ESG Asset Class Report (Abridged)

30 September 2024

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Executive Summary

While few of the sectoral initiatives announced during COP28 are likely to contribute significantly to closing the emissions gap, the upcoming COP29 conference in Azerbaijan features ambitious goals and action plans. Stay tuned.

Our ESG Outlook and ESG Engagement levels for the sub-asset classes we assess remain largely unchanged from the second half of 2023. Some takeaways from our last review include:

Sovereigns

We maintained a Stable outlook with a positive bias for the UK. The new Labor government is more committed to its net zero pledges. It has already reversed some of the watering down of commitments we saw at the tail end of the previous government. The decline in greenhouse gases exceeds that of the EU. The UK's gender pay gap is also on a long-term improving trend. Governance continues to be world-leading, currently focusing on anti-greenwashing enforcement. Funding remains an issue, with little fiscal room to increase climate spending given the weak growth environment and other spending commitments.

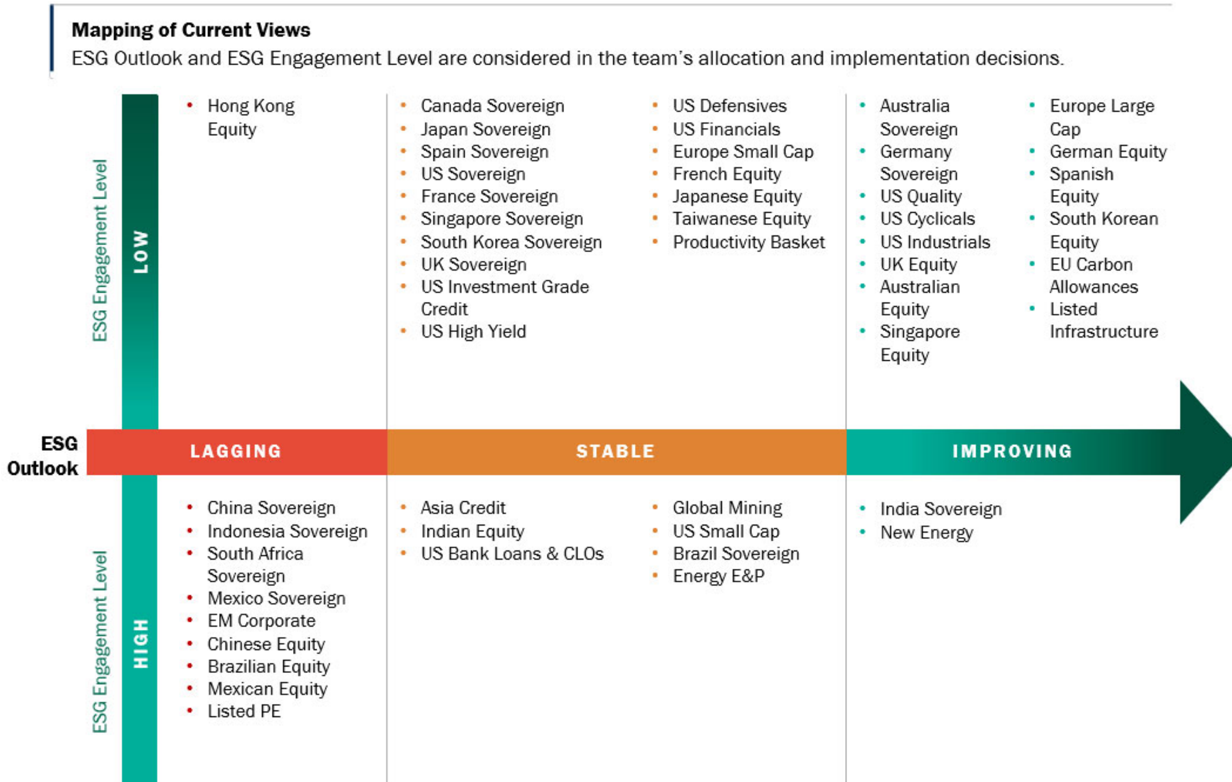
Equities

We maintain the same views on allocations. However, for our Productivity basket allocation, which focuses on the Technology/AI sector, we currently have a Stable outlook with a negative bias due to the risks facing the global software industry, including environmental concerns regarding energy consumption and electronic waste, social issues such as data privacy and diversity, and governance challenges related to ethical practices and cybersecurity. Similarly, for UK Equities, we have an Improving outlook with a negative bias due to the high gender pay gap and new listing reforms, which risk diluting investor protections.

Fixed Income

Our fixed income Outlooks and Engagement Levels were unchanged versus the second half of 2023 across regions and sectors. While we acknowledge decarbonization targets and efforts in emerging markets, EM credits remain challenged by reliance on fossil fuels and human rights concerns. On a positive note, companies are being rewarded for improved disclosures. In the US, while we see differences primarily driven by sector composition, we do not see any catalysts significant enough to change our current views.

The chart below summarizes our most recent asset class review for the 50+ sub-asset classes we cover in this report.



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Special Focus: The Technology Sector

Artificial Intelligence

ESG-related risks facing the global software industry include environmental concerns regarding energy consumption and electronic waste, social issues such as data privacy and diversity, and governance challenges related to ethical practices and cybersecurity. These risks, however, also present opportunities for the industry to prioritize sustainability, enhance data protection and privacy, foster diversity and inclusion, and strengthen cybersecurity – not only within the tech industry but across all industries. Our strategy (Productivity Basket) features companies that are driving innovation as it relates to sustainable business practices.

Environment

Energy consumption – current state. Training large AI models requires significant energy, as it involves running extensive data processing operations on powerful servers. Who are the major emitters? Well, it's the cloud service providers that operate large datacenters that host and run AI applications for clients. The datacenters themselves are the primary emitters, given that they house the servers and infrastructure that handle the computational power. They also require huge amounts of water for cooling, which is a strain on local water sources.

Researchers at the University of Massachusetts, Amherst, performed a lifecycle assessment for training several common large AI models. They found that the process can emit more than 626,000 pounds of carbon dioxide, which is equivalent to approximately five times the lifetime emissions of an average American car (including manufacturing of the car itself).

Energy consumption outlook. Companies and research institutions are investing in more energy-efficient hardware, exploring algorithms that require less computational power, and leveraging renewable energy sources to power datacenters.

Training large AI models, especially deep learning models, requires substantial computational power, often involving datacenters with thousands of GPUs or specialized hardware. This consumes significant amounts of electricity, which can contribute to carbon emissions if the energy source is not renewable.

Social

Data privacy – current state. Concerns have arisen about who has access to AI data, how it is stored, and the safeguards in place to prevent unauthorized access or leaks. There is a lack of transparency and control, with many AI systems operating as "black boxes."

AI systems can unintentionally perpetuate or amplify biases present in training data, leading to discriminatory outcomes. This is particularly concerning in areas such as hiring, lending, law enforcement, and healthcare, where biased algorithms can affect employment, credit access, legal outcomes, and medical treatment.

Data privacy – short term outlook. The short-term outlook is increasingly focused on company-specific protocols, with businesses tailoring their approaches to ensure compliance with evolving standards. The FTC has issued warnings, emphasizing the need for stricter adherence to privacy regulations. As a result, companies are incorporating more disclaimers and transparency in their data handling practices to mitigate risks and avoid regulatory penalties.

Data privacy – longer-term outlook. Regulators will try to enforce existing privacy laws in the AI realm, lawmakers will propose new bills, and courts will grapple with novel dilemmas.

Governance

The rapid evolution of AI poses challenges for governments and regulating bodies to keep pace, leading to potential gaps in oversight. We're currently seeing unevenness in the approach to regulation. For our Productivity basket allocation, which focuses on the Technology/AI sector, we currently have a negative bias on the outlook due to the reasons above.

Special Focus: UK Equity and Sovereign

We maintain an Improving outlook with a negative bias for UK equity and a Stable outlook with a positive bias for the UK sovereign.

The new Labor government is more committed to its net zero pledges. It has already reversed some of the watering down of commitments we saw at the tail end of the previous government. The UK's decline in greenhouse gases is better than that of the EU, and its gender pay gap is also on a long-term improving trend. Governance continues to be world-leading, currently focusing on anti-greenwashing enforcement. Funding remains an issue, with little fiscal room to increase climate spending given the weak growth environment and other spending commitments.

Environment

The UK became the first G20 country to make it mandatory for large businesses to disclose their climate-related risks and opportunities, in line with TCFD recommendations.

The Green Finance Strategy offers incentives for UK-based corporations and will drive the Environment pillar. It is designed to encourage British companies to improve their environmental practices but lacks the financial muscle seen elsewhere in developed markets.

The FCA continues to drive ESG-related governance with its focus on fighting "greenwashing" by asset owners and funds and is preparing a proposal for a Code of Conduct for ESG data and rating agencies. It has, however, started loosening the listing regime to improve competitiveness.

The Sustainability Disclosure Requirements (SDR), an important part of the UK's Green Finance Roadmap, will introduce reporting requirements and a sustainable investment labeling system.

The UK's share of electrical production from renewables, as well as baseline water stress, is among the worst compared to its peers. But it has set a target to achieve a fully decarbonized power sector by 2035.

As in other DM countries, a focus on reducing carbon emissions is the driver of improvement in the "E" portion of ESG.

Social

The UK has made notable progress in its gender pay gap and board diversity, with the Parker Review update for 2023 showing that 96 out of 100 companies now have at least one board member from an ethnic minority (up from 47 in 2016).

Governance

Governance continues to improve, with the implementation of the Stewardship Code and planned reforms to the Corporate Governance Code and corporate transparency.

Governance and adherence to a broader EU set of rules will likely result in an improving "G" score.

Our ESG Review Process

Our ESG semiannual review of 50+ sub-asset classes aims to produce two important indicators for each asset class: (1) the ESG Outlook focused on forward-looking improvements, and (2) the ESG Engagement Level, which informs the level of ESG risk present and the expected engagement needed to drive improvement. We use the insights from this process to evaluate their likely impact on cash flows and capitalization rates as part of our Capital Market Line (CML) modeling and global asset allocation. Our ultimate goal is to seek and foster sustainable business practices through our investments, thus providing better outcomes for our clients.

1 ESG Outlook

We believe forward-looking improvements in ESG will support cash flows and result in a more generous discount rate, driving investor value. We develop our ESG Outlook by:

- **Spotlighting the E, S, and G trends for both the current state and the areas of ESG improvement for each asset class.**

  We built a series of individual E, S, and G factors and combined ESG historical trend lines to assist our research. We use proprietary tools and third-party data from MSCI, Bloomberg, and the Sustainability Accounting Standards Board ("SASB"), which provide the current status and recent trends for E, S, and G, as well as ESG overall for each asset class. For sovereigns, we have developed a proprietary framework incorporating publicly sourced ESG factors to assess countries' exposures to, and management of, ESG risks.

- **Understanding the recent improvement trends and current state for each of the E, S, and G pillars.**

  This provides a baseline to frame the ESG Outlook and ESG Engagement Level. We then drill down to understand each asset class's history and its current E, S, and G status. When a security skews these results, it becomes a useful guide for the team to identify which companies need to be engaged with, and which issues need to be addressed.

  The art is in identifying the potential catalysts of forward-looking improvement to move us above or below the existing trajectory. To complement our ESG research, we discuss and debate ESG-related changes underway at the asset class level with our bottom-up specialists, and then independently decide whether the forward-looking ESG Outlook is "Improving," "Stable," or "Lagging." We also place a special focus on certain E and S characteristics of global importance for each sub-asset class, specifically carbon emissions and board gender diversity, as well as the wealth gap for sovereigns (i.e., Gini coefficient).

2 ESG Engagement Level

Engagement is a key component of our ESG improvement philosophy, particularly when we see potential in investments that are lagging on ESG.

The ESG Engagement Level reflects our assessment of the ESG risk if we were to invest passively in the asset class. The associated level of engagement we prescribe (Low or High) refers to what is required of investors, in our view, to drive enough ESG improvement given the asset class's current state, historical ESG trends, and degree of potential improvement in the asset class.

For instance, a "High" Engagement Level indicates the asset class's current ESG state is not favorable, the existing trends are not encouraging, and triggers for improvement are not apparent. In our view, traditional passive investing is not acceptable or appropriate for such an asset class, even if investing in the asset class is financially attractive after taking the drag from ESG into account as part of our Capital Market Line modeling.

Too few constituents in the index are likely to improve or appear receptive to engagement for improvement. In such circumstances, we will consider exposure to the asset class if we can source an active manager that we deem is very likely to add alpha in the right way – via vigorous ESG integration and engagement. We also may create an ESG-optimized allocation using third-party data for current and momentum carbon emissions and board gender diversity factors.

We seek to identify the potential good actors in segments that may be lagging on ESG, looking to incentivize others by producing clear improvements in performance. This is essential in a world where the largest potential improvement in areas like carbon emissions are in the lagging asset classes.

COP29 Preview

The COP29 United Nations Climate Change Conference will be held 11-22 November 2024 in Baku, Azerbaijan. The COP29 Presidency's Plan includes the following items:

Enhance Ambition. Ensure all parties commit to ambitious national plans and transparency, setting out clear plans to keep 1.5° within reach and leave no one behind, according to the purposes, goals, and principles of the Paris Agreement.

Enable Action. Finance to turn ambition into action and reduce emissions, adapt to climate change, and address loss and damage.

Key priorities

- **Keep 1.5°C within reach,** and leave no one behind.
- National Adaptation Plans and Biennial Transparency Reports.
- 1.5°-aligned **Nationally Determined Contributions (NDCs)** from all stakeholders.
- New **Collective Quantified Goal on Climate Finance.** Agreeing on a new commitment to provide annual climate finance to developing countries, replacing a previous goal of $100 billion per year set in 2009 and met in 2023.
- Finalize **Article 6 of the Paris Agreement.**
  - Sets out how countries can pursue voluntary cooperation to reach climate targets.
  - Enables international cooperation to tackle climate change and unlock financial support for developing countries.

Key updates

The **COP29 Climate Finance Action Fund (CFAF)** is one of 14 initiatives in the COP29 Action Agenda to enhance ambition and enable action.

The fund aims to target climate projects in developing countries that need support, meeting the next generation of NDCs. It will catalyze public and private sectors across mitigation, adaptation, and research and development, and will contain additional special facilities.

The initial fundraising aim is $1 billion, as the COP29 President-Designate calls for contributors to come forward with climate finance. Azerbaijan will be a founding contributor, and headquarters will be located with its secretariat in Baku.

The fund is to receive annual contributions from fossil fuel-producing countries and companies across oil, gas, and coal and looks to keep 1.5° C within reach while addressing the consequences of natural disasters.

The CFAF will become operational after the initial fundraising round, which seeks to capitalize the fund with $1 billion, and when 10 contributing countries commit as shareholders. Its board of directors will include representatives from contributors, and an independent audit committee will publish quarterly data, including financial reports and project evaluations.

Shareholders will collectively make decisions, and a working group is being established with international financial experts to further develop the management model and funding mechanism.

COP29 Action Agenda: Key Initiatives

Climate Finance Action Fund (CFAF)
As noted above, the establishment of a fund, capitalized with voluntary contributions from fossil fuel-producing countries and companies across oil, gas, and coal, aims to catalyze the public and private sectors across mitigation, adaptation, and research and development, and provide highly concessional and grant-based funding.

Baku Initiative for Climate Finance, Investment, and Trade Dialogue. Establish the “BICFIT Dialogue,” a collaborative environment and long-term dialogue platform for the international community to bring increased focus to the nexus of climate finance, investment, and trade.

Just Transition Investment Partnership (JTIP) 4 Jobs and Skills. Create a collaborative platform to connect financing needs arising from the integration of skills development in NDCs, National Adaptation Plans, and Long-Term Low Emission Development Strategies (LT-LEDS) with available financing instruments of multilateral development banks, as well as explore establishing links and synergies with other sources of financing.

Green Energy Pledge. Signatories to this Ministerial Pledge will commit to green energy corridors, zones, and grids. This initiative will also help establish the needed regulatory and institutional frameworks and identify the enabling financing to create the infrastructure to fulfill the Pledge.

Green Energy Storage Pledge. Pledge to make energy storage one of the cornerstones of global energy systems, aiming to increase resilience and efficiency with global targets to increase capacity six times 2022 levels, reaching 1,500 gigawatts by 2030.

Clean Hydrogen Initiative. Pledge and implementation tracks to deliver action from both the public and private sectors to unlock the potential of a global market for low-emission hydrogen uptake through setting guiding principles and priorities and addressing regulatory, technological, financing, and standardization barriers.

COP Truce Appeal. Addressing the climate-conflict nexus, COP29 aims to promote peace, dialogue, and reconciliation more broadly and to mobilize all political attention and diplomatic efforts for climate action.

Digital Action Path 4 Green World. Accelerating the green transition through digitalization and the reduction of GHG emissions in the ICT sector and a Ministerial Declaration.

COP28 Initiatives

Key impacts

Few of the sectoral initiatives announced during **COP28** will contribute meaningfully to closing the emissions gap, a many lacked the ambition, clarity, coverage, or accountability needed to make a difference.

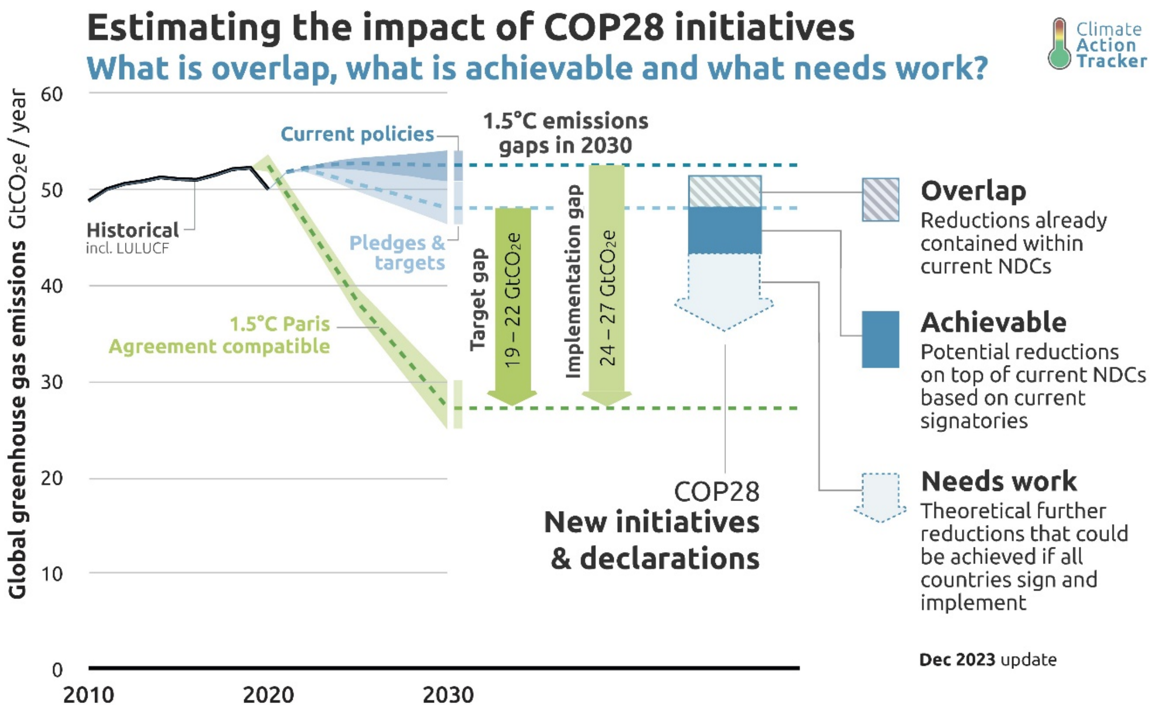
Clear directions must be established on committing to a fossil fuel phase-out, alongside tripling renewables and doubling energy efficiency, while supporting these efforts with the finance needed.

A key highlight is the **Renewable Energy and Energy Efficiency Pledge**, which, if fully implemented, could close about a third of the gap between current policies and 1.5°C in 2030.

As of 7 December 2023, **130 governments had committed to working together to triple the world's renewable capacity to 11 TW** and double the global average annual rate of energy efficiency improvements from around 2% to over 4% every year until 2030. These countries cover 51% of global renewables capacity, 43% of global fossil fuel capacity, and 46% of primary energy supply in 2022. **Nearly all OECD countries have signed on to the pledge**, while major Asian economies such as China, India, and Indonesia have yet to do so.

It is not clear how the global target would be broken down to a national level and thus change current policy pathways; the signatories commit only to contributing to the global target, not to tripling renewables and doubling energy efficiency themselves. Some governments, such as Brazil, have already signed up and stated that they will not triple renewable capacity, while others likely can go further than tripling, as they are starting from a low base of installed capacity.

Momentum toward tripling renewables is growing, even in countries that have not yet signed the pledge. **China is already on track to more than triple its capacity by 2030** under current policies and has agreed to this under the Sunny Lands Statement. Today, the country holds about 34% of global renewable electricity capacity. Similarly, India's renewable capacity is set to grow around 2.7-fold under current policies.



Source: Climate Action Tracker as of December 2023.

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