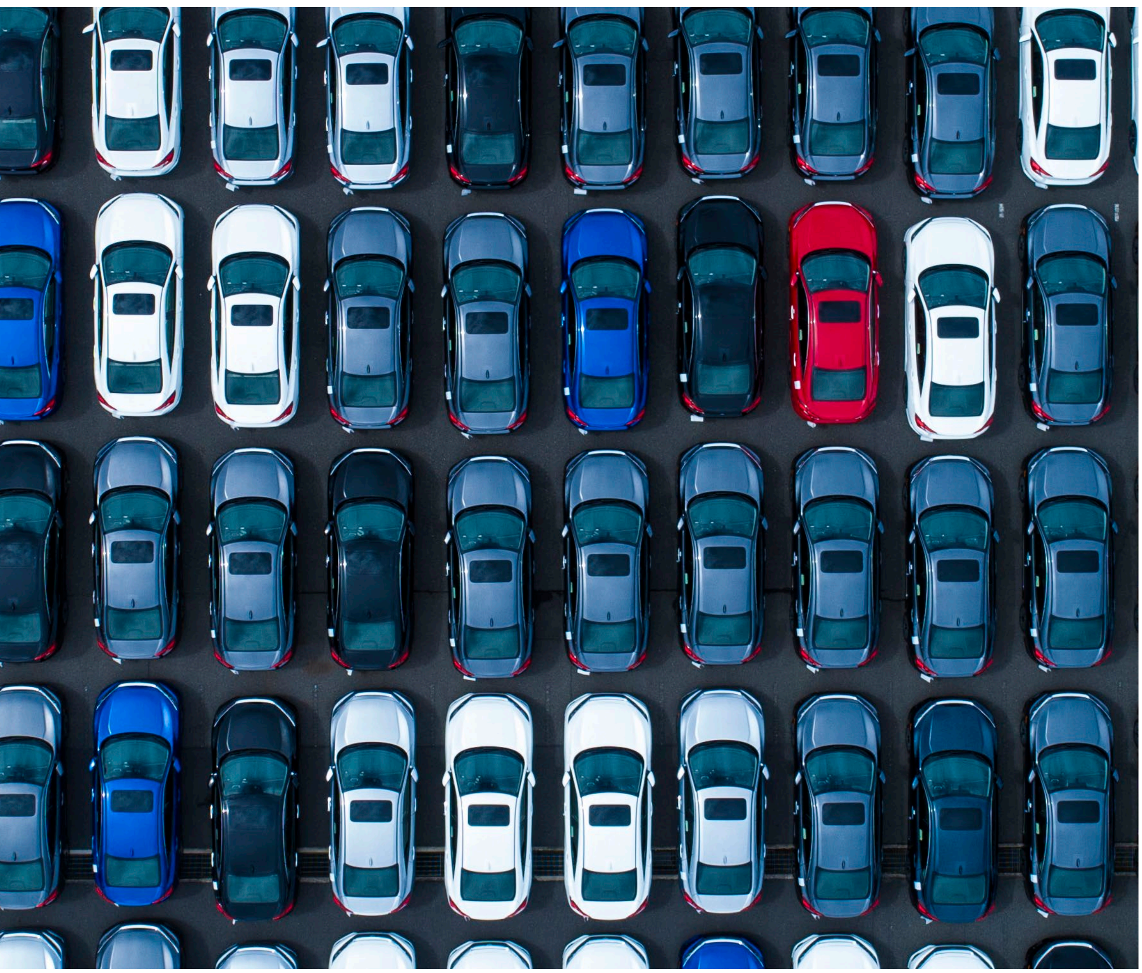
ESG Research

ESG Materiality Map
Autos

July 20, 2022

In the global auto sector, there is a convergence of stakeholder and credit materiality for most environmental and social factors, as well-established regulatory frameworks transform the industry. Climate transition risk, pollution, customer health and safety, and sustainable products and services are among the most material factors.

This report does not constitute a rating action



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ESG Materiality Map
Autos

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 autos sector. We provide an illustration of our current findings on the relative materiality of certain environmental and social (E&S) factors, from both the stakeholder and credit perspectives, for the sector. The materiality map research 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.

Autos Sector

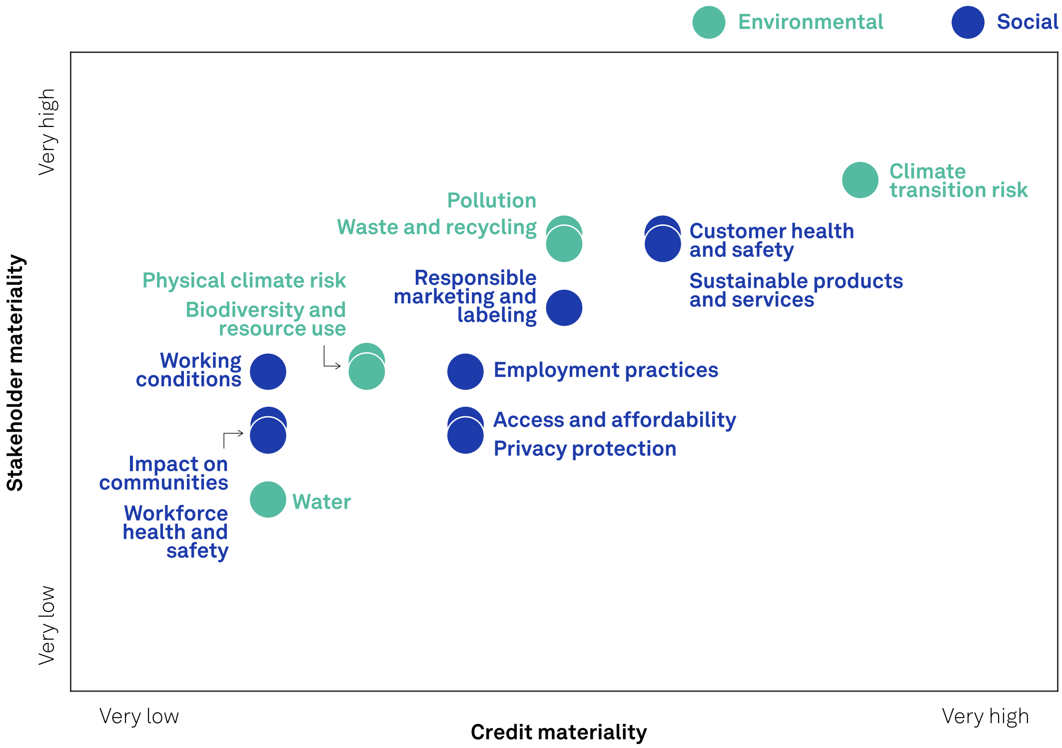
The global auto sector includes original equipment manufacturers (OEMs) of passenger, light, and heavy-duty vehicles as well as auto suppliers.

Key Takeaways

- In the global auto sector, there is a convergence of stakeholder and credit materiality for most environmental and social factors, as well-established regulatory frameworks transform the industry. Albeit there are regional differences, regulation aims for the decarbonization of the global auto industry, making climate transition risk highly material for both stakeholders and credit.
- Customer's health and safety will remain highly material for both stakeholders and credit. Despite significantly improved vehicle safety, at this stage, the number of accidents involving self-driving technology has yet to decrease. The transition to autonomous vehicles will bring significant changes on this front to the industry.
- Access and affordability are material for stakeholders and could become more so for credit. Supply bottlenecks, higher material content per car, and changing consumer preferences mean there is a push to offer alternative ways to access mobility services. Longer term, there could be pressure on OEMs' profits if revenues shift away from the traditional sale of vehicles into mobility and other services.

See materiality map on the following page.

ESG Materiality Map For The Autos 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.

Climate transition risk

Climate transition has the highest materiality for the sector from both stakeholder and credit perspectives. Road passenger and freight vehicles contribute approximately 19% of global GHG emissions according to the IEA. The auto industry has thus faced increasing public and investor pressure to accelerate its decarbonization. Regulation and stronger awareness on climate challenges coupled with a policy consensus on the need to support the transition to more environmentally friendly mobility, has resulted already in engine technology replacements in some of the world's major markets (such as battery electric powertrains replacing internal combustion engines in Western Europe with the EU council proposing a bans on sales of polluting vehicles by 2035). From a credit perspective, climate transition risk management is at the forefront of global OEMs and suppliers strategies and is transforming their value chains. The need for capital is increasing and players with better access to funding might have an advantage. The transformation requires significant investments in manufacturing plants and research and development (R&D). For example, we expect OEMs R&D expenses and capex to sales ratio to remain high in the coming years, at around 10%-15%, putting pressure on cash flow generation.

Customer health and safety

Customer health and safety considerations in the sector are also highly material from both stakeholder and credit perspectives. According to the World Health Organization's Global Status Report on Road Safety 2018 (latest year available), road fatality rates decreased over the past decade in most regions around the globe thanks to the evolution of safety gear and regulation. Despite the significant decrease in likelihood of accidents, the types of events, such as human errors, fire incidents, or autopilot failures, still imply irreversible damages such as the loss of life. This leads to health and safety being highly material to customers, regulators, OEMs, and auto suppliers and represents one of the key drivers for the development of autonomous vehicles. The credit materiality of customer health and safety can also be reflected, for instance, in the sharp declines of diesel in the share of new passenger sales to below 20% recently from above 60% in 2016, particularly in Europe, driven by mounting concerns over the danger of diesel emissions for public health. Presently in Europe, which tends to influence global trends (see for example recent EU council proposal to ban the sale of polluting vehicles as from 2035), more diesel engines are being replaced by hybrids (mild, plug-ins). This ongoing shift has had and will continue to have a material credit impact for both OEMs and suppliers, creating a loss in cash flows from almost fully amortized assets and accelerating investments into electrification and connectivity. More broadly, perceptions from the public of poor safety standards can have significant and persistent impacts on an entity's reputation, consumer trust, and thus, competitive position.

Sustainable products and services

Public awareness around the need for sustainable mobility, as well as investor and regulatory pressure around a transition into a less resource and labor-intensive industry, makes this factor material for both stakeholders and credit. The global auto industry's ability to respond to the demand of consumers and other stakeholders for more sustainable product and services is advanced. At the same time, OEMs and suppliers remain committed to ensure a more sustainable value chain through responsible sourcing (see for example recent actions some players have taken on leather sourced from the Brazilian Amazon and on conflict or scarce minerals) or through exploring new materials and performing technologies to replace rare or costly materials without harming the car's overall performance. In the service area, the global auto business model is making substantial inroads by offering fixed turn-key contracts that include new services into the rental (including fleet management) or the financing formula, or that offer the customer unprecedented flexibility either on the terms of use or on the swap of the vehicle to ensure client fit at all times. We believe this new offering will continue having profound credit implications for the industry because it greatly diversifies the revenue streams and the risks historically linked to the sale of new vehicles.

Pollution

Pollution has been fairly material for stakeholders and credit. The sector significantly contributes to air pollution. For example, according to the U.S. Environmental Protection Agency's 2021 national inventory, vehicles on motorways account for 29% of the total NOx emissions in the country. The implications of such emissions range from declining public health in urban cities to ecosystem harm, such as weaker crop yields in rural areas adjacent to cities. More stringent regulation has driven a significant reduction in the air pollutants (such as NOx) emitted by internal combustion engines. Diesel fueled cars declined as a share of new passenger vehicle sales given increasing restrictions on the use of diesel vehicles in urban centers. The acceleration in the product launches of alternative powertrains, mainly hybrid and electric battery vehicles, resulted in increasing R&D and capex in recent years. The financial impact due to pollution-related issues could be higher because of intensifying pressure and attention from communities and investors.

Physical climate risk

Although we observe acute physical risks--such as flooding--affecting some companies' operations and value chain, the geographic diversity of issuers, in general, makes the physical climate risk factor more material for stakeholders than credit at the sector level. In our view, the geographic diversification of OEMs' plants, and flexibility to rapidly shift production and suppliers, reduces their exposure to climate hazards. Meanwhile, auto suppliers' exposure tends to vary regionally. Some plants in South and Southeast Asia have seen more frequent operational disruptions from climate hazards. We do not expect the factor to become highly material globally from a credit perspective. For stakeholders, such as local employees or communities, the materiality of such disruptions tend to be greater as they generally affect livelihoods but the severity of the effects may vary significantly with geography.

Access and affordability

As a mobility provider, the sector contributes to society's access to essential services. The increasing access and affordability of mobility services, combined with improvement in the sector's sales and operational performance since 2008, limits materiality for stakeholders and credit to date. Lower cost of production per car and higher vehicle financing over the past decades have enabled lower income customers broader mobility access. However, noting the industry's shift into EVs, we anticipate potential risks to affordability for this product segment, particularly in the near term and until prices decline over time as EV production scales up and becomes more efficient. We have also observed an increase in the share of OEM's revenues from fleet management services. In that sense, we believe shared and autonomous mobility (including robo-taxis and robo-shuttles) should continue improving access to and affordability of light vehicles use going forward. At the same time, an increasing share of autonomous mobility coupled with an erosion of the traditional ownership model, represents a concern for new long-term risks emerging for OEMs. This is because revenues would shift away from the traditional sale of vehicles into mobility and other services for which the competitive landscape could differ and where the return over investment is more uncertain at this stage.

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