

The state we're in: global corporate response to climate change and the implications for investors

Introduction

Climate change is now widely recognised as one of the most significant challenges facing the global economy. The projected impacts on the environment and society are unprecedented. Climate change is undoubtedly a critical theme for today's (and tomorrow's) asset owners and asset managers. But what should investors be doing?

Latest research by EIRIS into the 300 largest cap global companies listed on the FTSE All World Index analyses the current state of corporate response to climate change, highlights the challenges this presents and examines the implications for investors.

Key findings

- **Many large cap companies at risk**
Over a third (35.6%) of companies in the global 300 are high or very high impact for climate change (representing over USD 6.8 trillion market cap)
- **High risk companies have taken initial steps but translation into coherent strategy is less apparent**
84% of high risk companies have a corporate-wide climate change commitment. But only 14% link board remuneration to climate change strategies. Only 25% publish a long-term strategic target to reduce emissions
- **Emissions disclosure by high risk companies is high but unreliable**
81% disclose either absolute or normalised data but only 9% disclose the scope of their emissions against the GHG Protocol

The science & economics – a recap

By now this will be familiar to most investors. In 2007, the pre-eminent scientific authority on climate change, the Intergovernmental Panel on Climate Change (IPCC), published their Fourth Assessment report which concluded that warming of the climate system is taking place and that they are more than 95% certain that most of the observed increases in globally averaged temperatures since the mid-20th century are due to increases in anthropogenic greenhouse gas (GHG) concentrations. Temperature increases of 1.8°C to 4°C are predicted with associated sea level rises of 28-43 cm. Environmental impacts include increased flood risk, declining crop yields, species extinctions and extreme weather patterns.

The economic imperative for action is also strong. The 2006 Stern Review on the Economics of Climate Change concluded that under a Business-As-Usual (BAU) scenario a 2-3°C rise in temperature could reduce global economic output (as measured by GDP) by 3%. Using the results from formal economic models, the Review estimates that if no action is taken, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year, now and forever. In contrast, the costs of action – reducing greenhouse gas emissions to avoid the worst impacts of climate change – can be limited to around 1% of global GDP each year. Stern concluded that the benefits of strong, early action on climate change outweigh the costs.

A key investment issue?

Climate change has the potential to seriously impact shareholder value, especially in the medium to long term. Investors need to understand the risks to their investments and also the role they should play in the wider policy debate.

For companies and their investors climate change presents a number of risks and opportunities:

- **Regulatory challenges** - national and international policy frameworks for reducing GHG emissions are providing an imperative to reduce operational emissions. The UN Framework Convention on Climate Change (UNFCCC) Kyoto Protocol entered into force in 2005 with a GHG target for Annex 1 countries of 5.2% below 1990 levels by 2008-12. Existing and emerging product standards (such as the EU Directive on the Energy Performance of Buildings), environmental taxes and compliance costs now need to be factored into companies' operational costs.
- **Changing market dynamics** - higher and fluctuating energy costs present a significant impact, in particular for energy-intensive industries. However, changing consumer attitudes and demand patterns open up opportunities for new technology, products and markets.
- **Changing weather patterns** - the physical risks of climate change include damage to assets as a result of flooding and extreme weather events.
- **Reputational** - customer, employee, investor and societal perceptions are having an increasing impact on brand value.

Tracking the global 300

EIRIS has analysed the impact and response of some of the world's largest 300 companies on the basis of 24 climate change indicators covering governance, strategy, disclosure and performance elements. EIRIS aims to re-run this analysis on a regular basis.

Key findings are highlighted below.

1) Many large cap companies at risk

EIRIS has classified companies into over 50 sectors (and sub-sectors) based on their business activities to identify their climate change impact. Each sector is defined as very high, high, medium or low impact based on their direct (i.e. operational) and indirect (i.e. supply chain and product) emissions where companies have control not just influence. EIRIS' classifications also take into account the following factors:

- Projected growth in the sector (emissions in the sector)
- Net impact of the sector (e.g. benefits of public transport)

- Allocated share of upstream and downstream emissions across the value chain
- Strategic importance in contributing to climate change solutions (e.g. renewable energy providers)

Examples of very high impact sectors include cement production or coal mining. These sectors have an average carbon intensity (relative to turnover) 125 times that of the low impact sectors. High impact sectors such as auto manufacturers are on average five times as carbon intensive. Medium impact sectors such as consumer electrical are three times as carbon intensive. EIRIS uses company data and independent sources to assess carbon intensity.

Fig 1. Climate change impact by percentage market cap of global 300

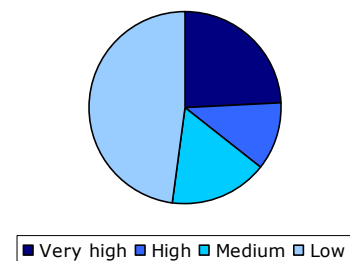


Figure 1 illustrates that over a third (35.6%) of companies in the global 300 are classified as high or very high impact for climate change. This represents over USD 6.8 trillion market cap.

However, for a complete picture of a company's risk profile investors should look beyond emissions intensity and also consider how the company is responding to the challenges of climate change.

What do we mean by response?

With input from investor groups, NGOs and companies (including WWF, Climate Group, Carbon Trust and IIGCC) EIRIS has developed indicators to assess how companies should best address their climate change impacts and risks.

EIRIS indicators cover aspects such as:

- **Governance** - e.g. does the company have a corporate-wide climate change policy, or is board remuneration linked to climate change performance

- **Strategy** – e.g. has the company set targets
- **Disclosure** – covering the quality of carbon data, or quantified disclosure risks or opportunities
- **Performance** – e.g. year on year reduction in GHG emissions, or transformational initiatives such as large scale investment in carbon capture and storage

EIRIS combines the above indicators into five management response assessment levels which can be used to determine risk-relative assessments.

Fig 2. Global 300 - percentage mitigated risk by market cap

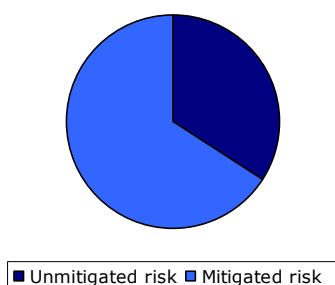


Figure 2 illustrates that over a third (34.2%) of companies in the global 300 are considered to have unmitigated risk. This represents over USD 6.6 trillion market cap.

Performance varies considerably – some sectors are making progress towards tackling the issue, whereas others have a high percentage of companies with unmitigated risk.

Table 1. Percentage mitigated risk for a selection of high impact sectors

Sector	% global 300 (by market cap)	% mitigated risk (by number)
Food Producers	2.15%	70.4%
Chemicals	2.33%	54.4%
Industrial Metals	1.44%	24.3%
Mining	4.50%	15.8%
Oil & gas producers	14.35%	9.7%
Electricity	1.63%	8.3%

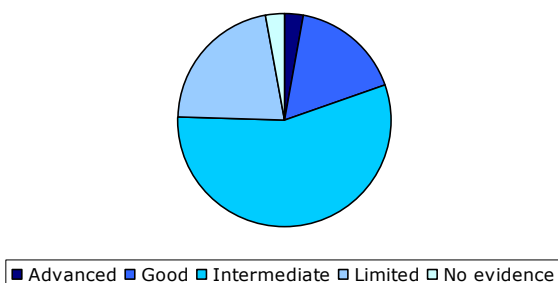
Many large cap companies are impacted by climate change. Investors should understand

the effect these impacts will have on their portfolios.

2) High risk companies not adequately responding to risks & opportunities

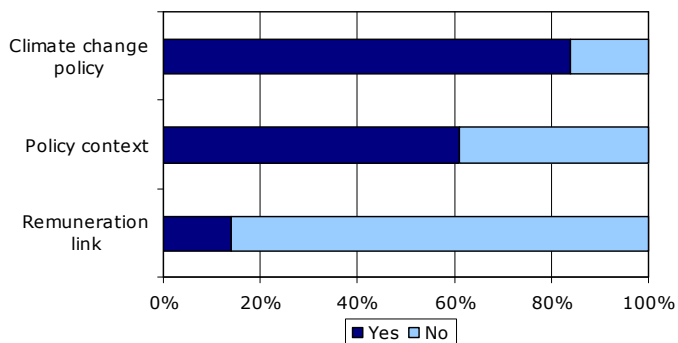
Some of the highest risk companies for climate change are not adequately responding to risks and opportunities.

Fig 3. Climate change response by % market cap of global 300 (very high & high)



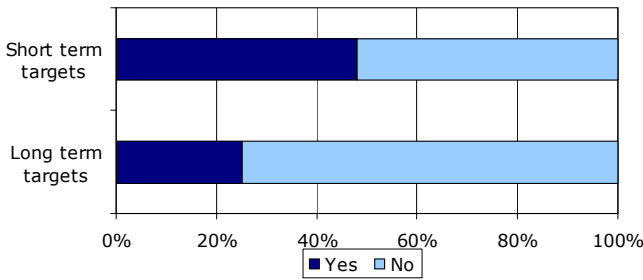
Almost a quarter (24.4%) of very high and high risk companies (by market cap) have no or a limited response to climate change. This represents over USD 1.7 trillion.

Fig. 4 Governance performance (% very high & high impact companies)



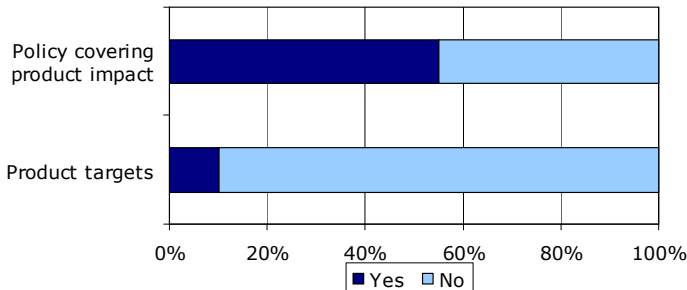
Over four fifths (84%) of high and very high risk companies have a corporate-wide climate change commitment and over half (61%) have referenced the wider policy context by referring to international targets, regulations or the scientific imperative. This is good news. However, only 14% of companies have integrated this commitment by linking board or senior management remuneration to GHG emission reductions or equivalent climate change strategies.

Fig 5. Strategy performance
(% very high & high impact companies)



Targets are an important indicator of corporate climate change strategy and are also an important indicator of a company's commitment to achieving GHG emissions reductions. Almost half (48%) of high and very high impact companies analysed have a public or internal short-term (less than five years) management target. However, only a quarter of companies disclose a public long-term (at least five years) strategic target. Given the fact that climate change will become more important over this timeframe with the likelihood of increased regulation, this is a worrying trend for investors.

Fig 6. Product performance
(% very high & high impact companies)

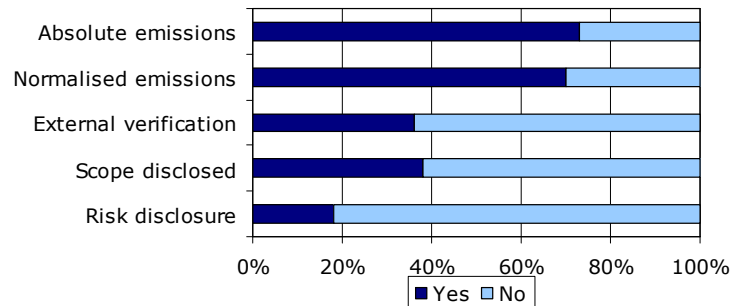


For many companies their greatest climate change impact is through their products. Focusing on the subset of companies with a significant product impact, over half (55%) publicly recognise the company's responsibility to address their climate change impact. But only 10% have made a public commitment or disclosed a quantitative target to reduce the climate change impact of their products. Whilst some high impact companies have made initial steps in terms of high level commitments to addressing the risks of climate change, evidence of how these commitments are actually translated into coherent strategy is less apparent.

3) Unreliable quantitative disclosure

Over a quarter (29.4%) of companies in the global 300 have no or limited disclosure on climate change. This represents over USD 1.7 trillion market cap. Focusing on very high or high impact companies we see that over three quarters (81%) of companies disclosing either absolute (73%) or normalised (70%) carbon dioxide (CO₂) or GHG emissions data. However a closer look at this data reveals that only 36% of it is verified by an external party - and only 38% of companies disclose any indication of scope of data or methodology used. The Greenhouse Gas Protocol (GHG Protocol) is an international accounting tool to quantify GHG gas emissions, developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) - only 9% of companies disclose the scope of their emissions against the GHG Protocol.

Fig 7. Disclosure performance
(% very high & high impact companies)



Lack of clarity and comparability of quantitative data can compromise investment decisions based solely on the disclosure of quantitative data. Initiatives such as the Carbon Disclosure Project (CDP) have made a significant contribution to the amount of data disclosed. While figure 7 shows that only 18% of very high and high impact companies are providing a quantified assessment of the financial, regulatory or physical risks or opportunities posed by climate change, the fact that there is any disclosure is in large part due to the inclusion of this question in the CDP questionnaire. Disclosure in the area of climate change will increase as a result of investor, regulatory and wider stakeholder pressure. However, at present, quantitative disclosure of emissions data is still highly variable.

Challenges for investors

The findings above highlight the following key challenges for investors:

- **Many large cap companies are at risk** – large cap companies can constitute a considerable proportion of most investment portfolios
- **High risk companies are not adequately responding to risks and opportunities** – there is a large proportion of companies who have not yet started addressing the issue of climate change
- **Unreliable quantitative disclosure** – which presents challenges for investors making investment decisions on the basis of emissions data alone

Protecting & enhancing investments

EIRIS has identified the following steps investors can take to protect or enhance their investments:

1. Identify portfolio risks

Understanding the carbon profile or footprint of your portfolio is an important first step. But for a complete picture of a company's risk profile investors should also look beyond emissions intensity to how the company is responding to the challenges of climate change.

2. Factor in carbon

This involves fully understanding carbon risks and opportunities - within both the portfolio and the wider economic picture. This isn't just about divesting from high impact companies. Investors should factor in carbon when pricing very high and high impact companies. Investors should also identify those companies actively managing their risks or seeking out opportunities (e.g. in terms of

establishing a competitive advantage, preparing for future challenges such as regulation, or adapting their business model). A focus on investing in climate change solutions companies, such as renewable energy or energy efficiency, is another way to factor in carbon.

3. Engage

This includes using investor influence to engage with companies and the wider policy debate. Company engagement includes focusing on specific issues and sectors (e.g. challenging electricity companies to look at more efficient generation and distribution), or encouraging improved disclosure from all companies on how they are responding to climate change.

Asset owners and asset managers have an interest in ensuring a robust policy framework to provide a clear and consistent market signal. To this end, initiatives such as the Institutional Investors Group on Climate Change (IIGCC) Investor Statement on Climate Change and the letter sent by institutional investors urging politicians at the UN Climate Change Conference in Bali to make substantial progress on a post-2012 climate treaty that would allow them to invest in long-term projects to reduce carbon emissions and counter climate change are important steps.

Conclusion

Climate change will continue to have significant physical and economic impacts. As these impacts increase, investors need to develop mechanisms to factor in the effect of climate change and to secure financial returns in a carbon-constrained economy.

How we can help – EIRIS Climate Change Products for Investors

EIRIS has developed a comprehensive suite of products to help investors assess their portfolios and design investment strategies in response to the challenge of a carbon-constrained economy.

- **EIRIS Carbon Profile** - assesses the climate change performance of a portfolio against major market indices. It is designed to help investors understand the quantitative climate change impact of their portfolios. It provides a qualitative assessment of company responses to climate change.
- **EIRIS Carbon Engager** – helps investors to target their engagement on climate change and identify key priorities. It provides detailed reports on individual company performance and best practice examples to support a variety of engagement approaches.
- **EIRIS Carbon Risk Factor** - quantifies individual company performance on climate change. It provides a risk-weighted score based on each company's carbon impact and management response to climate change. It is designed to be easily integrated into analysts' models.

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About EIRIS

EIRIS is a leading global provider of independent research into the social, environmental governance and ethical performance of companies. EIRIS, a UK-based organisation with an office in the US together with its international research partners has a wealth of experience in the field of responsible investment research. EIRIS provides comprehensive research on around 3,000 companies in Europe, North America and the Asia Pacific region. EIRIS is already retained by 100 institutional clients including pension and retail fund managers, banks, private client brokers, charities and religious institutions across Europe, North America, Australia and Asia. For more information on EIRIS' products and services visit www.eiris.org or email: clients@eiris.org

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Next climate change briefing: Focus on climate change solution companies

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