Insights
Fundamental Growth and Core Equity

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Evaluating Climate Transition Strategies

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The Energy, Communications Services, and Financials sectors provide clear examples of climate transition challenges and opportunities.

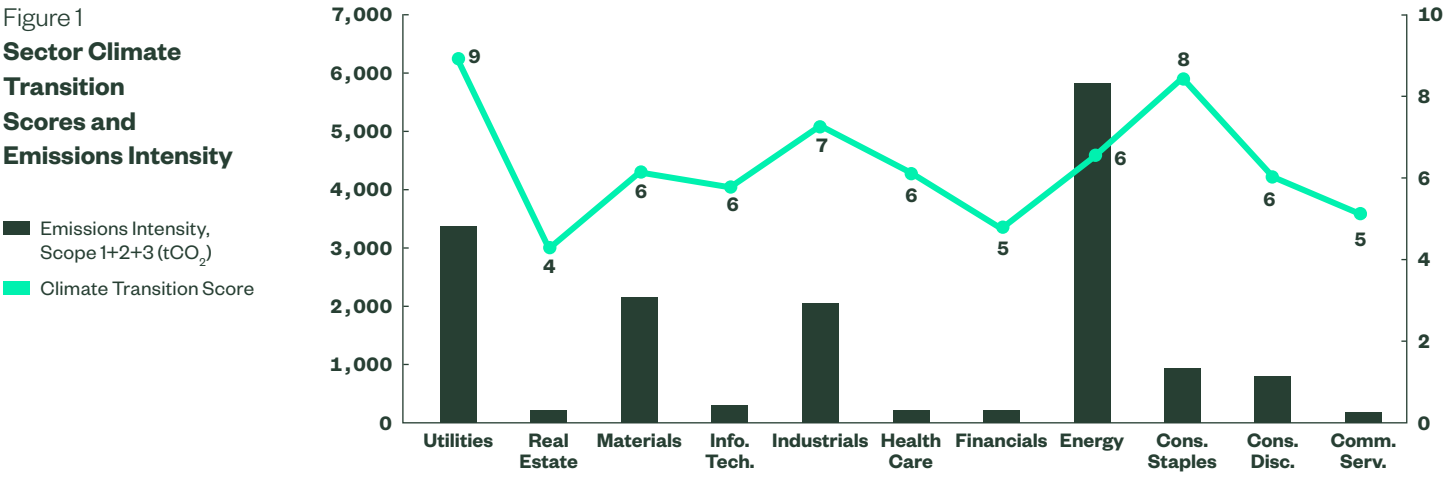
As long-term investors, we recognize the potential threat of climate change to our investments. And as fundamental investors we need to know whether our portfolio companies have adequately identified the risk that climate change could pose, have assessed its impact, and have come up with a credible climate transition strategy.

Developing an understanding of how companies are going to mitigate their risks and execute a climate transition plan is essential to our investment process. We expect corporates to credibly specify their exposure to climate risks and set out a clear roadmap to address these issues. These strategic plans should also address the opportunities that the global transition to net zero economies will provide.

To better understand the climate transition strategies in the Fundamental Growth and Core Equity (FGC) team's investment universe, our research process aggregates data from a bottom-up analysis and populates a comprehensive scorecard. The Climate Transition Scores that are generated help us identify the companies, and sectors, that are best placed to manage the risks ahead and best able to capture related opportunities. Figure 1 displays aggregate Climate Transition Scores by sector, as well as the emissions intensity of those sectors.

Figure 1

Sector Climate Transition Scores and Emissions Intensity



Source: S&P Trucost. Universe of stocks = MSCI ACWI. Emissions intensity reflects Scope 1, 2, and 3 emissions. Scope 1 and 2 emissions are those that are owned or controlled by a company, whereas Scope 3 emissions are a consequence of the activities of a company but occur from sources not owned or controlled by it.

The FGC team seeks to identify high-quality companies that score high on having a climate transition strategy. We are less focused on their starting point, and we believe that leaders on the path to a decarbonized world can come from a variety of sectors.

Based on the emissions-intensity metric, Energy is the "hardest to transition" sector, whereas Communication Services would be one of the "easiest to transition" sectors. The Financials sector scores favorably on its Scope 1 and 2 emissions, but its financed emissions and lending make climate transition more difficult. Financials are also in a unique position as enablers of the climate transition, serving as an intermediary to facilitate and support the transition strategies of their clients. All three of these sectors present opportunities for fundamental investors.

Energy

Why is the Energy sector viewed as hard to transition?

The Energy sector is highly carbon-intensive and emits CO_2 throughout its value chain. About 15% of global greenhouse gas (GHG) emissions come from the drilling for oil and gas, processing it, and transporting it to consumers.[1] CO_2 emissions come from the energy consumed along the oil and natural gas value chains, as well as from leaks of CO_2 and methane to the atmosphere. To bring an average barrel of oil to end-users, 95 kg of CO_2 equivalent is emitted. There is a wide range of emissions for different types of oil. The highest 10% by production emissions has an intensity of over 200 kg of CO_2 per barrel of oil equivalent (eq/boe). For natural gas, global average Scope 1 and 2 emissions are around 100 kg of CO_2 per eq/boe.[1]

How are Energy companies supporting their climate transition plans?

The global Energy sector is undergoing a dynamic and rapid transition. Investment in fossil fuel supply ramped up during the early 2000s and peaked in 2014. Since then, fossil fuel supply investment has been gradually replaced by increasing investment in renewables and grid reinforcement. Investor pressure and regulatory action have pushed oil and gas companies into cutting GHG emissions, and the industry has responded with targets to reduce its Scope 1, 2, and 3 GHG emissions as well as its overall carbon intensity.

The global oil industry has become more capital-disciplined and is limiting the growth of its hydrocarbon business. Investment in green energy is also a new priority. For US oil majors, about 15% of capex goes to green transition investments, which are funded from hydrocarbon cash flows.[2] The global energy majors are now moving to electrify their own oil platforms and are investing in renewable power generation, which will help to lower the CO_2 intensity associated with their own operations (Scope 1). Improving operational efficiency and shifting toward natural gas, renewable-power generation, hydrogen, and biofuel could reduce the carbon intensity of each unit of energy sold by 65%.[3] Investment in carbon capture, utilization, and storage (CCUS) can help address remaining Scope 3 emissions. The International Energy Agency (IEA) estimates that oil and gas companies must reduce the emissions intensity of operational Scope 1 and 2 GHG emissions by 44% by 2030 from the 2018 level.[4]

Most of the global energy majors have announced emission-reduction commitments, but European oil majors have the most ambitious targets. They have an average CO_2 intensity-reduction target of 18% by 2030, ahead of the 9% target that the world is currently tracking.[5] European energy companies have not only accelerated the decarbonization process but also embarked on a strategy of transitioning from identifying as traditional oil companies to operating as integrated multi-energy companies. An energy-mix shift toward renewables, hydrogen, and biofuels provides energy security, facilitates economic growth, and limits carbon emissions.

What are the challenges?

Although energy companies have ramped up their transition plans, they still need to accelerate the green transition investment process. Currently, only 1% of capex goes to non-core assets.[6] The IEA's Net Zero Scenarios' (NZE) energy supply investment requirements are 2.6x today's low levels.

Maintaining the required continuous funding for a deeply cyclical industry is also a major challenge. If energy prices correct substantially, in the long run this can lead to funding problems for new green energy projects. Capital restrictions could also affect energy companies' ability to fund investments. Financial institutions could decide to raise the cost of capital substantially or restrict the amount of funding to oil and gas projects.

All of these factors could drive up the cost of capital and limit an energy company's ability to access funding to execute an energy transition strategy. Although European oil majors like BP, Shell, and Equinor have improved their green capex by over 10% since 2015, the majority of their peers in Asia have been slow to address the issue and have yet to develop comprehensive GHG emission-reduction strategies.

What are the opportunities?

Energy companies have a re-rating opportunity if they execute well on their energy transition strategies. The industry has been penalized by investors for low ESG scores, but companies are now making their businesses more sustainable by shifting the energy mix toward renewables, hydrogen, and biofuels. The path to net zero for energy companies is going to be arduous, but investors will eventually want to pay a higher multiple for companies with cleaner energy portfolios that can generate satisfactory returns from green energy projects.

Communications Services

Why is the Communications Services sector viewed as easy to transition?

The Communications Services sector comprises ten sub-industries that represent a variety of technology, media, and telecom companies. These sub-industries provide services to consumers and businesses that are monetized through advertising and subscriptions, as well as through fees for products and services. These businesses are generally enabled by engineering and technology and rely on data centers as well as telecommunications and cable infrastructure to deliver their services. These facilities generally have built-in redundancies to address physical risks from natural disasters.

The largest sub-industry, Interactive Media, represents nearly 60% of the market cap of the sector. The two largest companies in Interactive Media, Alphabet (Google's parent company) and Meta (Facebook's parent company), have been leading the transition to a carbon-free world. Google became carbon neutral in 2007 and aims to be the first major company to operate on 24/7 carbon-free energy by 2030.[7] Meta achieved net zero in its direct operations in 2020, having reduced emissions by 94% since 2017.[8] Meta's 2030 goal is to reach net zero GHG emissions across their value chain.[9] Both companies are utilizing their strategic engineering and technology competencies to advance their efforts.

Innovations in data center energy efficiency have been evolving for many years. Google's 2020 Environmental Report cites an article from Science.org summarizing that "the amount of computing done in global data centers increased by about 550% between 2010 and 2018, while the amount of energy consumed by data centers grew by only 6% during the same period." So, while data centers now power more applications for more people than ever before, they still account for about 1% of global electricity consumption — the same proportion as in 2010.[10] Several other companies in the sector are fast-followers. T-Mobile sourced 100% of its electricity usage from renewable sources in 2021, up from 19% in 2019.[11] Collectively, these companies provide a roadmap for other firms that are in the earlier stages of setting their carbon transition targets.

How are companies supporting their plans?

The sector leaders noted above have visibly elevated climate as a corporate priority. In order to achieve their 2030 goals, they are focused on sourcing renewable and clean energy, and improving internal energy efficiency. In addition, Alphabet has incorporated the achievement of climate goals into executive compensation plans and has established direct Board oversight. Other companies are in varying stages of adoption, reporting, and Board involvement. Almost all share their progress on lowering GHG emissions via annual reporting.

What are the challenges?

The challenges include bridging a company's desire to achieve net zero to a plan that may be dependent on future technological innovation. In addition to internal efforts, some companies are investing to accelerate third-party innovation. Alphabet and Meta, along with Stripe, Shopify, and McKinsey, recently announced a commitment of $925 million over nine years to purchase permanent carbon removal from suppliers that are developing promising new solutions. The goal is to accelerate the development of permanent carbon-removal technologies by guaranteeing future demand — similar to the strategy that was used to accelerate Covid-19 vaccine development. This is the first time this model is being applied to carbon removal at scale.[12]

What are the opportunities?

The opportunities include leveraging best practices and breakthrough innovation across the industry and ideally, across all industries. In addition to the potential opportunities arising from the development of the permanent carbon-removal solutions referred to earlier, the widespread sharing of best practices is also an area of opportunity. On average, a Google data center is twice as energy-efficient as a typical enterprise data center.[13] Google publicly shares best practices based on its vast data center experience, including: measuring power use effectiveness; managing airflow; adjusting the thermostat; using free cooling methods; and optimizing power distribution.[14]

In addition, most companies in the sector have direct consumer relationships. This provides the occasion to supply consumers with tools, information, and services to make well-informed sustainability choices. Google is pursuing this opportunity with a variety of features across its products as part of the company's goal to help one billion people make more sustainable choices by 2022 (e.g., choosing eco-friendly routing on Google Maps, booking flights or purchasing appliances that have lower carbon footprints, or using a Nest thermostat to drive more efficient home energy use).[15]

Financials

What roles are banks playing in the climate transition?

Banks have stepped up their efforts to develop climate transition strategies. A number of factors have triggered the pick-up in momentum. First, a number of banks have joined the Net Zero Banking Alliance (NZBA), which serves as a catalyst for improving disclosure and setting transition targets. Second, regulators have been very clear in their intent to use supervisory scrutiny to push banks down the decarbonization path. The IFRS[16] has set up a new Sustainability Standards Board (SSB) that aims to develop a comprehensive global baseline of sustainability disclosures for capital markets. Third, banks want to position themselves for the growth opportunity in green financing. Green financing is playing a critical role in supporting banks' transition strategy because it helps raise more sustainable sources of revenues and assists banks in their role as an enabler of the transition for their clients.

What are the challenges?

Climate change will likely lead to significant risks for the Financials sector, both through physical impacts and transition to a net zero carbon economy. Transitioning to a lower-carbon economy will entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

Physical risks resulting from climate change can be event-driven (acute) or driven by longer-term shifts in climate patterns (chronic).[17] Transition and physical risks can create material risks to the creditworthiness of the banks' borrowers and asset values. Banks need to understand and measure these risks in order to assess their operational resilience and take action accordingly. Banks need to set out a clear strategy for their climate objectives and align their exposures accordingly. Banks that have not developed an adequate strategy are exposing shareholders to transition, legal, regulatory, and reputational risks. However, a comprehensive decarbonization strategy requires a level of disclosure of the banks' clients' own emissions that is currently neither uniformly nor comprehensively reported.

What are the opportunities?

Banks have increased their commitments to green financing, and fundamentally this is a huge opportunity for the sector. According to GFMA/BCF,[18] an estimated $100–150 trillion in cumulative investment is needed globally through 2050 to achieve the 1.5C target across the top-emitting sectors. On average, this equates to around $3–5 trillion in investment per annum. While corporates have the operational flexibility to finance these needs, about half of the funding is expected to come from internal resources with the rest coming from loans and equity and bond financing.

As global demand for sustainable finance continues to surge, banks will serve as an important intermediary in the climate transition. Commercial finance institutions have increased their share of private climate finance from 18% in 2017/2018 to 39% in 2019/2020.[19] This reflects the fact that banks' green financing commitments have surged in the last three years. But banks' roles go beyond capital as they engage with customers, providing an advisory service to help their clients address climate transition needs and support cross-sectoral and public/private partnerships. Banks will also be active participants in creating efficient carbon-trading markets, which will become an important function in helping develop the market structure for climate finance.

Bottom Line

The FGC team's systematic approach to analyzing companies from a bottom-up perspective helps us to understand their climate transition strategies. We utilize our Climate Transition scorecard to look for opportunities, both in "hard to transition" sectors (as defined by the high GHG emissions intensity) as well as in "easy to transition" sectors. We focus on how a company's specific climate strategies will help them to navigate the structural challenges and opportunities they face at a sector level.

We believe that the leading companies of the net zero future will be those that have made the commitment to a decarbonization pathway, have presented concrete metrics to track their progress, and have Board expertise and remuneration policies aligned with this commitment. Disclosure and transparency are also crucial elements in engaging shareholders and allocating capital for corporates' transition strategies.

Endnotes

1 The Oil and Gas Industry in Energy Transitions, IEA 2020.

2 Source: IEA — International Energy Agency.

3 Source: The Oil and Gas Industry in Energy Transitions, IEA 2020.

4 Source: Credit Suisse research.

5 Source: The OIl and Gas Industry in Energy Transition IEA 2020.

6 Source: The OIl and Gas Industry in Energy Transition IEA 2020.

7 https://sustainability.google/commitments/carbon/.

8 https://sustainability.fb.com/climate/.

9 https://triplepundit.com/story/2021/meta-net-zero/732801.

10 https://gstatic.com/gumdrop/sustainability/google-2021-environmental-report.pdf.

11 https://.t-mobile.com/responsibility/sustainability/renewable-energy.

12 https://abc.xyz/investor/static/pdf/frontier_carbonremoval_pr.pdf.

13 https://sustainability.google/progress/#data-centers.

14 https://google.com/intl/it_ALL/about/datacenters/best-practices.html.

15 https://blog.google/outreach-initiatives/sustainability/sustainability-2021/.

16 International Financial Reporting Standards Foundation.

17 Based on TCFD terminology.

18 GFMA/BCG Report on "Climate Finance Markets and the Real Economy."

19 Climate Policy Initiative "Global Landscape of Climate Finance 2021."

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- Build from breadth
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* Pensions & Investments Research Center, as of December 31, 2020.
† This figure is presented as of March 31, 2022 and includes approximately $73.35 billion USD of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.