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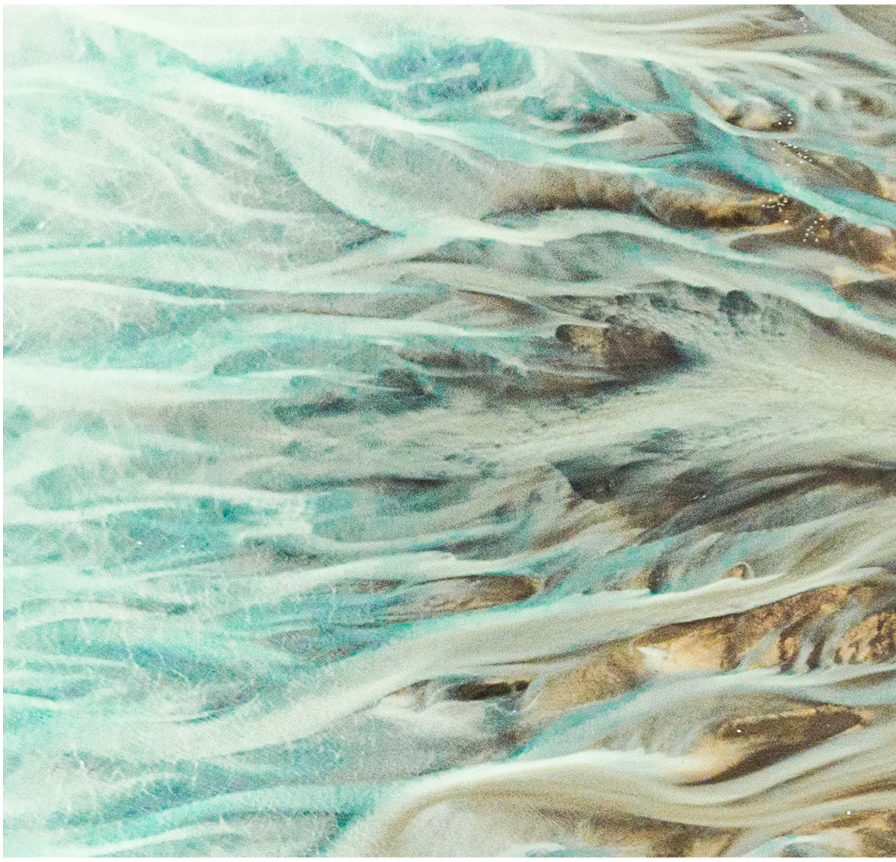
Q4 2021

An introduction to Active Strategies



Active Strategies:

An introduction to our new investment process

Colin Reedie
Head of Active Strategies

A hallmark of the most successful investment teams is their ability to identify the seeds of change in the investing landscape, coupled with an investment process that can evolve and adapt with the times. That investment process must have the flexibility to learn from what has been faced in the past and to adapt to the future.

We believe that a seismic shift has taken place in what modern society demands from companies, not only from an investment standpoint, but also from the everyday perspective of buying goods and services. Having traditionally been focused purely on the pursuit of profit (and in some cases, simply on maximising short-term gains), companies are increasingly having to pivot towards taking greater responsibility for the long-term well-being of their stakeholders – including employees, customers, suppliers and communities – as well as generating sustainable returns for shareholders. From Friedman's quotation about pursuit of profit surpassing social good, we have moved to a far more long-term, universal philosophy of corporate purpose, summarised by attendees at the US Business Roundtable in 2019.

1970

> “
> **The sole purpose of a company should be about profit and not social good.**
> ”
>
> Milton Friedman, 13 September 1970

2019

> “
> **Major employers are investing in their workers and communities because they know it is the only way to be successful over the long term.**
> ”
>
> Jamie Dimon, August 2019, US Business Roundtable

The traditional, limited methods of analysing a company (both from the equity and credit perspective) must therefore change. The risk is that the approach of the last 30 years, will not work for the next 30 years.

In recognition of this significant trend, we have taken the bold decision to merge our active equity and fixed income teams into a single department: **Active Strategies**. We have long advocated the benefits of a collective stakeholder approach, as we believe the most direct way to induce companies to behave in a socially responsible manner is by making it in their business best interests to do so.

We're firm believers that in order to credibly evidence that environmental, social and governance (ESG) risk factors are properly embedded into the investment process, it can't be just be done off the side of the desk. You will have heard and read a lot about the asset management industry talking about 'closer integration' in an ESG context - at LGIM, we believe that more needs to be done. Companies and investors have traditionally regarded values and other ESG-related risks as 'non-financial'; we prefer the term **'not-yet-financial'**. The early identification of all risks that threaten the sustainability of future returns can only be done within an investment process. Our engine is now a full cross-asset class research platform - the **Global Research & Engagement Groups (GREGs)**.

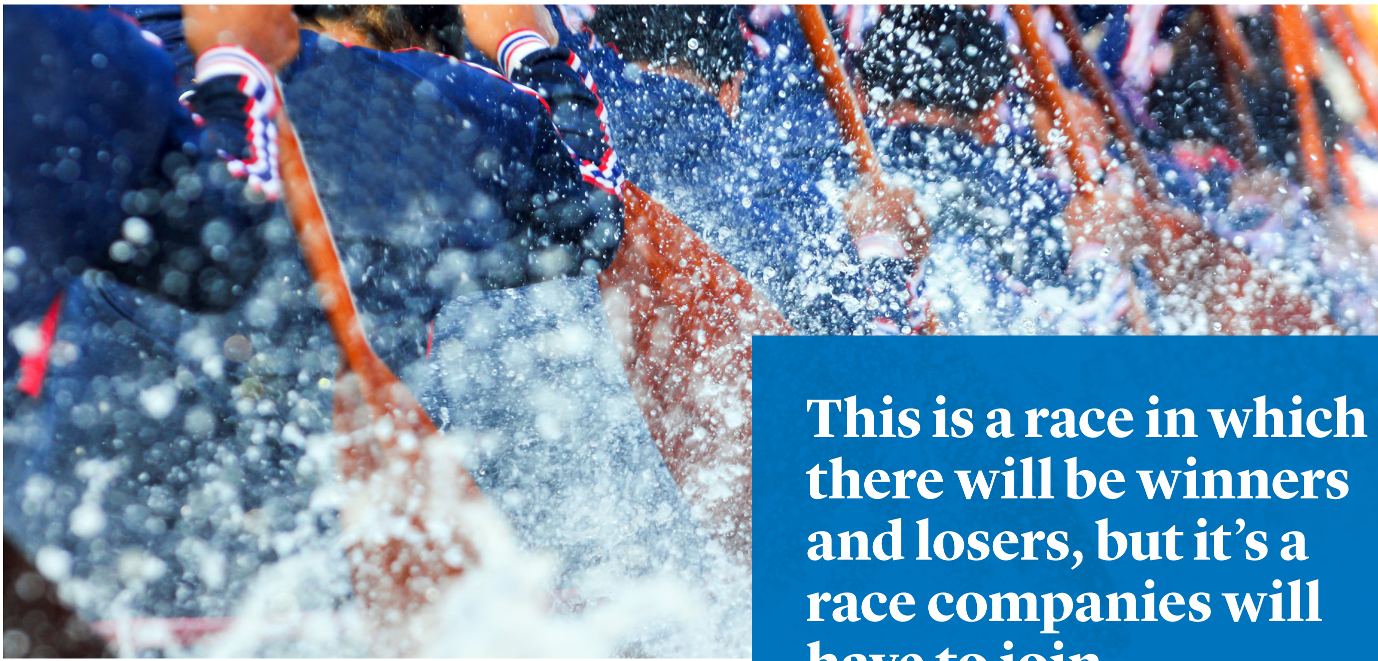
Joined-up approach to research and engagement

Cross asset expertise is at the core of our approach

73 cross-sector experts...

With the objectives of:

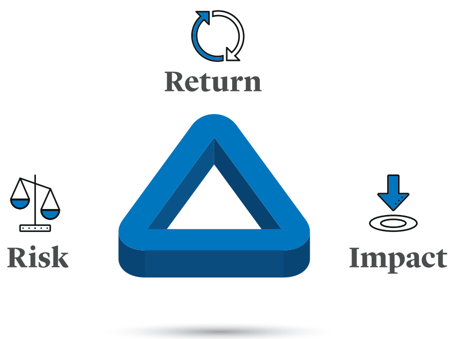
- Research into structual industry changes and risks
- Identification of key themes and engagement topics



This is a race in which there will be winners and losers, but it's a race companies will have to join

We believe putting a trinity of equity, debt and investment stewardship skill sets together in our **Active Engagement Model** will yield a quality of analysis, specifically purposed for what we think lies ahead, providing a three-dimensional lens to analyse and capture both fundamentals and these 'not-yet financial' risks.

Today, we all need to take a 3D view



The nine sector GREGs comprise the best and brightest we have at LGIM. This is not a pure analysis or research endeavour - the GREGs are also populated with risk-takers who help with the difficult task of ascertaining whether ESG risks may already be reflected in the price of an asset or security. Are these ESG risks financially material or not and if so, how value-creating or value-destroying might they be?

This structure works on multiple levels, from both the pure ESG perspective and also in the context of the investment process itself. To be consistently successful, a process must blend the top-down and bottom-up aspects, the macro and the micro. With the GREGs, we are slotting a fundamental sector-based, ESG-focused resource into the middle of the traditional macro/micro structure. We believe this will build a far better transmission mechanism, allowing both macro and micro inputs and outputs to flow freely in both directions through this ESG-focused lens.

It also allows us to maximise our engagement efforts with our collective stakeholder approach – engaging consistently through the equity, credit and investment stewardship channels creates a continuous feedback loop and should leave no company in any doubt as to what LGIM and our clients are focused on.

Our pursuit is better, sustainable risk-adjusted returns alongside the measurement of the impact of our investment decisions.

In this introduction to Active Strategies, we illustrate how this works in practice: we include examples of how the GREGs are feeding into actual portfolios, and an introduction to our Destination@Risk climate model, on which our climate-aligned credit strategies will be relying heavily to help identify and measure companies that are acting quickly and decisively to build resilience against the effects of climate change. This is a race in which there will be winners and losers, but it's a race companies will have to join, for their stakeholders, for broader society, and for the future of the planet.

Introducing the GREGs

Our Global Research & Engagement Groups – affectionately known as the GREGs – sit at the heart of Active Strategies.

Madeleine King
Co-Head of Global Investment Grade

The nine sector groups of cross-asset sector specialists identify, explore and debate the structural changes affecting the world that we live in. Our objectives are to protect our clients' investments against these societal shifts and to use our scale to influence change via engagement. The momentous shifts we are facing in the form of global warming and climate change are often seen purely as a risk, but we believe that such risks also contain opportunities, and the GREGs are as much focused on unearthing the potential for future gains, as they are on aiming to avoid risks. As our eponymous baking cousin discovered with the controversial popularity of its vegan sausage rolls, changes in the world, in markets, in societies and in everyday behaviours can uncover surprising successes.

Step 1
Identifying the themes shaping our world

In order to make the best investment decisions for our clients, all of our investment professionals need a strong understanding of the sectors we invest in and the themes that drive and connect them. Our daily updates on emerging trends and themes allow early identification of potentially transformational threats and opportunities, which we then develop into more detailed research. Our deep-dive, thematic analysis is concentrated in areas which we think are either under-researched from an investment perspective, where we see an imminent catalyst for change, or where we believe markets are struggling to correctly price risk.

Some examples of our 2021 GREG research

Energy

Theme: Energy transition mechanism
Theme: Silicon shortage

Deep-dive: The role of liquidifed natural gas in the energy transition

Healthcare

Theme: China drug reform
Theme: Opioids litigation

Deep-dive: Healthcare innovation, digitalisation & disruption

Industrials

Theme: Heating, ventilation and air conditioning and energy efficiency
Theme: Digital twins

Deep-dive: UK airports – chasing shadows

Consumer

Theme: EU farm to fork
Theme: Cotton certification

Deep-dive: The obesity crisis

Utilities

Theme: Power prices
Theme: European carbon permits

Deep-dive: Coal phase-out

Financials

Theme: Money laundering
Theme: Reinsuring hurricanes

Deep-dive: The social impact of banks

TMT

Theme: EU Green Recovery Fund
Theme: The future of satellites

Deep-dive: ESG in big tech

Basics

Theme: Potential EU carbon border adjustment
Theme: Diversified miner coal exposure

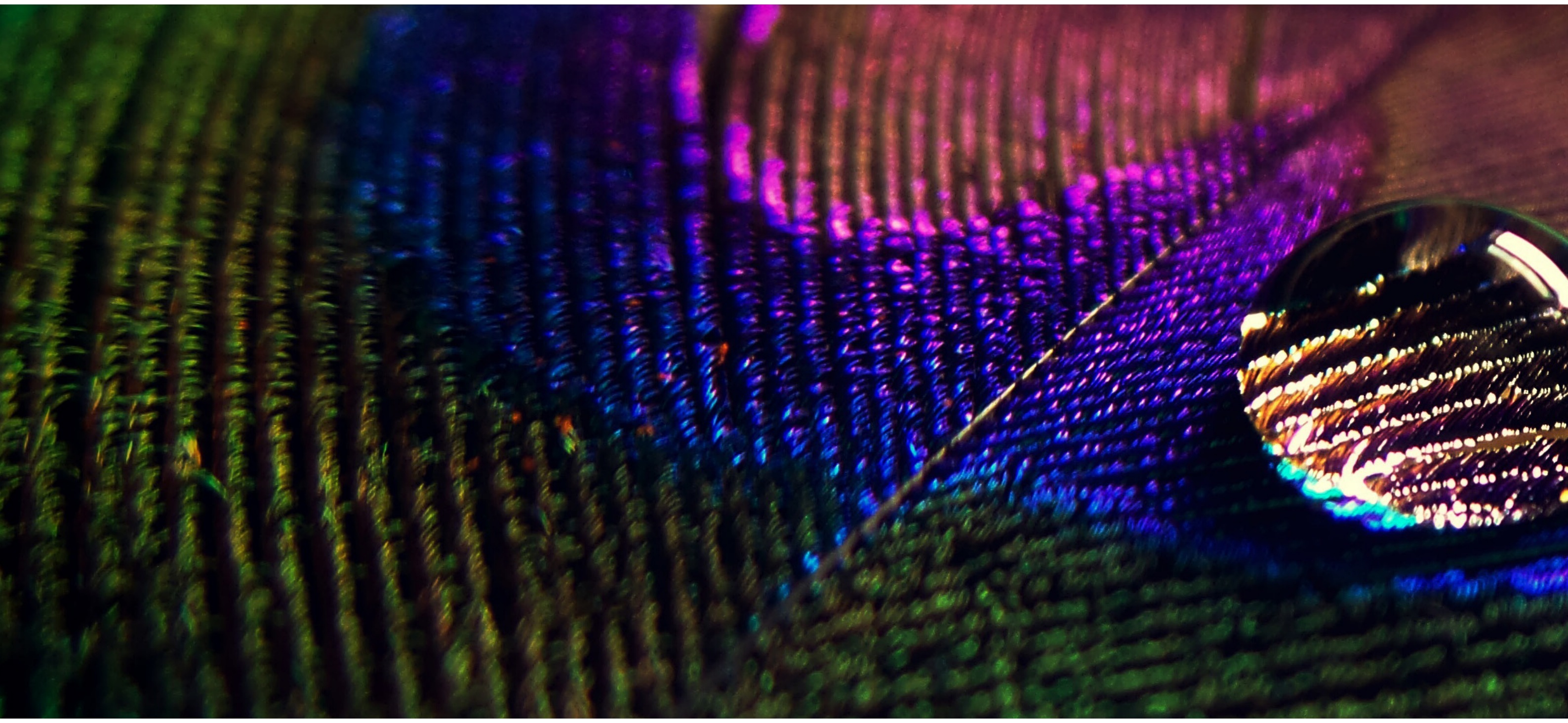
Deep-dive: PFAs (polyfluoralkyl substances)

Real estate

Theme: The future of the office
Theme: ESG in housing associations

Deep-dive: The real estate carbon footprint

For example, the European Commission's announcement of the 2030 climate target, 'Fit for 55', shone a spotlight on the bloc's efforts to remove coal from its power generation mix and prompted our Utilities GREG to explore this theme in detail. Our analysts considered Poland as a potential blueprint for other European countries following its progress in phasing out coal this year and identified the German elections as a potential catalyst for change.



Step 2
Who are the winners and losers?

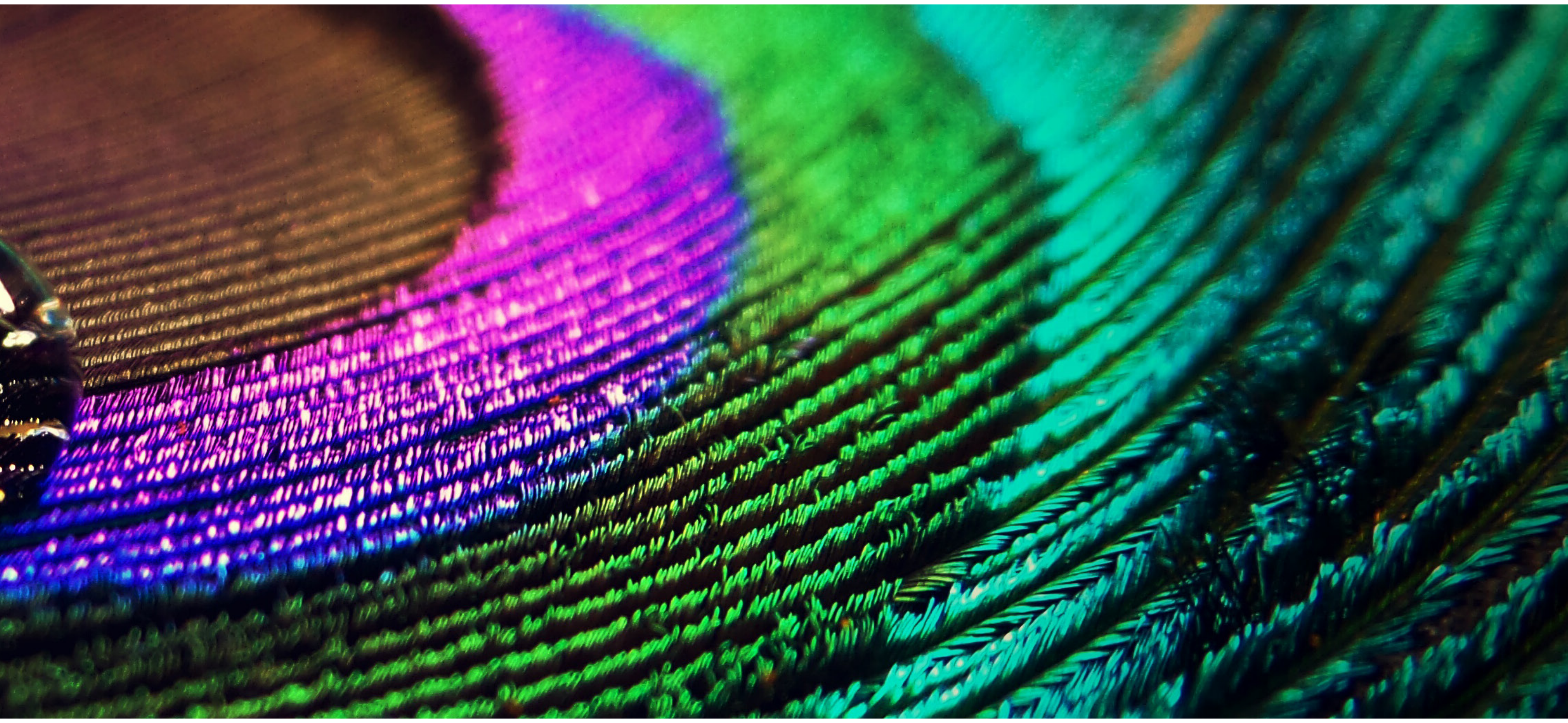
Investors need to establish an understanding of how ESG risks will challenge the resilience of companies and entire sectors – in other words, we need to determine the financial materiality of different ESG factors and themes. Risks and opportunities are not spread evenly across industries; every theme will impact some sectors and companies more than others and may have different implications for equity versus credit investors.

Considering the phasing out of coal, our Utilities analysts categorised the EU companies potentially affected into three camps: 'clean plays', 'transitioning' and 'laggards'. The 'clean plays' are already making good progress in moving to renewables, while the 'transitioning' companies are those where there is still work to be done, but whose plans for dialling down coal are ambitious and credible. The 'laggards' are those companies we think are falling behind and where we see the highest regulatory and operational risks.

Step 3
What's the investment opportunity?

The priority of our GREGs is generating actionable investment opportunities to create alpha for our active portfolios. Identifying the winners and losers is only the first part of this process – we must also balance each company's fundamental outlook against the existing market consensus and its valuation across the capital structure.

Returning to our example of the EU exit from coal, unsurprisingly, the 'laggards' are companies we would want to avoid across the capital structure. We believe that companies failing to take the energy transition seriously will face immense pressure in future, particularly as tightening coal policies across the financial community could render the bonds and equities of these companies un-investable. However, we also think that the 'clean plays' are also currently unappealing due to their expensive valuations, particularly in equity markets. The greenest utilities are 'consensus longs' and are already widely held by ESG-focused investors across asset classes, in our view. We therefore think that the best way to position portfolios for the EU coal phase-out is via the 'transitioning' utilities, which we believe offer the most appealing risk reward for both credit and equity investors.



Step 4
Using our scale to influence change

As 'active owners', we engage on behalf of all our clients' assets and we see ourselves as part of a company's journey to a sustainable future, providing critical and constructive insights while holding management teams accountable for their actions. The GREGs are an important forum for us to identify sector specific themes to discuss with management teams, both to enhance our investment decisions and to push companies for improvement.

Being able to actively engage through the equity, credit and investment stewardship channels is at the centre of a collective stakeholder approach. We amplify our voice and its impact by making sure that companies hear the same themes and concerns from all LGIM teams, and are challenged consistently on their progress in addressing them.

Our detailed research on the EU coal phase-out earlier this year reinforced our view that investors should support utility companies in seeking to dispose of difficult-to-close coal operations, but only where the disposal is to socially responsible, well-capitalised buyers, supported and closely supervised by the state.

In our engagement with multinational energy provider RWE's* senior management, for example, we have called for the company to investigate such a transfer. We think transfers like this could make the remaining transition-focused companies more investable for many of our funds and for the market more generally.

Conclusion

We believe that in order to be successful, an investment process must be adaptable. Our creation of the GREGs as an integral part of our Active Strategies process helps us identify and monitor significant trends, and also to filter out the ever-increasing volume of market 'noise'. By bringing together subject-matter, asset-class and stewardship specialists from across LGIM, we can distil their expertise into the best ideas for our portfolios, creating an adaptable, repeatable and forward-looking investment process.

*For illustrative purposes only. Reference to a particular security is on a historical basis and does not mean that the security is currently held or will be held within an LGIM portfolio. The above information does not constitute a recommendation to buy or sell any security.

GREGs in action

To understand better the way that the Global Research and Engagement Groups (GREGs) affect our Active Strategies portfolio decisions, we spoke to Matthew Rees and Nitin Anandkar about how their investment process have benefited from the broader and deeper perspective offered by the GREGs.

Matthew Rees
Head of Global Bond Strategies, Active Strategies

Nitin Anandkar
Equity Fund Manager, Active Strategies

Q: How does the work of the GREGS fit into your investment process?

Nitin:

We run a concentrated fund, and we follow a three-stage 'filter' process in arriving at our investment ideas: our initial filter is thematic, and the GREGs are one of the big resources that we use to identify investment themes and the universe of names that fit into these themes. To take just one example, the GREGs have contributed significantly in finding new ideas in climate solutions and the transition to electric vehicles. The interaction that our investment team have with the GREGs is the starting point – it's very much about identifying and also excluding names, not just in the area of sustainability and climate, but also for broader fundamental or economic reasons.

Mat:

Our fixed income investment process combines top-down macro-driven issues which sway our asset allocation between various parts of the credit market, alongside bottom-up factors and investment themes, which guide our security and industry analysis. For us, the GREGs function mostly in the bottom-up segment, and they've really elevated our discussions and insights by bringing fixed income, equity and investment stewardship together. The breadth of topics that are debated, the level and depth of investment themes, is much greater than when it was just credit. It's really enhanced our thematic process.

Q: What positive impact do you think the GREGs are having on Active Strategies portfolios?

Nitin:

At a portfolio level, most of us are generalists. Being able to tap the expertise of people who know sectors really well is incredibly valuable. I can think of lots of examples in portfolios where the GREGs work has affected our decision, both for names we've invested in and those we've avoided. As Mat pointed out, the ability to get feedback from people who invest across the capital structure is very valuable, and we have GREGs stationed across different geographies, across Europe, Asia and the Americas, and their insights on regional issues is incredibly helpful.

Mat:

I'd echo that. One of the things we see as really important is how different geographies are when it comes to incorporating ESG into credit quality assessment in different sectors. One example here is in the energy sector, where European investors are much more cautious about some oil and gas names while the US doesn't have as big an issue. The tobacco sector is another one – much of Western Europe won't invest in tobacco. So, in terms of understanding how different regions treat themes and industries, the cross-sector, cross-geographical element of GREGs is really useful.

Within markets, it's often said that fixed income investors typically are bearish, and equity managers are bullish – if you throw them in a room together, and add investment stewardship and ESG analysis on top, which is what we're doing through the GREGs, this means we have much more elevated levels of debate and talk about a far broader range of topics. Just to take one example – we've been talking a lot about inflation and whether this is being passed through by companies onto consumers. Speaking from the fixed income side, the equities team give us a perspective that we wouldn't otherwise have had.

Nitin:

I agree – contributions from fixed income and ESG side are incredibly valuable to the equity team. There's a healthy tension there – we're bringing together lots of different perspectives in one room, but if everyone thinks alike then you can end up with a blinkered approach, so, as Mat was saying, seeing things from different perspectives is really important.

Q: Can you give an example of where the GREGs research has helped you make a portfolio decision?

Nitin:

Earlier this year, one of our team members who is part of the Industrial GREG team, was working on climate solutions and specifically, on the transition to electric vehicles. The GREG was looking at companies across the value chain, from electric vehicle manufacturers to suppliers and sub-suppliers. Given the mandate and style that we have, the OEMs ('original equipment manufacturers') don't fit into the typical universe of stocks we would invest in. But having a seat in the GREG sector team was valuable because during their deep dive, they looked at companies across the value chain, and as part of this effort, some of them interviewed management of some OEMs, specifically to understand what they were doing with respect to hybrid vehicles, and emissions in EU. And the impression we had was that the facts were quite different to what the companies had been telling the market, so the GREGs were concerned about this. We did want theme exposure in our portfolios, but with a controlled level of risk. So, we started looking at the suppliers; what attracted us to a particular connector supply company was the fact that for the product they make (the connector), the cost is quite small as a proportion of final product cost, but value of the product was much more than the cost, giving them better pricing power; this company ticked all our boxes in terms of thematic investment, ESG, and quality growth.

Mat:

We've been looking a lot at the energy sector, how serious companies were about transitioning to clean energy, and what they were talking about versus what they were doing. A good example is BP*, where the company is making a real shift towards renewable capex, following on principally from our collective stakeholder engagement with the board, by both LGIM and other significant investors. Our influence has helped to get them to commit properly to net zero. They changed their strategy to pivot that way last year – as a result of that, we increased our exposure.

Also as part of that debate, and the acceptance (or not) of ESG, when we saw Biden coming into power in the US, we sold down some of our US pipeline exposure because we felt that the Biden tilt towards green movement would have an impact. It hasn't happened yet, but we do expect more pressure on providers.

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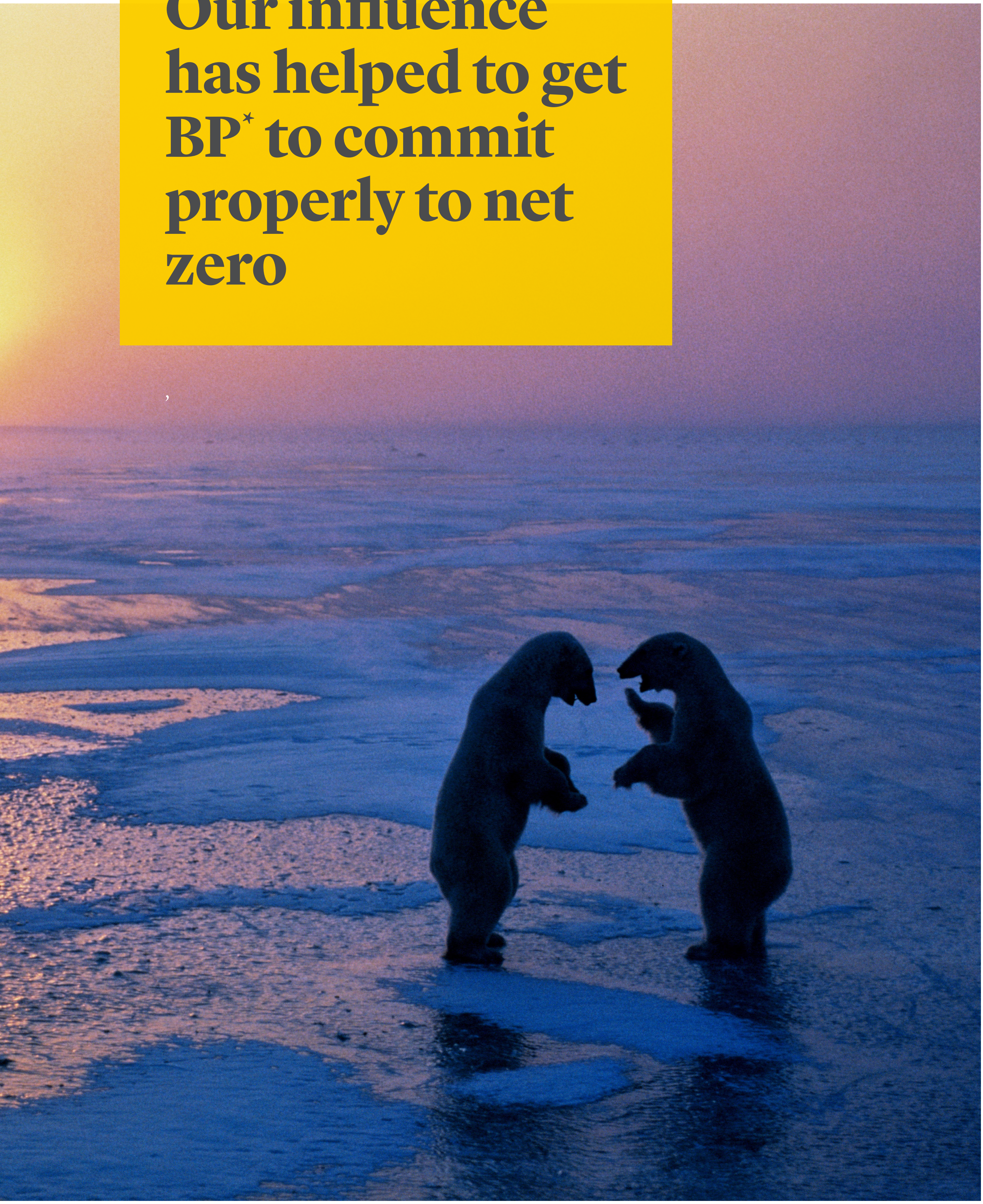
Our influence has helped to get BP* to commit properly to net zero



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Destination@Risk

In this article, we explain how we detect risks, identify climate opportunities, measure portfolio temperature alignment and inform our decision-making across out Active Strategies portfolios.

Nick Stansbury
Head of Climate Solutions

The term ‘climate crisis’ has been ever-more prevalent in recent years. At LGIM, our investment experience has taught us to see a crisis as a time of change, when difficult or important decisions must be made with the best information available – an opportunity to take a positive step towards the best possible outcome.

There are three things we know for certain about the climate crisis:

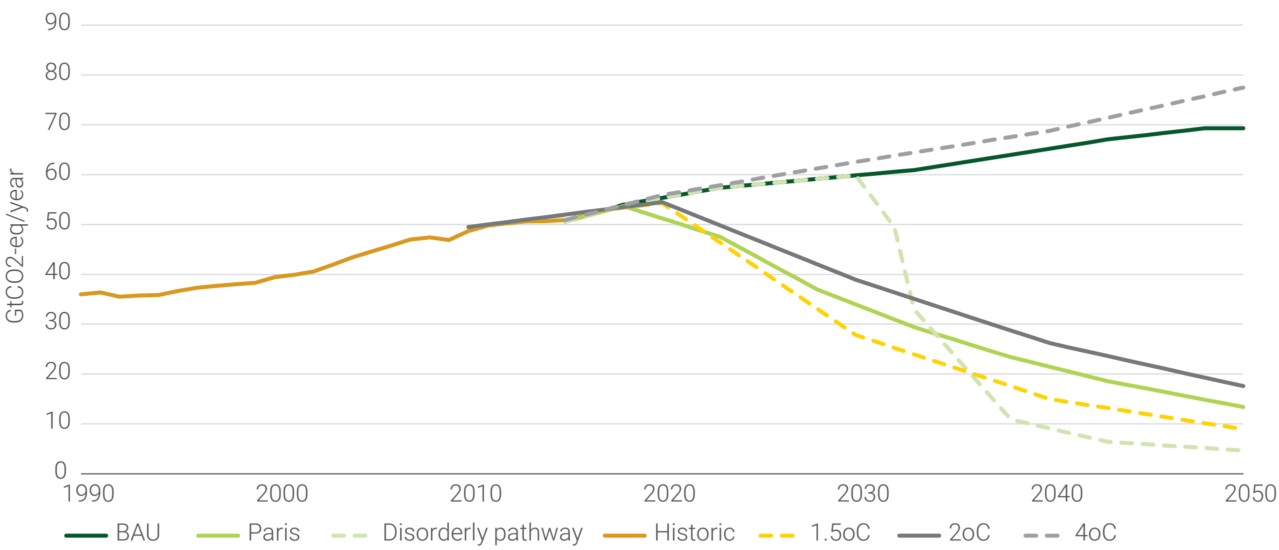
1. it affects all markets and investments
2. there is no historical precedent, making scenario analysis our best analytical tool, and
3. the risk is not completely endogenous: investors exert influence on companies and governments and hence have a role in influencing the size and shape of the risks that they will face.

What does the climate crisis mean for the global economy?

While we can't predict precisely what will happen in politics, policy or technology, we can capture the key dynamics of how the energy transition affects the wider economy.

LGIM's Destination model quantifies relationships between over 200 energy technologies across 12 regions in the energy system and runs like a complex 'what-if' function; the computational load is immense. Developing proprietary scenarios in-house allows us to respond to signals received from the market and policymakers, and to develop deeper insights about the dynamics of the transition. as it evolves.

Figure 1: Pathways to Paris



Source: LGIM, October 2021. Assumptions, opinions and estimates are provided for illustrative purposes only. There is no guarantee that any forecasts made will come to pass.

The two most important 'what-if' scenarios that we use are an orderly scenario (labelled 'Paris' in Figure 1) and a delayed transition (labelled 'Disorderly'). These both hold the cumulative carbon budget of the system to below 2°C; but with a 10-year delay for disorderly. Stranded fossil fuel investments (e.g. cars, boilers, coal power) significantly increase energy system costs, and the ballooning carbon price required to bring about rapid emissions reductions puts highly exposed businesses and the institutions that finance them into distress, resulting in a major economic shock. LGIM climate solutions are developing a 1.5°C scenario to reflect the increased global ambition as highlighted by the commitments made at COP26.

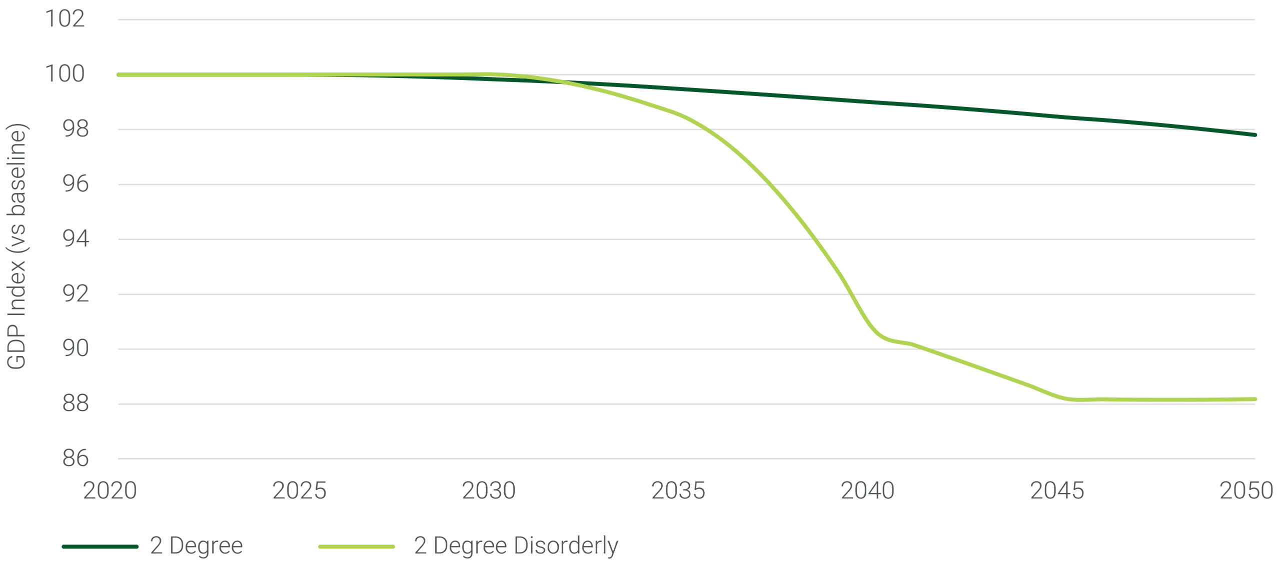
Figure 2 shows the macroeconomic 'drag' on global GDP of our two main scenarios. A well-planned, clearly co-ordinated transition to Paris would, we believe, cost the world around 2% of global GDP cumulatively over the next 25 years. By contrast, a disorderly scenario would have roughly 5x the impact over half the time, as shown in the chart below.

Our modelling captures the key dynamics of carbon price, inflationary pressures, GDP and interest rate implications in these scenarios (alongside other macroeconomic questions).

What does the climate crisis mean for investors?

'Destination@risk' calculates how the economic shock of transition and physical risks propagate across sectors and companies and filter into security valuations through income statements and balance sheets. We use simple microeconomic and corporate finance concepts together with a vast data analysis across major sovereign bonds, credit and equity indices. For each scenario and each security, a ClimateVaR (Value at Risk) is calculated to communicate valuation risks associated with that particular climate outcome. ClimateVaR has large uncertainty ranges associated with its calculation and finds its best use in comparative analysis, allowing investors to identify vulnerable issuers and concentrations of climate risk in investment portfolios.

Figure 2: Impact on GDP of 'orderly' versus 'disorderly'



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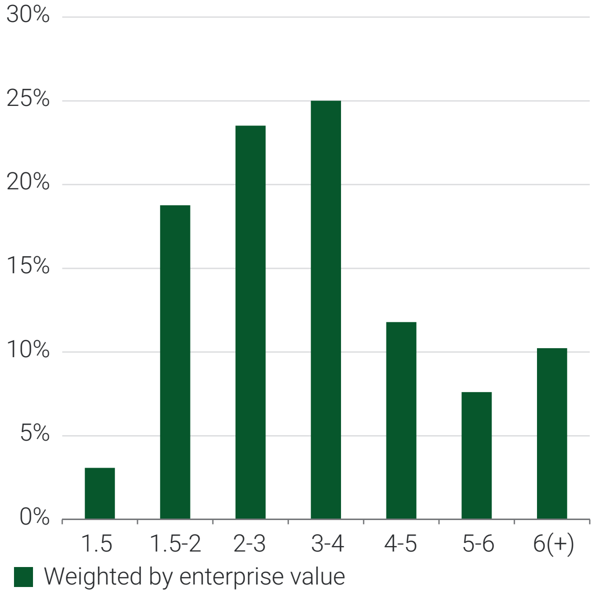
Are we on track for an orderly transition?

The simple answer, based on our analysis, is 'no': most indices in general are aligned to between 2.9°C-3.4°C according to LGIM's temperature alignment methodology, aligning with Climate Action Tracker's estimate which places current government policies between 2.7°C-3.2°C warming. However, as companies generate longer decarbonisation histories and start to meet their decarbonisation targets, we expect the distribution of Figure 5 to shift to the left, widening the universe of 1.5°C-2°C companies.

Figure 3: Alignment to degrees of global warming



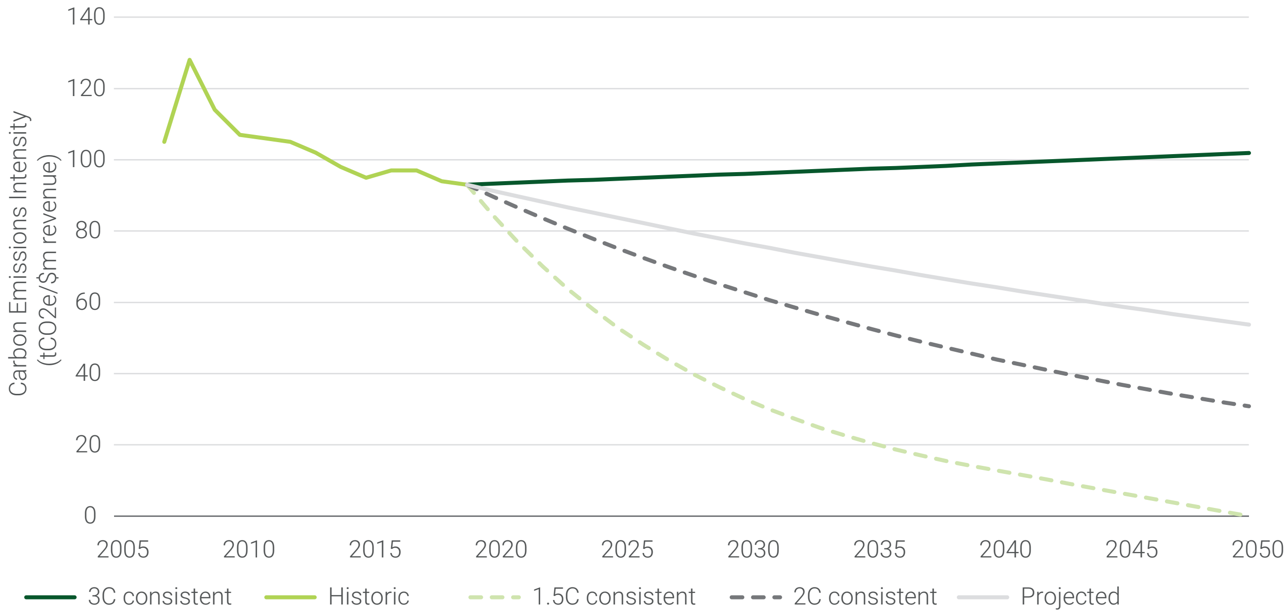
Source: LGIM, October 2021, using a representative sample of global equities. Assumptions, opinions and estimates are provided for illustrative purposes only.

LGIM's framework is innovative because it puts a strong emphasis on '**owning emission reductions**' as well as '**owning less emissions**' – this allows our temperature aligned portfolio to continue to invest in carbon intensive sector businesses which are investing capital in decarbonisation. We apply tighter carbon intensity 'rate-of-reduction' criteria for 1.5°C-2°C aligned companies than a pure 'convergence based' methodology; blending in this decarbonisation rate allows, we believe, for more productive engagement and acknowledges the genuine challenge of 1.5°C and net zero.

How far away are portfolios from net zero?

Increasingly, investors are realising the importance of their own financed emissions and are under growing pressure to align not just the individual companies they invest in, but their whole portfolios to a net zero trajectory. To do this we have to look forward, incorporating probability-adjusted company forward targets and emissions trends to forecast emissions. We use our climate tool kit to analyse, project and then quantify the risk to net zero that a client is running at a security, fund or client/scheme level – Figure 4 provides an illustration of our analysis output.

Figure 4: Quantifying the net zero gap: Illustration



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Destination@risk is a fundamental part of our Active Strategies portfolio management, helping us to measure portfolios' exposure, and to make well-informed decisions about how to help our clients position their investments for a net zero future. In combination with our global engagement activities, we continue to evolve our capabilities and put pressure on companies to adopt feasible net zero pathways, helping our clients construct greener portfolios for the future.

Contact us

For further information about LGIM, please visit lgim.com or contact your usual LGIM representative

Key risks

Past performance is not a guide to the future. The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.