a negative influence on our credit rating analysis for that entity, while G-3 shows that governance factors (transparency and reporting, in this case) have a moderately negative influence. S-2 indicates that social factors are neutral for our credit rating analysis.