ESG Research

ESG Materiality Map
Telecommunications

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Social factors, such as access and affordability of telecom services and privacy protection are the most material factors. Climate transition and physical climate risks are the most material environmental factors.

This report does not constitute a rating action

Sustainable Finance

Henrik Cotran
San Francisco
henrik.cotran
@spglobal.com

Florence Devevey
Paris
florence.devevey
@spglobal.com

Credit Ratings

Mark Habib
Paris
mark.habib
@spglobal.com

Contributors

Lai Ly
Paris
lai.ly
@spglobal.com

Nicole Delz Lynch
New York
nicole.lynch
@spglobal.com

S&P Global
Ratings

ESG Materiality Map Telecommunications

In line with the research report "Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors," published on May 18, 2022, S&P Global Ratings is publishing research on the ESG materiality map for the telecommunications sector. We provide an illustration of our current view of the relative materiality of certain environmental and social (E&S) factors, from both the stakeholder and credit perspectives, for the sector. The materiality map does not represent any new analytical approach to the treatment of E&S factors in our credit ratings. See our ESG criteria for more information on how we incorporate the impact of ESG credit factors into our credit ratings analysis.

Telecommunications Sector

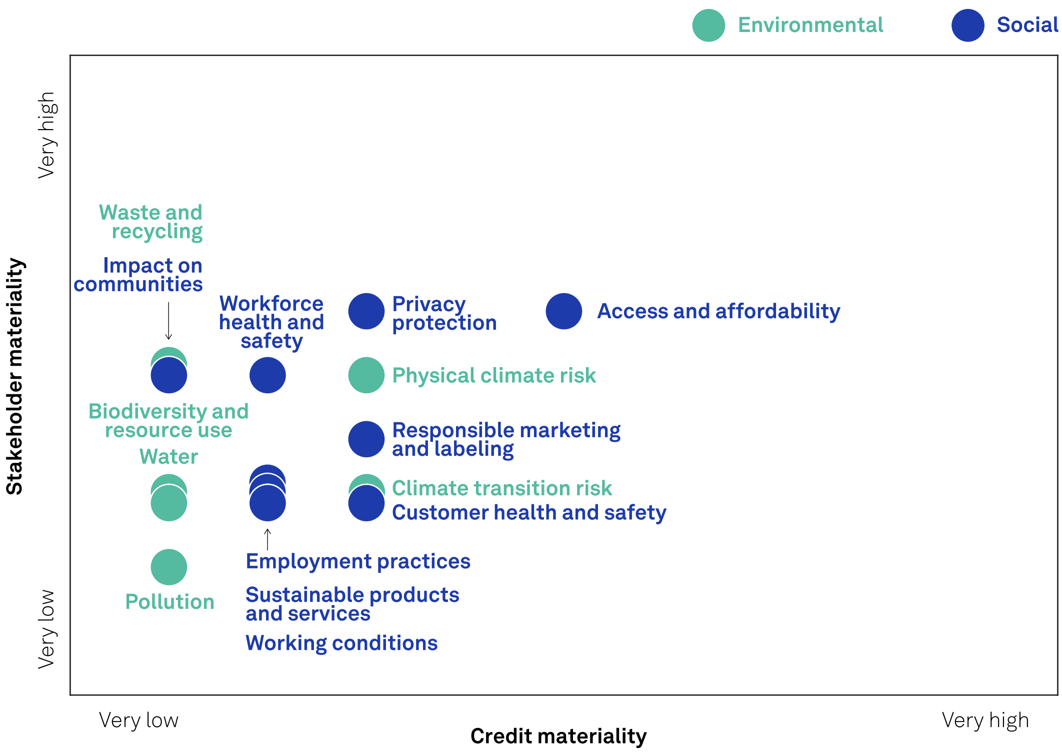
The telecommunications (telecom) sector includes a wide variety of companies that originate, transport, and terminate voice, data, and video on owned and/or leased terrestrial networks, wireless networks, or a combination of the two. It also includes companies providing integrated services and infrastructure to the sector. This includes: tower companies that lease tower space to wireless service providers and to TV and radio broadcasters; satellite companies that provide voice, data, and video to commercial or retail customers; and data center operators that provide fitted space and connectivity to telecommunications carriers and enterprises

Key Takeaways

- The sector's key role in providing modern communications services that are universally essential to society and a 21st century economy, makes access and affordability of telecom services material to both credit and stakeholders.
- Physical climate risks and climate transition risks are among the most material environmental factors for both stakeholder and credit because the sector has a large physical asset footprint and increasing energy needs.
- Waste and recycling are material for stakeholders due to waste generation in upstream supply chains and at equipment end-of-life, though this is not materially affecting credit yet.

See materiality map on the following page.

ESG Materiality Map For The Telecommunications Sector



The materiality map provides an illustration at a point in time, of our findings on the relative materiality of certain environmental and social (E&S) factors, from both the stakeholder and credit perspectives, for the sector. It does not represent any new analytical approach to the treatment of E&S factors in our credit ratings. See our ESG Criteria for more information on how we incorporate the impact of ESG credit factors into our credit ratings analysis. Source: S&P Global Ratings.

How To Read The ESG Materiality Map

The stakeholder materiality (Y axis) reflects our assessment of the relative level of impacts and dependencies of the sector on the environment, society, and economy.

The credit materiality (X axis) reflects our assessment of the relative level of potential and actual credit impact for the sector. The credit implications for the factors positioned on the left side to the middle of the X-axis would be more limited and absorbable. On the right side, there is higher potential for these implications to be more disruptive. We assess credit implications for an entity based on its individual characteristics.

Assessing E&S factors' materiality: We consider both the likelihood of the impact from a given factor, as well as the magnitude of the impact. The materiality of the factors varies depending on the perspective (stakeholder or credit) as well as the evolving and dynamic interactions between these two dimensions.

The main areas of the map:

- The upper-right quadrant displays the most material, on a relative basis, E&S factors identified for the sector from both a stakeholder and credit perspective.
- The upper-left quadrant presents factors that are more material from a stakeholder than credit perspective. These factors have the potential to become more material from a credit perspective.
- The bottom-left quadrant shows factors that are less material for both stakeholders and credit. Their materiality may evolve over time and this dynamic may not be linear.

Examples Of Material Factors

Below we provide the rationale of some of the material factors to illustrate the above findings.

Access and affordability

Access to affordable telecom services is material to both stakeholders and credit. This is increasingly essential for people globally to partake in universal needs such as health care, financial services, education, and the modern economy. This can result in distinct social and economic disadvantages for underserved populations that can persist and exacerbate inequality. As a result, regulatory and public pressure on operators is increasing, particularly in developing markets where penetration is lower. From the credit perspective, concerns over access and affordability could put more pressure on companies to invest in infrastructure deployment, upgrades, and maintenance in some regions. It could also lead some authorities to reduce roaming and interconnection costs and promote competition through wholesale unbundling and pushback on market consolidation. While these decisions will vary by market, if such pressures materialize, sustained high levels of investment and competition can pose a challenge to ROI and revenue growth despite society's increasing reliance on telecom services and products, and the resulting growth in data demand/traffic.

Privacy protection

In the telecom sector, data privacy and security is a material factor for stakeholders, but less so for credit. Telecom companies collect, access, and transmit large amounts of client information and data and are therefore exposed to intentional (monetization without informed consent) or unintentional (cyberattacks or errors by operators) risks. These incidents can harm clients' reputation as data lost could be sensitive, such as personally identifiable information (PII), locations, numbers called, purchasing behaviors, search history, or others. From the credit view, security breaches could harm the company's reputation and potentially lead to higher churn and fewer gross subscriber additions, as well as direct incident and remediation costs. A company's strategy and policies surrounding data privacy and security are therefore important mitigating factors for both stakeholder and credit impacts. The frequency and sophistication of cyberattacks are increasing across corporates. Data breaches in the sector to date have carried more headline risk than tangible credit impact, and we expect the sector's awareness and defenses will remain higher than the corporate average.

Physical climate risk

The physical impacts of climate change are among the most material environmental factors for the sector from both stakeholder and credit perspectives. The sector has large physical infrastructure footprint that is increasingly exposed to damage and disruption. From a stakeholder perspective, more frequent and severe climate hazards (acute risks like storms and floods, and chronic risks like rising sea levels) absent adaptation, could damage mobile infrastructure and equipment, fixed lines, switches, and data centers. This would affect network uptime, disrupting services to customers. For populations already coping with the acute impacts of flooding, storm damage, and power outages, loss of communications connectivity can impair emergency response and recovery efforts, and strain the ability to maintain public and private sector activities, all with potential economic and societal repercussions. Operators can proactively invest in network resilience to buffer these impacts. At the sector level, credit materiality is more modest as acute physical risks that significantly disrupt service are generally short-lived, and increased maintenance and repair costs typically only affect limited parts of an operator's overall network infrastructure. While examples have been rare, we expect this risk could become particularly acute for telecoms with limited scale and operations located in geographies with particularly high exposure to acute physical risks.

Waste and recycling

Waste and recycling is material from the stakeholder lens but has relatively low materiality for credit. Electronic waste, plastics, and scrap metals are generated during the manufacturing of telecom network equipment and indirectly via mobile handsets, and at end-of-life. This leads to potential material stakeholder impacts including environmental pollution and biodiversity harm. Reducing manufacturing waste upstream and reuse and recycling of equipment downstream can mitigate impacts and is increasingly a focus for companies as circular economy principles expand in the sector. Conversely, we currently see limited credit materiality given the longer lifecycles and centralized decommissioning of telecom infrastructure equipment. This compares favorably to technology hardware makers' direct exposure to mobile devices, which are much more numerous, have shorter lifecycles, and harder to control circularity with individual consumers. One of the greatest areas of waste is recycling copper from network decommissioning after fiber rollouts are complete. However, given our views of high demand for copper in the coming decades, this is an opportunity for the sector to extract value and partly finance decommissioning costs.

What is our approach to research on the ESG materiality map?

Referring to the research report "Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors," published on May 18, 2022, this research is built on the ESG materiality concept that considers ESG issues as material when they could affect stakeholders, potentially leading to material direct or indirect credit impact on entities. It considers that all businesses, through their activities and interactions, impact and depend, directly or indirectly, on stakeholders such as the environment (natural capital), society (human and social capital), and economy (financial capital). Using this ESG materiality concept, S&P Global Ratings has worked toward identifying a common, global, cross-sector set of E&S factors that we believe are material to stakeholders, and either are already, or have the potential to become, credit material for entities. The materiality map we propose provides an illustration at a point in time, of our findings on the relative materiality of those factors, from both the stakeholder and credit perspectives.

How does the sector ESG materiality map relate to credit ratings or ESG evaluations?

The sector materiality map is a visual representation of the factors that we consider impactful to the sector from a stakeholder and credit perspective for the purposes of this research. It does not represent any new analytical approach to the E&S factors in our credit ratings.

The relative materiality of the factors indicated on the materiality maps may inform the E&S Risk Atlas scores and the weights of the E&S factors used in ESG evaluations.

They may also inform our discussions with issuers on those factors' existing or potential credit materiality.

Related Research

- Materiality Mapping: Providing Insights Into The Relative Materiality Of ESG Factors, May 18, 2022
- Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- ESG Evaluation Analytical Approach, Dec. 15, 2020