ESG SPOTLIGHT

Time to act on climate change:

Engagement with consequences



Meryam Omi is responsible for engaging on sustainability themes globally and the development of responsible investment solutions.



Governments globally have committed to tackling climate change. The historic Paris Agreement to address climate change entered into force on 4 November 2016 with the US, China, India and Europe all ratifying their national commitments. The direction of travel is clear: keeping the global average temperature rise to well below 2°C against pre-industrial levels.

Alongside the political will for change, some of the world's largest investors, including public and private pension funds and university endowments, are increasingly recognising that they need to address the long-term financial risks and opportunities associated with the shift away from traditional energy models.

As one of the largest institutional asset managers in Europe, LGIM has always played its part by using its scale to ensure companies are addressing the transition to a low-carbon economy. In our index funds, which have to hold all the companies in the benchmark index, we have focused on using engagement with the underlying companies to drive change, rather than excluding stocks or sectors (divestment).

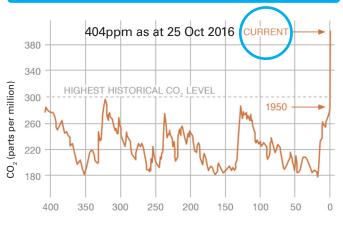
The investment risks surrounding climate change have become so urgent that, for the first time, we are going beyond solely engaging with companies in order to hold them to account on the issue. Companies that fail to embrace the transition to a low-carbon economy by demonstrating adequate strategy, governance and transparency will be excluded from our new Future Fund range. In all other funds where we cannot divest, we will vote against the chair of the board to ensure we are using one voice across all of our holdings. This is the first time we have pledged to do so on a global scale for the issue of climate change.

The ultimate goal is to make the companies successful in the long run by addressing the challenges of climate change and low carbon opportunities. Our innovative approach, harnessing the combined powers of divestment and voting, ensures that our engagement, on behalf of our investors, has real consequences. Representing over \$1trillion of assets that we manage on behalf of our clients, this one voice can carry a lot of weight.

The message is simple to all of the companies we invest in: It is no longer enough to talk. We need to act now.



Carbon dioxide concentration in the atmosphere



Thousands of years before 1950

Source: Nasa, from NOAA

THE PROBLEM

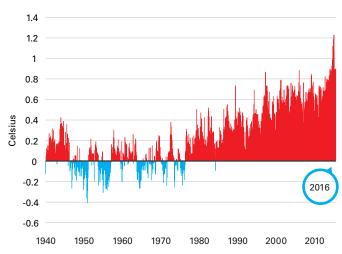
The world is warming up at an alarming rate and this is starting to meaningfully alter weather patterns globally.

At this rate, we will increasingly experience serious disruptions through floods, droughts, storms, bushfires, acidification and rising sea levels. Additionally, we will be impacted indirectly through interruptions to the provision of food, water and energy, and economically through the effect on trade, migration and geopolitics.

Climate change is already costing US\$1.2trillion¹ a year, with 5 million deaths each year related to weather impacts and a carbon-intensive economy. Without strong action, the costs could be equivalent to at least 5% of GDP each year globally or up to 20% of GDP regionally².

Savings earmarked for retirement could be significantly affected by this trend, because businesses rely on strong economic growth and stable human capital. The current valuations of companies which rely heavily on policy support for their high energy consumption models are likely to be adversely affected, potentially limiting returns for investors.

Global surface mean temperature anomalies



Source: NOAA, land and ocean temperature

This means that climate change can pose a financial risk to future returns on our savings, and also raises questions about the kind of world we will want to retire in.

FINDING A SOLUTION

The global temperature rise has already reached 1°C above pre-industrial levels. Scientists overwhelmingly agree that we need to limit global warming to 2°C or below in order to avoid severe consequences. Yet, 2015 was the warmest year on record. 2016 is on track to beat it, with July being the world's hottest month in recorded history.

In December 2015, 195 governments agreed in Paris to limit the temperature rise to well below 2°C. Despite this, many businesses are still basing their scenarios on a trajectory of 3°C to nearly 4°C, stating that we have no choice as energy demand is predicted to rise alongside population growth.

This is not a new story in our history. New and alternative technologies have always threatened incumbents who have too much to lose. For example, Kodak failed to embrace the powerful force of digitalisation in photography.

The market went from almost all film-based cameras to digital combined with phones cameras in 20 years. A 'Kodak moment' may sound still like picturing a precious moment, but it is a name now synonymous with myopic corporate vision and lack of adaptability.

How will energy be provided in the future? No one can predict with accuracy. But we know that a world with too much greenhouse gas is not the one we want. And continuing to finance the capital expenditure and research and development of companies whose assumptions are far from the Paris agreement will increasingly come under the spotlight.

YOUR MONEY, YOUR EMISSIONS

Everyone who has personal investments and pensions is likely to be invested in big companies which contribute significantly to global warming. As such, we all have a stake in their long-term success in order to fund our retirement.

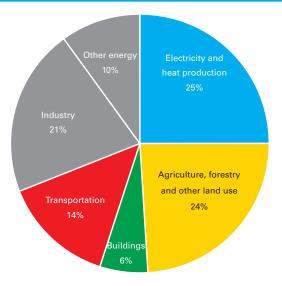
Some companies make a much larger contribution to global warming than others, such as utilities whose businesses generate energy from burning coal and gas. Automobile companies which manufacture cars and other

vehicles running on oil also contribute a large portion of global emissions. Extractive companies that provide the sources of such fossil fuels could also play a key role in curbing emissions globally. The chart below shows the sources of greenhouse gas emissions by economic sector.

Away from those direct contributors to emissions, sectors such as agriculture play an indirect role. The evergrowing demand for food globally is currently being met by inefficient agriculture practices and a large amount of food waste. These practices not only produce large amounts of carbon emissions, but they are also the biggest threat to forestry. Forests, which work as the lungs of the planet, turn carbon dioxide into oxygen as well as providing a vital ecosystem that controls the weather and water cycles. Companies in food retail and distribution are important factors in this chain who can help address this issue.

All companies, whether they emit carbon or not, need financing. They require banks, pension funds and insurance companies to buy their shares and debt. How they invest or allocate capital holds the key to financing a 2°C world rather than a 3-4°C world, because what gets financed today is the world we will build for the future.

Global greenhouse gas emission by economic sector



Source: IPCC, 2014

Key sectors	Carbon risks and opportunities
Utilities	Processing Burning of coal and gas Low-carbon solutions
Food retailers / producers	Driver of deforestation due to agriculture Need for better supply chain management
Auto	Burning of oil Low-carbon solutions
Oil and gas	Exploration Extraction of oil and gas Processing
Mining	Exploration Extraction of oil and gas Processing
Banks / insurance	Financing of all fossil fuels Financing of low-carbon solutions

MAKING YOUR MONEY DO THE TALKING

Climate change is a financial issue. It is about companies succeeding in the future by setting forward-looking strategies, being efficient and financing the business models that are fit for the future. As investors in those companies, we have an interest in enhancing their value over time.

There are broadly two simple steps that can let our money do the talking. The first is for investors to find out what their funds invest in, assess their exposure to carbon, and review alternative options. LGIM has developed the Future Funds for clients who want the potential for better risk-adjusted returns, while also protecting against the long-term risk of climate change.

The second step is for asset managers to talk to companies to assess their long-term strategies and ensure they are resilient to the forthcoming challenges of climate change.

At LGIM, we are not just talking to them, but acting on it.

THE LGIM CLIMATE IMPACT PLEDGE

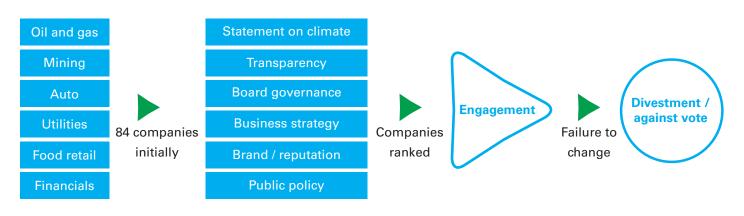
We have made a commitment to address climate change by engaging directly with the largest companies in the world who hold the key to meeting the 2°C Paris target. The companies will be assessed rigorously for the robustness of their strategies, governance and transparency. Companies that fail to meet our minimum standards will be removed from our Future Fund range at LGIM. In the other funds where we cannot contractually divest, we will vote against the chair of those same companies.

The Pledge is initially focused on the largest companies in the following sectors:

- Oil and gas companies that extract and distribute oil and gas
- Metals and mining companies that extract ores, especially coal
- Electric utilities companies that generate electricity, mainly by burning fossil fuel
- Automobiles companies that manufacture cars and vehicles
- Banks and insurance companies that finance/own projects and companies linked to climate change
- Food retail and distribution companies that provide a wide variety of food and consumer goods

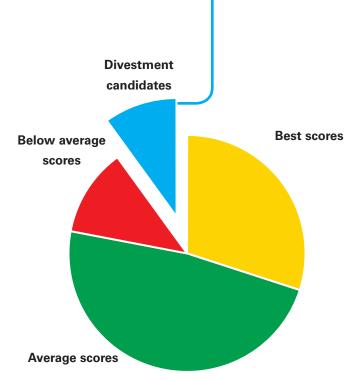
The largest companies in these sectors are assessed against factors such as whether they have a corporate statement that formally recognises the impact of climate change, whether they are fully transparent on their carbon contribution and whether the board composition is diverse and robust enough to drive innovation and change.

We rank all companies based on these criteria, and engage directly with them to improve their ranking. Those companies which fail to meet our minimum threshold will be excluded from the Future Funds. In all other funds where we cannot divest, we will vote against their chair of the board.



- Failure to acknowledge climate risks
- Inadequate governance structure
- · Highly exposed to regulatory changes
- · Significant risk to business from new technologies
- · Brand erosion through negative press
- Inadequate transparency to shareholders





We believe this combined approach of ranking, publicising, voting and divestment can send a powerful message to all companies that their investors are serious about tackling climate change. Over time, the intention is to improve the standards and practices in these companies to make them more resilient to policy changes, more successful in providing consumers with low-carbon solutions and, ultimately, more prosperous as companies. We believe this targeted engagement can lead these key industries to be more prepared for the challenges of the future. In turn, our clients who hold stakes in these companies should benefit from their financial success in the long term.

Sending one coherent voice to companies and providing real consequences for inadequate standards is what we need to do on behalf of clients. Companies should benefit from the low-carbon transition, rather than being hampered by it. We are here to support this transition because we believe it makes financial sense.

How we rank companies

Assessment criteria	Rationale for criteria	Evidence sought	Information sources
Statement	Formally recognises climate and energy impacts	Climate change policy statement of commitment, recognition of science and role of the company/sector	Bloomberg CDP Company reports
Transparency	Transparent disclosure of key indicators to investors	Disclosure of overall environmental, social and governance risk and opportunities, carbon contribution, verification	Bloomberg CDP Sustainalytics
Board governance	Diverse and robust board that is equipped to drive innovation and market changes	Assessment of board's: Competence Functionality Commitment Independence Skillset	Company reports Board-Ex CDP Bloomberg LGIM voting data
Strategy	Robust strategy that embraces current and future climate related challenges for the company. Investments into new technology/products	Strategy reflects on climate impacts and energy transition Articulation of risks and opportunities for the business	Company reports CDP
Brand / reputation	Brand strength and negative association with climate	Negative reputation scores overall and climate/ environmental issues	RepRisk
Public policy	Disconnect between public statement and collective advocacy	Associations with trade bodies lobbying to hinder the low-carbon transition	InfluenceMap





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