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SECTOR IN-DEPTH

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Local Government – US

ESG considerations have neutral to low credit impact on most large US cities

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On 1 June, we published scores reflecting exposure to environmental, social and governance (ESG) considerations – and their impact on ratings – for 26 US cities with at least $1 billion in outstanding debt. This report sums up the key takeaways.

» **ESG considerations have a neutral to low credit impact on most US cities with at least $1 billion in outstanding debt.** While exposure to environmental issues is modest for most large US cities, there is greater variability in terms of exposure to social considerations because of differences in such factors as population trends and housing costs. Governance considerations tend to be more positive for large US cities. ESG considerations have a positive impact on the credit ratings of Columbus, OH (Aaa stable), Denver (Aaa stable) and the District of Columbia (Aaa stable).

» **Physical climate risk is the most significant environmental consideration.** Exposure to environmental considerations is neutral to low for most large US cities. Among these considerations, physical climate risks present the greatest challenge for cities located in or near coastal areas, while carbon transition risk is moderately negative for a handful of cities.

» **Social risk exposure varies from positive to moderately negative.** Exposure to social considerations shows greater variability than exposure to environmental considerations, ranging from positive to moderately negative. Exposure to social issues is neutral to low for most large US cities. But for some, favorable demographic trends, strong local economies and high levels of educational attainment have positive implications. For others, exposure to weak employment levels and high housing costs are moderately negative.

» **Governance considerations are far more positive than exposure to environmental or social issues.** Governance considerations are positive for more than half of the cities in our cohort. However, governance considerations are moderately negative for Chicago (Ba1 negative), Milwaukee (A2 negative), St. Louis (Baa1 stable) and Jacksonville, FL (Aa3 stable), with the first three suffering from relatively weak institutional structures, while Jacksonville's exposure to policy credibility and effectiveness issues is highly negative.

Assessing exposure to ESG considerations and their impact on credit ratings

Following the update of our cross-sector ESG rating methodology, we have launched two types of ESG scores:

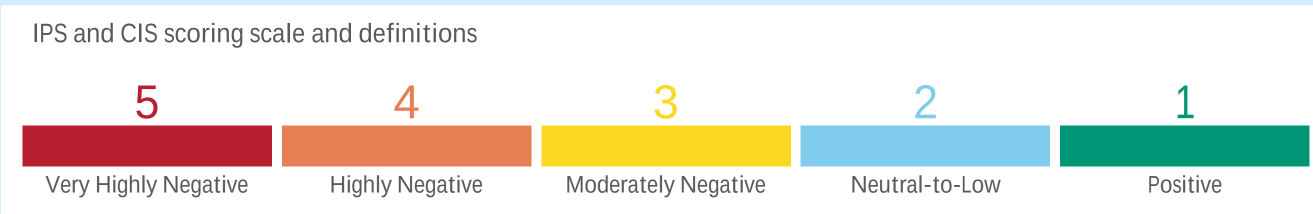
» **Issuer profile scores (IPS)** are opinions of an issuer's or transaction's exposure to environmental, social and governance considerations. They incorporate meaningful mitigating or strengthening actions related to those specific exposures.

» **Credit impact scores (CIS)** communicate the impact of ESG considerations on the rating of an issuer or transaction. They are based on our qualitative assessment of the impact of ESG considerations in the context of the issuer's or transaction's other credit drivers that are material to a given rating.

Both scores run on an asymmetric five-point scale, whereby 1 is positive, 2 is neutral to low, 3 is moderately negative, 4 is highly negative and 5 is very highly negative (see Exhibit 1). An Excel file with the scores is available here. Additional commentary on each issuer's scores can be accessed on the corresponding issuer page on Moodys.com. We will publish scores for an increasing number of issuers and transactions across sectors in the coming months.

This publication is not intended to provide a summary of the methodology. For a full explanation of our methodological approach, please see General Principles for Assessing Environmental, Social and Governance Risks Methodology.

Exhibit 1



Source: Moody's Investors Service

ESG considerations have a neutral to low credit impact on most US cities with at least $1 billion in outstanding debt

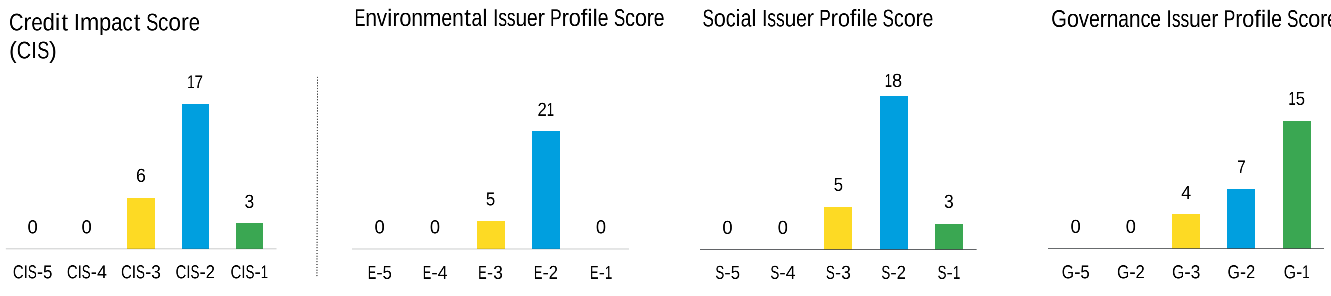
Environmental, social and governance considerations have a generally neutral to low credit impact on US cities with at least $1 billion in outstanding debt. While exposure to environmental issues is modest for most large US cities, there is greater variability in terms of exposure to social considerations because of differences in such factors as population trends and housing costs. Governance considerations tend to be more positive for large US cities.

Seventeen of the 26 US cities in our cohort received credit impact scores of CIS-2, indicating that ESG considerations have a neutral to low effect on credit ratings. Three cities received scores of CIS-1, reflecting the positive credit impact of ESG considerations, while six were scored CIS-3 because ESG issues have a moderately negative effect on ratings.

Exhibit 2

For most large US cities, ESG issues have a neutral to low credit impact

Distribution of ESG credit impact scores and issuer profile scores for US cities with at least $1 billion in outstanding debt



Source: Moody's Investors Service

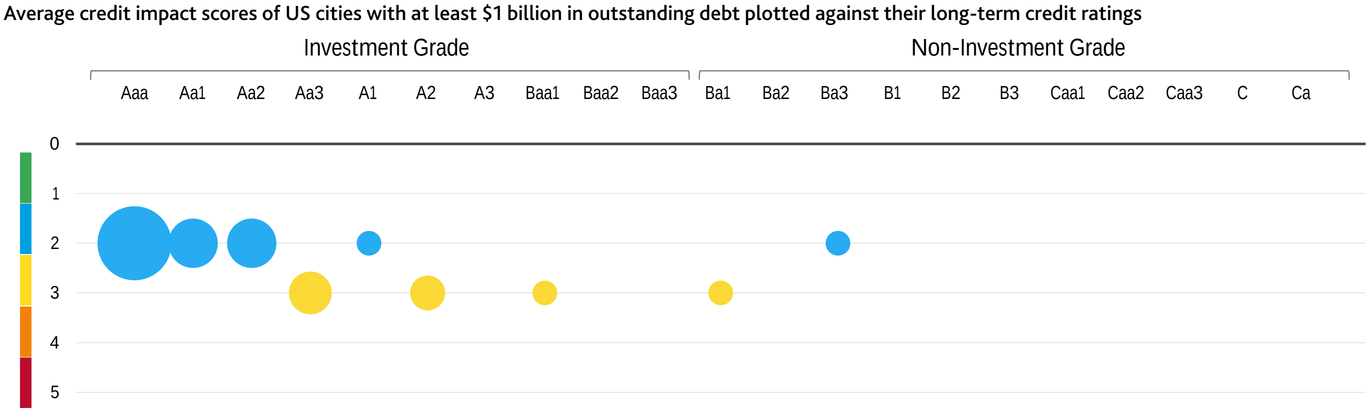
ESG considerations have a positive impact on the ratings of Columbus, Denver and the District of Columbia, which all received scores of CIS-1, buoyed by strong governance characteristics, positive or neutral to low exposure to social issues and neutral to low exposure to environmental considerations.

Overall, there is a moderate correlation between large US cities' exposure to ESG issues and their credit quality. This correlation is reflected in their credit impact scores and credit ratings (see Exhibit 3). As noted earlier, ESG issues have an overall neutral to low impact on large cities' credit quality.

Exhibit 3

Moderate correlation between large US cites' credit impact scores and ratings

Average credit impact scores of US cities with at least $1 billion in outstanding debt plotted against their long-term credit ratings



Location and color of each bubble indicate the average CIS score (rounded to the nearest whole number) for the issuers in a given rating category. Relative size of each bubble indicates the number of scored issuers within a given rating category.

Source: Moody's Investors Service

In recent years, we have taken a small number of rating actions – both positive and negative – that were driven in part by social or governance considerations. In July 2020, we changed our outlook on Honolulu's (Aa1 negative) ratings for its outstanding general obligation bonds to negative from stable because of the coronavirus pandemic's impact on labor and income considerations, including a continued drop in visitor counts, reduced tourism spending and the possibility of sustained levels of unemployment, which would eventually hurt property valuations and property tax collections.

Physical climate risk is the most significant environmental consideration

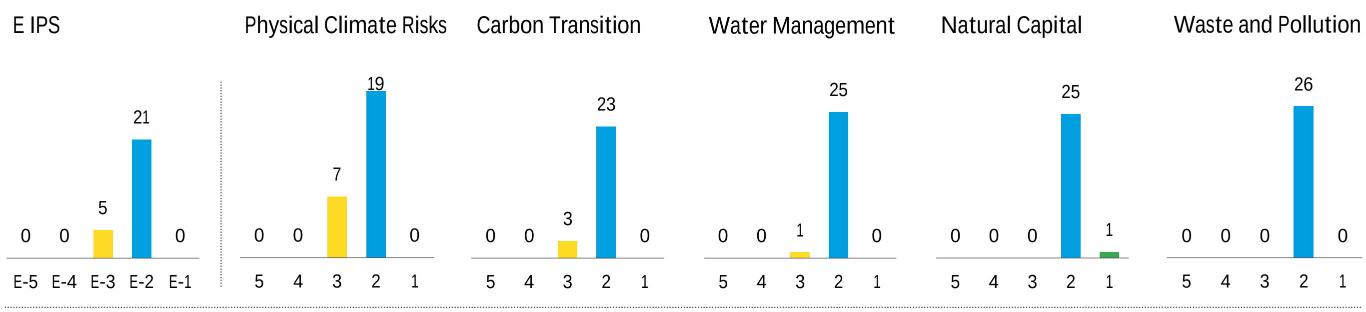
Exposure to environmental considerations is neutral to low for most large US cities. Among these issues, physical climate risks present the greatest challenge for cities located in or near coastal areas, while carbon transition risk is moderately negative for a handful of cities.

The exposure of large US cities to environmental considerations is reflected in their issuer profile scores. Their median score is E-2, which indicates that exposure to these considerations is neutral to low for most issuers (see Exhibit 4). Twenty-one of the 26 cities in our cohort received a score of E-2, while the remaining five received a score of E-3, which indicates that exposure to environmental considerations is moderately negative.

Exhibit 4

Exposure to environmental issues is neutral to low for most large US cities

Distribution of environmental issuer profile scores and category scores for US cities with at least $1 billion in outstanding debt



Source: Moody's Investors Service

Of the cities that were scored E-3, exposure to physical climate risk is moderately negative for Baltimore (Aa2 stable), Boston (Aaa stable), Houston (Aa3 stable) and New York City (Aa2 stable). Their coastal locations leave them exposed to the risk of extreme weather events like hurricanes or severe flooding, the severity and frequency of which have increased in recent decades. Extreme weather events pose a threat to transportation infrastructure assets, such as bridges, tunnels and subways, and can cause significant economic losses. For Oklahoma City (Aaa stable), the only other city in our cohort to be scored E-3, exposure to carbon transition considerations is moderately negative because of the regional economy's heavy reliance on the oil and gas industry, which faces elevated carbon transition risk. The two other cities to have moderately negative exposure to carbon transition issues were Houston, which is also heavily exposed to the energy industry, and Detroit (Ba3 positive), where auto manufacturing – another sector facing elevated carbon transition risk – is the driving force of the local economy. For Honolulu, natural capital is a positive consideration, a reflection of the high priority that the city and the state of Hawaii (Aa2 stable) place on key drivers of the tourism industry. It was the only city for which exposure to any environmental consideration was deemed positive.

Social risk exposure varies from positive to moderately negative

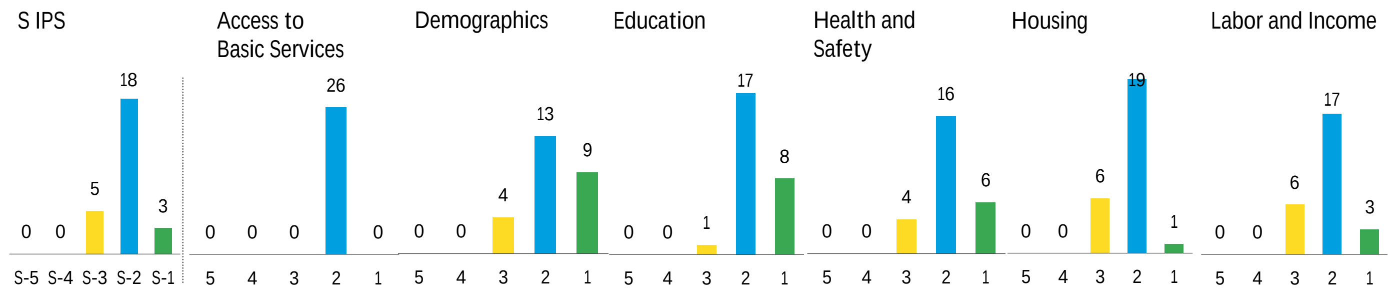
Exposure to social considerations shows greater variability than exposure to environmental considerations, ranging from positive to moderately negative. Exposure to social issues is neutral to low for most large US cities. But for some, favorable demographic trends, strong local economies and high levels of educational attainment have positive implications. For others, exposure to weak employment levels and high housing costs are moderately negative.

Of the 26 cities in our cohort, 18 received an issuer profile score of S-2, indicating that exposure to social considerations is neutral to low (see Exhibit 5). Five cities received a score of S-3, which indicates that exposure to social factors is moderately negative, while three received a score of S-1, reflecting positive exposure to social considerations.

Exhibit 5

Exposure to social considerations is neutral to low for most large US cities

Distribution of social issuer profile scores and category scores for US cities with at least $1 billion in outstanding debt



Source: Moody's Investors Service

Austin (Aa1 stable), Columbus and Denver scored S-1, with exposure to labor and income considerations and demographic trends deemed to be positive, as robust population growth and employment levels expand tax revenue. For Austin and Denver, exposure to education considerations is also positive because high levels of educational attainment benefit social cohesion, income levels and workforce development. Five cities received scores of S-3 – Los Angeles (Aa2 stable), Memphis, TN (Aa2 stable), Milwaukee, New York City and St. Louis – mostly because of such factors as income inequality, a declining local population and high housing costs.

Governance considerations are far more positive than exposure to environmental or social issues

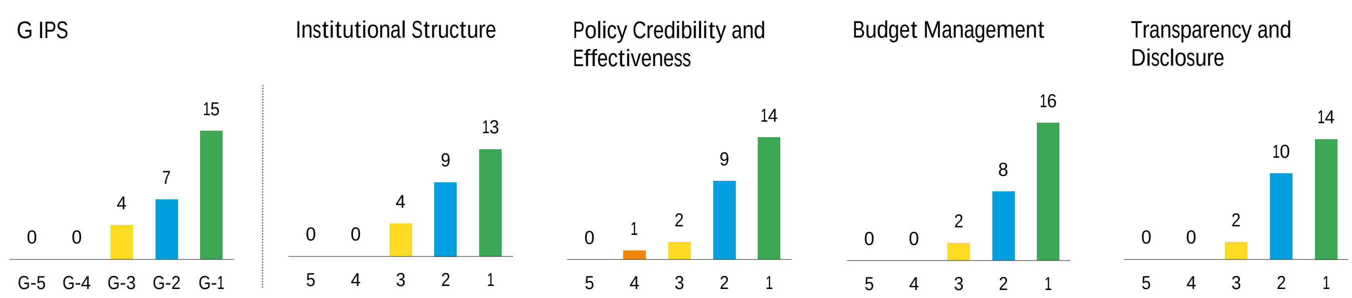
Governance considerations tend to be far more positive for large US cities than environmental or social issues. This is significant because responsive governing institutions, strong fiscal oversight and effective policies can help mitigate risks associated with environmental and social factors.

More than half of the cities in our cohort received an issuer profile score of G-1, indicating that governance considerations are positive (see Exhibit 6). Seven cities received a score of G-2, which indicates neutral to low exposure to governance risks, while four received a score of G-3, indicating that governance risks are moderately negative. Budget management considerations and policy credibility and effectiveness issues are positive for 16 and 14 cities, respectively. Transparency and disclosure issues are positive for 14 cities because of monthly or quarterly financial disclosures and the release of other credit-relevant reports beyond the annual audit and budget. Institutional structure was the only governance category that was positive for exactly half of the cities in our cohort.

Exhibit 6

Exposure to governance risks is positive or neutral to low for most large US cities

Distribution of governance issuer profile scores and category scores for US cities with at least $1 billion in outstanding debt



Source: Moody's Investors Service

Four cities – Chicago, Jacksonville, Milwaukee and St. Louis – received issuer profile scores of G-3, the lowest in our cohort. Chicago, Milwaukee and St. Louis suffer from relatively weak institutional structures that reflect challenges with revenue-raising flexibility (Milwaukee and St. Louis) and limited control over pension benefits (Chicago). For Jacksonville, exposure to policy credibility and effectiveness issues is highly negative, making it the only city in our cohort deemed to have highly negative exposure to a governance category. The effort to explore the privatization of JEA FL's operations in 2019 triggered public opposition, state and federal investigations, the termination of JEA's senior management and the replacement of JEA's entire board of directors in 2020.

Appendix: Our environmental, social and governance classifications

Exhibit 7

Environmental risk classification

Carbon transition

- Current positioning for carbon transition
- Technology, market and policy risk
- Actions to mitigate risk
- Long-term resilience to risk of accelerated carbon transition

Physical climate risks

- Current and future effects of climate change
- Exposure to heat stress, water stress, floods, hurricanes, sea level rise and wildfires

Water management

- Non-climate-related risks
- Impact of economic activity
- Availability, access and consumption
- Innovations to enhance water use efficiency
- Risk of pollution-related regulatory violations

Waste and pollution

- Non-GHG air pollutants
- Land-based accidents, spills and leaks
- Hazardous and non-hazardous waste
- Circular economy

Natural capital

- Impact on natural systems (soil, biodiversity, forest, land, oceans, etc.)
- Dependency on goods and services derived from nature (agriculture, fiber, fish, etc.)

Source: Moody's Investors Service

Exhibit 8

Social risk classification for public-sector issuers

Demographics

- Age distribution
- Immigration
- Birth rates
- Racial & ethnic composition/trends

Labor & income

- Labor force participation
- Income inequality

Education

- Access to primary/secondary/tertiary
- Educated populace
- Literacy

Housing

- Availability and access
- Condition of housing

Health and safety

- Healthcare
- Food security
- Environmental quality
- Personal safety & well-being

Access to basic services

- Water
- Sewer
- Electricity
- Financial services
- Transportation
- Telecom/Internet

Source: Moody's Investors Service

Exhibit 9
Governance risk classification for public-sector issuers

Institutional structure

» Strength of judiciary and civil society
» Institutional arrangement that guide fiscal and macroeconomic policy
» Control of corruption

Policy credibility and effectiveness

» Fiscal policy track-record and effectiveness
» Monetary and macroeconomic policy effectiveness
» Regulatory effectiveness

Transparency & disclosure

» Comprehensiveness and reliability of economic, fiscal, and financial data
» Timely financial disclosure

Budget management

» Budetary and forecast accuracy
» Management quality and experience
» Effective use of multi year planning for operating and capital spending.

Source: Moody's Investors Service

Moody's related publications

Data Report

» Public Finance – US: ESG credit impact scores and issuer profile scores, June 2021

Sector In-Depth

» Local Government – US: Uneven economic recovery will shape credit environment for local governments, May 2021

» ESG – Global: ESG factors cited as material credit issues in 50% of public-sector rating actions, November 2020

» Local Government – US: Cities shift funds as focus on policing grows; credit impact hinges on costs, social risks, October 2020

» Public Finance – US: Ability to address ESG risk will increasingly differentiate credit quality after pandemic, October 2020

» Public finance – US: Heat map: Coronavirus will have broad effects across US public finance, March 2020

» Cross-Sector – US: FAQ on the credit impact of hurricanes on US-based issuers, June 2019

» Local government - Missouri: Population and economic growth are credit positive for urban areas, April 2019

» Local government - US: Cities' heightened focus on mitigating climate risk is credit positive, January 2019

Sector Comment

» Local government – New Jersey: Joint insurance funds help smaller municipalities lower cyber, social risks, November 2020

» Local government – New Jersey: Deficit financing will be an effective tool for municipalities facing revenue loss from coronavirus, September 2020

» Local Government – California: Wildfires amid pandemic compound social and economic risks, but unlikely to hurt credit quality, August 2020

» Local Government - New York: Coronavirus hammers sales taxes; reopening plan to soften blow, June 2020

» Public finance – US: Social unrest and underlying inequality pose fiscal and governance credit risks, June 2020

» Local government – Pennsylvania: Ethelyne plant provides economic benefits but brings social, environmental risks, March 2020

» City (incl. Town, Village and Township) – Texas: Dallas-Fort Worth leads nation again in population growth, driving a housing boom, April 2019

ESG methodology, heat maps and classifications

» General Principles for Assessing Environmental, Social and Governance Risks Methodology, April 2021

» ESG – Global: Environmental heat map update: Risks rise for oil & gas, chemicals, metals & mining, May 2021

» ESG – Global: Social heat map update: Risks rise for coal, oil & gas, tobacco, metals & mining, May 2021

» ESG — Global: Revised classification of environmental considerations reflects evolving standards, December 2020

» ESG – Global: Governance considerations are a key determinant of credit quality for all issuers, September 2019

» Cross-sector: Social issues have multiple impacts on government credit quality, November 2018

Topic page

» ESG Credit

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