CLIMATE TRANSPARENCY REPORT 2020

Universities Superannuation Scheme - USS

Principles for Responsible Investment

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 2020 PRI Reporting Framework.

About this report

This report is an export of only the climate-related indicators from the 2020 Reporting Framework response. The full Public Transparency Report is available here (https://reporting.unpri.org/surveys/PRI-reporting-framework-2020/-67562C26-F6DD-449C-9F0D-43E71405AE53/79894dbc337a40828d895f9402aa63de/html/2/?lang=en&a=1). 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 2020 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 01.6 CC	✓	Public				
SG 01.7 CC	✓	Public				
SG 01.8 CC	✓	Public				
SG 01.9 CC	✓	Public				
SG 01.10 CC	✓	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 14.6 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	Universities Superannuation Scheme - USS
Signatory Category	Corporate pension or superannuation or retirement or provident fund or plan
Signatory Type	Asset Owner
Size	US$ > 50 billion AUM
Main Asset Class	Multi-Asset
Signed PRI Initiative	2006
Region	Europe
Country	United Kingdom
Disclosure of Voluntary Indicators	100% from 38 Voluntary indicators

Universities Superannuation Scheme - USS

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.

SG 01 CC	Mandatory to Report Voluntary to Disclose	Public	Descriptive	General

SG 01.6 CC	Indicate whether your organisation has identified transition and physical climate-related risks and opportunities and factored this into the investment strategies and products, within the organisation's investment time horizon.

◉ Yes

	Describe the identified transition and physical climate-related risks and opportunities and how they have been factored into the investment strategies/products.

Climate change is an issue of global significance. While there are uncertainties around the specific impacts, the predicted changes (e.g. rising sea levels/flooding/droughts) pose a threat to environmental, social, economic, and political stability, and to the businesses and other assets in which USS invests.

As changes in the climate could have major effects on both the economy and the quality of life of our members, issues related to climate change are legitimate concerns of pension fund trustees. The policy response to a changing climate, including the Paris Agreement and the targets for reducing emissions, including commitments to Net Zero by 2050, also present both transition risks and opportunities to USS.

The way in which our investee companies/assets manage these risks is therefore a concern, in line with our responsibility to safeguard the fund for the long-term benefit of our members. We expect companies and other assets in which we invest to analyse climate risks, both in terms of their and transition risk, and how the physical risks associated with a changing could impact their businesses. This should lead to the development mitigation and adaptation plans, and the disclosure of this information to investors. We also expect our investment managers to be addressing these risks where they are material.

Climate change therefore represents potentially significant risks for the assets in which we invest. These risks can be:

· Physical - a changing climate may impact the viability of some assets or business models (e.g. flood risk for real estate, or drought/fire risk for timberland assets);

· Regulatory/transitional - where governments establish polices to reduce emissions or encourage changes in technology in the shift to a lower carbon future. This could lead to, for example, the stranding of coal assets;

· Reputational - where members/beneficiaries express concerns regarding investments in certain sectors associated with fossil fuels. This may have implications for the scheme's licence to operate.

To manage these risks, USS has in place processes for assessing climate change risk and opportunities in its investment processes. As described in other parts of this report, the scheme integrates climate change and other ESG related issues in its bottom-up assessment of public equity investments, and in the due diligence of its private equity and direct investments including infrastructure.

As noted in SG01.9CC and other sections of this report, the RI team has also worked with USS's internal investment risk team to assess how we could best undertake climate and carbon related stress testing and scenario analysis across the scheme, the results of which were reported to the USS Investment Committee (IC). The scheme has also in the past undertaken a strategic review for its IC of the options available to it in terms of addressing short medium and long-term climate change related risks and opportunities.

○ No

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

◉ Yes

	Describe the associated timescales linked to these risks and opportunities.

USS has climate change on both the Scheme and its investment risk registers.

USS considers climate change issues over the short, medium, and long term

- Short-term - stock price movements resulting from increased regulation to address climate change, or weather-related events (e.g. storm damage/flooding etc.);
- Medium-term - regulation and other factors leading to changes in consumer behaviour and therefore purchasing decisions - an example of this would be the significant uptake in electric vehicles;
- Long-term - physical risk, where changes to the climate mean that there are potential major impacts to assets that USS owns. Examples would include increased sea level rise for coastal infrastructure assets or supply chain impacts for companies as a result of severe weather events. We/investee companies could incur significant costs to protect our interests (if indeed this is possible) if these assets fail to demonstrate appropriate resilience.

An example of a long to medium term theme that USS has acted upon is the impact of the transition to a low carbon economy and its potential to change the demand for different commodities. The growth in electric vehicles means that demand for batteries increase: cobalt is one critical element in rechargeable batteries so demand is increasing. As a result, identifying ways to invest in cobalt in the short/medium term is a way to play this long-term theme.

Additional text for SG 01.9 CC Scenario analysis

In addition to our main top down scenario analysis programme, in 2019, we also undertook a 2 degree scenario analysis on our internal Pan European equities portfolio. The process analysed the exposure of the portfolio to a range of transition risks (which can be both positive and negative) and physical climate risk scenarios. The outcome was an estimated climate Value-at-Risk of approximately 5% which appeared to indicate a relatively low level of risk to the portfolio. The portfolio's main downside exposure is largely drawn from the utility, materials, and energy sectors with one particular utility / energy distributor identified as the stock most at risk in this assessment. The analysis highlighted the potential deficiency with any evaluation whether top down or bottom up - it is easy to focus only on the negative impacts and not give equal weight to the positive consequences. For example, a diversified mining company was ranked as one of the top companies at risk due to its exposure to ship-borne coal. However, the process did not recognise the positive benefit this company gains from its exposure to Copper and Cobalt which are used in batteries and other low carbon infrastructure and which will benefit from the shift to a lower carbon economy. This demonstrates that whatever the outcome of the modelling or scenario analysis undertaken, understanding the drivers of the results will be at least as important as the headline outcomes.

USS believes that bottom up analysis may be more useful in assessing individual investment portfolios' climate risk exposure rather than total fund level analysis.

○ No

SG 01.8 CC	Indicate whether the organisation publicly supports the TCFD?

◉ Yes

○ No

SG 01.9 CC	Indicate whether there is an organisation-wide strategy in place to identify and manage material climate-related risks and opportunities.

◉ Yes

	Describe

Scenario Analysis

In 2019 USS undertook scheme wide climate scenario analysis and stress testing. We decided to conduct "top down" climate analysis of the schemes Reference Portfolio to understand the systemic risk the fund is exposed to, permitting us to consider climate risk alongside rate or inflation risk in alternative Reference Portfolios.

The analysis used four climate scenarios: 1.5°C (orderly vs disorderly transition), 2°C and 4+°C. The lower temperature scenarios entail relatively more transition risk whereas the 4+°C scenario entails only physical risks as it assumes "business as usual". An orderly transition is one in which policy and technology changes are gradual and internationally coordinated. The transition can become disorderly if public policy changes abruptly (the Inevitable Policy Response for example): e.g. all coal fired power production is closed, technological breakthroughs lead to obsolescence of existing assets, public, consumer or investor sentiment suddenly changes or legal risks emerge. The result is a financial shock similar to the 2008 global financial crisis.

The approach used (which aligns with USS' traditional and ongoing scenario analysis and risk assessments) applied the four climate risk scenarios to a traditional econometric model and maps the resulting macro-economic variables onto expected financial asset returns using historically observed relationships and correlations. Results are expressed as a change from a non-climate aware projection.

The scheme is still assessing the outcomes and implications of the scenario analysis. That said, we already plan to:

- Assess how we can better integrate climate risk in investment decision making processes, asset management and asst allocation
- The Corporate Affairs and RI teams to work on engagement programmes with policy makers and investee companies with underdeveloped transition plans
- Consider climate impact on investment mandates and benchmarks e.g. carbon targets, non-market cap benchmarks, etc.
- Improve both internal / external climate related reporting
- Work to develop "climate aware" models of returns to achieve complete consistency in our risk-return modelling and look at scenario analysis for the valuation best estimate
- Consider alternative Reference Portfolios and Journey Plan's which may provide greater climate resilience

Assessing the Impact on Liabilities

In late 2017, the Institute and Faculty of Actuaries (IFoA) released a formal risk alert on Climate-Related Risks (https://www.actuaries.org.uk/documents/risk-alert-climate-related-risks). A major focus of the alert was the implications of a changing climate, and the policy response to it, on pension funds liabilities. This intervention was unusual as most of the focus to date has been the impact of climate change on the assets held by pension funds/other investors.

We approached the Scheme actuary for their views on the impact to liabilities and discussed the topic with them earlier this year. The impacts are varied and include potential changes to GDP and population patterns (both positive and negative), both of which could have implications for pension fund liabilities and covenant strength. Whilst we will continue to monitor the work being done in this area, at the moment there is no firm conclusion and analysis is generic rather than scheme specific. The IFoA is also continuing to work on this issue.

○ No

SG 1.10 CC	Indicate the documents and/or communications the organisation uses to publish TCFD disclosures.

☑ Public PRI Climate Transparency Report

☑ Annual financial filings

☐ Regular client reporting

☑ Member communications

☑ Other

	specify

Section on the USS website (https://www.uss.co.uk/how-uss-invests/responsible-investment/activities/climate-change) including free standing TCFD report first published in 2018 and for update in 2020.

☐ We currently do not publish TCFD disclosures

Governance and human resources

SG 07 CC	Mandatory to Report Voluntary to Disclose	Public	Descriptive	General

SG 07.5 CC	Indicate the roles in the organisation that have oversight, accountability and/or management responsibilities for climate-related issues.

	Board members or trustees

☑ 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

☑ Oversight/accountability for climate-related issues

☐ Assessment and management of climate-related issues

☐ No responsibility for climate-related issues

	Other Chief-level staff or heads of departments

☑ 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

	Other role, specify (1)

Head of Equities

☑ Oversight/accountability for climate-related issues

☑ Assessment and management of climate-related issues

☐ No responsibility for climate-related issues

	Other role, specify (2)

Investment Product Management (IPM) Team

☐ 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 that have climate-related issue oversight/accountability or implementation responsibilities, indicate how these responsibilities are executed.

The USS Ltd board has ultimate responsible for addressing all issues relevant to the scheme, and this includes the oversight and management of climate change related risks and opportunities. The USS Ltd board has supported the schemes' activities associated with addressing climate change risk and opportunities since 2001, when the scheme did its first work assessing the implications of the issue for institutional investors[1].

The board agrees the RI strategy, and formally reviews the RI team's activities annually. The trustee directors sign off key focus areas and policies, including the fund's on-going activities relating to climate change. In addition to this annual reporting cycle, the board receives other input on ESG management, including climate change, as and when necessary. It also receives regular updates on the climate change related activities that the scheme's executive is involved in. In addition, the USS board has received training on climate change as part of its training on responsible investment.

The trustee board delegates responsibility for day-to-day management of the scheme to the group executive. The investment committee, a committee of the board, takes the lead in oversight of the executive's management of climate change and other ESG related issues. Further information on USS's response to climate change is outlined in the scheme's response to TCFD - see https://www.uss.co.uk/~/media/document-libraries/uss/investments/ri/taskforce-on-climate-related-financial-disclosures.pdf.

[1] https://www.uss.co.uk/~/media/document-libraries/uss/investments/riactivities/uss-climate-change--a-risk-management-challenge-for-investors-2001.pdf

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

USS is unlike the majority of pension funds in that it has an in-house asset manager, USS Investment Management, which manages the majority (around 75%) of the scheme's assets. USSIM provides investment advice and management activities for USS, and includes advice on climate change and other ESG / RI issues.

Unlike the vast majority of assets owners, USS demonstrates and resources its commitment to RI and addresses issue like climate change through the employment of in-house responsible investment experts. USSIM has an RI team of five. Having this internal resource means that expertise on the investment implications of climate change is readily available to both trustees and the executive, and the RI team provides input to the trustee board on ESG issues, including climate change, as and when required.

Whilst the USS Investment Management CIO / CEO has ultimate responsibility for climate change related activities, the oversight of the RI function is via the Head of Equities, a member of USS Investment Management's executive committee.

Day-to-day oversight and management of the scheme's climate strategy rests with the RI team. The team works with the internal asset managers to ensure integration of climate change and other ESG risks into investment decision making across asset classes where they are material. The RI team leads much (but not all) of the stewardship activity associated with encouraging both listed companies and other assets to manage better climate change related risks. In addition, USS's internal fund managers will also frequently directly engage on ESG issues both individually and in conjunction with the RI team. For example, for our motorway services asset, the relevant USS board member for that asset has participated in climate related discussion regarding the shift to electric vehicles and changes in transportation modes.

The USS Performance and Investment Risk team (PAIR) has played a leading role in the scenario analysis and stress testing undertaken by USS in 2019. Their knowledge has proved invaluable in integrating the climate and economic data sets and models to ensure the scheme's understanding of the analysis.

The USS private markets team undertook Project Sol, a thematic project focused on identifying the key risks of climate change across major sectors and geographies as well as investment opportunities driven by the transition into a zero-carbon world. The project had a particular focus on USS's direct and infrastructure assets and assessed both physical risk (extreme weather, rising sea levels) and transition risk (technological, regulatory, stranded assets). The PMG team also developed a framework to assess these impacts on costs and revenues taking into account sector specific challenges but the mitigating actions already undertaken by the management teams under PMG ownership and control.

Details of the RI team's activities, including actions associated with climate change, can be found here: https://www.uss.co.uk/how-uss-invests/responsible-investment. The scheme's responsible property investment targets can be found here: https://www.uss.co.uk/how-uss-invests/the-fund/investments/private-markets/property.

PMG also provide board members for direct assets - and as such will have oversight of climate related activities.

SG 07.8 CC	Indicate how your organisation engages external investment managers and/or service providers on the TCFD recommendations and their implementation.

☐ Request that external managers and/or service providers incorporate TCFD into mainstream financial filings (annual financial reports, other regulatory reporting or similar)

☐ Request incorporation of TCFD into regular client reporting

☐ Request that external managers complete PRI climate indicator reporting

☐ Request responses to TCFD Fund Manager questions in the PRI Asset Owner Guide

☑ Other

	Specify

We have raised TCFD reporting with external managers, particularity PE, and discussed liability related climate risk with our actuary.

☐ We do not engage with external managers and/or service providers on the TCFD recommendations and their implementation

ESG issues in asset allocation

SG 13	Mandatory	Public	Descriptive	PRI 1

SG 13.1	Indicate whether the organisation carries out scenario analysis and/or modelling, and if it does, provide a description of the scenario analysis (by asset class, sector, strategic asset allocation, etc.).

☐ Yes, in order to assess future ESG factors

☑ Yes, in order to assess future climate-related risks and opportunities

	Describe

In 2019 USS undertook scheme wide climate scenario analysis/stress testing. We decided to conduct "top down" climate analysis of the schemes Reference Portfolio to understand the systemic risk the fund is exposed to, permitting us to consider climate risk alongside other risks. See SG13.4.

☐ No, our organisation does not currently carry out scenario analysis and/or modelling

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]

USS has taken an integrated approach to ESG matters, with environmental, social and governance factors considered in analysis for stocks, market level and asset class allocations. Where appropriate, scenario analysis will be used to develop the investment thesis for both public and private market investments. As we do not have specific ESG related mandates, it can be difficult to track or capture the inclusion of ESG considerations at the macro level for the scheme.

The scheme uses scenario analysis in individual stock analysis. Examples are provided in the climate change related sections of this report.

Note, the implications of a deal or no-deal Brexit on financial markets has been a clear focus for the scheme in 2019. Whilst regulatory and political risks are often closely linked to our reporting of social and governance activities for the scheme, we have not sought to report on Brexit-related investment decisions in this report.

SG 13 CC	Mandatory to Report Voluntary to Disclose	Public	Descriptive	General

PRI Principles for Responsible Investment

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

☐ Initial assessment

☑ Incorporation into investment analysis

	Describe

Scenario Analysis

In 2019 USS undertook scheme wide climate scenario analysis and stress testing. We decided to conduct "top down" climate analysis of the schemes Reference Portfolio to understand the systemic risk the fund is exposed to, permitting us to consider climate risk alongside rate or inflation risk in alternative Reference Portfolios.

The analysis used four climate scenarios: 1.5°C (orderly vs disorderly transition), 2°C and 4+°C. The lower temperature scenarios entail relatively more transition risk whereas the 4+°C scenario entails only physical risks as it assumes "business as usual". An orderly transition is one in which policy and technology changes are gradual and internationally coordinated. The transition can become disorderly if public policy changes abruptly (the Inevitable Policy Response for example): e.g. all coal fired power production is closed, technological breakthroughs lead to obsolescence of existing assets, public, consumer or investor sentiment suddenly changes or legal risks emerge. The result is a financial shock similar to the 2008 global financial crisis.

The approach used (which aligns with our traditional and ongoing scenario analysis and risk assessments) applied the four climate risk scenarios to a traditional econometric model and maps the resulting macro-economic variables onto expected financial asset returns using historically observed relationships and correlations. Results are expressed as a change from a non-climate aware projection.

The scheme is still assessing the outcomes and implications of the scenario analysis. That said, we already plan to:

- Assess how to better integrate climate risk in investment decision making processes, asset management and asset allocation
- The Corporate Affairs and RI teams to work on engagement programmes with policy makers and investee companies with underdeveloped transition plans
- Consider climate impact on investment mandates and benchmarks e.g. carbon targets, non-market cap benchmarks, etc.
- Improve both internal / external climate related reporting
- Work to develop "climate aware" models of returns to achieve complete consistency in our risk-return modelling and look at scenario analysis for the valuation best estimate
- Consider alternative Reference Portfolios and Journey Plan's which may provide greater climate resilience

Stock level

Where appropriate, portfolio managers have used carbon price scenario analysis to refine models and investment cases for a particular investment. For example, in private markets, USS considered how climate change regulations could impact a US oil and gas debt investment, and scenario modelling for a blended carbon tax assumption under differing carbon price scenarios was used to consider the potential impacts on returns and how these could affect the exit price and schedule for debt repayments. It has also been used in assessing carbon risk in public equity investments (see below).

Resilience to physical climate change is also assessed, particularly in real assets such as infrastructure, real estate and direct [private equity like] investments. Several of the scheme's direct infrastructure holdings, such as the scheme's UK water assets and a US port, have produced detailed climate scenario models as part of their resilience planning.

☑ Inform active ownership

	Describe

Scenario analysis has also been used in assessing carbon risk in public equity investments. As an example, as part of the analysis for an investment in a Japanese publicly listed utility, the portfolio manager applied a cost of carbon in their modelling of the company's future returns to assess the impact of the imposition of such a charge. This was undertaken to assess this risk even though Japan has no current price placed on carbon emissions, and is not expected to introduce one in the near future. The results of this were used in an engagement with the utility (joint with another pension fund) where we were advised that we were the FIRST investors to visit that company's office to discuss climate change related issues.

☐ 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 your organisation has evaluated the potential impact of climate-related risks, beyond the investment time horizon, on its investment strategy.

◉ Yes

	Describe

As noted, USS is currently assessing the results of its recent scenario analysis and stress testing analysis with the aim of building climate risk into the scheme's overall risk framework - see other sections including **SG 14CC.**

○ No

SG 13.7 CC	Indicate whether a range of climate scenarios is used.

☑ Analysis based on a 2°C or lower scenario

☑ Analysis based on an abrupt transition, consistent with the Inevitable Policy Response

☑ Analysis based on a 4°C or higher scenario

☐ No, a range is not used

SG 13.8 CC	Indicate the climate scenarios your organisation uses.

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

SG 14	Mandatory to Report Voluntary to Disclose	Public	Additional Assessed	PRI 1

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, specify(2)

☐ 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		1	160	000	000
Currency	GBP				
Assets in USD		1	498	479	380

	Specify the framework or taxonomy used.

Climate change, and the policy response to it, provides investors with opportunities to invest in the transition to a low carbon future. Investing in such opportunities provides the scheme with some resilience against the impacts of a changing climate. USS has in excess of £800m in committed financing to UK renewables. Investments include L1 Renewables which is USS's wholly owned renewable lending platform established in 2014. L1 Renewables supports UK onshore wind projects and project finance loans to operational wind farms, and also supports waste and biomass energy production. In 2017 USS also acquired direct equity interests in a number of offshore wind farms from a sale by the UK government of the Green Investment Bank. Finally, the scheme also has c. £360 million invested in timberland which acts as a carbon sink. These investments have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☐ 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

☐ None of the above

SG 14.5	Additional information [Optional]

Other activities

Prior to the advent of the CA100+, USS wrote to heavy carbon emitting companies in our listed equity portfolio. We asked these companies to explain what action they had taken in response to the Paris Agreement and what scenario analysis was undertaken. We encouraged firms to go public with this disclosure. The responses received helped to inform our engagement activities.

USS is a participant in GRESB and GRESB Infrastructure and we expect our externally appointed real estate investment managers and direct infrastructure assets to participate.

USS continues to hold a position as advisor to the IIGCC board. The IIGCC provides a forum for investors to agree common and consistent expectations on disclosure on the management of climate change risk and a conduit for the communication of these expectations to investee companies. We consider that the IIGCC has made an invaluable contribution to improving disclosure on climate change risk through these activities. See http://www.iigcc.org/.

For additional information on the scheme's approach to climate change and activities in this area see: https://www.uss.co.uk/how-uss-invests/responsible-investment/activities/climate-change.

SG 14 CC	Voluntary	Public		General

SG 14.6 CC	Provide further details on the key metric(s) used to assess climate-related risks and opportunities.

Metric Type	Coverage	Purpose	Metric Unit	Metric Methodology
Climate-related targets	☐ All assets ☐ Majority of assets ☑ Minority of assets	To reduce energy consumption in USS direct property and other assets.	USS Real Estate example: Energy: Continue with electricity baseload assessments with a view to reducing consumption (within tolerance), and maintaining levels already achieved. Continue with roll out of energy loggers. To run in conjunction with the M&E/PPM review programme.	The scheme has also established targets for the management of energy (and therefore emissions) at its most significant direct property holdings, a process which has been running for more than a decade. The headline policies are made publicly available online, with detailed property level targets used internally for management of the assets. For details please see: https://www.uss.co.uk/~/media/document-libraries/uss/investments/rpi/rpi-managment-targets-apr18-mar19.pdf In addition, many of our direct assets have climate and energy related targets. See for example: https://www.heathrow.com/content/dam/heathrow/web/common/documents/company/heathrow-2-0-sustainability/futher-reading/heathrow-emissions-strategy.pdf https://corporate.thameswater.co.uk/about-us/protecting-our-environment/Climate-change/Managing-our-contribution
Weighted average carbon intensity	☐ All assets ☑ Majority of assets ☐ Minority of assets	To assess carbon footprint of USS assets and portfolios	MT Co2 / m£ invested	Used as part of footprint exercise and is the usual metric for footprinting.

Carbon footprint (scope 1 and 2)	☐ All assets ☑ Majority of assets ☐ Minority of assets	To assess carbon footprint of USS assets and portfolios	MT Co2 / m£ invested	The scheme is unusual in that it has undertaken carbon footprinting across a number of assets (including fixed income, direct assets and hedge funds). We do not believe it appropriate to publish these footprint data at the present time for a number of reasons including the following: • The methodologies for a number of asset classes are nascent and therefore it would be premature to publish footprint data based on methodologies which will change. • Carbon data itself is lacking for some asset classes – for example, private equity. • Whilst we collect data on energy use for our direct real estate assets, we do not collect tenant data. As a result, the footprints do not necessarily provide meaningful insights into carbon risk. To stimulate debate on and development of carbon footprinting methodologies, USS participated in a video interview with Trucost / S&P Dow Jones Indices to discuss the approach USS has taken to measure carbon footprinting across all asset classes (not just public equities), and some of the challenges we encountered when we tried to do this. This can be viewed here. USS also participated in discussions on the issues facing carbon footprinting with a group of other European asset owners. A report of these discussions, "If carbon footprinting is the answer, then what is the question?", which was published to help move forward the development of cross asset class footprinting, is available here. USS publishes the targets it sets for environmental and social issues associated with management of its real estate assets. These have been available on the fund's internet site for a number of years.
Portfolio carbon footprint	☑ All assets ☐ Majority of assets ☐ Minority of assets	see above	MT Co2 / m£ invested	The scheme is unusual in that it has undertaken carbon footprinting across a number of assets (including fixed income, direct assets and hedge funds). We do not believe it appropriate to publish these footprint data at the present time for a number of reasons including the following: • The methodologies for a number of asset classes are nascent and therefore it would be premature to publish footprint data based on methodologies which will change. • Carbon data itself is lacking for some asset classes – for example, private equity where we again in 2019 attempted to undertake a footprinting process based upon estimated data. • Whilst we collect data on energy use for our direct real estate assets, we do not collect tenant data. As a result, the footprints do not necessarily provide meaningful insights into carbon risk. To stimulate debate on and development of carbon footprinting methodologies, USS participated in a video interview with Trucost / S&P Dow Jones Indices to discuss the approach USS has taken to measure carbon footprinting across all asset classes (not just public equities), and some of the challenges we encountered when we tried to do this. This can be viewed here. USS also participated in discussions on the issues facing carbon footprinting with a group of other European asset owners. A report of these discussions, "If carbon footprinting is the answer, then what is the question?", which was published to help move forward the development of cross asset class footprinting, is available here. USS publishes the targets it sets for environmental and social issues associated with management of its real estate assets. These have been available on the fund's internet site for a number of years.
Total carbon emissions	☐ All assets ☑ Majority of assets ☐ Minority of assets	This number drops out of the total fund carbon footprint	MT Co2 / m£ invested	The value of this number is limited as it relates to asset allocation more than stock selection / exposure to individual assets. As such, it makes comparison of this number between funds meaningless.

Carbon intensity	☐ All assets ☐ Majority of assets ☐ Minority of assets			

SG 14.7 CC	Describe in further detail the key targets.

Targettype	Baseline year	Target year	Description	Attachments
☐ Absolute target ☑ Intensity target	2010/11	2019/20	Grand Arcade Shopping Centre Cambridge - 30% reduction in energy intensity	
☐ Absolute target ☐ Intensity target				
☐ Absolute target ☐ Intensity target				
☐ Absolute target ☐ Intensity target				
☐ Absolute target ☐ Intensity target				

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

◉ Processes for climate-related risks are integrated into overall risk management

○ Processes for climate-related risks are not integrated into overall risk management

SG 14.9 CC	Indicate whether your organisation, and/or external investment manager or service providers acting on your behalf, undertake active ownership activities to encourage TCFD adoption.

◉ Yes

	Please describe

USS actively engages with companies and other assets to encourage the adoption of TCFD. We have also specifically asked certain companies in the resource sector to complete scenario analysis in line with the TCFD. In addition:

- USS is a participant in the CA100+ collaboration with other asset owners and managers.
- We actively encourage our private equity managers to provide the data needed to complete TCFD reporting, both in face to face meetings with our GPs and at conferences. Indeed, one of our PE managers had now signed up as a supporter on the TCFD.
- We raised with the Governor of the Bank of England the point that Sovereign Debt (including UK Gilts) is the scheme's single largest asset exposure ad should be included in TCFD report. However, carbon exposure data for sovereign debt are limited.

Further details of USS's approach to engagement are in other sections of this report.

○ No, we do not undertake active ownership activities.

○ No, we do not undertake active ownership activities to encourage TCFD adoption.

SG 15	Mandatory to Report Voluntary to Disclose	Public	Descriptive	PRI 1

SG 15.1	Indicate if your organisation allocates assets to, or manages, funds based on specific environmental and social themed areas.

◉ Yes

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

	%

2

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.

	Area

☑ Energy efficiency / Clean technology

	Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☑ Fixed income - Corporate (non-financial)

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Fixed income - Securitised

☐ Private equity

☐ Property

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

The scheme provides debt for retrofitting energy efficient street lighting in the UK (less than 1% of assets).

☑ Renewable energy

	Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☑ Fixed income - Corporate (non-financial)

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Fixed income - Securitised

☑ Private equity

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Property

☑ Infrastructure

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

USS has in excess of £800m in committed financing to UK renewables.

Investments include L1 Renewables which is USS's wholly owned renewable lending (debt) platform established by USS in 2014 supporting UK onshore wind projects and project finance loans to operational wind farms. See http://l1renewables.co.uk/.

Additionally, USS owns direct equity interests in a number of offshore wind farms sold by the UK government of the Green Investment Bank. https://www.responsible-investor.com/articles/uss-partners-with-macquarie-gib

The scheme also has a carbon tilted Low Vol factor fund which excludes the most carbon intensify companies from the portfolio.

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 2% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

(less than 1% of assets)

☑ Green buildings

	Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☐ Private equity

☑ Property

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

The Whiteley Shopping Centre which was constructed by USS, achieved a BREEAM Excellent sustainability rating becoming the first UK shopping centre to achieve the standard. See:

https://www.whiteleyshopping.co.uk/community/whiteley-green.

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☑ Sustainable forestry

Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☐ Private equity

☐ Property

☑ Infrastructure

Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Hedge funds

☐ Cash

☐ Other (1)

Brief description and measures of investment

The scheme has c. £360 million invested in ASA and/or FSC certified timberland in Australia and the US. (less than 1% of assets)

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☐ Sustainable agriculture

☐ Microfinance

☑ SME financing

Asset class invested

☑ Listed equity

Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☐ Private equity

☐ Property

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

Brief description and measures of investment

USS invests in banks and financial institutions in developed and emerging markets. Whilst we have not sought to measure their impacts and contributions to SME financing, many of the institutions will have an allocation to SME finance. See for example, Standard Chartered's sustainability website - https://www.sc.com/en/sustainability/. (less than 1% of assets)

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☐ Social enterprise / community investing

☐ Affordable housing

☑ Education

Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☑ Private equity

Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Property

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

Brief description and measures of investment

The scheme holds emerging market education focussed assets and UK-based nurseries in its private equity portfolios and property portfolios respectively. (less than 1% of assets)

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☑ Global health

	Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☑ Private equity

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Property

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

USS has investments in private equity and listed equity which have a focus on healthcare, including companies which are focusing on the development of healthcare infrastructure in developed and emerging markets. The scheme is also invested in companies working in areas such as occupational health, biotech, diagnostic care and equipment.

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☑ Water

	Asset class invested

☐ Listed equity

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☑ Fixed income - Corporate (non-financial)

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Fixed income - Securitised

☑ Private equity

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Property

☐ Infrastructure

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

USS holds significant direct investments in UK water company debt, as well as listed bonds and equity in private and listed water utilities. We also hold investments in designers and manufacturers of water infrastructure equipment across the full water-cycle including water pumps, treatment, testing and metering equipment. Such investments support water companies to provide clean, safe, potable water and waste water treatment to protect waterways and oceans.

For example, see

- https://www.uss.co.uk/news/all-news/2018/03/uss-completes-investment-in-yorkshire and
- https://www.uss.co.uk/how-uss-invests/the-fund/investments/private-markets/private-credit/yorkshire-water-case-study.

Note - USS does not have target specific allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

☑ Other area, specify

Public transport

	Asset class invested

☑ Listed equity

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Fixed income - SSA

☐ Fixed income - Corporate (financial)

☐ Fixed income - Corporate (non-financial)

☐ Fixed income - Securitised

☐ Private equity

☐ Property

☑ Infrastructure

	Percentage of AUM (+/-5%) per asset class invested in the area

1

☐ Hedge funds

☐ Cash

☐ Other (1)

	Brief description and measures of investment

USS is invested in Globalvia, an international toll road concession company. https://www.uss.co.uk/news/all-news/2014/03/uss-commits-150m-to-globalvia

The scheme is also invested in Heathrow, an international hub airport. See https://www.uss.co.uk/how-uss-invests/the-fund/investments/private-markets/real-assets/heathrow-case-study.

USS is also invested in public transport - rail links - which provide efficient and lower carbon transport from two airports in Australia.

Note - USS does not have specific target allocations to specific environmental or social themed assets and we have not calculated the percentage figure for AUM (hence reporting 1% for all the entries). All the investments outlined in SG15.3 have been made by USS Investment Management based on the attractiveness of the risk adjusted returns consistent with our fiduciary duties.

○ No