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The Climate Transition Is Increasingly About Opportunity

The cost competitiveness of green technologies adds to reasons for investors to act

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Introduction

The climate transition is increasingly beckoning for investment.

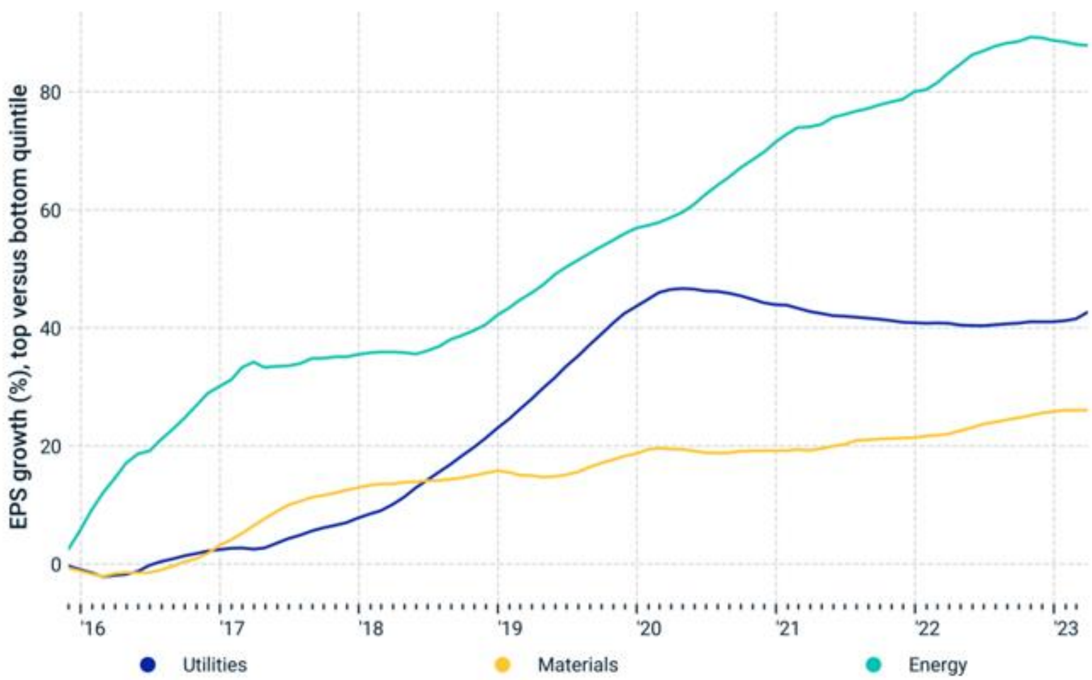
Investors are more able than ever to turn the risks of the shift to a net-zero economy into opportunities, thanks in part to innovation and policies that have lowered the cost of transition technologies.

The current picture contrasts with that of a year ago, when Russia's invasion of Ukraine threatened to derail the world's already difficult path to net-zero. Though the war continues, concerns over energy security that it triggered in the short term are giving way to the realization among capital-markets participants that climate action represents one of the greatest commercial opportunities of our time.

Reasons to act

The available evidence suggests that companies which seize opportunities associated with the net-zero transition can create sustainable value. We have found that in the most emissions-intensive sectors, for example, companies that had a higher share of revenue from alternative energy, energy efficiency and green buildings had significantly faster earnings growth than their sector peers over a period of roughly seven-and-a-half years that ended on March 31, 2023.

Exhibit 1: Faster earnings growth associated with more green revenue



Source: MSCI ESG Research, based on data for the Global Industry Classification Standard (GICS®) sectors from Nov. 30, 2015, to March 31, 2023. GICS is the global industry classification standard jointly developed by MSCI and S&P Market Intelligence. The analysis included constituents of the MSCI ACWI Investable Market Index (IMI) as of April 13, 2023.

Climate-friendly industrial policies are now expanding the investment opportunity by lowering the cost of decarbonization. The Inflation Reduction Act and infrastructure law in the U.S. and the European Union's Green Deal Industrial Plan aim to lower the total cost of investment in wind and solar, batteries, electric vehicles, carbon capture and storage, low-emissions manufacturing and other technologies at the core of the climate transition.[1] China and India are also targeting massive investment in renewable power.[2]

Speed matters both for the sake of the planet and the creation of long-term sustainable value. The U.N. Intergovernmental Panel on Climate Change (IPCC) affirmed in March that the window for avoiding the costliest warming is rapidly narrowing.[3] Decarbonizing the global economy at speed also cancels out climate-related financial risk. An orderly transition, in which governments introduce forceful policies early and gradually, would prevent the loss of nearly USD 8 trillion in the market value of listed companies, our analysis of climate scenarios as of April 2023 shows. A disorderly transition, in which decarbonization only begins in earnest in the early 2030s, would cost listed firms roughly 2.5 times more.

The challenge is deployment, not invention

A low-carbon transition sufficient to meet global primary energy needs would require at least USD 2.2 trillion in annual average investment in low-carbon technologies and infrastructure each year between now and 2050, our analysis of the "Net Zero 2050" scenario developed by the Network for Greening the Financial System (NGFS) found.[4] This would amount to more than USD 60 trillion between now and 2050.

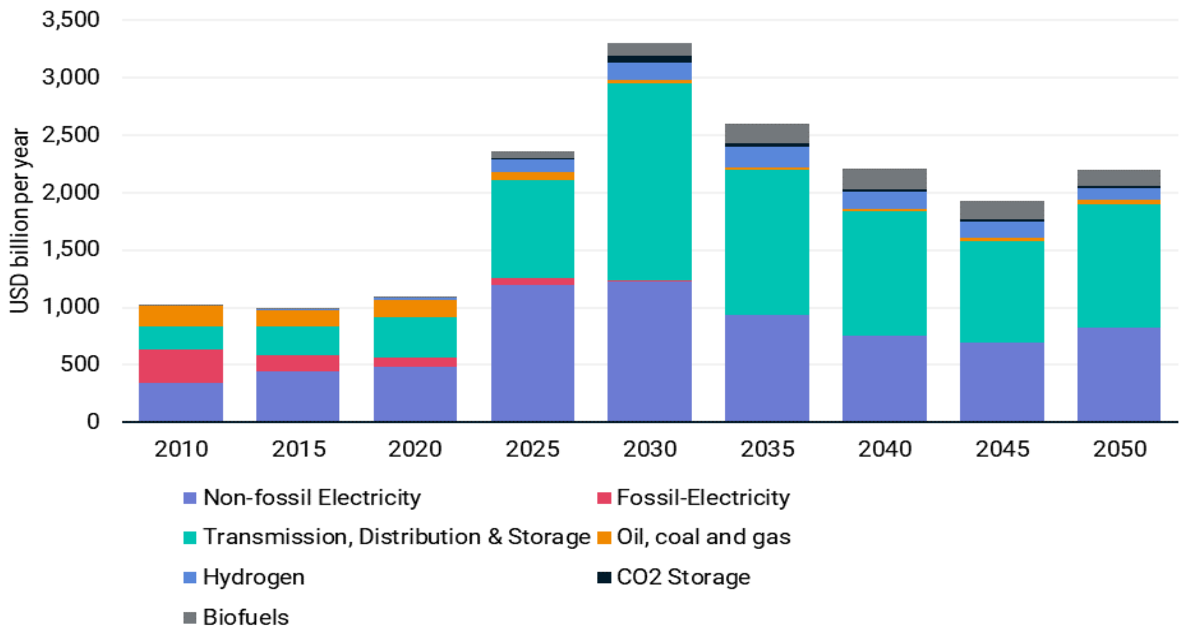
[1] For the U.S. see "Inflation Reduction Act of 2022." Public Law No: 117-169, Aug. 16, 2022; the "Infrastructure Investment and Jobs Act." Public Law No: 117-58, Nov. 15, 2021. For the EU, see "The Green Deal Industrial Plan", European Commission, Feb. 1, 2023.

[2] "Renewables 2022." International Energy Agency, December 2022.

[3] "Synthesis Report of the IPCC Sixth Assessment Report (AR6)," Summary for Policymakers. IPCC, March 19, 2023.

[4] Analysis by MSCI ESG Research of the NGFS' "Net Zero 2050" scenario. See "NGFS Climate Scenarios for central banks and supervisors." NGFS, September 2022.

Exhibit 2: Annual investment in energy supply needed to align with a net-zero 2050 pathway



Source: MSCI ESG Research as of April 2023, based on NGFS data.

These figures are solely for decarbonizing energy — renewable electricity, grid expansion, batteries, carbon dioxide pipelines, biofuels and hydrogen — and do not include, for example, investment in emissions-reducing options such as electric vehicles, energy efficiency or agricultural carbon sequestration.[5] Nor do they include spending on the restoration of ecosystems, reforestation or adaptation. The International Energy Agency has said that global investment in the broader energy transition will need to reach an additional USD 4 trillion per year by 2030 to stay aligned with global climate goals.[6]

Exhibit 3: Cost-competitive opportunities to decarbonize are multiplying

Sector to be decarbonized	Potential emission reductions ($GtCO_2$-eq/year)	Potential emission reductions in sector with net life cost below USD 20/ton
Energy supply	14	59%
Infrastructure	7	54%
Industry and waste	8	37%
Land, water and food	14	21%

Source: MSCI ESG Research estimates, as of April 2023, based on "Climate Change 2022: Mitigation of Climate Change." IPCC. April 2022.

[5] "Finance for climate action: Scaling up investment for climate and development." Report of the Independent High-Level Expert Group on Climate Finance, November 2022.

[6] "Net Zero by 2050." International Energy Agency, May 2021.

Importantly, the costs of many of these solutions are increasingly at par with more carbon-intensive alternatives; that is, they are both technically feasible and economically attractive. Technologies that can reduce global emissions by half of the 2019 level by 2030 are available for under a cost of USD 100 per ton, the IPCC notes.[7] Some areas of the economy are more ready than others. Of that opportunity set, more than half of energy supply and infrastructure can be decarbonized with technologies that are cost-competitive below USD 20 per ton. Industry and waste, by contrast, as well as businesses involved in land, water and food, face steeper decarbonization paths through 2030.

All that renewable power only matters, of course, if it can connect to the grid. Investors and other capital-markets participants who prefer an orderly transition may want to push for policies that promote siting, interconnection and expanding the capacity of transmission lines needed to connect renewable energy and storage to the grid and bring clean power online.[8]

The net-zero revolution isn't self-driving, yet

Opportunity notwithstanding, there remain relatively few companies providing climate solutions in public markets. Only around 1,800 of the world's listed companies earned any money from alternative energy or energy efficiency, our analysis shows as of March 31, 2023.[9] For most, it's still a side hustle: only 155 companies (1.7% of the listed universe), with a total market cap of USD 1.6 trillion, earned more than half of their revenues from such activities, our analysis finds.[10]

Some of the investment in the energy transition is taking place in private markets, where investors have poured USD 65 billion into renewable energy and clean technology since 2020.[11] The concentration of climate-related alternative investments underscores the need for transparency in unlisted markets, which house a variety of infrastructure providers whose businesses comprise more than clean tech. Investors have made strides in shining a light on the carbon emissions intensity of such firms but still know relatively little about their climate strategies, value chains and decarbonization targets.[12] You want to know more about the next unicorns but you also want to know which companies are driving the climate transition.

Indeed, investors would benefit from a deeper understanding of the credibility of corporate climate targets in both public and private markets more broadly. We found in our data that many of the more than 3,800 listed companies (42% of that universe) that have published a decarbonization target, for example, do not explain how they plan to meet their climate-related goals, as of April 2023. Information about the investments companies will make, the technologies they would back or the quality and quantity of carbon credits they might use remains fuzzy. We welcome efforts by financial

[7] "Synthesis Report of the IPCC Sixth Assessment Report (AR6)," Summary for Policymakers. IPCC, March 19, 2023.

[8] "Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035." National Renewable Energy Laboratory, Aug. 30, 2022.

[9] Represented by the MSCI ACWI IMI, which captures large, mid and small cap representation across 23 developed-market and 24 emerging-market countries. With 9,144 constituents, the MSCI ACWI IMI covered approximately 99% of the global equity investment opportunity set, as of March 31, 2023.

[10] MSCI ESG Research, based on data as of February 2023.

[11] "The Critical Role Private Equity Plays in America's Energy Transition." American Investment Council, April 2023.

[12] "Understanding Carbon Exposure in Private Assets." MSCI Research, Oct. 14, 2021. See also, "New Frontiers in Carbon Footprinting: Private-Equity and -Debt Funds." MSCI Research, Nov. 29, 2021.

regulators to require companies to disclose information about their climate targets, through regulations either in force or proposed.

The massive reallocation of capital needed to ensure the long-term health of the planet presents risks and opportunities for companies and portfolios. One potential facet of a climate-aware investment strategy focuses on reducing the emissions of investments. A second focuses on sharpening expectations of what companies will do in the future, using targets and forward-looking measures of portfolio alignment. A third is making opportunity part of an investment strategy by channeling capital to companies that can speed up the decarbonization of the global economy.

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