S&P Global

Ratings

ESG Credit Brief

Building Materials

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Key Takeaways: Building Materials

» Key Takeaways

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Climate transition brings material risks and opportunities for the building materials sector

- The sector is among the major contributors to global greenhouse gas emissions, with cement alone accounting for about 7% of carbon dioxide (CO2) emissions according to the International Energy Agency (IEA).
- Material impacts from the transition to a low-carbon economy are most likely in high-emitting
 industries such as cement, where cost increases, including from potential carbon taxes and energy
 prices, could transform companies' financial and business profiles over the next decade.
- Yet, since buildings are responsible for about 40% of the world's carbon emissions, the sector could benefit from regulation and government measures to improve buildings' energy efficiency, which have led to volume growth of related services and products like insulation, particularly in the EU and U.S.

Material ESG Factors: Building Materials

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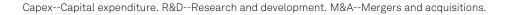
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ESG factor	Climate transition risk: Cement producers	Climate transition risk: Other building materials	Sustainable products and services			
Key risks/opportunities	Carbon intensity is 10x the average for the building materials sector	Lower decarbonization costs versus cement; may benefit from new energy efficiency regulation	Awareness of environmental impact/price premium on sustainable products			
Credit materiality	High, notably in Europe, where regulations are tightening	Medium potential for rising demand for energy efficiency improvement	Medium, with a gradual change in demand			
Potential financial impact	Higher capex for upgrades and thinner margins due to carbon costs	Higher sales and lower cyclicality during downturns	Higher R&D and processing costs, plus substitution and M&A risk			
Rating impact	None so far, due to ability to pass costs to clients and limited cement substitution risk	Potentially positive for more advanced players, absent large shareholder distributions	Limited so far, but can be a key competitive edge for large and more advanced players			

ESG Materiality Map





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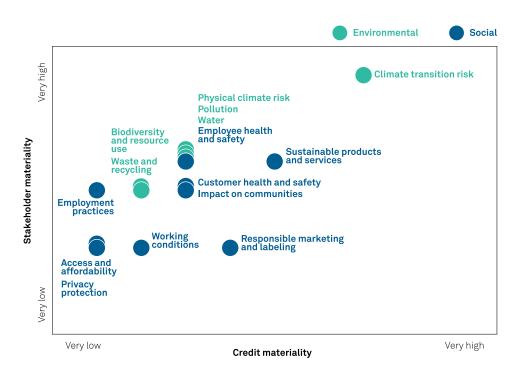
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ESG Materiality Map



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.

The sector is a major contributor to global greenhouse gas emissions.

- Cement alone accounts for about 7% of CO2 emissions according to the IEA.
- In high-emitting industries like cement, rising costs, such as from potential carbon taxes, will likely have material credit impacts over the medium term.

Rising demand for sustainable products could transform the sector via:

- Consumers' and regulators' greater awareness of environmental impacts.
- Potential for revenue growth, particularly for the most innovative players.
- Low-carbon or recycled products, which could attract a price premium and become an opportunity.



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Governance, business, and funding strategy

Carbon intensity, decarbonization targets, regulation, and technology

Costs/opportunities associated with decarbonization

- How the board addresses climate transition risk
- Top management's involvement on climate transition risk
- Whether there is chief sustainability officer that reports on and is involved in capital allocation decisions
- The extent to which management compensation is linked to the achievement of carbon-reduction targets
- Reliance on financing instruments linked to climate transition
- Whether the company has issued green or sustainability-linked bonds, and the key performance indicators (KPIs) used
- Pricing of sustainable financing instruments versus standard bonds and investor appetite
- How climate transition risk may have influenced the company's business strategy and capital allocation, including M&A
- What key risks and opportunities the company envisages, given greater stakeholder focus on climate transition risk and carbon emissions
- Key initiatives taken to address decarbonization and achieve carbon reduction targets, with a focus on 2030 and beyond

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Costs/opportunities associated with decarbonization

- Carbon regulation by region, with a focus on the EU's Emissions Trading System ETS, and the potential impacts of Carbon Border Adjustment Mechanism.
- Details of carbon emissions in the region, alongside the main KPI used to measure and address decarbonization and targets set for 2030 and beyond
- New technologies in use and under development to capture CO2 emissions or reduce its content in cement
- Action plan by region, with a focus on Europe and the U.S., and related costs
- Energy efficiency regulations, focusing on the EU and U.S, including expected additional demand linked to these regulations and the effect on product pricing

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Carbon intensity, decarbonization targets, regulation, and technology

Costs/opportunities associated with decarbonization

- Carbon costs, including what carbon allowances the company has been granted, the carbon deficit by region, and forecast trends over the next decade
- Carbon reduction related capex, and any cofinancing by government bodies
- Ability to pass carbon cost to clients
- Development of low carbon cement and concrete and the impact of this on total revenue and the related price strategy

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Costs/opportunities associated with decarbonization

- How relevant physical risk is for management, including a comparison with the sector average
- Any losses due to physical climate risk so far
- · Adaptation or mitigation actions put in place
- Extent of insurance coverage, costs, and risks insured

Credit Materiality Is Progressively Increasing

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Business risk/financial risk

Decarbonization-related credit risk drivers

Climate transition risk is becoming more material for building materials companies. We factor this risk into our ratings on companies in the sector largely when we assess their business risk and financial risk profiles.

Key business risk profile factors

- Level of carbon emissions and carbon intensity relative to the sector average
- Presence of effective local carbon regulation, which may translate into monetary costs associated with carbon emissions and affect companies' competitive advantage as well as their operating efficiency
- Company's commitment to cutting emissions, how far advanced it is, and whether it has a track record of emissions reductions
- Early adopters of new technologies to cut emissions, such as carbon capture, usage, and storage (CCUS), may have a competitive edge, though the associated capital investments may constrain their balance sheets
- Risk of cement being substituted with other products and cement demand trends
- Pricing power, reflecting companies' ability to pass through higher carbon costs to end customers
- Innovative product offerings such as low-carbon cement or concrete, or the use of recycled or new binder materials
- Pricing power, in that a price premium is gained by selling low-carbon products versus standard products

Key financial risk profile factors

- Relevance of monetary costs linked with carbon emissions, and to what extent these are passed to end customers
- Capital spending linked to carbon-reduction initiatives and its financial return
- Operating expenses linked to carbon-reduction initiatives and greener production processes



Credit Materiality Is Progressively Increasing

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Business risk/financial risk

Decarbonization-related credit risk drivers

Large cement companies have reduced CO2 emissions substantially in the past few years.

- This stems from investments to increase plants' thermal efficiency and the use of alternative fuels, like biomass
- 2030 is the year most large companies have set as a target to cut scope 1 carbon emissions to less than 500 kilograms (kg) per ton of grey cement, compared with an average of 600 kg/ton today
- Energy efficiency remains the most relevant factor for meeting 2030 emissions reductions targets, but alone it will not be sufficient to meet the net zero-carbon goal
- Implementation of CCUS at industrial scale is currently the main option to meet net zero targets, but there are significant questions regarding CCUS' economic viability

Risks and effectiveness of various decarbonization solutions

Decarbonization technologies	Ease of implementation	Development stage	Cost	Effectiveness
Energy and process efficiency	High	Adoption	Low	Moderate
Switch to renewable electricity	High	Adoption	Low	Moderate
Electrification	Moderate	Demonstration	Moderate to high	Moderate
Alternative fuels	High	Adoption	Low	Moderate
Recycling	Moderate	Adoption	Low	Moderate
Clinker reduction	Moderate	Adoption	Low	Moderate
Carbon capture, usage, and storage	Moderate	Demonstration	Moderate to high	High



Rating Implications: Limited Impact So Far

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What we're watching in 2025-2035

Climate transition risk has so far had a limited negative rating impact on cement manufacturers

- The costs linked with high carbon emissions have been contained, reflecting limited regulation (for example in the EU) or no carbon regulation.
- In the EU, cement companies have received free allowances covering a large share of their carbon emissions.
- There are few cement alternatives at present, which should preserve steady volumes in the medium to long term.

In a few cases, the climate transition has driven the overperformance of building material producers

- We've observed this for companies whose product portfolios address challenges to decarbonizing building construction, such building insulation, or cement-content reduction through construction chemicals
- For example, the upgrade of Compagnie de Saint-Gobain in 2023 reflected the company's continued better performance than peers and improved growth prospects. These emanated from the significant share of the company's products that contribute to energy savings in building construction and renovation, including interior and exterior solutions.

Rating implications: A limited impact so far

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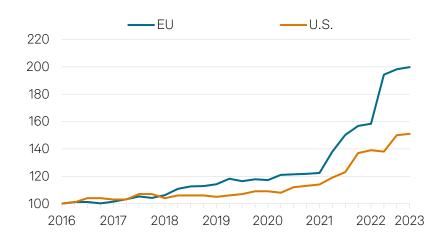
Rating actions

What we're watching in 2025-2035

Opportunities

- Large, sophisticated companies could benefit from additional demand linked to improving buildings' energy efficiency
- Companies can charge a higher price premium for low-carbon products than for traditional products, which could help margins
- Few cement substitutes should allow significant cost passthrough and support profitability

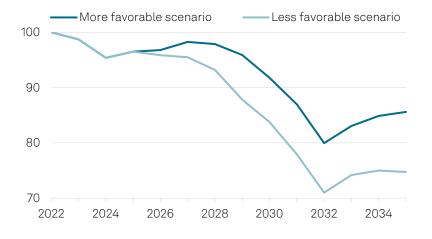
Trend of cement price in the EU and U.S. Index 2016=100



Risks

- With the new EU carbon regulation, the financial impact on cement companies should become more visible
- Our scenario analysis indicates that carbon costs could reach 75% of EU cement companies' EBITDA on average, though pressure on profitability would depend on the extent companies can pass carbon costs to clients

EU-based rated cement companies' EBITDA trends Index 2022=100



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