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Risk, Opportunity and Capital Allocation in the *Climate Transition*

How regulatory changes, increasing financial materiality and new technologies are changing the way investors integrate climate risk in their asset allocation decisions. As the costs, risks and realities of climate change become clearer, public market investors are increasingly seeking to integrate climate change analysis into their investment decisions. Here are some of the key factors driving this process.

Regulation and Policy

In March 2022, the Securities and Exchange Commission (SEC) proposed climate-related financial disclosures that would require companies to report their greenhouse gas (GHG) emissions, climate-related risks and the measures they planned to take in response. Additionally, the Inflation Reduction Act of 2022 allocated billions in incentives to drive the U.S. energy transition. These policy measures align with similar state efforts to diversify away from fossil fuels, particularly in carbon-intensive sectors such as transportation. For example, California, the largest car market in the country, passed legislation banning the sale of new gasoline-powered vehicles in 2035, which is expected to influence the broader electric vehicle industry.

TAKEAWAY: Continued regulatory pressures should help drive transparency and more accurate climate risk valuations. New climate-related policies and market incentives will also persist, likely targeting diversified energy sources and boosting electrified transportation.

Financial Materiality and Climate Factor Linkage

Climate change costs the world an estimated $16 million an hour and by 2050, the annual cost of climate change damage is expected to be between $1.7 and $3.1 trillion.[1] At the same time, events such as Europe's recent energy crisis have generated significant market volatility and prompted investors to consider various facets of climate change risks. Given these major costs and impacts, investors are increasingly factoring in climate-related risks when valuing companies. Research suggests with higher environmental ratings tend to generate excess returns compared to their lower-performing peers.[2] As awareness and the financial materiality of climate change grow, climate-related investor

engagements are becoming more common. Launched in 2020, the "Say on Climate" initiative, which encourages companies to disclose climate-related risks, targets and transition plans in line with the Task Force on Climate-related Financial Disclosures (TCFD) framework, drove a spike in shareholder climate proposals in 2021 and 2022, although the number declined somewhat in 2023.[3]

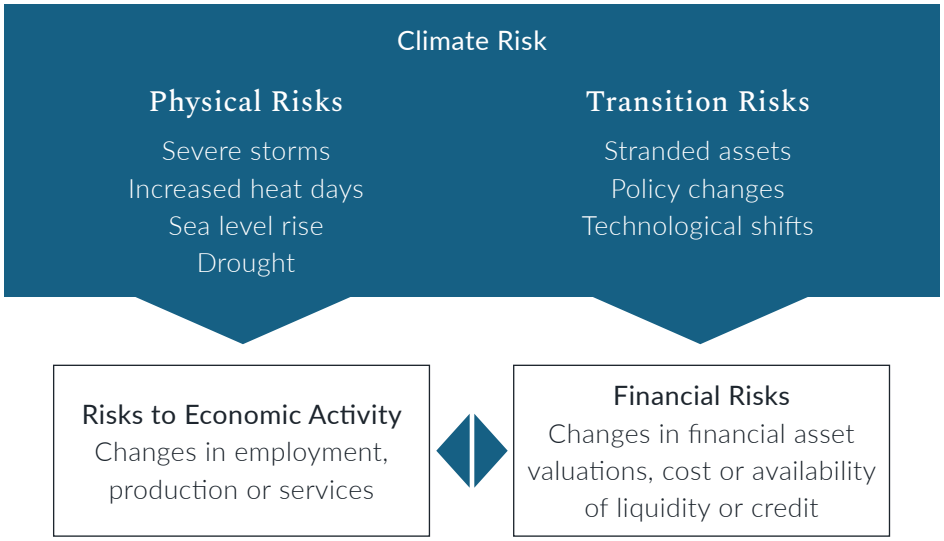
TAKEAWAY: As the effects and costs of climate change continue to become more of a material part of companies' balance sheets, investors and broader stakeholders likely will demand more ambitious corporate climate action.

Technologies to Assess Climate Risks

Climate risks are typically categorized as either physical or transition, with both having profound effects on financial markets and the broader economy (Figure 1).[4] Physical climate risks arise from the changes in frequency and severity of climate events such as increased physical asset damage due to serious flooding. Technology continues to strengthen investors' ability to calibrate physical climate risks at the asset level, such as satellite imagining of methane leakage in oil and gas operations or machine learning applications in predicting wildfire risk.[5] Transition risks, on the other hand, arise when policies, sentiments and technologies shift as the economy moves toward a lower-carbon future. Transition risks such as reputational losses or stranded assets are multifaceted in nature and less easily captured by a single technology.

TAKEAWAY: Physical and transition risks can significantly impact financial markets and the broader economy. Investors can utilize innovative technology and data to assess corporate climate risk exposure, with a particular focus on evaluating physical climate risks at the asset level.

Figure 1: Relationships Between Climate, Economic and Financial Risk



A Growing Focus on Transition Risks

The complex nature of transition risks creates a reliance on direct corporate disclosures to report on the factors a company faces as it shifts away from "business as usual." Many companies are also pledging ambitious "net zero" goals, promising to reduce GHG emissions and balance any ongoing emissions with carbon offsets and removals. The complexity of transition risks and increasing pledges necessitate corporate climate transition plans — a time-bound action plan that clearly outlines how a company will achieve reducing emissions through its existing assets, operations and business model. A clear roadmap outlining how a company will pivot for a low-carbon future could include a diverse range of topics such as verified emissions reporting, GHG reduction targets, capital expenditure on decarbonization and management oversight (Figure 2). Transparent corporate climate transition plans could allow investors to better assess the risks and opportunities that climate change poses to a company's operations.

Figure 2: Components of a Corporate Climate Transition Plan

Targets & TCFD Alignment:
Emissions reduction targets for the short, medium and longterm, as well as TCFD-aligned disclosures, such as scenario analysis

Decarbonization Strategy:
Set of actions to achieve GHG reduction targets over defined timeframes, such as increasing green revenue

Capital Allocation Alignment:
Commits to align capital expenditure plans with long-term reduction targets, or phase out planned expenditures in carbon-intensive assets or products

Just Transition:
Commitment to the Just Transition Principles and development of workforce or supplier transition plans

Governance:
Board committee oversight of climate change risks, including sufficient capabilities and competencies, as well as remuneration implications

Policy Engagement:
Industry advocacy and disclosure of climate-related lobbying activities and trade association memberships

According to the University of Oxford's Net Zero Tracker, almost half of Forbes 2000 companies now have net zero targets, including two-thirds of fossil fuel companies. Yet most do not have robust strategies in place for achieving their targets, and 37% of the world's largest companies have not set any kind of GHG mitigation target.[6] In the future, the wave of net zero pledges should be met by robust corporate climate transition plans to assess and verify such targets.

What's Next?

Regulation, financial materiality linkage and technology continue to drive investors' ability to integrate climate change considerations within investments. However, we expect the transition to a low-carbon economy to be nuanced, as assessing transition risks and opportunities is inherently interdisciplinary and more complex in nature.

Advocacy and engagement for transparent, robust climate transition plans could help drive more effective climate integration within investment decision-making.

- High carbon-intensive industries, such as oil and gas, will particularly be prone to regulatory and societal pressure to disclose their climate transition plans, and are likely to bear a higher burden for short- to medium-term action.
- Standardized components of climate transition plans may enable better year-over-year comparisons, allowing investors to assess industry leaders in the race to decarbonize.

There is no silver bullet to the climate transition. It will take a multipronged approach for companies to pivot outside the business as usual they face today, as well as interdisciplinary perspectives for investors to accurately evaluate climate risks and opportunities.

Glenmede has capabilities in designing portfolios that seek to support the climate transition. For more information, please contact us at SustainableandImpactInvesting@glenmede.com.

[1] World Economic Forum. "Climate change is costing the world $16 million per hour: study." (Oct. 12, 2023). https://www.weforum.org/agenda/2023/10/Climate-loss-and-damage-cost-16-million-per-hour/ (Accessed Oct. 14, 2023).

[2] Geczy, C. C., and J. Guerard. "ESG and Expected Returns on Equities: The Case of Environmental Ratings." Wharton Pension Research Council Working Paper No. 2021-15 (August 2021).

[3] BNP Paribas Asset Management. "Say on Climate Voting: Losing Steam – or Set For a Rebound?" (Sept. 12, 2023). https://viewpoint.bnpparibas-am.com/say-on-climate-voting-losing-steam-or-set-for-a-rebound/ (Accessed Oct. 14, 2023).

[4] Brunetti, C., B. Dennis, Dylan Gates, et al. "Climate Change and Financial Stability." Board of Governors of the Federal Reserve System (March 19, 2021). https://www.federalreserve.gov/econres/notes/feds-notes/climate-change-and-financial-stability-20210319.html.

[5] Patterson, D. H., S. Schmitt, P. Izquierdo, et al. "Geospatial ESG: The Emerging Application of Geospatial Data for Gaining 'Environmental' Insights on the Asset, Corporate and Sovereign Level" (Feb. 24, 2022). Washington, DC: World Bank Group. https://documents.worldbank.org/curated/en/444921645686541299/Geospatial-ESG-The-Emerging-Application-of-Geospatial-Data-for-Gaining-Environmental-Insights-on-the-Asset-Corporate-and-Sovereign-Level.

[6] Net Zero Tracker. Net zero targets among world's largest companies double, but credibility gaps undermine progress. (June 12, 2023). https://zerotracker.net/insights/net-zero-targets-among-worlds-largest-companies-double-but-credibility-gaps-undermine-progress (Accessed Oct. 15, 2023).

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