ESG

A Case For: Sustainable Climate Equity Funds

State Street Global Advisors has developed a range of state-of-the-art equity climate funds. Our climate-aware investment process enables investors to immediately improve their portfolio's carbon profile and reduce climate risk, while maintaining target returns.

The Slow-Burning Crisis

The scientific evidence for man-made climate change is incontrovertible. The last seven years were the hottest on record.

Last year was marked by disaster caused by more frequent and extreme weather events brought about by climate change.

Warming has also led to unprecedented melting of ice and snow at the north and south poles. Sea level rise will mean coastal communities are much more exposed to flooding and extreme storms, leading many to migrate inland, putting pressure on infrastructure and resources. And with greater carbon dioxide in the oceans comes ocean acidification, degradation of marine ecosystems and reduction in marine biodiversity.

Research suggests that 'tipping points' such as the melting of huge ice sheets or the loss of the Amazon rainforest are much more likely to occur than previously thought.[1]

Tackling the Climate Threat

In recognition of the severity of climate risks, countries have committed to reducing carbon emissions in line with the 2015 Paris Agreement of limiting global warming to 2° Celsius or less over the 21st century. The European Union, UK and several other countries have committed to be carbon neutral by 2050. In advance of regulation, many companies are proactively taking steps to reduce their carbon footprints and disclose their exposure to climate risks. Below are three trends in the global response to climate change that investors will have to address.

1 **The Seismic Energy Transition** Recent years have seen a sustained shift in energy use away from fossil fuels and towards renewable energy, driven largely by acknowledgement of the impact of fossil fuel pollution and the need to reduce carbon emissions. The falling costs of solar and wind energy have further increased their attractiveness compared to fossil fuels. In spite of a short-term reversion to fossil fuel use in the wake of the Russia-Ukraine conflict, we expect investments in decarbonisation initiatives to accelerate in the medium term, in part due to energy security considerations.[2] The transition to the low carbon economy will require companies in all sectors to decrease their carbon footprint.

2 **Regulatory Tipping Point** An increasing number of countries and local jurisdictions are implementing carbon pricing and emissions trading initiatives in order to reach net zero[3] carbon emissions by 2050. The European Parliament approved the EU Taxonomy Regulation, which will be fundamental to the realisation of the European Green Deal, which aims to boost private sector investment in green and sustainable projects. The European Insurance and Occupational Pensions Authority has stated that pension funds and insurers can play a key role in the transition towards a low carbon economy and that they should actively incorporate climate change risks in their own risk management frameworks. The European Commission is also seeking to integrate sustainability risks and sustainability factors into Undertakings for the Collective Investment in Transferable Securities (UCITS) schemes, the Alternative Investment Fund Managers Directive (AIFMD) and the Markets in Financial Instruments Directive (MiFID).

3 **Capital Allocations** A growing number of investors are incorporating climate considerations into capital allocation decisions. According to a recent survey, about 20% of investors globally have already adopted portfolio decarbonisation targets. It also shows that over two-thirds of European and APAC investors, and over three-fifths of North American investors intend to adopt decarbonisation targets in the next three years. The same survey also reveals that among investors with existing decarbonisation targets, about 80% expect to increase allocations to climate-themed managers.[4] Another potential driver for the increased adoption of climate considerations in investment portfolios is the perceived robustness of sustainable investment strategies.

Portfolio Impact

Investors are increasingly appreciating that climate risks are financial risks. Climate change is the highest priority among UN PRI signatories, representing over 5,000 signatories representing US$121tn of AUM.[5] For investors, climate change and its impact on asset valuations are becoming important criteria for investment decisions. The risks from climate change can be split into four broad categories:

Figure 1 **Climate Change Risks**

Systemic Risk to financial markets as they seek to digest impact on economic growth, societal disruption and energy-mix change	**Country Risk** to petro-states that fail to reinvent themselves in time
Corporate Risk in sectors across the world, from drilling to diesel engines and from transport to banks	**Asset Value at Risk** as investors digest vast amounts of potentially stranded fossil fuel assets Fossil fuel and related sectors comprise about a quarter of all equity and debt markets

Source: State Street Global Advisors, as of August 2022.

Companies face a multitude of climate-related risks, from supply chain disruptions and shortage of raw materials, to falling demand for products and services, to regulations, including carbon taxes.

Appreciating that climate risks must be addressed, what should an optimal climate-aware approach look like? Limiting carbon emissions is clearly necessary but insufficient on its own.

Asset owners must also build long-term resiliency into their portfolios. Resiliency is critical in a world that will be shaped by climate change for decades, perhaps even centuries, to come.

A ‘Mitigation and Adaptation’ Approach

We believe in an investment approach that incorporates both **mitigation** of greenhouse gas emissions, and **adaptation** to the future impacts of climate change. These are complementary approaches to reducing climate risks and correspond with asset owners’ need to balance short and long-term risks and opportunities.

- Mitigation aims to reduce the flow of heat-trapping greenhouse gases into the atmosphere and increase exposure to new energy and green companies.
- Adaptation aims to increases exposure to companies working proactively to minimise their exposure to the actual or expected physical, economic and regulatory impacts of climate change and the transition to a low-carbon economy.

Introducing the Sustainable Climate Equity Funds

Imagine if you could drastically improve your portfolio’s carbon profile and reduce climate risk, all while keeping risk and return characteristics broadly in place.

This is the rationale behind the State Street Sustainable Climate Equity Funds (the Funds). The Funds adopt a systematic mitigation and adaptation approach that targets Paris-aligned reductions in carbon emissions and reallocation of capital towards companies benefiting from low-carbon technologies.

The Funds aim to achieve the following objectives in relation to five climate categories utilised in the portfolio construction process:

Figure 2 **Paris-Aligned Objectives of the Sustainable Climate Equity Funds**

	Objectives	Metrics
1	**Minimise** Carbon Emission Intensity	CO_2 emissions per $m revenues
2	**Minimise** Fossil Fuel Reserves	Total reserves of CO_2 emissions (metric tonnes)
3	**Minimise** Brown Revenues	% revenues from extractive activities
4	**Maximise** Green Revenues	% revenues from extractives activities
5	**Build** Resilient Portfolio	Score on Climate Change Preparedness

Source: State Street Global Advisors, as of August 2022.

Our approach follows a four-step process:

1 **Start with the Right Universe** Clients can select three core exposures — World Equity, Europe Equity and US Equity. For each exposure, we first incorporate a set of screens that are aligned with our climate and ESG objectives.

We utilise three sets of exclusions based on product involvement and prescriptive regulatory screens, which we update on a quarterly basis:

Figure 3 **Exclusionary Screening Criteria**

Climate Related Exclusions	**Thermal Coal**
	Arctic Oil & Gas
	Oil Sands
ESG and Reputation Risk Related	**UN Global Compact Violators** Provide universal principles on human rights, labour, environment and anti-corruption
	Controversial Weapons/Armaments Screen companies involved in production and distribution of weapons that have disproportionate and indiscriminate impact on civilians
	Severe ESG Controversies
Based on Prescriptive Regulatory Screen	**Swedish Ethical Council** Focused on influencing companies to operate in a more sustainable way by acting to bring about positive change in companies associated with violations of international conventions on environment and human rights

Source: State Street Global Advisors, as of August 2022.

We follow a well-defined methodology that leverages best-in-class data from multiple data providers. Our approach is attentive to the impact on tracking error of excluded securities.

2 **Source the Best Data** All investment strategies rely on relevant and high-quality data and climate strategies are no different. At State Street Global Advisors, we employ an open architecture to source the best-available data.

We have selected the following data providers for the Funds:

- **Trucost** for carbon emission intensity, fossil fuel reserves and brown revenues
- **FTSE Russell** for green revenues
- **ISS ESG** for adaptation score

3 **Design for Optimal Outcomes** We utilise a mitigation and adaptation framework to rebalance the portfolio towards companies that will achieve our stated objectives:

Figure 4 **Designed for Maximum Impact**

	Reduce Exposure to companies with worse-than-average carbon emissions and fossil fuel assets.
	Increase Exposure to companies generating revenues from low-carbon opportunities.
	Increase Resiliency by targeting companies that are positioned to benefit from the transition to the low-carbon economy.

The information contained above is for illustrative purposes only.

4 **Balance for Risk-Adjusted Return** We then balance the portfolio to target the highest expected risk-adjusted return, given the desired constraints.

The Fund's optimisation parameters are calibrated by our Global Equity Beta Solutions research team. We model the portfolio based on the following specifications:

Figure 5 **Portfolio Construction Specifications**

Objective: Minimise Portfolio Carbon Intensity, Quarterly Balance

Constraints	World	US
Tracking Error	<=1%	<=1%
Liquidity	20% of 60-day MDV buy or sell max	20% of 60-day MDV buy or sell max
Holdings	Less than or equal 10x benchmark weight	Less than or equal 10x benchmark weight
Holdings	+/-2%	+/-2%
Grandfathered Holdings	+/-2.5%	+/-2.5%
Sector/Country/Currency	+/-1%	+/-2%
Turnover	Soft constraint of 10% two-way quarterly turnover	Soft constraint of 10% two-way quarterly turnover
Brown Revenues Score	**-90%**	**-75%**
Fossil Fuel Reserves Score	**-90%**	**-75%**
Green Revenues Score	**+300%**	**+200%**
Adaptation Score	**+0.25 exposure improvement**	**+0.25 exposure improvement**

Source: State Street Global Advisors, as of August 2022.

As an example, on average for the World Equity Fund, we are able to achieve a carbon intensity reduction of 70% by targeting a brown revenue and fossil fuel reserves reduction of 90%, a green revenue improvement of 300% and an improvement in adaptation score of 20%, compared to the corresponding MSCI World Equity Index.

Key Features of the Sustainable Climate Equity Funds

- Flexibly balances the five objectives of reduced fossil fuel exposure, reduced brown revenue exposure, increased green revenue exposure, as well as increasing exposure to adapting companies, all while minimising carbon intensity.
- Represents sustainable climate parameters while reducing the impact of stock-specific returns.
- Minimises active exposures that do not provide out-performance expectations, such as currency, country, sectors and industries.

Key Benefits of the Sustainable Climate Equity Funds

- Cost-efficient access to diversified Global and US equity exposures in a Paris-aligned format
- Significantly improve investors' carbon profile in advance of incoming regulations
- Screen companies that do not meet basic environmental and human rights standards
- Benefit from a state-of-the art portfolio optimisation model

Target: Net Zero

As a proud signatory of the Net Zero Asset Managers initiative, we believe that there is an urgent need to accelerate the transition towards global net zero emissions. State Street Global Advisors has established net zero targets, both in interim for 2030 and ultimately by 2050. In setting these targets we are playing our part in helping to deliver the goals of the Paris Agreement and ensuring a just transition to the low-carbon economy.

Who We Are

State Street Global Advisors' ESG experience covers portfolio management, investment research, proxy voting and engagement, as well as valuable relationships with third-party research providers.

While most clients' custom ESG criteria require a separate account, State Street Global Advisors has created pooled funds that address many of the more common client approaches. Pooled vehicles may offer advantages such as economies of scale, lower fees and lower administrative costs.

We apply a multi-dimensional approach to our ESG investing solutions. Over years of ESG investing, we have advanced our portfolio management and stewardship capabilities to deliver value to our clients.

Through our extensive ESG data and research, we can help develop and implement solutions for our clients that align policy, principles and values, yet seek maximum performance or minimum tracking error within the constraints.

1 'Climate tipping points — too risky to bet against', Lenton et al (2019), most available data.

2 See: State Street Global Advisors, "ESG Implications of the Russia-Ukraine War," March 8, 2022. Located at: https://ssga.com/uk/en_gb/institutional/etfs/insights/esg-implications-of-the-russia-ukraine-war.

3 **Net zero** means that the total greenhouse gas (GHG) emissions being emitted should be lower than or equal to the total GHG emissions being removed or absorbed (ie, no positive emissions). On a net basis, no additional emissions should be released into the Earth's atmosphere.

Net zero strategies Investment strategies that seek to align investments with a net-zero goal by a particular point in time (e.g., 2050).

4 See: State Street Global Advisors, "The World Targets Change," November 2021. Located at: https://ssga.com/library-content/pdfs/global/esg-research-report-global.pdf.

5 See: UN PRI Quarterly Signatory Update as of June 2022, located at https://unpri.org/signatories/signatory-resources/quarterly-signatory-update.

About State Street Global Advisors

For four decades, State Street Global Advisors has served the world's governments, institutions and financial advisors. With a rigorous, risk-aware approach built on research, analysis and market-tested experience, we build from a breadth of index and active strategies to create cost-effective solutions. As stewards, we help portfolio companies see that what is fair for people and sustainable for the planet can deliver long-term performance. And, as pioneers in index, ETF, and ESG investing, we are always inventing new ways to invest. As a result, we are the world's fourth-largest asset manager* with $3.48 trillion USD† under our care.

* Pensions & Investments Research Center, as of December 31, 2021.
† This figure is presented as of June 30, 2022 and includes approximately $66.43 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.

ssga.com

Marketing Communication

State Street Global Advisors Worldwide Entities

Important Risk Information

Investing involves risk including the risk of loss of principal.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA's express written consent.

All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor.

The information contained in this communication is not a research recommendation or 'investment research' and is classified as a 'Marketing Communication' in accordance with the Markets in Financial Instruments Directive (2014/65/EU) or applicable Swiss regulation. This means that this marketing communication (a) has not been prepared in accordance with legal requirements designed to promote the independence of investment research (b) is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This communication is directed at professional clients (this includes eligible counterparties as defined by the appropriate EU regulator) who are deemed both knowledgeable and experienced in matters relating to investments. The products and services to which this communication relates are only available to such persons and persons of any other description (including retail clients) should not rely on this communication.

The views expressed in this material are the views of Carlo Funk and Kushal Shah through the period ended August 24, 2022 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

Equity securities may fluctuate in value and can decline significantly in response to the activities of individual companies and general market and economic conditions.

The returns on a portfolio of securities which exclude companies that do not meet the portfolio's specified ESG criteria may trail the returns on a portfolio of securities which include such companies. A portfolio's ESG criteria may result in the portfolio investing in industry sectors or securities which underperform the market as a whole.

The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data.

ID1100596-3222073.2.1.GBL.INST 0622
Exp. Date: 30/06/2023