

The Climate Transition: Investment Drivers in 2022 and Beyond

In our 2021 white paper [Climate Change: Harnessing the Power of Public Capital Markets](#), we outlined three critical drivers of incorporating climate change analysis in public market investments: Regulation and Policy, Financial Materiality and Climate Factor Linkage, and Technology to Assess Climate Risks and Opportunities.

In 2022, the climate investment landscape has made some notable shifts within these drivers. Collectively, we believe these drivers increase the ability of public market investors to incorporate financially material climate-related risks and opportunities into their portfolios.

Regulation and Policy

In March 2022, the Securities and Exchange Commission (SEC) proposed climate-related financial disclosures that would require companies to report on their greenhouse gas (GHG) emissions, the climate-related risks they face and the measures they are taking in response. In addition to disclosure reforms, [the Inflation Reduction Act of 2022](#) earmarks billions toward incentives to drive the U.S. energy transition. These policy measures also echo state efforts to diversify away from fossil fuels and target key carbon-intensive sectors such as transportation. For example, California, the largest car market in the country, recently passed legislation banning the sale of new gasoline-powered vehicles in 2035, a move that will likely 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

Estimated losses from climate catastrophes in 2022 are already hitting record figures, exceeding \$1 billion just in the U.S. as of this writing.¹ Other major events, such as Europe's energy crisis, have also triggered record market volatility, prompting investors to more closely examine the many facets of climate change risks. Investors are now increasingly incorporating climate-related risks in valuations, as some research has found that U.S. companies with higher environmental ratings produce excess returns relative to lower-performing peers.² As awareness and financial materiality of climate change grow, climate-related investor engagements are also increasing. The number of "Say on Climate" shareholder proposals, an initiative that asks companies to disclose climate-related risks, targets and transition plans in line with the Task Force on Climate-related Financial Disclosures (TCFD) framework, reached its highest level in 2022.³

¹ NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2022). <https://www.ncei.noaa.gov/access/billions/> (accessed Sept. 16, 2022).

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 2021 Climate & Voting Review and Global Trends. Harvard Law School Forum on Corporate Governance.



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.

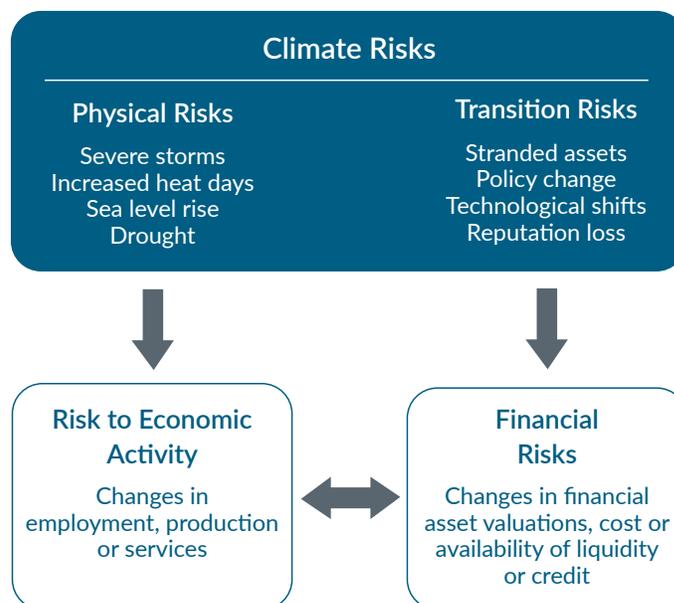
Technologies to Assess Climate Risks

Climate risks are typically categorized as either physical risks or transition risks, with both having profound effects on financial markets and the broader economy (Figure 1).⁴ Physical climate change risks arise from the changes in frequency and severity of climate events such as increased physical asset damage due to severe flooding. Technology continues to strengthen investors' ability to calibrate physical climate risks at the asset level, such as satellite imaging 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 thus multifaceted in nature and less easily captured by a single technology.

TAKEAWAY

Physical and transition risks may have profound effects on financial markets and the broader economy. Investors can leverage innovative technology and data to evaluate corporates' climate risk exposure, particularly physical climate risks at the asset level.

FIGURE 1: Relationships between Climate, Economic and Financial Risk



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, D.C.: 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>.



2022 and Beyond: A Focus on Transition Risks

The complex nature of transition risks creates a reliance on direct corporate disclosures to report on the unique variety of 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).⁶ 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 long-term, as well as TCFD-aligned disclosures, such as scenario analysis
	Decarbonization Strategy	Set of actions to take to achieve GHG reduction targets over targeted timeframes, such as increasing green revenue
	Capital Allocation Alignment	Commits to align capital expenditure plans with long-term reduction targets, or phase out planned expenditure 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, more than one-third of Forbes 2000 companies now have net zero targets, primarily from the services industry, followed by manufacturing and materials. Yet, 65% of corporate net zero targets do not meet minimum standards of robustness, according to the Tracker.⁷ The recent wave of net zero pledges must be met by robust corporate climate transition plans to assess and verify such targets. Efforts such as Climate Action 100+ Net Zero Company Benchmark strive to create transparency around corporate transition plans, while organizations like the Science-Based Target Initiative (SBTi) may provide the interdisciplinary expertise needed to verify net zero claims.

⁶ Climate Action 100+ Net Zero Company Benchmark (March 2022). <https://www.climateaction100.org/wp-content/uploads/2021/10/V1.1-Disclosure-Framework-assessment-methodology-Oct21.pdf>.

⁷ Net Zero Tracker. Energy and Climate Intelligence Unit, Data-Driven EnviroLab, NewClimate Institute, Oxford Net Zero (2022).



Looking Forward

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 we 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.

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