Climate change and your pension

A snapshot of our TCFD Report 2023

We are the Universities Superannuation Scheme (USS)[1], the principal pension scheme for universities and higher education institutions in the UK.

We exist to pay our members' pensions now and well into the future. To do this, we need to protect the scheme's investments from the financial risks associated with climate change, and find ways to benefit from the investment opportunities it brings.

We report on our approach to climate change annually in our Taskforce for Climate-related Financial Disclosures (TCFD) Report. The TCFD is an industry-led group that helps companies and their investors understand their financial exposure to climate risk.

What you're reading is just a snapshot – you can find full details in our TCFD Report.

We are making good progress on climate, but there's a long way to go.

Climate change affects our pension scheme investments

We invest the money you and your employer contribute to USS in companies, infrastructure, buildings, and more, around the world. This helps protect and grow the value of the scheme's money over the long term, so we can pay members' pensions now and well into the future.

Climate change poses risks to our investments
Flooding could damage a property we own. Wildfires could destroy timberland we invest in. A change in energy policy to reduce emissions could leave any fossil fuel investments we have 'stranded' – where they lose value suddenly as a result of external factors.

But climate change also offers potential benefits for our investments
To transition to a Net Zero world, we will all increasingly rely on renewable energy and on new, low-carbon technologies. These are opportunities we can – and already do – invest in, to support the transition and benefit from long-term returns.

Note
1 We have used the terms 'USS', 'we', and 'our' as catch-all references to different parts of the USS Group. So, depending on where it appears in the text, 'USS' means one of the following:
- The scheme (Universities Superannuation Scheme)
- The Trustee Board (University Superannuation Scheme Limited)
- The Trustee Board's wholly-owned investment management company (USS Investment Management Limited, or USSIM)

Managing climate risk is central to our investment strategy

We have set an ambition for our investments to be Net Zero by 2050, if not before
Climate change is a significant financial risk. We believe that a low-carbon world is likely to be a more financially stable world. This is why we have set this Net Zero ambition. It is in line with the Paris Agreement, which aims to limit temperature rise to below 2°C.

We have set interim targets for 2025 and 2030
Our investment team will work with the companies we invest in to encourage them to cut the intensity of the emissions they generate. Our target is to reduce our overall emissions intensity by 25% by 2025, and by 50% by 2030, relative to our 2019 baseline.

The way we work is structured to help us achieve these targets
Our Net Zero Steering Committee oversees our efforts to meet our Net Zero targets. We have a Net Zero Working Group for each asset class, such as equities (shares in companies) and fixed income (loans to companies and governments). Together the Steering Committee and Working Groups are responsible for keeping us on track.

We have also introduced a new Investment Framework, which includes assessment of the USS Investment Management teams' progress to Net Zero, among other things.

As a large pension scheme, we have an important role to play
To achieve Net Zero, the entire economy needs to decarbonise. And as a large, long-term investor, we hold investments across the global economy. So we have a responsibility to actively engage with the companies we invest in to drive change.

Society cannot divest its way to Net Zero and neither can we
We could just divest from heavy carbon emitters and have a low-carbon portfolio. But if we were to sell a high-carbon asset, another investor without an agenda to address climate risk might buy it. We would lose our opportunity to encourage change – and we believe it is better to be an investor with a seat at the table than to have no influence.

Some of our key activities since last year

We encouraged one of the biggest polluters to set more ambitious decarbonisation targets
We invest in Cemex, one of the largest cement companies. As part of the Climate Action 100+ network, we encouraged Cemex to develop more ambitious carbon reduction targets. Cemex is now set to reach its 2030 decarbonisation target five years earlier than originally planned. It has also introduced new lower-carbon products such as its Vertua Net Zero CO_2 concrete.

We continue to invest in renewable energy and clean technology
We have invested approximately £2bn in renewable energy and clean technologies. This includes a 50% stake in Bruc Energy, which runs solar farms across Spain. These long-term investments are well-suited to us, as we need to pay our members' pensions far into the future.

We have started developing better 'climate scenarios' with the University of Exeter
Modelling climate scenarios can help us understand how investments might perform in the future under a range of potential outcomes. But current scenarios do not capture the complex interrelated risks from climate change. For example, they do not model climate tipping points, when a small change in the climate triggers a larger and often unstoppable change elsewhere. They also do not capture potential knock-on effects of climate change, such as mass migration, war, and political and social instability.

Regulation requires us to repeat scenario analysis at least every three years – we ran ours for last year's report. So we are using this time to develop better scenarios, working alongside the University of Exeter. We plan to make the results public, to help other pension funds with their scenario analysis.

We continue to invest in electric-powered flights, carbon capture, and more
Last year we announced we were investing £500m in high growth, privately-owned businesses that are developing services to help the economy to decarbonise. This includes investments in BETA Technologies, which develops electric-powered aircrafts, and Summit Carbon Solutions, which develops carbon capture and storage technology.

We have integrated 'carbon price scenarios' into our investment modelling
Our Global Emerging Markets Equities team picks individual companies to invest in. To do this, they model everything from a company's expected future cash flows to how climate can impact its value. They now also look at how potential future carbon prices might impact a company.

Our carbon footprint and progress in numbers

Since our last report, we have better data, and a better calculation methodology. We have used this to update our 2019 baseline and 2021 carbon intensities.

These have fallen by 3% and 13% respectively from the numbers we reported last year. As a result, we have readjusted our 2025 and 2030 targets too.

A note on the numbers:

- These numbers are based on the investments in the Retirement Income Builder, the defined benefit part of the scheme. This is the majority of USS's investments – £71.4bn compared to £2bn in the Investment Builder, the defined contribution part
- The numbers shown are best estimates, and date from December 2022
- They do not cover sovereign debt
- They only include Scope 1 and 2 emissions
- We have been able to measure Scope 3 emissions for £23bn of our corporate assets this year. We disclose this separately in the full report

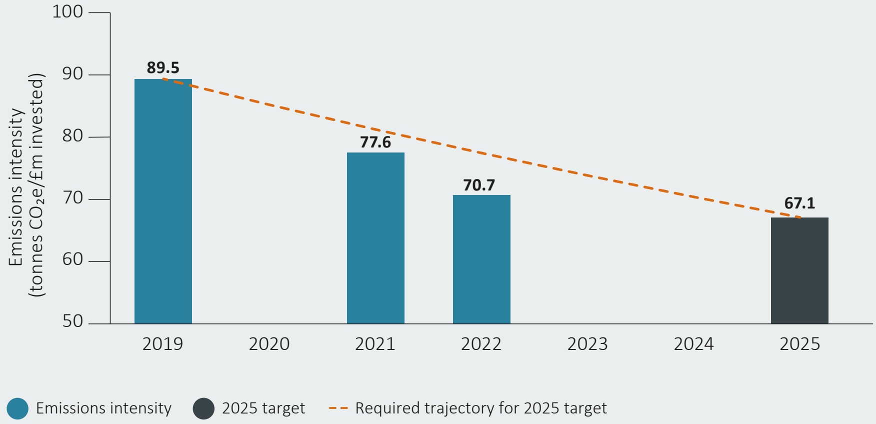
The full TCFD Report has more details, explanations of Scopes 1, 2 and 3 and other key terms, and the reasoning behind all of this.

We have reduced our emissions intensity by 21% since 2019 and are on track so far

The graph on the right shows that, since 2019, we have reduced our emissions intensity from 89.5 to 70.7 tonnes of CO_2e per £m invested. This is a 21% reduction, or 7.6% a year.

To achieve our targets, we need to reduce our emissions intensity by between 4.7% and 6.1% a year from our 2019 start point. We are on track so far, but we know this journey will not be a linear one. Small changes to our portfolio can have a big impact on our carbon footprint.

Trajectory to our 2025 target



1 The greenhouse gas emissions our investments are responsible for

In 2021		In 2022
4.4 million tonnes of CO_2e	→	3.3 million tonnes of CO_2e

2 Our emissions intensity: the amount of greenhouse gas emissions per £m we invest

In 2021		In 2022
77.6 tonnes of CO_2e per £m	→	70.7 tonnes of CO_2e per £m

3 The proportion of our investments aligned with a well below 2°C scenario[2]

In 2021		In 2022
24%	→	27%

4 The quality and coverage of our emissions data

In 2021		In 2022
Quality: 45%	→	Quality: 40%[3]
Coverage: 90%	→	Coverage: 97%

Notes

2 This metric is based on just £14.9bn of our assets, for which our data provider S&P Trucost has Paris Alignment data available.

3 While this appears to show our data quality has reduced, this is actually because we have better coverage using lower quality data sources. More third-party investment managers are making more disclosures, and we have found these to be a better estimate of fund intensity than other technically higher-quality reporting.

This is an ongoing journey – we will publish our progress every year

Our plans for the future include:

1. Continuing to improve how we integrate carbon and other climate data into our investment decision-making
2. Engaging with the companies we invest in to encourage them to reduce their carbon intensity
3. Developing better scenario analysis that captures the complex interrelated risks of climate change
4. Improving how we collect and manage data, including automating more of this process
5. Increasing our investments in renewables and low-carbon assets, where we can find the right kind of assets and where these are in our members' financial interests

For more information, see our full TCFD Report. We publish a report every year, so you can see our progress.

- The journey to Net Zero is not easy, but it is critical for our investments and for the planet
- We would like to see a world worth retiring into, and so aim to deliver both the pensions our members expect and a low-carbon future