



CLIMATE TRANSPARENCY REPORT

2019

State Street Global Advisors (SSGA)

About the Climate-related Disclosure Indicators

Climate has been identified as a top priority for PRI signatories, with over 70% of asset owners reporting this as the most important long-term trend they are acting on.

The FSB Task Force's guidance on climate-related financial disclosure aim to create a single framework for disclosure on assessment and management of climate-related risk. The recommendations, supported by investors representing US\$22 trillion, identify four main disclosures, Governance, Strategy, Risk Management, Metrics and Targets, and include specific guidance for asset owners and managers.

As a result, the PRI introduced climate-related disclosure indicators that can be used to align with the TCFD recommendations in the 2019 PRI Reporting Framework.

About this report

This report is an export of only the climate-related indicators from the 2019 Reporting Framework response. The full Public Transparency Report is available here (https://reporting.unpri.org/surveys/PRI-reporting-framework-2019/-D36D02EB-E7E3-4D8D-9C43-C74D505F6EC3/00000000-0000-0000-0000-000000000000/doc/2/-%7C%7C*complete*%7C*public*/Merged/). It shows the responses to all the completed climate indicators, even those you chose to keep private. It is designed for your internal review or – if you wish - to share with your stakeholders.

The PRI will not publish this report on its website if you have designated your 2019 climate reporting as “private”. Otherwise, you will be able to access the Climate Transparency Report of your organisation and that of other signatories on the [PRI website](#) and on the [Data Portal](#).

To easily locate information, there is a **Recommendation index** which summarises the indicators that signatories complete and disclose. The report presents information exactly as it was reported as per signatory preference. Where an indicator offers a response option that is multiple-choice, all options that were available to the signatory are presented in this report.

TCFD Recommendations Index

Strategy and Governance - CC			TCFD Recommendation			
Indicator	Reported	Disclosure	Governance	Strategy	Risk Management	Metrics & Targets
SG 01.1	✓	Public				
SG 01.2	✓	Public				
SG 01.3	✓	Public				
SG 01.4	✓	Public				
SG 01.5	✓	Public				
SG 01.6 CC	✓	Public				
SG 01.7 CC	✓	Public				
SG 01.8 CC	✓	Public				
SG 01.9 CC	✓	Public				
SG 01.10 CC	✓	Public				
SG 01.11 CC	-	Public				
SG 01.12 CC	✓	Public				
SG 02.2	✓	Public				
SG 07.5 CC	✓	Public				
SG 07.6 CC	✓	Public				
SG 07.7 CC	✓	Public				
SG 07.8 CC	-	Public				
SG 13.1	✓	Public				
SG 13.2	✓	Public				
SG 13.4 CC	✓	Public				
SG 13.5 CC	✓	Public				
SG 13.6 CC	✓	Public				
SG 13.7 CC	✓	Public				
SG 13.8 CC	✓	Public				
SG 14.1	✓	Public				
SG 14.2	✓	Public				
SG 14.3	✓	Public				
SG 14.4	✓	Public				
SG 14.5	✓	Public				
SG 14.6 CC	✓	Public				
SG 14.7 CC	✓	Public				
SG 14.8 CC	✓	Public				
SG 14.9 CC	✓	Public				
SG 15.1	✓	Public				
SG 15.2	✓	Public				
SG 15.3	✓	Public				

Symbol	Status
✓	The signatory has completed this sub-indicator
-	The signatory did not complete this sub-indicator.
	This indicator is relevant to the named TCFD recommendation
Within the first column "Indicator", indicators marked in blue are mandatory to complete. Indicators marked in grey are voluntary to complete.	

ORGANISATIONAL OVERVIEW

This section provides an overview of your organisation. These characteristics are used to define your peer groups.

MAIN CHARACTERISTICS

Name	State Street Global Advisors (SSGA)
Signatory Category	Fund Management - Majority
Signatory Type	Investment Manager
Size	US\$ > 50 billion AUM
Main Asset Class	>50% Listed Equity Internally Managed
Signed PRI Initiative	2012
Region	North America
Country	United States
Disclosure of Voluntary Indicators	79% from 38 Voluntary indicators

State Street Global Advisors (SSGA)

Reported Information

Public version

Strategy and Governance

PRI disclaimer

This document presents information reported directly by signatories. This information has not been audited by the PRI Secretariat or any other party acting on their behalf. While this information is believed to be reliable, no representations or warranties are made as to the accuracy of the information presented, and no responsibility or liability can be accepted for any error or omission.

Investment policy

SG 01

Mandatory

Public

Core Assessed

General

New selection options have been added to this indicator. Please review your prefilled responses carefully.

SG 01.1

Indicate if you have an investment policy that covers your responsible investment approach.

Yes

SG 01.2

Indicate the components/types and coverage of your policy.

Select all that apply

Policy components/types	Coverage by AUM
<input checked="" type="checkbox"/> Policy setting out your overall approach <input checked="" type="checkbox"/> Formalised guidelines on environmental factors <input checked="" type="checkbox"/> Formalised guidelines on social factors <input type="checkbox"/> Formalised guidelines on corporate governance factors <input checked="" type="checkbox"/> Fiduciary (or equivalent) duties <input checked="" type="checkbox"/> Asset class-specific RI guidelines <input checked="" type="checkbox"/> Sector specific RI guidelines <input checked="" type="checkbox"/> Screening / exclusions policy <input type="checkbox"/> Engagement policy <input type="checkbox"/> (Proxy) voting policy <input type="checkbox"/> Other, specify (1) <input type="checkbox"/> Other, specify(2)	<input checked="" type="radio"/> Applicable policies cover all AUM <input type="radio"/> Applicable policies cover a majority of AUM <input type="radio"/> Applicable policies cover a minority of AUM

SG 01.3

Indicate if the investment policy covers any of the following

- Your organisation's definition of ESG and/or responsible investment and it's relation to investments
- Your investment objectives that take ESG factors/real economy influence into account
- Time horizon of your investment
- Governance structure of organisational ESG responsibilities
- ESG incorporation approaches
- Active ownership approaches
- Reporting
- Climate change
- Understanding and incorporating client / beneficiary sustainability preferences
- Other RI considerations, specify (1)
- Other RI considerations, specify (2)

SG 01.4

Describe your organisation's investment principles and overall investment strategy, interpretation of fiduciary (or equivalent) duties, and how they consider ESG factors and real economy impact.

ESG is a part of our firm's core mission

At State Street Global Advisors, our mission is to invest responsibly to enable economic prosperity and social progress. This mission lays the foundation for our commitment to responsible investing.

All investments across the firm are supported by our strong active ownership program. Our heritage as an ESG investing leader goes back more than 30 years. As an early leader in low-carbon investing and a continual innovator, today we integrate ESG across investment teams, and are a recognized leader in asset stewardship and corporate governance.

Five core beliefs guide our ESG approach:

1. Research shows that ESG factors can impact a company's **long-term performance**.
2. We are committed to the full **integration** of material ESG factors into our investment processes.
3. Accurately measuring material ESG factors requires access to **quality data from multiple sources**.
4. We practice **asset stewardship** by actively using our voice and vote to engage with portfolio companies on material ESG factors.
5. We provide investors **choices** to invest based on their own values and preferences.

SG 01.5

Provide a brief description of the key elements, any variations or exceptions to your investment policy that covers your responsible investment approach. [Optional]

Our beliefs and our understanding of fiduciary duty complement one another in our approach to ESG. Below, we elaborate on each of the five core beliefs.

1. Research shows that ESG factors can impact a company's long-term performance.

As fiduciaries of our clients' assets, we are committed to identifying opportunities and mitigating risks to create long-term shareholder value. Companies that are managed responsibly deliver better financial results over the long-term.[1] We believe that firms that adhere to environmental efficiency, social awareness and the highest governance standards are well-positioned to withstand emerging risks and capitalize on new opportunities.

2. We are committed to the full integration of material ESG factors into our investment processes.

Given the breadth and depth of asset classes, investment management styles, regions and other factors, the ways in which our investment teams address ESG factors in their investment philosophy and decision-making processes differ. In general, our teams view ESG factors as complementary information, which can aid them in making more informed investment decisions that contribute to the pursuit of alpha or risk management. Our investment teams take a rigorous and research-based approach to building investment solutions: for example, next generation climate solutions that align with both science-based targets and the

guidelines set forth by the Task Force on Climate-related Disclosure (TCFD).

3. Accurately measuring material ESG factors requires access to quality data from multiple sources.

A rigorous commitment to data is behind every decision we make.

ESG data providers serve an important role in the market by providing valuable data to investors. At present, there is an absence of standardized ESG reporting that is comparable across firms, which has implications for asset owners and their investment managers. Most data providers employ their own proprietary methodologies, and thus it is important to note that ESG scores can differ significantly across providers.

To address these concerns, we have built a data platform that gives our portfolio managers and researchers access to best-in-class ESG data sources from nine providers with information including firm specific ESG scores, carbon related data, and sector specific information (such as REITs).

In addition, we have built our own scoring system that:

- Leverages multiple best-in-class data providers by sifting through 2,500+ metrics for meaningful signals into investment research
- Aligns with systems-level frameworks and maps our investment process to the transparent Sustainability Accounting Standards Board (SASB) materiality framework.
- Integrates Asset Stewardship insights from our engagement and voting activities

This platform addresses ESG data challenges in a way that is transparent, measurable, comparable, and consistently reported.

4. We practice asset stewardship by actively using our voice and vote to engage with portfolio companies on material ESG factors.

State Street Global Advisors' approach towards proxy voting and issuer engagement is premised on the belief that companies that adopt robust and progressive governance and sustainability practices should be better positioned to generate long-term value and manage risk. As near perpetual holders of the constituents of the world's primary indices, we believe the informed exercise of voting rights coupled with targeted and value-driven engagement is the most effective mechanism of creating value for our clients.

We have developed Proxy Voting and Issuer Engagement Principles that guide how ESG issues are considered in the stewardship process. These principles encompass all equities for which our firm has discretion, as well as investment grade corporate fixed income. We have a global and six market-specific engagement and voting guidelines to account for the breadth of ownership and regional governance nuances.

We actively engage with companies across a range of important governance and sustainability issues to understand and encourage our portfolio companies' focus on long-term value creation.

5. We provide investors choices to invest based on their own values and preferences.

We understand that our clients have different values and investment preferences. We have the capabilities to implement a variety of ESG investment styles, including:

- **Exclusionary Screening** - Excludes companies, sectors or countries involved in activities that do not align with global standards or investors' values
- **Thematic Investing** - Screens, selects and optimizes for companies solving specific ESG themes (e.g. climate change, gender)
- **ESG Integration** - Incorporates ESG data, alongside traditional financial analysis, into the securities selection process through optimization or other methods
- **Asset Stewardship** - Actively promotes ESG issues in all investment strategies

Given the variety of ESG investment styles available, investors have the opportunity to reflect on their own values and investment objectives in selecting the most appropriate strategy for them. Some examples of strategies that we implement for clients include faith-based screens such as those that align with Catholic values, diversity objectives and climate strategies.

[1] Khan, Serafeim et al. "Corporate Sustainability: First Evidence of Materiality." Harvard Business Review, 2016.

No

I confirm I have read and understood the Accountability tab for SG 01

I confirm I have read and understood the Accountability tab for SG 01

SG 01 CC	Voluntary	Public	Descriptive	General
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SG 01.6 CC	Indicate the climate-related risks and opportunities that have been identified and factored into the investment strategies and products, within the organisation's investment time horizon.
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State Street Global Advisors is the asset management subsidiary of State Street Corporation, a publicly listed firm. As part of a strategic review process, we have identified climate-related risks and opportunities posed to our parent company, as well as to our asset management business and the clients we serve. Here, we focus primarily on the asset management business.

Climate solutions are a key pillar of our ESG strategy and capabilities.

Recognizing the need to respond to climate change, and in particular to the role the TCFD plays as a quasi-regulatory obligation, we have taken four actions in this area:

1. TCFD: State Street Global Advisors publicly signed on to the TCFD. Our public statement is available here: <https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/tcf-statement.pdf>

2. Stewardship: Our Asset Stewardship Program prioritizes climate change in our engagements with portfolio companies, and supports all equity and corporate fixed income. We focus our climate stewardship efforts on thought leadership, engagement, and voting.

a) Thought leadership

We have published significant guidance in this area, including:

- Climate Change Risk Oversight for Directors (2016): <https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/climate-change-risk-oversight.pdf>
- Incorporating Sustainability into Long-Term Strategy (2017): <https://www.ssga.com/global/en/our-insights/viewpoints/incorporating-sustainability-into-long-term-strategy.html>
- SSGA's Perspectives on Effective Climate Change Disclosure (2017): <https://www.ssga.com/investment-topics/environmental-social-governance/2017/perspectives-on-effective-climate-change-disclosure.pdf>

b) Engagement

We have been engaging with companies on climate change-related matters since 2014, and we have led 374 engagements with 277 companies across a diverse range of industries and markets on topics such as disclosure, practices, risk management and the impact of climate change on the respective company's long-term strategy. During engagement, we clearly communicate our expectations related to a company's climate-related disclosure. Once communicated, we monitor the company's responsiveness to our expectations. Examples of climate-related engagements can be found on page 75 of our Annual Asset Stewardship Report:

<https://www.ssga.com/investment-topics/environmental-social-governance/2018/07/annual-stewardship-report-2017.pdf>

c. Voting

We expect companies to disclose information regarding their approach to identifying material climate-related risks and the policies and practices in place to address such issues. We support efforts by companies to demonstrate the ways in which climate and sustainability matters are incorporated into operations, business activities, and most importantly, long-term business strategy. We take a case-by-case approach to voting on climate-related shareholder proposals.

3. Investment Solutions: We offer clients the ability to align their portfolios with their commitments to the TCFD and climate regulation. Recognizing that there are many ways to address climate change within a portfolio, we offer a variety of options across equity and fixed income asset classes:

- Exclusionary Screening: Targets meaningful carbon reduction across asset classes by screening out companies with high emissions and fossil fuel reserves and/or companies in industries with significant climate risk.

- **Mitigation:** Targets specific net carbon reduction goals by reducing carbon intensity of a portfolio by a desired percentage while staying within a specified tracking error range against a specified benchmark.
- **Mitigation & Adaptation:** Targets carbon reduction and provides exposure to businesses that are adapting their business models to climate risks and opportunities.

4. Reporting: We have developed bespoke climate reporting. These solutions are designed to help clients understand how their strategies perform against investment objectives, including climate-focused objectives.

SG 01.7 CC	Indicate whether the organisation has assessed the likelihood and impact of these climate risks?
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Yes

SG 01.8 CC	Indicate the associated timescales linked to these risks and opportunities.
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We have designed an investment analytical framework using the "mitigation and adaption" framework developed by climate scientists. Mitigation and adaptation are complementary approaches for reducing risks of climate change impacts over different timescales and positioning portfolios to take advantage of climate transition pathways-which aligns with the objective of most institutional investors to balance short-term risk with longer-term opportunities. Mitigation, in the near term and over the century, can substantially reduce the carbon exposures that negatively impact climate change. Benefits from adaptation can be realized by focusing on companies' managing current climate risks and those that are positioned to address emerging risks over the 21st century-future risks are unknown but will become clearer as the climate continues to change.

In our Asset Stewardship efforts, we take the position of a long term investor. As such, State Street Global Advisors expects boards to consider climate risk as they would any other material risk to the sustainability of their business.

No

SG 01.9 CC	Indicate whether the organisation publicly supports the TCFD?
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Yes

No

SG 01.10 CC	Indicate whether there is an organisation-wide strategy in place to identify and manage material climate-related risks and opportunities.
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Yes

Describe

State Street Global Advisors is a subsidiary of State Street Corporation, which is the publicly listed entity. Below, we have identified how TCFD is executed within our parent company. Our carbon-related impacts are actively managed through four primary channels, in alignment with the TCFD: governance, strategy, risk, and metrics & targets.

Governance: In 2018, the Nominating and Governance Committee Charter of State Street Corporation's Board of Directors was updated to give State Street Corporation's Board the explicit oversight responsibility of material ESG risks. The Executive Corporate Responsibility Committee also reports to the Board of Directors at least once per year on all ESG issues, including climate issues.

Strategy: Multiple business lines within State Street Corporation participate in our overall strategy to manage climate risks facing our clients.

- State Street Global Advisors manages and monitors climate risks to portfolios through our Asset Stewardship Program, investment solutions, and climate reporting (SG 01.6 CC).
- State Street Global Exchange offers portfolio-level analytics related to the sustainability risks to portfolios through its proprietary tool, ESGX.

Risk: Our building and operations teams assess and manage carbon-related risks through our environmental management program.

Metrics and Targets: We actively manage our carbon performance using science-based targets for greenhouse gas emissions and internal carbon pricing.

No

SG 1.12 CC	Indicate the documents and/or communications the organisation uses to publish TCFD disclosures.
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- Public PRI Climate Transparency Report
- Annual financial filings
- Regular client reporting
- Member communications
- Other

	specify
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Annual Corporate Responsibility Report:

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=2ahUKEwuj6Nvn-Z3hAhVGQxUIHRNnDQ8QFjABegQIBxAC&url=http%3A%2F%2Fwww.statestreet.com%2Fcontent%2Fdam%2Fstatestreet%2Fdocuments%2Fvalues%2FCR_Report_2017.pdf&usg=AOvVaw2domu5auNGAJAvIUc1cB9j

SG 02	Mandatory	Public	Core Assessed	PRI 6
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New selection options have been added to this indicator. Please review your prefilled responses carefully.

SG 02.1	Indicate which of your investment policy documents (if any) are publicly available. Provide a URL and an attachment of the document.
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- Policy setting out your overall approach

	URL/Attachment
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- URL

	URL
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{hyperlink:<https://www.ssga.com/global/en/our-insights/viewpoints/2019-global-proxy-voting-and-engagement-principles.html>}

- Attachment (will be made public)
- Formalised guidelines on environmental factors

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/global/en/our-insights/viewpoints/2019-global-proxy-voting-and-engagement-environmental.html}

Attachment (will be made public)

Formalised guidelines on social factors

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/global/en/our-insights/viewpoints/2019-global-proxy-voting-and-engagement-environmental.html}

Attachment (will be made public)

Fiduciary (or equivalent) duties

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/global/en/our-insights/viewpoints/2019-global-proxy-voting-and-engagement-principles.html}

Attachment (will be made public)

Asset class-specific RI guidelines

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/investment-topics/environmental-social-governance/2018/05/fixed-income-stewardship-program.pdf}

Attachment (will be made public)

Sector specific RI guidelines

Screening / exclusions policy

We do not publicly disclose our investment policy documents

SG 02.2

Indicate if any of your investment policy components are publicly available. Provide URL and an attachment of the document.

Your organisation's definition of ESG and/or responsible investment and it's relation to investments

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/global/en/our-insights/viewpoints/esg-investing.html}

Attachment

Your investment objectives that take ESG factors/real economy influence into account

Time horizon of your investment

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/investment-topics/environmental-social-governance/2018/07/annual-stewardship-report-2017.pdf}

Attachment

Governance structure of organisational ESG responsibilities

ESG incorporation approaches

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/na/us/institutional-investor/en/our-insights/viewpoints/esg-investing.html}

Attachment

Active ownership approaches

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/investment-topics/environmental-social-governance/2018/07/annual-stewardship-report-2017.pdf}

Attachment

Reporting

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/investment-topics/environmental-social-governance/2018/07/annual-stewardship-report-2017.pdf}

Attachment

Climate change

URL/Attachment

URL

URL

{hyperlink:https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/climate-change-risk-oversight.pdf}

Attachment

We do not publicly disclose any investment policy components

SG 02.3 Additional information [Optional].

Note that our Global Proxy Voting and Engagement Guidelines for Environmental and Social Issues are not net new guidelines, but rather greater transparency into our broader Guidelines, which we publish annually.

Governance and human resources

SG 07 CC	Voluntary	Public	Descriptive	General
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SG 07.5 CC	Indicate the roles in the organisation that have oversight, accountability and/or management responsibilities for climate-related issues.
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	Board members or trustees
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- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

	Chief Executive Officer (CEO), Chief Investment Officer (CIO), Chief Risk Officer (CRO), Investment Committee
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- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Other Chief-level staff or head of department

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Portfolio managers

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Investment analysts

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

Dedicated responsible investment staff

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

External managers or service providers

- Oversight/accountability for climate-related issues
- Assessment and management of climate-related issues
- No responsibility for climate-related issues

SG 07.6
CC For board level roles for which have climate-related issues oversight/accountability or implementation responsibilities, indicate how these responsibilities are executed.

The Executive Corporate Responsibility Committee reports to the Board of Directors at least once per year. In addition, the Board of Directors is responsible for monitoring our material activities and practices regarding ESG matters.

SG 07.7
CC For the management-level roles that assess and manage climate-related issues, provide further information on the structure and process involved.

Management at both State Street Corporation and State Street Global Advisors assess and manage climate-related issues.

At State Street, Chief Executive Officer Ron O'Hanley signed on in 2017 to the Task Force on Climate-related Financial Disclosure.

At State Street Global Advisors, Chief Investment Officer Rick Lacaille chairs the Executive Corporate Responsibility Committee; his purview includes management of all sustainability related risks. He also chairs the Investment Committee at State Street Global Advisors, which oversees all investment and stewardship activities. This includes both our climate investment solutions, as well as our climate-related proxy voting and engagement activities.

ESG issues in asset allocation

SG 13	Mandatory	Public	Descriptive	PRI 1
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SG 13.1 Indicate whether the organisation undertakes scenario analysis and/or modelling and provide a description of the scenario analysis (by asset class, sector, strategic asset allocation, etc.).

- Yes, to assess future ESG factors
- Yes, to assess future climate-related risks and opportunities

Describe

Within our Global Equity Beta Solutions, we consider ESG issues in the allocation of assets between geographic markets as well as sector weightings in certain proprietary ESG strategies, such as our Global Climate strategy. We also consider climate risks and opportunities in select AQE strategies.

- No, not to assess future ESG/climate-related issues

SG 13.2 Indicate if your organisation considers ESG issues in strategic asset allocation and/or allocation of assets between sectors or geographic markets.

We do the following

- Allocation between asset classes
- Determining fixed income duration
- Allocation of assets between geographic markets
- Sector weightings
- Other, specify
- We do not consider ESG issues in strategic asset allocation

SG 13.3 Additional information. [OPTIONAL]

In addition to the climate considerations described above, within our multi-asset solutions, we use ESG criteria for allocation between asset classes in custom mandates for clients that indicate to us that ESG is an important investment consideration.

SG 13 CC	Voluntary	Public	Descriptive	General
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SG 13.4 CC Describe how the organisation is using scenario analysis to manage climate-related risks and opportunities, including how the analysis has been interpreted, the results and any future plans.

- Initial assessment
- Incorporation into investment analysis

Describe

Climate models are mathematical representations of processes important in the Earth's climate system. Climate models or integrated assessment models (IAMs) have been developed by a number of leading research think-tanks, governments, universities, and industries. These models provide quantitative projections that integrate both climate science and economic data-representing the interactions of natural and human systems. The climate models are the best tools we have to estimate the quantitative impact of climate change over the long-term. In general, the models focus predominantly on mitigation (measures to reduce net carbon emissions) and adaptation (actions that aid a response to new climate conditions).

Our investment analysis uses the Representative Concentration Pathways (RCPs) for guidance at the portfolio construction level. In particular, we focus on four greenhouse gas concentration trajectories adopted by the Intergovernmental Panel on Climate Change (IPCC) official report in 2014. The IPCC is an intergovernmental body under the auspices of the United Nations which is tasked with providing an objective, scientific view of climate change and its political/economic impacts.

These four future scenarios or trajectories quantify potential pathways of greenhouse gas (GHG) emissions and atmospheric concentrations, air pollutant emissions and land use. The four trajectories are (1) a stringent mitigation scenario (RCP2.6); (2) two intermediate scenarios (RCP4.5 and RCP6.0), and (3) one scenario with very high GHG emissions (RCP8.5).

Inform active ownership

Describe

The main purpose of scenario-planning is to evaluate and incorporate the potential outcomes into long-term strategic business decisions. By incorporating results from scenario planning exercises into long-term strategy, companies can better position themselves to capitalize on opportunities and to mitigate risks. We have found that companies that undertake robust scenario-planning exercises often demonstrate their leadership in addressing climate risk by communicating to shareholders the impact of their findings on their long-term capital expenditure plans. State Street Global Advisors values transparency into the impact of scenario planning exercises on long-term capital allocation decisions because it:

- Demonstrates that the scenario-planning exercise is conducted as part of a strategic review and not as an isolated exercise
- Provides a direct link between the impact of the scenario-planning exercise and strategic outcomes

With this information investors such as State Street Global Advisors are able to gain comfort that climate risk is being managed by the board. Further with scenario analysis disclosures we are able to use this the information to evaluate the robustness of assumptions made in the scenario-planning process and the impacts on long-term strategy.

Other

SG 13.5 CC

Indicate who uses this analysis.

- Board members, trustees, C-level roles, Investment Committee
- Portfolio managers
- Dedicated responsible investment staff
- External managers
- Investment consultants/actuaries
- Other

**SG 13.6
CC**

Indicate whether the organisation has evaluated the impacts of climate-related risk, beyond the investment time-horizon, on the organisations investment strategy.

Yes

Describe

Our investment analysis uses the Representative Concentration Pathways (RCPs) for guidance at the portfolio construction level for a number of investment strategies across asset classes. In particular, we focus on four greenhouse gas concentration trajectories adopted by the Intergovernmental Panel on Climate Change (IPCC) official report in 2014.

These four future scenarios or trajectories quantify potential pathways of greenhouse gas (GHG) emissions and atmospheric concentrations, air pollutant emissions and land use. The four trajectories are (1) a stringent mitigation scenario (RCP2.6); (2) two intermediate scenarios (RCP4.5 and RCP6.0), and (3) one scenario with very high GHG emissions (RCP8.5).

The first trajectory, RCP2.6, is representative of a scenario that aims to keep global warming likely below 2°C above pre-industrial temperatures. RCP2.6 is the only scenario that aims to keep global warming likely below 2°C above pre-industrial temperatures. The majority of models indicate that scenarios meeting forcing levels similar to RCP2.6 are characterized by substantial net negative emissions by 2100.

No

**SG 13.7
CC**

Indicate whether a range of climate scenarios is used.

- Yes, including analysis based on a 2°C or lower scenario
- Yes, not including analysis based on a 2°C or lower scenario
- No, a range is not used

**SG 13.8
CC**

Indicate the climate scenarios the organisation uses.

Provider	Scenario used
IEA	<input type="checkbox"/> Beyond 2 Degrees Scenario (B2DS)
IEA	<input type="checkbox"/> Energy Technology Perspectives (ETP) 2 Degrees scenario
IEA	<input type="checkbox"/> Sustainable Development Scenario (SDS)
IEA	<input type="checkbox"/> New Policy Scenario (NPS)
IEA	<input type="checkbox"/> Current Policy Scenario (CPS)
IRENA	<input type="checkbox"/> RE Map
Greenpeace	<input type="checkbox"/> Advanced Energy [R]evolution
Institute for Sustainable Development	<input type="checkbox"/> Deep Decarbonisation Pathway Project (DDPP)
Bloomberg	<input type="checkbox"/> BNEF reference scenario
IPCC	<input checked="" type="checkbox"/> Representative Concentration Pathway (RCP) 8.5
IPCC	<input checked="" type="checkbox"/> RPC 6
IPCC	<input checked="" type="checkbox"/> RPC 4.5
IPCC	<input checked="" type="checkbox"/> RPC 2.6
Other	<input type="checkbox"/> Other (1)
Other	<input type="checkbox"/> Other (2)
Other	<input type="checkbox"/> Other (3)

SG 14	Mandatory to Report Voluntary to Disclose	Public	Additional Assessed	PRI 1
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SG 14.1 Some investment risks and opportunities arise as a result of long term trends. Indicate which of the following are considered.

- Changing demographics
- Climate change
- Resource scarcity
- Technological developments
- Other, specify(1)

other description (1)

Regulatory environment changes, e.g. around data

Other, specify(2)

other description (2)

Trade

None of the above

SG 14.2 Indicate which of the following activities you have undertaken to respond to climate change risk and opportunity

- Established a climate change sensitive or climate change integrated asset allocation strategy
- Targeted low carbon or climate resilient investments

Specify the AUM invested in low carbon and climate resilient portfolios, funds, strategies or asset classes.

	trillions	billions	millions	thousands	hundreds
Total AUM		13	139	890	524
Currency	USD				
Assets in USD		13	139	890	524

Specify the framework or taxonomy used.

The above figure represents the majority of our climate investments.

- Phase out your investments in your fossil fuel holdings
- Reduced portfolio exposure to emissions intensive or fossil fuel holdings
- Used emissions data or analysis to inform investment decision making
- Sought climate change integration by companies
- Sought climate supportive policy from governments
- Other, specify
- None of the above

SG 14.3

Indicate which of the following tools the organisation uses to manage climate-related risks and opportunities.

- Scenario analysis
- Disclosures on emissions risks to clients/trustees/management/beneficiaries
- Climate-related targets
- Encouraging internal and/or external portfolio managers to monitor emissions risks
- Emissions-risk monitoring and reporting are formalised into contracts when appointing managers
- Weighted average carbon intensity
- Carbon footprint (scope 1 and 2)
- Portfolio carbon footprint
- Total carbon emissions
- Carbon intensity
- Exposure to carbon-related assets
- Other emissions metrics
- Other, specify

other description

- Embedded emissions from all forms of fossil fuels
- None of the above

SG 14.4

If you selected disclosure on emissions risks, list any specific climate related disclosure tools or frameworks that you used.

Our climate reporting solutions are designed to help clients understand how their strategies perform against investment objectives, including climate-focused objectives. The reports also help clients meet regulatory obligations, as well as their reporting obligations to beneficiaries, trustees, and other stakeholders. Ongoing efforts are underway to develop portfolio-level analytical capabilities to support deeper understanding of the portfolio impacts of transitioning to a low carbon economy.

SG 14.5

Additional information [Optional]

At State Street Global Advisors, we recognize that climate change can have a material impact on the long-term sustainability of public companies. We publicly support the recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD). <https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/tcf-d-statement.pdf>

Our full suite of climate capabilities reflects both our perspective on climate change, as well as the variety of ways that we partner with our clients to invest in a climate-aware manner.

This includes **stewardship**, **data**, and **investment solutions**:

1. Stewardship

As one of the world's largest index fund managers, we are essentially permanent capital in companies, and are therefore exposed to the same long-term risks they are. We use our position to ensure boards and management teams are overseeing and managing risks that might materially impact their company's ability to generate sustainable returns over the long term - and use both our voice and our vote to do so. As a global investor, we see ourselves as an important accountability mechanism, holding the firms we invest in to a consistent set of reporting standards and investor expectations.

Thought leadership

We have published guidance in this area, such as:

- **Climate Change Risk Oversight for Directors (2016):** Provides guidance to board members on overseeing climate risk in "high impact" sectors of oil, gas, utilities, and mining in our portfolio companies. <https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/climate-change-risk-oversight.pdf>
- **Incorporating Sustainability into Long-term Strategy (2017):** Provides a framework to review and analyze a company's approach to sustainability. <https://www.ssga.com/global/en/our-insights/viewpoints/incorporating-sustainability-into-long-term-strategy.html>
- **SSGA's Perspectives on Effective Climate Change Disclosure (2017):** Calls on companies to enhance disclosure in four key areas, in order to help investors evaluate the robustness of assumptions made in scenario-planning processes and the impacts on long-term strategy. <https://www.ssga.com/investment-topics/environmental-social-governance/2017/perspectives-on-effective-climate-change-disclosure.pdf>

Engagement

Climate change has been a priority engagement issue since 2014. Over the course of the past several years, we have held hundreds of climate-related engagements with companies on topics such as disclosure, practices, risk management and the impact of climate change on the company's long-term strategy. We leverage thought leadership publications to assess the quality of climate-related disclosure and to provide transparency to the market. Further, during engagement, we clearly communicate our expectations related to a company's climate-related disclosure. Once communicated, we monitor the a company's responsiveness to our expectations. Examples of climate-related engagements can be found on page 75 of our Annual Asset Stewardship Report: <https://www.ssga.com/investment-topics/environmental-social-governance/2018/07/annual-stewardship-report-2017.pdf>

Voting

We expect companies to disclose information regarding their approach to identifying material climate-related risks and the management policies and practices in place to address such issues. We support efforts by companies to demonstrate the ways in which climate and sustainability matters are incorporated into operations, business activities, and most importantly, long-term business strategy.

We take a case-by-case approach to voting on climate-related shareholder proposals. We consider the following factors when coming to a final vote decision :

- The materiality of the sustainability topic in the proposal to the company's business and sector
- The content and intent of the proposal
- Whether the adoption of such a proposal would promote long-term shareholder value in the context of the company's disclosure and practices
- The level of board involvement in the oversight of the company's sustainability practices
- Quality of engagement and responsiveness to our feedback
- Binding nature of proposal or prescriptiveness of proposal

2. Data

We partner with multiple carbon- and climate-related data providers to source data that can offer insights into client portfolios. This includes information on exposure to:

- Carbon emissions
- Fossil fuels
- "Brown" revenues generated from activities related to fossil fuel extraction or power generation
- "Green" revenues generated by companies with low-carbon products/services
- Adaptation score, indicating whether a company is positioned to adapt its business to the risks and opportunities posed by climate change

3. Solutions

Our investment solutions offer both investable opportunities as well as climate-specific reporting capabilities.

Investments

We have the capabilities to offer investable solutions across the range of climate investment styles described above: exclusionary screening, mitigation, mitigation and adaptation, and asset stewardship. Our approaches are backed by science-based targets set forth by the Intergovernmental Panel on Climate Change (IPCC), and

have the opportunity to scale more or less aggressively towards keeping global temperature rise below 2oC above pre-industrial levels. As climate science evolves and the goals set forth by the global scientific community become more aggressive, our investment solutions have the capabilities to continue tracking those goals.

Climate-specific Reporting

Our climate reporting solutions are designed to help clients understand how their strategies perform against investment objectives, including climate-focused objectives. The reports also help clients meet regulatory obligations, as well as their reporting obligations to beneficiaries, trustees, and other stakeholders. Ongoing efforts are underway to develop portfolio-level analytical capabilities to support deeper understanding of the portfolio impacts of transitioning to a low carbon economy.

SG 14 CC	Voluntary	Public		General
SG 14.6 CC	Please provide further details on these key metric(s) used to assess climate related risks and opportunities.			

Metric Type	Coverage	Purpose	Metric Unit	Metric Methodology
Climate-related targets	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets			
Weighted average carbon intensity	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	Exclusions, Thematic, Integration	Carbon Intensity-Direct+First Tier Indirect (tonnes CO2e/USD mn)	Greenhouse gases emitted by the direct operations of and suppliers to a company divided by revenue.
Carbon footprint (scope 1 and 2)	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	Exclusions, thematic, integration strategies	tonnes CO2e	Greenhouse gas emissions generated from burning fossil fuels and production processes which are owned or controlled by the company + Greenhouse gas emissions from consumption of purchased electricity, heat or steam by the company.
Portfolio carbon footprint	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets			
Total carbon emissions	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input type="checkbox"/> Minority of assets			
Carbon intensity	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	Exclusions, thematic, integration strategies	Carbon-Direct+First Tier Indirect (tonnes CO2e)	Greenhouse gases emitted by the direct operations of and suppliers to a company.
Other emissions metrics	<input type="checkbox"/> All assets <input type="checkbox"/> Majority of assets <input checked="" type="checkbox"/> Minority of assets	Exclusions, thematic, integration strategies	Total Reserves CO2 emissions (m tonnes)	Total embedded GHG emissions for the company in that financial year.

SG 14.7
CC

Describe in further detail the key targets.

Targettype	Time Frame	Description	Attachments
<input checked="" type="checkbox"/> Absolute target <input type="checkbox"/> Intensity target	Short term	Scope 1: Remove as much absolute carbon while ensuring risk-return objectives	
<input checked="" type="checkbox"/> Absolute target <input type="checkbox"/> Intensity target	Short term	Scope 2: Remove as much absolute carbon while ensuring risk-return objectives	
<input checked="" type="checkbox"/> Absolute target <input type="checkbox"/> Intensity target	Short term	Scope 3: Remove as much absolute carbon while ensuring risk-return objectives	
<input type="checkbox"/> Absolute target <input checked="" type="checkbox"/> Intensity target	Short to mid term	Intensity of total carbon: Remove as much carbon while keeping most efficient firms to ensure risk-return objectives	
<input type="checkbox"/> Absolute target <input checked="" type="checkbox"/> Intensity target	Short to mid term	Remove as much carbon from FF while ensuring risk-return objectives	

SG 14.8 CC Indicate whether climate-related risks are integrated into overall risk management and explain the risks management processes for identifying, assessing, and managing climate-related risks.

- Process for climate-related risks is integrated into overall risk management

Please describe

Please refer to questions SG 01.6 CC and SG 01.10.CC for how we view and manage climate risk in our business.

- Process for climate-related risks is not integrated into our overall risk management

SG 14.9 CC Indicate whether the organisation undertakes active ownership activities to encourage TCFD adoption.

- Yes

Please describe

State Street Corporation and State Street Global Advisors applaud the voluntary recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). As one of the world's largest asset managers, we take our role as stewards of our clients' assets seriously by seeking to influence environmental, social and governance practices of companies in which we invest. We have a strong track record of using both our voice and our vote to mitigate the risk of climate change to our portfolio companies and will continue to encourage companies in our portfolios for which climate change presents material risks to adopt better policies, practices and disclosures. An example of how we work to meet our obligations under the TCFD include publishing guidance for our portfolio companies on how to provide more effective disclosure that is aligned with the TCFD framework. Please see the following for more information:

SSGA's Perspectives on Effective Climate Change Disclosure: <https://www.ssga.com/investment-topics/environmental-social-governance/2017/perspectives-on-effective-climate-change-disclosure.pdf>

Statement of Support for the Task Force on Climate-Related Financial Disclosures: <https://www.ssga.com/investment-topics/environmental-social-governance/2018/10/tcf-d-statement.pdf>

No, we do not engage

SG 15	Mandatory to Report Voluntary to Disclose	Public	Descriptive	PRI 1
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SG 15.1	Indicate if your organisation allocates assets to, or manages, funds based on specific environmental and social themed areas.
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Yes

SG 15.2	Indicate the percentage of your total AUM invested in environmental and social themed areas.
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	%
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.54

SG 15.3	Specify which thematic area(s) you invest in, indicate the percentage of your AUM in the particular asset class and provide a brief description.
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	Area
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- Energy efficiency / Clean technology
- Renewable energy
- Green buildings
- Sustainable forestry
- Sustainable agriculture
- Microfinance
- SME financing
- Social enterprise / community investing

	Asset class invested
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Listed equity

% of AUM

.01

- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property
- Infrastructure
- Commodities
- Cash
- Other (1)
- Other (2)

Brief description and measures of investment

US Community Investing Index.

- Affordable housing
- Education
- Global health
- Water
- Other area, specify

Climate-related investment strategies.

Asset class invested

- Listed equity

% of AUM

0.85

- Fixed income - SSA
- Fixed income - Corporate (financial)
- Fixed income - Corporate (non-financial)
- Fixed income - Securitised
- Private equity
- Property
- Infrastructure
- Commodities
- Cash
- Other (1)
- Other (2)

Brief description and measures of investment

We currently work with clients in variety of ways to integrate considerations climate risk into investments we manage on their behalf. This figure represents AUM in a variety of climate investment solutions.

No