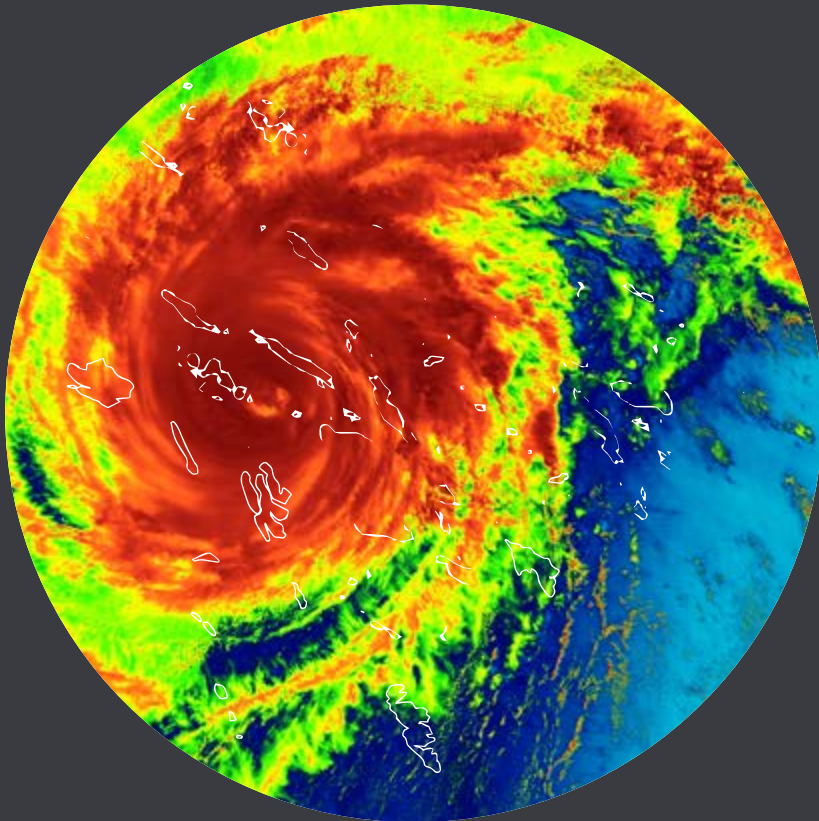




Climate Change Framework 2021



About Ruffer

Ruffer looks after investments for institutions, pension plans, private clients, financial planners and charities, in the UK and internationally.

Our aim is to deliver positive returns, whatever happens in financial markets.

To invest well, we need to take on risk. With risk comes responsibility. Our preoccupation is with not losing money, and it is by preserving our clients' capital in difficult periods that has enabled us to deliver a strong track record of returns. Through boom and bust. For over 26 years. If we keep doing our job well, we will protect our clients' capital – and increase its real value substantially.

In all we do, we seek to be responsible investors, fully integrating environmental, social and corporate governance (ESG) issues into our investment process.

Ruffer LLP has been climate neutral since 2017.



For more on what we do and how we do it, please visit [ruffer.co.uk](https://www.ruffer.co.uk)

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Foreword

CLEMMIE VAUGHAN

Chief Executive



OUR PURPOSE IS TO PROVIDE INVESTMENT PERFORMANCE AND SERVICE THAT PUT CLIENTS FIRST.

At the heart of this is a resolute focus on preserving our clients' capital. Companies we invest in increasingly face risks from the physical aspects of the climate changing around us and from the policy and technological changes necessary to move to a net-zero carbon economy, known as 'physical' and 'transition' risks.

These risks, if poorly managed, could harm our clients' portfolios. Careful and concerted management is essential, at both a portfolio and company level.

The Taskforce for Climate-related Financial Disclosure (TCFD)'s recommendations help us to determine the nature, scale and management of climate-related risks and opportunities across sectors and geographies.

Ruffer supports the Paris Agreement and we advocate the transition to a low-carbon economy consistent with the goal of keeping the increase in global average temperature to well below 2°C.

I am pleased to present Ruffer's inaugural TCFD Report. It introduces Ruffer's Climate Change Framework and provides a response to the recommendations of the TCFD. The report exhibits our climate-related activities over the past few years and provides an insight into how our understanding of the risks facing our investee companies has evolved. We have set targets for the year ahead, committing to a further strengthening of our approach in managing risk and identifying investment opportunities.

This report is designed to provide detail and clarity to our approach, and to help our clients meet their reporting requirements. By meeting the targets laid out, we hope to continue delivering our all-weather investment strategy. Come rain or shine.

1. Climate change at Ruffer

OUR APPROACH TO MANAGING CLIMATE-RELATED RISKS AND OPPORTUNITIES IS INFORMED BY SCIENTIFIC CONSENSUS.

Global warming may reach the critical 1.5°C level within a decade.

This is the abridged conclusion of the scientific studies of the Intergovernmental Panel on Climate Change (IPCC). There is a direct link between the greenhouse gases emitted by humans and the rise in temperature compared to the pre-industrial era. When emissions rise, the temperature does too.

RUFFER'S INAUGURAL TCFD REPORT

Given the complexity of the issues, the ambitiousness of certain recommendations and the methodological difficulties that accompany them, the TCFD reporting framework provides for a gradual implementation through an iterative process of continuous improvement and learning.

This report is divided into two sections –

The first section presents Ruffer's thinking around climate change with regard to risk, integration, stewardship and opportunities. Ruffer's overall investment objective is preserving and growing our clients' capital. Ruffer has and will make investments in hard-to-abate companies when we deem it necessary to meet this objective. We manage these climate-related risks, and encourage companies to reduce their greenhouse gas emissions, through our proactive stewardship approach. We lay out the activities completed, and the targets and strategies set for the coming year.

The second section responds to the recommendations of the Financial Stability Board's (FSB) Task Force for Climate-related Financial Disclosure (TCFD) in detail, including climate metrics on Ruffer's flagship fund (LF Ruffer Total Return Fund).¹ Climate change has been debated for more than a quarter of a century, but only recently has there been widespread acceptance of its occurrence. Arguably one of the most important steps in achieving this was the Intergovernmental Panel on Climate Change (IPCC) report released in November 2014, which stated climate warming is now 'unequivocal' and human activity is 'extremely likely' to be the dominant cause.²

Importantly, this report emphasised the link between greenhouse gas emissions and climate change. As the effects of greenhouse gas emissions are cumulative, persistent and not localised, it is fundamental that this issue is considered in a global context. The response needs to be international, and it must be based on a shared vision of long-term goals and agreement on frameworks that will accelerate action over the next decade. The ratification of the Paris Agreement to limit the rise in global temperatures

¹ LF Ruffer Total Return Fund is a UK UCITS fund that is only registered for distribution in the UK. However, as it follows the same investments strategy as Ruffer's other core funds and segregated portfolios, it is representative of the Ruffer portfolio

² Intergovernmental Panel on Climate Change (IPCC) 2014 Synthesis Report

this century to, at most, 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C was a further step forward and an example of the co-operation required³. To achieve the goals of the Paris Agreement, greenhouse gas emissions need to be substantially reduced. Much more needs to be done by governments, but also by companies. Therefore, how companies are managing their greenhouse gas emissions has become important to their long-term financial performance. The financial costs of carbon emissions, discouragement of high emission activities and encouragement of transition activities and the expectations of consumers will need to be managed by those companies.

The IPCC report released in October 2018 laid out the likely consequences of global warming of 1.5°C and the additional damage warming of 2°C could cause. The report stated global temperatures have, on average, already risen 1°C above pre-industrial levels, and are currently increasing at a rate of 0.2°C per decade. Therefore, it is likely an increase of 1.5°C above pre-industrial levels will be reached between 2030 and 2052. An increase of this extent will have considerable negative consequences around the world, including rising sea levels and loss of coastal habitation, impacts on agriculture, mass migration, ice-free summers in the Arctic, as well as species loss and extinction. The magnitude of the environmental damage if temperatures rise to 2°C above pre-industrial levels is likely to be substantially worse.

The Paris Agreement requires each country to set out in its Nationally Determined Contributions (NDCs), its commitment to reduce greenhouse gas emissions and how it intends to adapt to the impacts of climate change. Ruffer acknowledges there is a diverse range of views on greenhouse gas emissions reduction targets, but we expect the NDCs will be tightened in 2023 to align with the pathway to meet the goals of the Paris Agreement. The covid-19 pandemic delayed the much-anticipated 2020

³ Paris Agreement

“There is a direct link between the greenhouse gases emitted by humans and the rise in temperature compared to the pre-industrial era. When emissions rise, the temperature does too.”

COP26 in Glasgow, but significant progress was still achieved in addressing the issue of climate change. In October 2020, Japan’s new Prime Minister, Yoshihide Suga, announced the country would aim to reduce its greenhouse gas emissions to net-zero by 2050. While in the UK, the Prime Minister announced in November an ambitious ten point plan to achieve a ‘green industrial revolution’ to meet the target of net-zero by 2050 which was set in 2019.⁴ In May 2021, Germany announced plans to amend its climate law with a target of reaching net-zero greenhouse gas emissions as early 2045.⁵ President Biden re-joined the Paris Agreement and set a course for the United States to tackle the climate crisis at home and abroad, reaching net-zero emissions economy-wide by no later than 2050.⁶

We anticipate many more countries will commit to tightened regulation reflected in their Nationally Determined Contributions, the countries’ climate change blueprints, before the rescheduled COP26 will be held in Glasgow in November 2021.⁷

Regulatory changes and long-term targets will impact climate-related risks for companies in our portfolios. Our annual TCFD reports will shed light on how we perceive and manage climate-related risks in our clients’ portfolios.

OUR FOUR-PART CLIMATE ACTION PLAN



4 gov.uk 3 December 2020
5 Clean Energy Wire
6 whitehouse.gov
7 UKCOP36



1.1 Managing risks

We focus on identifying key climate-related risks and opportunities in our investment process, and conduct scenario analysis and carbon footprinting of our clients’ portfolios.

At Ruffer we categorise climate-related risks as: physical acute (event-driven natural disasters) and chronic (longer-term shifts in climate patterns), and transition risks. Transition risks may entail extensive policy, legal, technology and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organisations.

WHAT CLIMATE-RELATED SIGNALS ARE WE WATCHING?

- Carbon pricing and increased regulation
- Global energy supply and demand mix
- Disruptive technologies
- Transition plans issued by companies and countries
- Hard-to-abate sectors working in collaboration

By measuring and managing climate-related risks we strive to limit wealth erosion and protect our clients’ capital.

Activities and objectives achieved	Future activities and targets
Conducted climate change scenario analysis on our flagship funds to identify and manage climate-related risks	Integrating climate change scenario analysis into Ruffer’s investment risk process
Measured the carbon footprint of our clients’ equity allocation within their portfolios when requested	Expanding Ruffer’s footprinting to cover our sovereign bond allocation
Considered climate change risks and opportunities in investment processes	

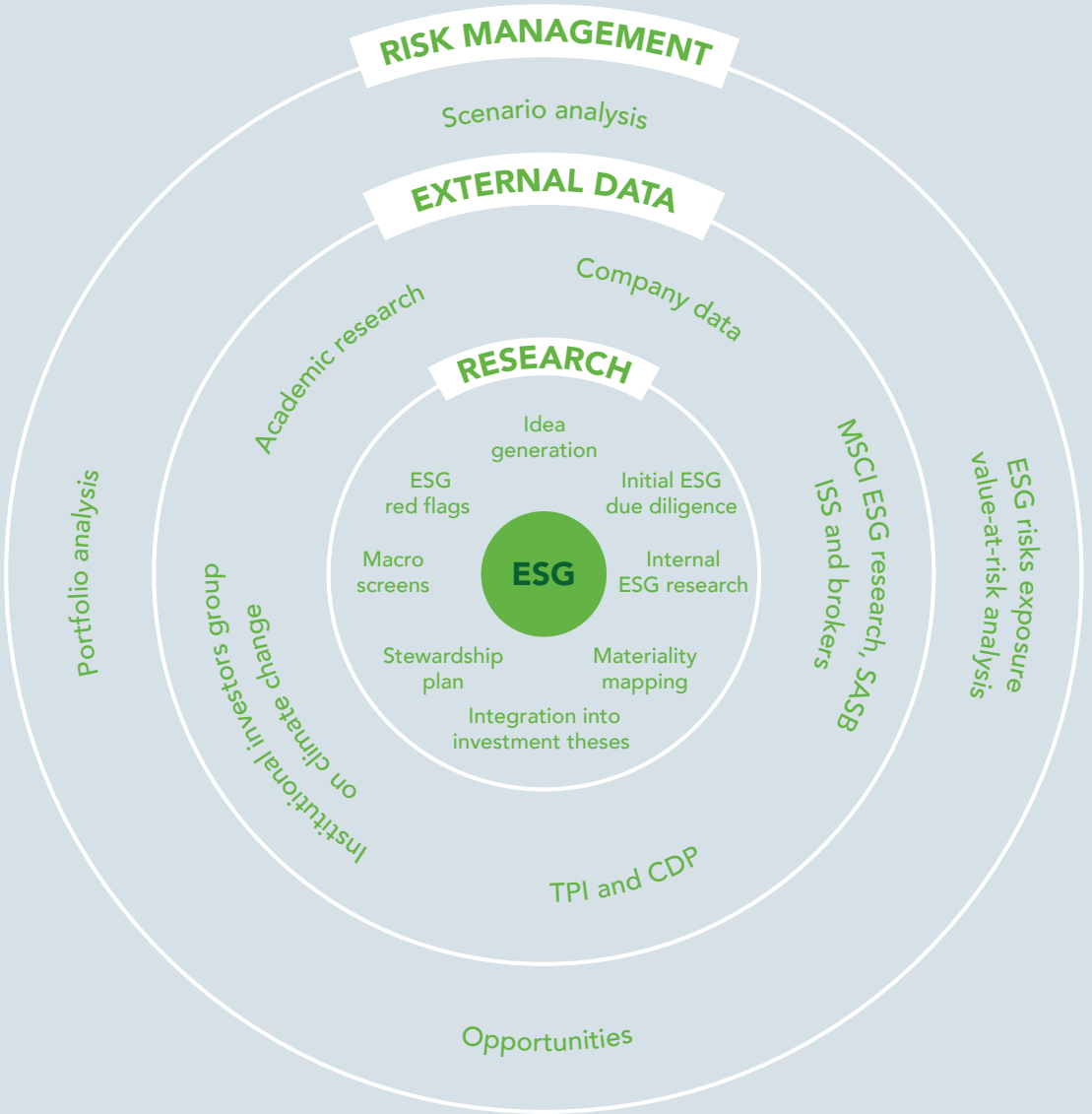


1.2 Integration

At Ruffer, we believe environmental, social and governance (ESG) considerations contribute to the risk of an investment and so, to manage this effectively, we incorporate these considerations into our investment process.

This is particularly important when the implications of climate change are considered, given the number of companies likely to be affected and the variety of ways this is likely to occur. How companies manage their greenhouse gas emissions has become fundamental to their long-term financial performance. Consequently, Ruffer considers the effects of climate change, including both the risks and the opportunities this presents, for all of our investments.

Activities and objectives achieved	Future activities and targets
Integrated climate change criteria into the fundamental analysis of companies	Incorporating climate change analysis in our overall portfolio thinking
Included climate change data points in our in-house fixed income risk rating	Improving our understanding around medium and long-term materiality of climate-related risks to our investment thesis
	Utilising climate-related data in our research and directing engagement programmes





1.3 Stewardship

As an active investment manager with a capital preservation mandate, we take our ownership rights and responsibilities seriously.

We believe stewardship activities can lead to lasting and meaningful change, resulting in better long-term outcomes for our clients and for broader stakeholders, the environment and society.

At Ruffer, we are committed to being good stewards of our clients' assets. To that end, environmental, social and governance (ESG) issues are fully integrated into our investment process.

Whether it is climate change or indigenous rights, diversity and inclusion or workforce safety, we believe our considered approach helps us make better investment decisions.

Activities and objectives achieved	Future activities and targets
Engaged with portfolio companies to support the execution of the five year global Climate Action 100+ plan	Further encourage TCFD disclosure outside Climate Action 100+ engagements
Collaborated with other investors and asset owners as part of our commitment to Climate Action 100+	Encourage hard-to-abate companies to join industry initiatives such as the Energy Transition Commission
Encouraged greater climate-related disclosure aligned with the TCFD's recommendations	Greater scope of climate change engagement within Ruffer
Actively participated and contributed in IIGCC/IA Climate Change working groups	TCFD analysis directs further engagement with issuers

Engagement on climate change

At Ruffer, we believe ESG considerations contribute to the risk of an investment. So, to manage this effectively, we incorporate these considerations into our investment process. This is particularly important when assessing the implications of climate change, given the number of companies that are likely to be affected and the variety of ways this is likely to occur. Consequently, Ruffer considers the effects of climate change, including both the risks and the opportunities this presents, for all of our investments.

As the effects of greenhouse gas emissions are cumulative, persistent and not localised, this issue must be considered in a global context. The response needs to be international, based on a shared vision of long-term goals and agreement on frameworks that will accelerate action over the next decade.

For investors like Ruffer, it is of the utmost importance the transition begins now. The longer the transition is delayed, the greater the chance of it occurring in a rushed and disorderly way, which would create additional uncertainty for markets. We agree with the comments of the former Governor of the Bank of England, Mark Carney, who has repeatedly emphasised the potential impact on financial stability.

The transition creates both risks and opportunities for the companies in which we invest, and these considerations inform both our investment analysis and our engagement discussions.



ARCELORMITTAL is one of the world’s leading steel and mining companies. It is headquartered in Luxembourg and is Europe’s largest steel producer.

RUFFER CO-LEADS THE CLIMATE ACTION 100+ WORKING GROUP ENGAGING WITH ARCELORMITTAL.

One of the most carbon-intensive companies in our portfolios is ArcelorMittal, steel producer in Europe. The current production process for steel is hugely carbon-intensive as it uses significant amounts of metallurgical coal to reduce the iron ore to iron and subsequently to steel. This process has been made much more efficient over the last few decades, but expected future efficiency gains are not going to be sufficient to meet the goals of the Paris Agreement. Much of the infrastructure that will be needed to transition to a low-carbon economy, such as wind turbines, requires a lot of steel. Consequently, we will arguably need more steel not less, given its properties enable it to be reused and recycled (unlike many other materials, such as cement). The development of new processes that drastically reduce the carbon intensity of steel production will therefore benefit both the environment and the company.

We have been intensively engaging with ArcelorMittal over the past 18 months through Climate Action 100+, where we are one of the co-lead investors. We attended ArcelorMittal’s AGM in Luxembourg in May 2019, where we asked the company to set ambitious targets to reduce its greenhouse gas emissions and to review its lobbying activities. We felt it was important to attend the AGM to make a statement to the whole board, including Lakshmi Mittal as CEO and Chair of the Board, to introduce the Climate Action 100+ initiative and explain what it is trying to achieve. We had a private meeting with Mr Mittal after the AGM, which was helpful in allowing us to provide context as to what we are asking the company to do and to build a common understanding.

Climate Action 100+

A five year initiative, launched in December 2017, to engage with the world’s largest corporate greenhouse gas emitters. The initiative, which is led by investors, has three high-level goals on climate-related matters: to improve governance, reduce emissions and increase disclosure. It is engaging with 161 companies. In 2021, the initiative was supported by 570 investors, representing \$54 trillion in assets under management.

We have had numerous meetings with ArcelorMittal since then, and we are encouraged by the commitments the company has made, most significantly in October 2020 to be net-zero across its global operations by 2050. This is a hugely important step and achievement of this target will require the development of new production processes either taking the ‘smart carbon’ based route or using hydrogen, instead of coal, to reduce iron ore. While most of these technologies are still in the pilot phase, the announcement the company has begun to produce ‘green steel’ in 2020 at its European operations demonstrates the feasibility of these new processes. The net-zero commitment followed pledges in December 2019 for its European operations to reduce its emissions by 30% by 2030 and to be net-zero by 2050. Our engagement is now focused on encouraging the company to set an ambitious 2030 carbon reduction target across its global operations and to publish a robust transition plan setting out how it will achieve this. Both these topics were discussed in detail at a meeting with Aditya Mittal, CFO and board member, and Bruno Lafont, Lead Independent Director, in November 2020. We look forward to continuing our productive discussions in 2021.

Net-zero

When anthropogenic emissions of greenhouse gases into the atmosphere are balanced by equivalent removals from the atmosphere over a specified timeframe; also referred to as climate-neutral



EXXONMOBIL is a multinational oil and gas company with upstream, downstream and chemicals businesses. The company is headquartered in the US.

Issues: Independent and collaborative engagement and escalation, concluded - unsatisfactory

Ruffer has been intensively engaging with ExxonMobil over the past three years, both through the Climate Action 100+ working group and independently. In 2016, we voted for a climate change related shareholder resolution co-filed by the New York State Common Retirement Fund and the Church Commissioners for England, although it failed to win the support of a majority of shareholders. We also supported a similar resolution in 2017, which was successful, with 62.1% shareholder support, despite not receiving the backing of ExxonMobil's board.⁹ The resolution asked the company to report annually on how technological advancement and international climate-change policies focused on keeping temperature increases well below 2°C will affect its business and investment plans.

This resolution led to ExxonMobil producing its first energy and carbon summary report in 2018, which analysed climate scenarios that limit the increase in temperatures to 2°C and has formed the basis for further engagement with the company. However, the company's disclosure on this issue did not go far enough, so Ruffer was asked to participate in a Climate Action 100+ group meeting with ExxonMobil in Boston in November 2018 to discuss the core objectives of the initiative of improving governance, reducing emissions and increasing disclosure. ExxonMobil was resistant to pressure to disclose targets to reduce its greenhouse gas emissions in line with the Paris Agreement.

The lead investors of the Climate Action 100+ working group for ExxonMobil, New York State Common Retirement Fund and the Church Commissioners for England, filed a shareholder resolution in 2018 for the 2019 AGM. The resolution asked ExxonMobil to disclose short, medium and long-term greenhouse gas reduction targets that are aligned with the Paris Agreement. As we agreed

⁹ ExxonMobil (2017), proxy voting results

with the importance of this additional disclosure, we co-filed this resolution in December 2018. ExxonMobil asked the US Securities and Exchange Commission (SEC) for, and was granted, ‘no action’ relief and so did not include the resolution on its 2019 ballot. We decided to vote at the 2019 AGM against the re-election of all non-executive directors because we did not feel they appropriately represented shareholder concerns regarding climate change and the risks this poses for the company.

In addition, we supported a shareholder resolution asking for an independent Chair of the Board. This is because we believe the company’s unsatisfactory handling of the Climate Action 100+ shareholder proposal, including the decision to seek ‘no-action’ relief from the SEC and the slow progress of engagement with Climate Action 100+, are intrinsically linked to poor governance. We also supported shareholder resolutions asking for a board committee to assess social and environmental issues and for additional disclosure of the company’s lobbying activities. Before the AGM, we wrote to Darren Woods, CEO and Chair of the Board, and Neil Hansen, Company Secretary, to explain why we had voted in this way, so the company understood why we were both frustrated and concerned about its approach to climate change.

We had numerous calls with the company in late 2019 and in 2020, both through Climate Action 100+ and independently, where we re-iterated our concerns and the outcomes we expected. We encouraged the company to reconsider the disclosure of greenhouse gas emissions in relation to its products (scope 3 emissions under the Greenhouse Gas Protocol’s corporate standard) and the setting of specific short, medium and long-term emissions reduction targets.¹⁰ As in 2019, we also voted against the election of all non-executive directors at the 2020 AGM and supported a resolution asking for an independent Chair of the Board as we felt the board was more likely to respond to shareholder interests if it was independently led. However, limited progress was made. This was incorporated into our investment decision-making, and in the first half of 2020 we dramatically reduced our holding in the company. Our concerns about its approach to climate change and the lack of progress of our stewardship activities were key parts of this decision.

When Ruffer increased our position in energy companies in the second half of 2020, it was actively decided to hold European energy companies due to their favourable commitments and actions to address climate change.

¹⁰ Scope 3 emissions, as defined by the Greenhouse Gas Protocol, are all the indirect emissions, except purchased heat and electricity, that occur in the value chain of the reporting company, including both upstream and downstream emissions

Voting

WE TAKE OUR VOTING RESPONSIBILITIES SERIOUSLY.

We review relevant issues and exercise our judgement, based on our in-depth knowledge of each company. The opportunity to vote enables us to encourage boards and management teams to consider and address areas we are concerned about or want to support.

At Ruffer, we are supportive of the Institutional Investors Group on Climate Change (IIGCC)'s shareholder resolution subgroup, and we believe shareholder resolutions are likely to have an increasingly important role to play in the years ahead. We see shareholder resolutions as a useful communication tool when engagement has not been successful, as it gives companies a clear picture of the preferences of its shareholders. Other climate change-related issues on which we will vote and engage with companies include corporate and trade association lobbying. It is important to Ruffer that a company's policy on climate change is aligned with its lobbying activities and practices.

Voting examples



JPMORGAN CHASE is a global financial services firm.

Issues: **Environmental, governance - climate change, succession planning, remuneration**

We engaged with the company ahead of its 2020 AGM to discuss the shareholder resolution requesting the company to produce a report specifying “if and how it intends to reduce the [greenhouse gas] emissions associated with its lending activities in alignment with the Paris Agreement’s goal of maintaining global temperature rise below 1.5°C.” We explained to the company why we think this information is important to investors and, therefore, why we were likely to support the resolution. We gave the company the opportunity to explain its stance and discussed the lack of clear definitions in the financial sector on aligning lending activities with the Paris Agreement. While we accept this is a problem, we think there is momentum pushing these discussions forward and, if a commitment can be reached under a high-level framework, it will accelerate the agreement of these definitions. In addition, we stressed that, as a leading global bank, JPMorgan Chase should be striving to find solutions to these problems and we would like to see a greater commitment from the company. Ruffer supported the shareholder resolution at the 2020 AGM, which was narrowly defeated. However, in October 2020, the company adopted a Paris-aligned financing commitment.

How we consider lobbying-related risks



When analysing a company, we think it is prudent to understand the internal governance processes around its political contributions and its trade association memberships. This is an important issue given the effectiveness of some trade associations in lobbying governments around the world, particularly in relation to climate change regulation. It is important to Ruffer that a company's stated policy on climate change is aligned with its lobbying activities and practices.



GENERAL MOTORS is an American car manufacturer headquartered in Detroit.

Issues: Environmental, social, governance - low-carbon transition, lobbying, board structure

We had a conference call to continue our engagement on emissions standards, board structure and lobbying, as well as to discuss the company's electric vehicle transition plan.

On lobbying, we raised we had voted for the shareholder resolution for a lobbying report for a second time. While there had been some progress since our discussion on this topic in 2019, we did not deem it sufficient. We noted our expectations of lobbying disclosure and explained we were disappointed with the limited progress over the last year. The company explained it continues to engage with investors on this and is looking to provide increased

disclosure of trade association memberships in 2021. We stressed we see improvements in lobbying disclosure as an important issue for General Motors, given the industry in which it operates and the political environment in the US, and we will continue to engage on this topic.

Given the importance of electric vehicles (EVs) to the company's overall strategy, and its recent commitment to increase its combined investment in electric and autonomous vehicles to \$27 billion by 2025, we discussed the topic in detail. We focused on how the company plans to balance its ambitions for EVs with its existing internal combustion engine businesses, and the

strategy for EV adoption across different markets both within and outside the US. General Motors detailed the measures it has put in place internally to manage the transition, including expanding its planned range of EVs to cater to different markets. We also discussed its partnerships with other autos makers, which are focused on increasing the efficiency of its internal combustion engines and are likely to free up investment for EVs.

On emissions, the company stated it expects to be compliant with emissions standards across its fleet, and its commitment to an all-electric future is a key component to delivering this. We asked how management is thinking about the future path of regulation, particularly in light of the change in administration in the US. The company reiterated it is fully committed to delivering on the strategy, regardless of the political landscape.

We asked for more disclosure on how the company links its emissions targets and its EV strategy to executive remuneration. The company explained it expects to announce detailed alignment of remuneration with ESG targets (including for EV transition) next year. We welcomed this and stressed the importance of making these targets quantitative and sufficiently ambitious.

On governance, we highlighted we had again voted against two directors we consider to be entrenched and asked how the company plans to maintain sufficient diversity of experience and skillsets on the board. The company explained it has launched a formal five year board succession plan. It is looking to add members with experience in technology, disruptive industries and venture capital to reflect its transition to an EV technology business. We stressed the importance of having directors with climate change experience on the board and of having an individual board member accountable for sustainability.



1.4 Opportunities

At Ruffer we appreciate a successful transition to a climate neutral economy requires new solutions to provide low-carbon replacements for existing needs.

It provides new entrants with an opportunity to compete effectively with established players for new markets.

The European Union has defined 70 climate change mitigation and 68 climate change adaptation activities which should be considered beneficial in combatting climate change to ensure capital is directed towards activities which have a significant impact. The regulation is also known as EU Taxonomy¹¹ for sustainable activities and measures green revenues associated with these activities. Ruffer uses frameworks such as the taxonomy to identify investment opportunities and MSCI ESG and climate metrics including: environmental impact metrics, low-carbon-patent analysis, low-carbon transition score.

Activities and objectives achieved	Future activities and targets
Integrated climate change analysis into equity analysis with a focus on hard-to-abate sectors to identify leaders	Integrate climate change analysis to look for additional investment opportunities
Analysed macro-economic and regulatory changes to identify investment opportunities	Integrate MSCI Enhanced Climate Change Metrics in identifying opportunities
Identified transition themes by analysing regulatory changes such as EU Green Deal and US Green New Deal	Improve identification of opportunities in relation to climate change in all asset classes



VOLKSWAGEN which is headquartered in Germany, is one of the world's largest auto manufacturers.

Issues: Environmental, governance - low-carbon transition, culture, board structure

Environmental and governance issues formed an integral part of our internal discussions on Volkswagen, and we therefore set up a first meeting with the company to address the key risks and opportunities identified.

We discussed the topic of electric vehicles (EVs) in detail, given their importance for the company's overall strategy. We focused on the ambition for EVs within the company, the plans it had in place to meet internal targets and emissions regulations, and how remuneration and company culture is aligned to enable the long-term transition. Volkswagen detailed the targets it has set for vehicle production, the key partnerships it is establishing, how internal resources and investments are being allocated between the EV and traditional internal combustion engine (ICE) businesses, including re-skilling employees, and the commitment the company has made to not launch any ICE models in developed markets beyond 2026 (in line with the goals of the Paris Agreement).

In light of reports the company was likely to be fined for missing the 2020 EU emission regulation targets, we asked how management were thinking about the trade-off between hitting emissions targets and profitability. The company explained the miss was the result of setbacks in EV production, due to battery supply. This was caused by the covid-19 pandemic and the company reiterated it expected to be within 1% of the requirements and was more positive on the outlook for meeting the 2021 targets. While

acknowledging the challenges faced in 2020, we impressed upon the company the non-financial costs of missing emissions targets and encouraged it not to underweight these costs when planning production.

Given the firm's EV strategy and targets, we asked how this is linked to executive remuneration and we encouraged transparency in disclosing this information to shareholders. The company explained it plans to link executive remuneration with ESG factors and to provide improved disclosure. We will monitor progress on this.

The second theme we focused on was 'Dieselgate' and the corporate governance implications. We discussed how the culture at Volkswagen has changed since Dieselgate and what initiatives have been put in place, both top-down and bottom-up. The company explained the evolution necessary for its long-term sustainability, such as a board-level position for integrity and legal affairs, which encourages a 'speak up culture' across the business. On board structure, we raised concerns on the independence of the audit committee, given the length of tenure of two of the committee members and the fact that a controlling shareholder is also the Chair. The company acknowledged these issues, including the limitations of the dual board structure, and assured us this is being reviewed internally. We will continue to engage on this topic.



LIVENT is a lithium technology company, providing products for electric vehicles and energy storage, along with other industrial applications.

Issues: Environmental, governance - progress on sustainability policy formation and targets, data disclosure, board accountability

After our engagement with Livent in the fourth quarter of 2019, we initiated this call to follow up on the company's progress. Since the initial engagement, the company has published its inaugural sustainability report and launched a convertible 'green note', establishing a green bond framework which was audited by an independent third party.

As detailed in its sustainability report, in 2019 Livent exceeded or nearly achieved its targets for greenhouse gas emissions, energy intensity, water and waste intensity reduction across the board, five years ahead of schedule. The company has also been focusing on setting appropriate forward-looking targets, following its separation from FMC. Livent explained how it is focusing on the salient sustainability topics in the lithium industry, such as renewable energy, water intensity and social considerations (including local community impact and human rights). The company anticipates releasing these goals in early 2021. Alongside the focus on renewable energy, in the third quarter of 2020, the company announced its commitment to be carbon neutral by 2040 and we discussed how it is planning to meet this target. We also asked for an update on the 'cradle to grave' lifecycle assessment, which it undertook in line with International Organization for Standardization standards, on its use of lithium hydroxide. The company completed the assessment in 2020 and is currently looking at how to communicate the findings, acknowledging demand from its stakeholders for this analysis.

On reporting and disclosure, we are encouraged by the company's progress on aligning with frameworks which will improve the transparency and information available to stakeholders. Livent is planning for its 2020 sustainability report to be fully compliant with the Global Reporting Initiative and aligned with the SASB framework, the TCFD and the UN's Sustainable Development Goals. The company is also looking at how it can further align its internal operations with the UN Global Compact, to which it is already a signatory. Finally, we discussed how board-level accountability of the company's strategy is established within the sustainability committee. We look forward to continuing these discussions in 2021.

1.5 Divestment and engagement

A question we are often asked: how does Ruffer think about divestment or engagement in the context of climate change? Would it be more effective to reduce greenhouse gas emissions from the portfolios by disinvesting from greenhouse gas intensive industries? Before we answer this question, we will outline the main arguments for divestment.

DIVESTMENT

Divestment is the act of selling the shares of a company in response to concerns over environmental, social, corporate governance or ethical issues.

The predominant argument in favour of divestment is that fossil fuel companies have known about climate change for many decades and if shareholder pressure has failed to change their approach over this time, it is not likely to be successful now.

The second strand of argument is based on the beliefs or values of investors. This can be driven by environmental or societal concerns, or religious values. Both the Church of England and the Catholic Church have stated the importance of addressing the moral issues, primarily concerning intergenerational justice, raised by climate change.

The third type of argument is based on the economic risks of continuing to invest in fossil fuel companies. To achieve the goals of the Paris Agreement, society needs to reduce its emissions of greenhouse gases considerably and so it is likely the consumption of fossil fuels will need to fall. Consequently, there is a risk fossil fuel assets will not be able to earn an economic return for their entire useable life, and hence are often referred to as 'stranded assets'.

While these arguments are all important and play a significant part in the debate about whether to continue to invest in fossil fuel companies, there are other factors to be considered. Firstly, divestment is only possible once. While it can be used to make a statement, which is likely to gain the attention of fossil fuel companies, once the shares have been sold, it is often no longer possible to be involved in discussions with these companies. Secondly, there is an argument that by selling the shares and depressing the share price, other investors without these concerns will be able to purchase shares at a lower price, allowing them to increase their profit while the business models of the companies remain unchanged. Finally, excluding significant sectors from our investment universe can hamper our ability to meet our investment objectives. These are the main arguments in favour of engagement.

ENGAGEMENT

Engagement is the process of continued dialogue with companies and other relevant parties, with the aim of positively influencing companies' behaviour in relation to environmental, social or governance considerations targeting real economy impacts such as measurable greenhouse gas emissions reductions.

Investment managers and asset owners, along with many environmental groups, have been engaging with companies about climate change for a number of years. There are valid concerns about the success of engagement so far. However, in the last few years there have been considerable shifts: engagement could now be a very powerful tool to effect real change. As concerns about climate change have intensified, the desire to engage with companies on these issues has grown.

This has led to the launch of a number of shareholder initiatives, including Climate Action 100+ (Ruffer was a founding investor signatory of Climate Action 100+ and we are actively involved in its work.) Through this five year global initiative, investors commit to engaging with 161 companies with significant greenhouse gas emissions, in industries from metals and mining to consumer products. The scale of this initiative gives considerable power to investors and creates a valuable opportunity to exert continued pressure on companies to align their business models to transition successfully to a low-carbon economy.

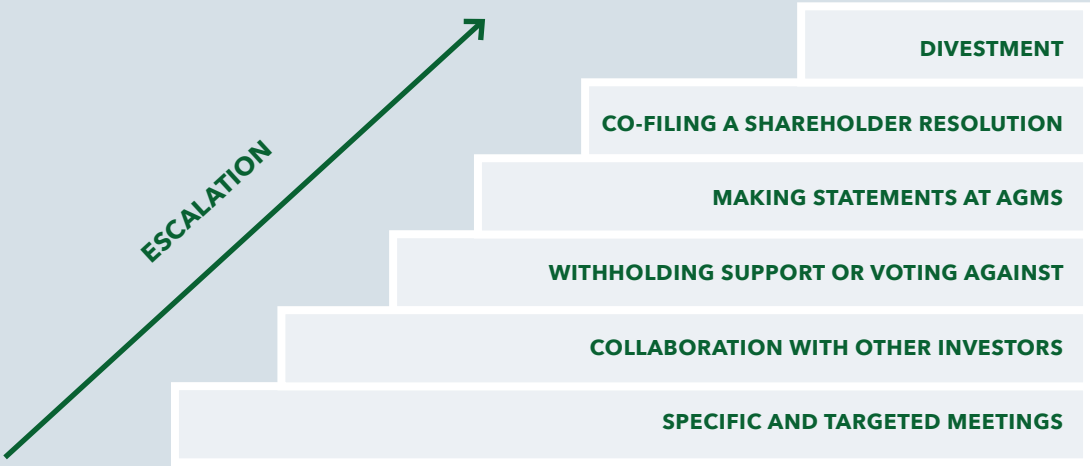
Ruffer engages collaboratively as well as independently. We have developed an internal engagement process which incorporates key risks identified during the investment process. This requires an engagement plan with clearly defined targets and timeframes.

ESCALATION MECHANISMS

Engagement and divestment can be combined.

Investors can commit to engage with a company for a set number of years, but if companies haven't achieved certain targets by the end of this period, they then consider divesting. This approach can be particularly powerful if the timeline is publicly shared with the companies.

A growing number of companies are now making significant commitments to reduce their greenhouse gas emissions and to align their business models with the goals of the Paris Agreement. This partly reflects public pressure – and related reputational risks for businesses – but also, importantly, the influence of shareholders through collaborative initiatives such as Climate Action 100+.



2. Ruffer's alignment with TCFD recommendations

In May 2019, Ruffer publicly endorsed the TCFD and its call for increased climate-related financial disclosure to support well-functioning information flows within the financial markets we operate in.

We work with like-minded organisations and investors to bring awareness of the need for comparable and reliable disclosure. Our activities include aligning our disclosure practices with the TCFD recommendations as well as encouraging investee companies to follow these. We are an investor signatory to and a member of the following organisations which support and enable standard setting on climate-related disclosure: CDP, Sustainability Accounting Standards Board (SASB), Institutional Investor Group on Climate Change (IIGCC) and UN guided Principles for Responsible Investment (PRI). In addition, Ruffer actively participates in the Climate Change Working Group on TCFD disclosure in the UK investment industry body the Investment Association (IA).





2.1 Governance

RUFFER'S GOVERNANCE AROUND CLIMATE-RELATED FINANCIAL DISCLOSURE

TCFD RECOMMENDATION

Describe Board Oversight of climate-related risks and opportunities.

RUFFER'S RESPONSE

Ruffer's internal Responsible Investment Working Group (RIWG) has oversight of the firm's responsible investment policies and processes and has a specific objective to monitor our engagement and voting activities, both of which are integral parts of managing our climate-related risks. The RIWG comprises senior portfolio managers, research directors and the director for responsible investment. The group oversees our public response to initiatives such as the Task Force for Climate-related Financial Disclosures. The RIWG reports specific management information to the CEO on a regular basis and reports into the Executive Committee as required.

Overall accountability with regard to ESG risks and strategies lies with Ruffer's Chief Executive Officer (CEO), Clemmie Vaughan. Ruffer's CEO communicates climate-related risks to the Board. The TCFD report is signed off by the Board.

Ruffer's Chief Financial Officer (CFO), Michael Gower, has overall oversight and accountability for the firm's risk management approach. Scenarios analyses showing how potential shocks could affect the Ruffer portfolio are presented to Henry Maxey, our Chief Investment Officer (CIO), on a regular basis and form an input into his view on the firm's asset allocation calls.

TCFD RECOMMENDATION

Describe management's role in assessing and managing climate-related risks and opportunities

RUFFER'S RESPONSE

The Investment Risk Director and the Head of Responsible Investment present climate-related risks identified through climate scenario testing to our CIO on a regular basis which are an input into his view on the firm's asset allocation calls.

In 2020, the Executive Committee instructed a review of Ruffer's overall ESG efforts. The review focused on three broad ESG areas: client reporting and products, regulatory recommendations and requirements, and investment process. An inter-team working group focusing on climate-related risks and TCFD implementation was formed. It includes representation from Ruffer's risk team, research analysts, company secretary, portfolio management and its responsible investment team. The working group reports into Ruffer's Responsible Investment Working Group (RIWG) which in turn reports key Management Information (MI) to the CEO on a regular basis and reports into the Executive Committee as required.

Furthermore, the strategic review triggered a broad ESG training programme which included tailored internal training for portfolio managers and research analysts and desk-based PRI Academy courses.



2.2 Strategy

ACTUAL AND POTENTIAL CLIMATE-RELATED RISKS AND OPPORTUNITIES ON RUFFER'S INVESTMENT STRATEGIES AND PORTFOLIOS

TCFD RECOMMENDATION

Describe the climate-related risks and opportunities identified over the short, medium and long term.

RUFFER'S RESPONSE

At Ruffer we subscribe to MSCI Enhanced Climate Change Metrics, which is the primary source used to identify climate-related financial risks, and implement various scenarios to analyse how Ruffer's portfolios are behaving over different timeframes, temperature pathways and policy scenarios.

Each climate scenario highlights different risks in our portfolios.

TCFD RECOMMENDATION

Describe the impact of climate-related risks and opportunities on operations, strategy and financial planning.

RUFFER'S RESPONSE

Ruffer has assessed its exposure to climate-related risks is predominantly through its investments.

Based on this assessment, Ruffer has developed its climate change framework, which focuses on risk management, integration, stewardship and opportunities.

Proxy voting: Ruffer makes active voting decisions on climate-related resolutions.

Independent climate-related engagement: Ruffer engages directly with companies on climate-related disclosure, risks and opportunities, the transitioning of businesses as well as concrete target setting.

Collaborative engagement: Ruffer is a founding investor signatory of Climate Action 100+ and engages with companies in lead or supporting roles in order to achieve the initiative's goals in the areas of climate-related governance, reduction of greenhouse gas emissions and disclosure.

Collaborative policy advocacy: Ruffer advocates for policy action through the industry bodies we are supporting, such as the IA's climate change committee and the IIGCC.

TCFD RECOMMENDATION

Describe the potential impact of different scenarios on operations, strategy and financial planning.

RUFFER'S RESPONSE

Ruffer assesses potential expected risks and opportunities to portfolios under multiple climate scenarios using MSCI ESG research.

Ruffer uses the MSCI Enhanced Climate Change Metrics tool to understand how climate risks are affecting our portfolios over the short, medium and long term.

In the Enhanced Climate Change Metrics tool, ten transition scenarios and the two physical risks scenarios have been pre-selected. Ruffer utilises these to understand the potential positive or negative impacts on the Ruffer portfolio. For this report it has only been applied to the equity part of the portfolio as the sovereign bond model is still in the development phase.

The temperature pathways provided by MSCI are as follows: 3°C, 2°C, and 1.5°C, which all have varying carbon budgets based on the UNFCCC National Emission Inventory Report¹² and the UNEP Gap Reports¹³ demonstrating the difference in carbon budgets between the 3°C pathway and the Paris Agreement and Net-Zero pathways.

It also includes specific scenarios such as the so called 'late-action', which corresponds to a 'delayed policy action', 'inevitable policy response (PRI)¹⁴' or 'disorderly transition'. This specifically meets the requirements from the Bank of England's 2021 Biennial Exploratory Scenario¹⁵ which required investors to utilise specific pathways. The scenarios have been selected because they are associated with regulatory specified pathways, have undergone a high level of academic scrutiny, are politically neutral and non-commercial in nature. The scenarios provide a high level of science-based impartial insight into a future world.

Short-term climate-related risks

Rapid policy and regulatory changes to limit greenhouse gas (GHG) emissions have been identified as the most significant short-term risk to our portfolios' performance. This could lead to further costs to investments exposed to greenhouse gas intensive industries and the stranding of assets and will impact business models in several industry sectors. At Ruffer we define short-term as a one to two-year period.

Medium-term climate-related risks

Our portfolios are mainly exposed to transition risks over the medium term. We expect the following transition risks to be dominant: technology disruption, policy and regulatory changes. We will explore opportunities that are aligned with our investment approach. Opportunities will become apparent as technologies and sectors that benefit from a low-carbon economy and the energy transition increase in scale. It is unlikely that physical climate-related risks will directly impact companies in Ruffer's portfolios in the medium term, however, certain geographies might be affected more than others and asset valuations will indicate the trajectory of climate change. At Ruffer we define medium-term as a two to ten year period.

Long-term climate-related risks

Physical impacts will become more acute should the Paris Agreement's temperature pathway in line with well below 2°C be overshoot. This will disrupt many economies and most likely negatively impact capital markets. Key investment opportunities might be found in climate adaptation technologies. At Ruffer we define long-term as a period exceeding ten years.

¹² UNFCC

¹³ UNEP

¹⁴ UNPRI

¹⁵ Bank of England

Temperature	Policy	Physical risk	Climate VaR Ruffer equities %	Climate VaR MSCI ACWI Index %
1.5°C	Orderly	Average	-37.5	-12.5
2°C	Orderly	Average	-19.5	-7.7
2°C	Disorderly, delayed	Average	-39.6	-13.4
3°C	Orderly	Average	-9.1	-4.0

Source: Ruffer, MSCI as at 31 March 2021

Evaluation of one of our core funds, LF Ruffer Total Return Fund's (RTRF),¹⁶ equity portion under several temperature scenario shows different levels of Climate Value at Risk (Climate VaR). Note this is only for the equity component of the Ruffer portfolio, which accounted for 46% of the total portfolio.

Climate value at risk is designed to provide a forward-looking and return-based valuation assessment to measure climate-related risks and opportunities in an investment portfolio applied to selected temperature, policy and physical climate risk scenarios.

¹⁶ LF Ruffer Total Return Fund is a UK UCITS fund that is only registered for distribution in the UK. However, as it follows the same investments strategy as Ruffer's other core funds and segregated portfolios, it is representative of the Ruffer portfolio

METHODOLOGY

MSCI ESG Research employs a hybrid top-down and bottom-up methodology to calculate climate change risks and opportunities such as future policies targeting emission reductions, the potential of low-carbon technologies and extreme weather hazards. The costs (and gains for opportunities) for individual companies are modelled and the Climate VaR represents the impact on value from these modelled costs based on a discounted cash flow valuation methodology. The figures in the table above are the weighted Climate VaR for the equity component of the LF Ruffer Total Return Fund.

These estimates are based on the companies as they are today and do not account for changes they may make to adapt to a transitioning economy.

While the Ruffer investment strategy is unbenchmarked, we have provided the Climate VaR for the MSCI ACWI equity index, a broad-based global equity index, for context.

We would make the following observations on the climate value-at-risk analysis presented. Firstly, the equity component of the LF Ruffer Total Return Fund is only 46% of the total fund, as at 31 March 2021.

Secondly, the more severe Climate VaR result for the Ruffer equity component versus the global equity index is driven by the sector skew resulting from our investment strategy. We favour those sectors and stocks which are likely to benefit from an environment of recovering economies, rising inflation and bond yields, and which offer the greatest value. Such sectors are energy, materials and financials. We have eschewed the highly valued growth sectors which will suffer in such an environment. These stocks are held for their role in our overall multi-asset portfolio, considering their likely correlations with the other assets in the portfolio such as inflation-linked bonds.

This is illustrated in the table below, which shows the sector allocation of the Ruffer equity portfolio versus the global equity index for the most impacted sectors. It is the overweight in the energy and materials sectors that principally drives Climate VaR differential between the Ruffer equity portfolio and the global equity index.

Industry sector	RTRF weighting %	MSCI ACWI weighting %	MSCI ACWI CVaR %
Energy	11.3	3.3	-71.1
Materials	12.5	5.0	-35.7
Utilities	1.0	2.9	-33.3
Consumer staples	7.1	7.0	-15.2
Financials	23.9	14.2	-9.2

Under the 1.5°C scenario, for example, the following primary sectors in our current portfolio would be positively or negatively affected. The chart provides an understanding of the sector-level risks found within the portfolio based on direct emissions, electricity use, value chain risk impacts and technology opportunities. The circles illustrate the aggregated Transition Climate VaR in each sector weighted according to the security weights of the portfolio.

Transition CVaR spread by primary sectors of activity – weighted securities

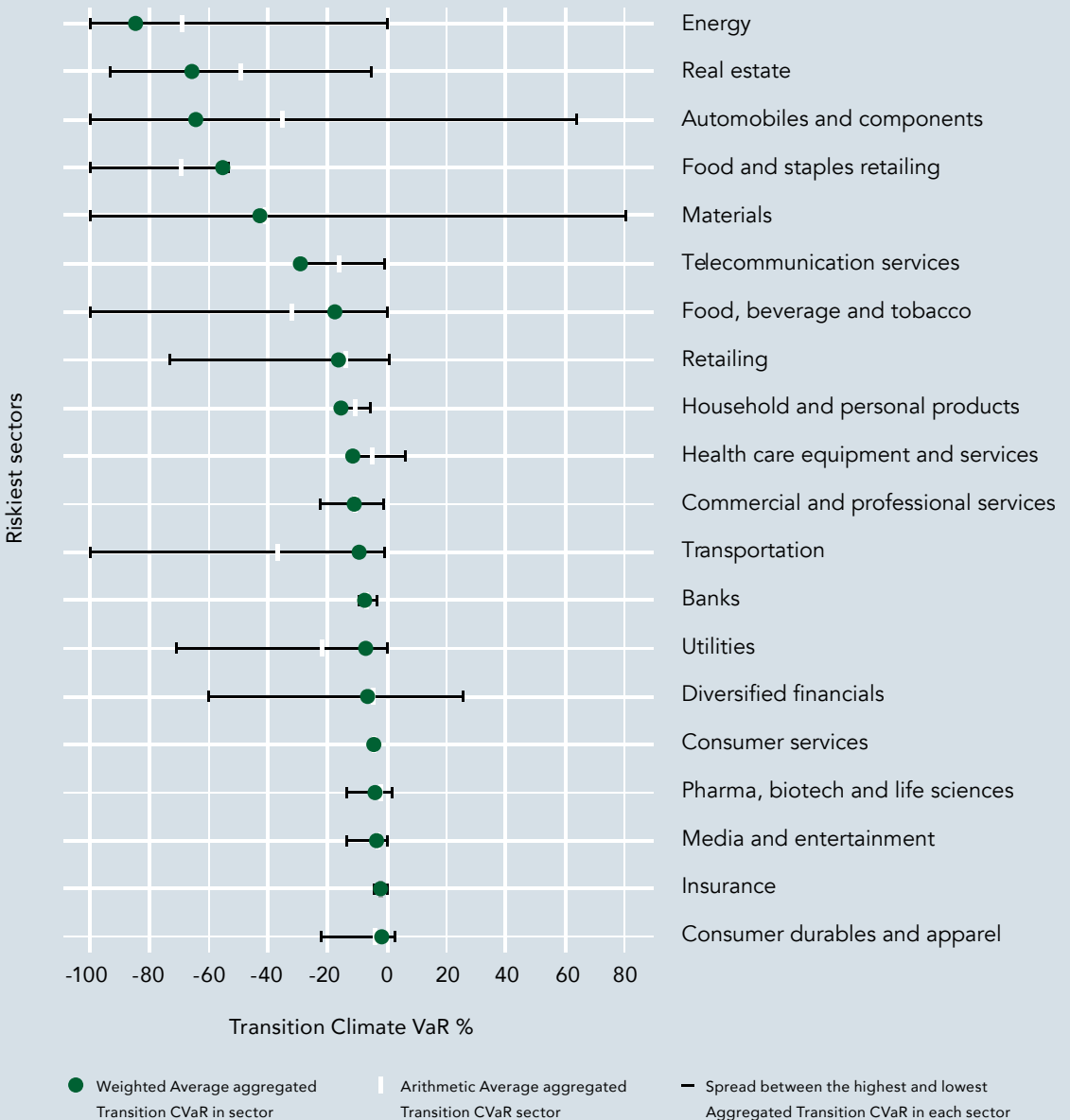


Chart source: MSCI as at 31 March 2021



2.3 Risk

Risk management sits at the heart of Ruffer's investment philosophy and drives the primary investment objective of capital preservation. Risk management is not just a policing function, it is central to the way we invest and focuses on understanding the risk associated with our current portfolio. In order to identify vulnerabilities, the portfolio is tested through different historical phases during which markets suffered significant losses.

Our data dates back to the beginning of the 20th century. The same approach is used to test the portfolio against a number of prospective market scenarios, principally to consider potential vulnerabilities.

The analysis is completed by an examination of the circumstances under which these historical events occurred and of the current economic and monetary environment. A similar exercise combining a quantitative back-testing and a qualitative assessment is conducted for all the periods where our analysis shows the portfolio would suffer substantial losses.

We also test the portfolio against changes in correlations between asset classes we use to build a portfolio of offsetting assets. The different scenarios can be either actual historical events or stress tests designed by our macro team.

TCFD RECOMMENDATION

Describe the process for assessing and identifying climate-related risks.

RUFFER'S RESPONSE

Ruffer is continuously refining and improving our investment process and how we approach and appropriately manage climate change risks across our absolute return strategy. This includes how our Responsible Investment team is integrating ESG risks and opportunities into the investment process, our client reporting on carbon footprinting and how our Research team is responding to outputs from our climate-related scenario analysis.

Ruffer is using climate change scenario analysis to identify macro-economic climate-related risks and opportunities that could impact the assets our clients are invested in. The scenarios provide a directional indication of areas in the portfolios requiring more assessments or re-balancing and are not to be understood as forecasts.

We have started to integrate the following into our investment risk process

1. Scenario analyses (1.5°C and 2°C orderly, 2°C disruptive, 3°C) to identify climate-related risks under different temperature and policy pathways.
2. We use portfolio carbon footprint data to identify assets whose greenhouse gas emissions are more significant than other constituents of the portfolios. In a concentrated and actively managed portfolio, this often presents only a small number of companies.
3. Carbon data may inform security selection, position sizing and stewardship activities.

By managing these risks, we strive to protect our clients' assets from wealth erosion due to unexpected climate risks.



2.4 Metrics

TCFD RECOMMENDATION

Describe the metrics used to assess climate-related risks and opportunities in line with strategy and risk management processes.

RUFFER'S RESPONSE

The climate-related metrics Ruffer currently measures and monitors are aligned with the recommendations of the TCFD. We monitor –

1. The impact of several climate scenarios (1.5°C, 2°C, 3°C temperature pathways, average and delayed policy scenario, average and advanced physical climate risks)
2. The carbon footprint and carbon exposure metrics of our listed equity book. Ruffer uses a set of different TCFD aligned metrics to analyse our portfolios' carbon footprint. These include: weighted average carbon intensity, total carbon emissions, carbon footprint, carbon intensity
3. Ruffer's operational carbon footprint
4. Implied temperature rise (ITR), also described as portfolio warming or cooling potential
5. Low-carbon patent potential within our equity portfolio
6. Sovereign bonds: we monitor, assess and aggregate a variety of country-level factors that can impact an issuer's credit quality. In relation to climate change these include –
Environmental risks: participation in selected international environmental agreements, climatological disasters, population living in areas where elevation is below five metres (% of total population)
Energy: renewable energy production, renewable energy consumption (% of total final energy consumption)
Environmental status: consumption of fertiliser, percentage waste recycled, CO₂ carbon emissions (metric tons per capita)

TCFD RECOMMENDATION

Disclose the level of greenhouse gas emissions and the related risks.

RUFFER'S RESPONSE

MSCI ESG Research employs a hybrid top-down and bottom-up methodology to calculate climate change risks and opportunities, such as future policies targeting emissions reductions, the potential of low-carbon technologies and extreme weather hazards. MSCI ESG Research's policy risk modelling quantifies each country's greenhouse gas (GHG) emissions reduction targets embedded within national pledges, called Nationally Determined Contributions (NDCs), which are part of the Paris Agreement.

Country emissions reduction targets are further broken down into sector level targets, which are linked up with MSCI ESG Research's production facilities database by assigning sector emissions-reduction targets to companies' production facilities. This provides insights into the emissions reduction requirements for facilities owned and operated by companies globally.

Using estimates of future carbon prices under specific policy scenarios, MSCI ESG Research then calculates the costs associated with such emissions reduction targets. Finally, physical climate risk scenarios define possible climatic consequences resulting from increased levels of GHG emissions and the ensuing financial burden (or opportunity) shouldered by businesses due to impacts on their facilities. Using the past 35 years of observed weather patterns to set a historical baseline, as well as state-of-the-art climate models, MSCI ESG Research brings both acute and chronic climate developments into perspective by modelling both costs from asset damage and business interruption respectively.

Ruffer's scenario analysis is currently conducted on the equity portion of the portfolio. Scenario analysis on the sovereign bond portion will be phased in, in due course.

1.5°C AVERAGE POLICY SCENARIO

CVaR contribution

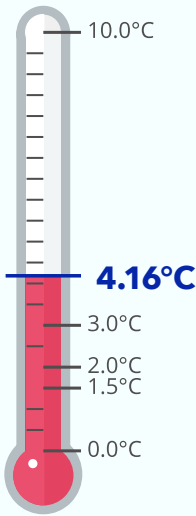
Scenario	Climate VaR contribution %	Coverage %
Low-carbon transition risk scenarios Selected model: AIM-CGE 1.5°C SSP2	-29.6	
Policy risk direct emissions (scope 1)	-12.2	98.4
Policy risk electricity use (scope 2)	-8.4	98.4
Policy risk value chain (scope 3)	-17.4	98.4
Technology opportunities	8.6	99.4
Physical climate scenarios selected model: average	-7.9	
Extreme cold	0.5	89.8
Extreme heat	-2.9	89.8
Precipitation	-0.3	89.8
Extreme snowfall	0.0	89.8
Extreme wind	-0.1	89.8
Coastal flooding	-4.7	89.8
Fluvial flooding	-0.4	89.8
Tropical cyclones	-0.0	89.8
Aggregated Climate VaR	-37.5	

PORTFOLIO WARMING POTENTIAL

The warming potential metric encapsulates a company’s contribution to rising temperatures. The metric aims to quantify the alignment of a company’s activities against pathways commensurate with future temperature goals. This concept draws on the IPCC warning to limit global temperature increases by the year 2100 to 2°C or lower compared to pre-industrial levels. Simplistically – it can be viewed as the temperature rise we would be likely to see should all companies have this emissions profile. This metric also allows for standardised comparison between companies.

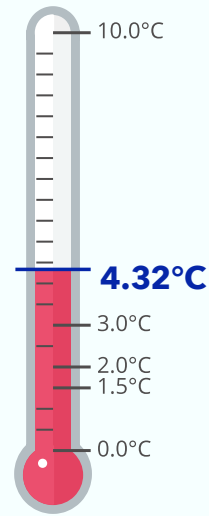
The warming potential for individual companies can be aggregated based on position size to give an estimate of the overall warming potential of an equity portfolio.

AGGREGATED WARMING POTENTIAL TEMPERATURE GAUGE WITH COMPANY TARGETS



The temperature gauge above illustrates the portfolio’s aggregated warming potential, with the underlying company’s decarbonisation targets taken into account.

AGGREGATED WARMING POTENTIAL TEMPERATURE GAUGE WITHOUT COMPANY TARGETS



The temperature gauge above illustrates the portfolio’s aggregated warming potential, without the underlying company’s decarbonisation targets.

Source: MSCI as at 31 March 2021

The above is an illustration of the warming potential for the equity portion of the LF Ruffer Total Return Fund as of 31 March 2021. This accounted for 46% of the total fund value. For context the warming potential of the MSCI ACWI index was 3.43°C. As with the Climate VaR metrics, it is our overweight to the energy and materials sectors that principally drives the portfolio’s higher warming potential.

CARBON INTENSITY ANALYSIS FOR THE LF RUFFER TOTAL RETURN FUND

Ruffer conducts carbon metrics analysis on its core funds and for clients when requested. This analysis only covers the direct equities held in the portfolio as at the valuation point. It currently incorporates only scope 1 and scope 2 emissions.

LF Ruffer Total Return Fund	As at 31 Mar 2021
Weighted average carbon intensity (tons/£m revenue)	182.1
Total carbon emissions (tons)	338,765.4
Carbon footprint (tons/£m invested)	209.2
Carbon intensity (tons/£m revenue)	139.4
Top contributors to weighted average carbon intensity	As at 31 Mar 2021 %
Kinross (mining)	8.5
BP (oil)	7.7
Royal Dutch Shell (oil)	7.2
ExxonMobil (oil)	6.0
Veolia (utilities)	5.1
Other equities	65.5

Source: Ruffer LLP

CONSOLIDATED KEY METRICS AS REQUIRED BY THE DEPARTMENT FOR WORK AND PENSIONS AND PROPOSED BY THE FCA

Metrics	Current data	1.5°C scenario, orderly	2°C scenario, orderly
Scope 1 (tons)	255,691.0		
Scope 2 (tons)	83,074.4		
Scope 3 (tons)	4,560,113.0		
Total carbon emissions, scope 1+2 (tons)	338,765.4		
Carbon footprint (tons/£m invested)	209.2		
Weighted average carbon intensity (tons/£m revenue)	182.1		
Climate VaR %		-37.5	-19.5
Implied temperature rise (with company targets)	4.16°C		

Source: Department for Work and Pension, Financial Conduct Authority

Managing our own carbon footprint

In addition to considering the greenhouse gases emitted by the companies in which we invest, it is prudent for us to consider the emissions from our own business.

Over the past year, Ruffer has taken steps to ensure we continually assess and manage the impact our own business has on the environment and society, just as we do for the companies in which we invest our clients' assets.

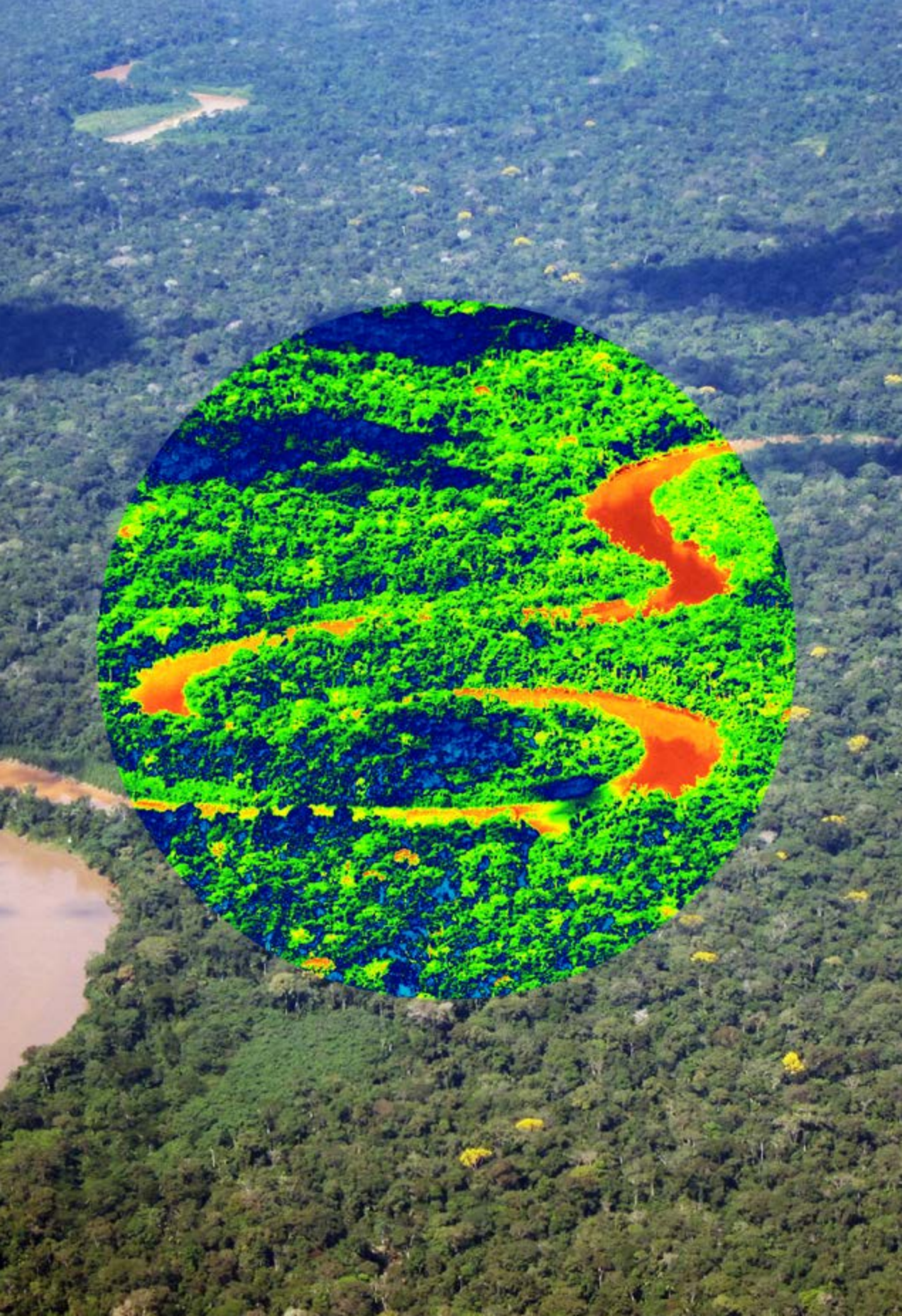
Ruffer has commissioned South Pole to measure the greenhouse gas footprint of our business, with the aim of offsetting our emissions through the purchase of carbon credits. Our staff chose three carbon-offset schemes from which to purchase credits, including a forestry project in Scotland and a rainforest and biodiversity protection programme in Peru. We have purchased carbon credits to offset our greenhouse gas emissions for 2017, 2018 and 2019, and secured climate-neutral labels for those years.

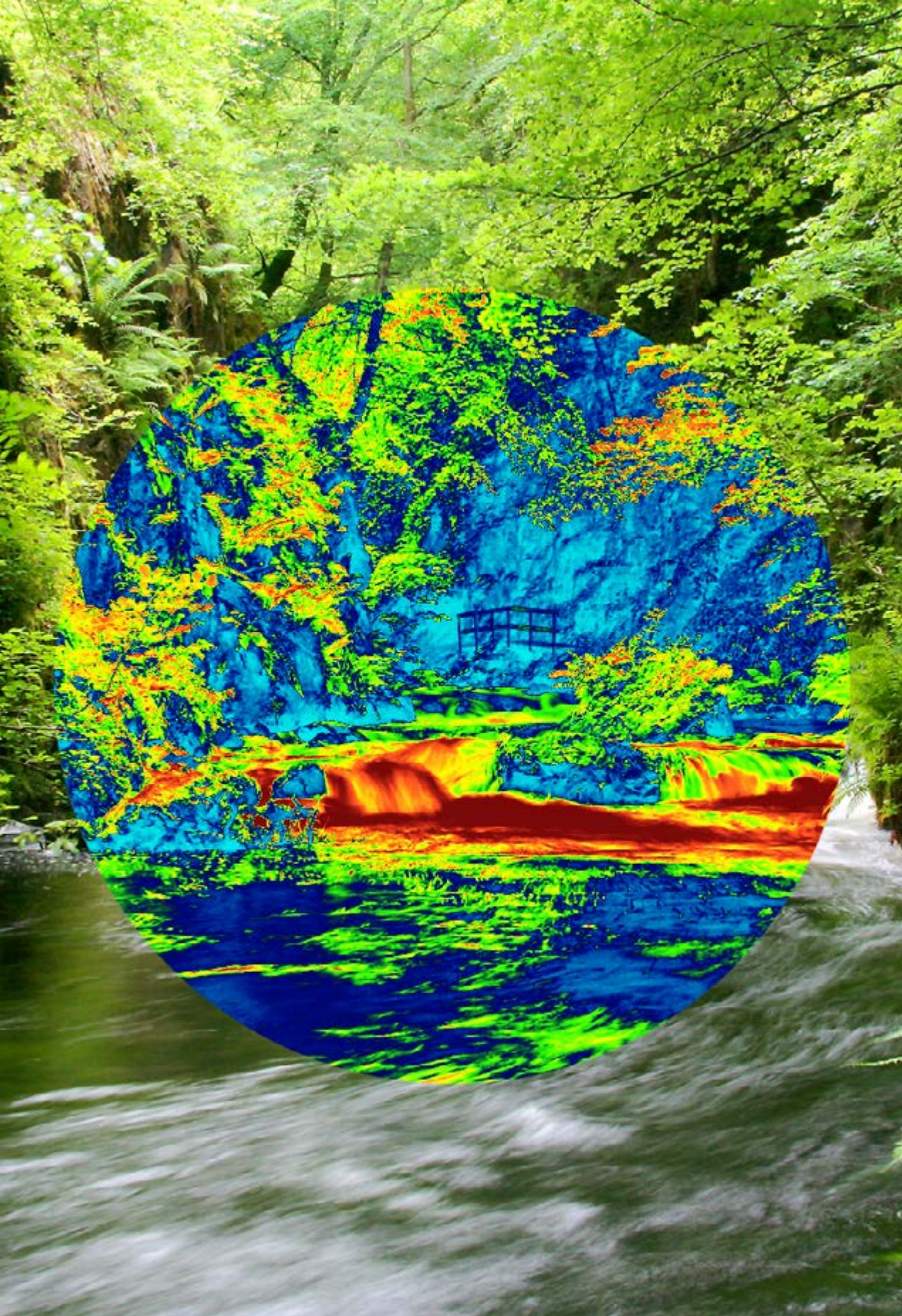
Ruffer has been climate neutral since 2017.

South Pole calculated Ruffer's total greenhouse gas (GHG) emissions for the year 2019 to be 1,117.14 metric tons of carbon dioxide equivalents (tCO₂e), accounting for 3.36 tCO₂e per employee. Ruffer LLP's 2020 data is being calculated currently and 2019 is shown below as it is more representative of the firm's true scope 1,2 and 3 emissions.

Scope	Emissions (tCO ₂ e)	% of total
Scope 1: Direct GHG emissions	1.7	0.2
Scope 2: Indirect GHG emissions from purchased electricity, heating and cooling [†]	249.8	22.4
Scope 3: Other indirect GHG emissions	865.7	77.5
Total GHG emissions	1,117.1	100.0

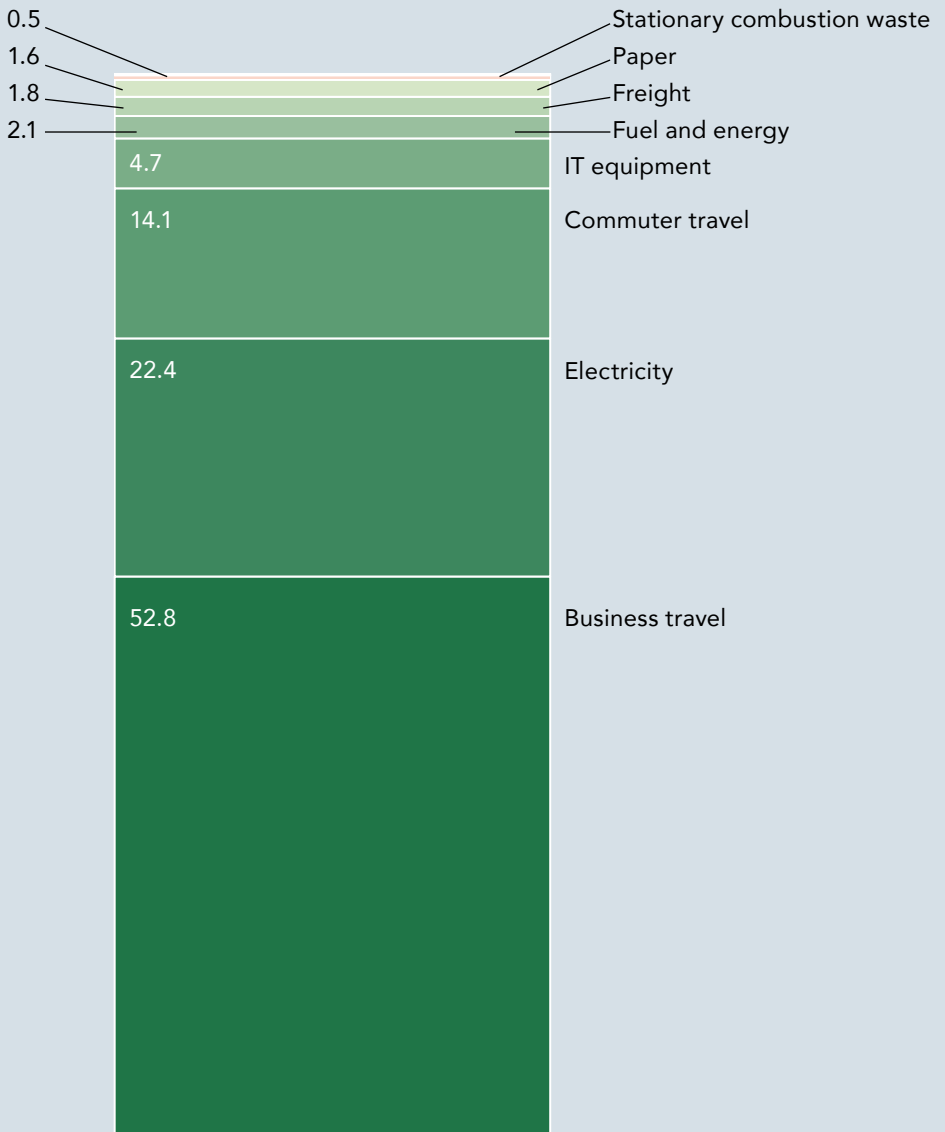
[†] Market based methodology. Scope 2 emissions using the location based methodology would be 173.9 tCO₂e





The chart below shows the breakdown of the GHG emissions by source. The main source of GHG emissions during the year 2019 was business travel (52.81%), followed by electricity consumption (22.36%) and employee commuting travel (14.06%). This will have considerably changed in 2020 due to the covid-19 pandemic.

We strive to reduce Ruffer’s absolute greenhouse gas emissions over time.



Source: Ruffer LLP, 12 months to December 2019

Last word

Ruffer decided to become a supporter of the Taskforce for Climate-related Financial Disclosure in 2019. Since then, momentum on climate-related disclosure, climate accounting, climate modelling and scenario analysis of portfolios has grown significantly.

In 2020/2021 we focused on setting up internal systems and gathered relevant climate data. We have created a baseline for measuring the carbon intensity of our equities and started to look at how this can be translated to our fixed income allocation. Regular climate-related scenario analyses have been integrated into Ruffer's risk process.

Our inaugural TCFD report was written with the support of fundamental analysts, members of the risk team, our company secretary and chaired by one of our senior Portfolio Managers.

We concentrate on looking beyond carbon footprints, a backward-facing measure, to the direction of travel for policy, companies and industries so that we fully understand how they are influencing and contributing to the energy transition. We are supportive of Climate Action 100+ Net-Zero Company benchmarks¹⁷, which help us to evaluate company ambition and action in tackling climate change, target and prioritise our efforts on reducing real-economy greenhouse gas emissions with companies more strategically. We will encourage companies to voluntarily submit their climate transition plans at their AGMs so investors can signal their support to company management. Several climate transition plans put forward at recent AGMs, such as those of Aena and Royal Dutch Shell, have received majority support from their shareholders.

We will follow developments at a national, as well as international, level closely when the 26th United Nations Climate Change Conference (COP26) take places in Glasgow this November. The Nationally Determined Contributions, countries' climate change blueprint, will give us insights into the level of policy changes and transition risks and opportunities investee companies have to consider.

Glossary

CARBON FOOTPRINT

Total carbon emissions for a portfolio normalised by the market value of the portfolio, expressed in tons CO₂e/\$m invested. Scope 1 and scope 2 GHG emissions are allocated to investors based on an equity ownership approach as described under methodology for total carbon emissions. The current portfolio value is used to normalise the data.

CARBON INTENSITY

Volume of carbon emissions per million dollars of revenue (carbon efficiency of a portfolio), expressed in tons CO₂e/\$m revenue; scope 1 and scope 2 GHG emissions are allocated to investors based on an equity ownership approach as described under methodology for total carbon emissions. The company's (or issuer's) revenue is used to adjust for company size to provide a measurement of the efficiency of output.

IMPLIED TEMPERATURE RISE (ITR)

or portfolio warming/cooling potential

An implied temperature rise metric attempts to estimate a global temperature rise associated with the greenhouse gas emissions of a single entity (eg a company) or a selection of entities (eg those in a given investment portfolio, fund or investment strategy).¹⁸ While ITR can be used as an impact metric or communication and engagement tool, its disclosure could also provide insight on climate-related risks and opportunities associated with select assets to better inform capital allocation decisions. However, the ITR metric is new and still evolving. There are several technical and methodological challenges related to calculating

ITR, no commonly agreed terminology to refer to the metric and little understanding of advancements that would be needed to improve the usefulness of ITR disclosures. ITR ratings provided over time could also provide insight into progress against strategic objectives or targets.

INTEGRATED ASSESSMENT MODEL (IAM)

Climate change IAMs are tools that bring together very different types of information (eg knowledge about climate, economics, ecology) in a coherent framework that is usable by researchers and decision makers. In the assessment of climate change, integrated assessment refers to activity that considers the social and economic factors that drive the emission of greenhouse gases (GHG), the biogeochemical cycles and atmospheric chemistry that determines the fate of those emissions, and the resultant effect of GHG emissions on climate and human welfare. IAMs can provide a framework for understanding the climate change problem and for informing judgments about the relative value of options for dealing with climate change.

AIM-CGE

The AIM-CGE model was developed by the Japanese National Institute for Environmental Studies (NIES) to analyse the future of climate change mitigation and its impact on economic conditions. AIM-CGE is classified as a computable general equilibrium model, which covers all economic goods while considering production factor interactions. The trade of goods and services is also considered.

GCAM4

The global change assessment model (GCAM) is a dynamic-recursive model with technology-rich representations of the economy, energy sector, land use and water linked to a climate model that can be used to explore climate change mitigation policies, including carbon taxes, carbon trading, regulations and accelerated deployment of energy technology. The Joint Global Change Research Institute (JGCRI) is the home and primary development institution for GCAM.

IMAGE

An ecological-environmental model framework that simulates the environmental consequences of human activities worldwide. It represents interactions between society, the biosphere and the climate system to assess sustainability issues such as climate change, biodiversity and human wellbeing. The IMAGE modelling framework has been developed by the IMAGE team under the authority of PBL Netherlands Environmental Assessment Agency.

SHARED SOCIOECONOMIC PATHWAYS (SSPs)

Future carbon prices differ according to each IAM but can also differ within an IAM, depending on the Shared Socioeconomic Pathway (SSP) deployed by the IAM during a model run. The key elements of an SSP aim to characterise a global socio-economic future for the 21st century as a reference for climate change analysis. Five SSPs were designed to represent different climate change mitigation and adaptation challenges. Their resulting storylines/narratives and quantifications span a wide range of different futures. The narratives relate to sustainability,

regional rivalry, inequality, fossil-fuelled development and a middle of the road pathway.

SSP1

A global green growth pathway, ie sustainability. This is a world making relatively good progress towards sustainability, with ongoing efforts to achieve development goals while reducing resource intensity and fossil fuel dependency.

SSP2

A middle of the road (or dynamics as usual, current trends continue or continuation) development pattern. In this world, trends typical of recent decades continue, with some progress towards achieving development goals, reductions in resource and energy intensity at historic rates and slowly decreasing fossil fuel dependency.

SSP3

Regional rivalry – a rocky road (high challenges to mitigation and adaptation). A resurgent nationalism, concerns about competitiveness and security, and regional conflicts push countries to increasingly focus on domestic or, at most, regional issues. Policies shift over time to become increasingly oriented towards national and regional security issues. Countries focus on achieving energy and food security goals within their own regions at the expense of broader-based development. Investments in education and technological development decline. Economic development is slow, consumption is material-intensive and inequalities persist or worsen over time. Population growth is low in industrialised and high in developing countries. A low international priority for addressing environmental concerns leads to strong environmental degradation in some regions.

Glossary

SSP4

Inequality (or unequal or divided world), characterised by low challenges to GHG mitigation and high challenges to climate change adaptation. This pathway envisions a highly unequal world both within and across countries. A relatively small, rich global elite is responsible for much of the emissions, while a larger, poorer group contributes little to emissions and is vulnerable to impacts of climate change, in industrialised as well as in developing countries.

SSP5

Fossil fuel based economic development (or conventional development). This world stresses conventional development oriented towards economic growth as the solution to social and economic problems through the pursuit of enlightened self-interest. The preference for rapid conventional development leads to an energy system dominated by fossil fuels resulting in high GHG emissions and challenges to mitigation.

TOTAL CARBON EMISSIONS

The absolute greenhouse gas emissions associated with a portfolio, expressed in tons CO₂e. Scope 1 and scope 2 GHG emissions are allocated to investors based on an equity ownership approach. Under this approach, if an investor owns 5% of a company's total market capitalisation, then the investor owns 5% of the company as well as 5% of the company's GHG (or carbon) emissions.

CLIMATE VALUE AT RISK (CLIMATE VAR)

MSCI's Climate VaR metric provides a forward-looking and returns-based impact metric for investors. The development of this metric leveraged an integrated approach, considering

the latest academic findings from climate science as well as input from the financial services industry. Climate VaR can be used to inform action, eg diversify, divest or engage. MSCI assesses each individual impact in terms of the potential financial impact on the company's operation: from a business interruption and corresponding loss in productivity and therefore revenue, to an acute extreme weather event which damages assets and renders them inoperable. Costs are factored from increasingly stringent legislation into this calculation process – the costs to decarbonise and meet national targets in the countries of operation – and model potential future revenues and profits arising from low-carbon innovation.

We apply these cost and revenue projections to individual securities and value the impacts across asset classes, through equities, fixed income and real estate assets; these calculations can be aggregated upwards to the scale of the entire portfolio.

WEIGHTED AVERAGE CARBON INTENSITY

The absolute greenhouse gas emissions associated with a portfolio, expressed in tons CO₂e. Scope 1 and scope 2 GHG emissions are allocated based on portfolio weights (the current value of the investment relative to the current portfolio value), rather than the equity ownership approach (as described under methodology for total carbon emissions).

Contact us

**FRANZISKA JAHN-MADELL**

Director, Responsible Investment

fjahn-madell@ruffer.co.uk

+44 (0)20 7963 8200

Has focused on ESG and responsible investment since 1999. In 2014, she joined Ruffer, where she has led the integration of ESG risks and opportunities in Ruffer's absolute return strategy and strengthened Ruffer's stewardship positioning and engagement efforts. Before Ruffer, she worked for a research provider for environmental, social and governance performance. From 1999–2003, she worked at the Moral Theology department at Frankfurt University for the Business Ethics Chair. In 2003, she graduated from Frankfurt University with an MA in Theology and an MA in Literature.

**ALEXIA PALACIOS**

Analyst, Responsible Investment

apalacios@ruffer.co.uk

+44 (0)20 7963 8228

Joined Ruffer in 2014 after graduating from the University of Cambridge with first class honours in Land Economy. Having gained experience in responsible investment while working with Ruffer's Charity team, she has specialised in this area since 2018. She has completed the PRI Academy Responsible Investment Essentials and Enhanced Financial Analysis courses and is a CFA charterholder.

LORENA CEBUC

Associate, Responsible Investment

lcebuc@ruffer.co.uk

+44 (0)20 7963 8227

Joined Ruffer in 2020 after working at BlueBay Asset Management and London Stock Exchange Group, where she mainly focused on ESG and growing European institutional business. In 2017, she graduated from the University of Manchester with a BSc (Hons) in Mathematics with Finance and has completed the Investment Management Certificate.

FURTHER INFORMATION

The following documents are available at
ruffer.co.uk/responsible-investing

- ESG and responsible investment annual reports
 - Quarterly stewardship activities reports
 - Quarterly responsible investment reports
 - Responsible investment policy
 - Engagement policy
 - Voting policy
 - Our response to the UK Stewardship Code
 - Our response to the Japan Stewardship Code
 - Climate change framework
 - Our voting summary
 - A selection of articles on responsible investment topics
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