ENERGY COMPANIES AND CLIMATE CHANGE: TOWARDS A GREENER CORPORATE OBJECTIVE?

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Energy companies and climate change: towards a greener corporate objective?

Abstract

Energy companies are major contributors to climate change, yet have very few legal obligations to reduce emissions from their operations. As a result, it is likely that further regulation of corporate emissions will have to be developed to deal with climate change.

This Thesis aims to determine whether existing mechanisms dealing with corporate emissions are adequate, and, if they are not, what would be the best mechanism(s) to mediate companies’ contributions to climate change. A selection of five sets of mechanisms will be analysed; internal corporate norms, company law, climate change and energy regulation, ‘non-legal’ mechanisms, such as voluntary codes of conduct and market mechanisms, and finally, ‘decentred’ regulatory efforts. This Thesis will focus on the English regulatory environment and related international regulation, and examine a selection of English energy companies’ sustainability reports. This Thesis will test the ideas of what these five mechanisms currently require of companies, particularly carbon-major energy companies. It will look at whether these requirements are enforceable, whether there is compliance with them, and finally, are whether these requirements are sufficient to meet the looming climate crisis. If these mechanisms are not adequate, this Thesis will suggest how companies can evolve towards a more principled approach of dealing with climate change, one that is effective, practical and achievable.

Some of the main findings of the Thesis are that the shareholder wealth maximisation norm is subverting the efficacy of environmental regulation on climate change, and disincentivising carbon-major companies from reducing their emissions and transitioning away from fossil fuels. As a result, some reflections are provided on potential ways forward that would involve requirements for energy companies to more actively report and reduce greenhouse gases.
Acknowledgements

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<tr>
<td>AAUs</td>
<td>Assigned Amount Units</td>
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<tr>
<td>AGM</td>
<td>Annual General Meeting</td>
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<td>BTA</td>
<td>Border Tax Adjustment</td>
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<td>C4C</td>
<td>Caring for Climate</td>
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<tr>
<td>CBDRC</td>
<td>Common But Differentiated Responsibilities and Respective Capabilities</td>
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<td>CCC</td>
<td>Committee on Climate Change</td>
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<td>CCS</td>
<td>Carbon Capture and Storage</td>
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<td>CfD</td>
<td>Contract for Difference</td>
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<td>CIC</td>
<td>Community Interest Companies</td>
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<tr>
<td>CIME</td>
<td>Committee on International Investment and Multinational Enterprises</td>
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<td>CLRSG</td>
<td>Company Law Review Steering Group</td>
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<tr>
<td>CO₂</td>
<td>Carbon Dioxide</td>
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<td>COP</td>
<td>Conference of Parties</td>
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<tr>
<td>CORE</td>
<td>Corporate Responsibility Coalition</td>
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<td>CSR</td>
<td>Corporate Social Responsibility</td>
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<tr>
<td>DECC</td>
<td>Department of Energy and Climate Change</td>
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<tr>
<td>DEFRA</td>
<td>Department for Environment, Food &amp; Rural Affairs</td>
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<tr>
<td>EMS</td>
<td>Entity Maximization and Sustainability Model</td>
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<td>EMR</td>
<td>Energy Market Reform</td>
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<td>EMV</td>
<td>Entity Maximization and Viability Principle</td>
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<td>Acronym</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Agency</td>
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<td>EPS</td>
<td>Emissions Performance Standards</td>
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<tr>
<td>ESG</td>
<td>Environmental, social, governance</td>
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<td>ESV</td>
<td>Enlightened Shareholder Value</td>
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<tr>
<td>EU-ETS</td>
<td>European Union Emissions Trading Scheme</td>
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<tr>
<td>FTSE</td>
<td>Financial Times Stock Exchange</td>
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<tr>
<td>GATT</td>
<td>General Agreement on Trade and Tariffs</td>
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<tr>
<td>GHG</td>
<td>Greenhouse Gases</td>
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<tr>
<td>Gt CO₂</td>
<td>Gigatonnes of Carbon Dioxide</td>
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<tr>
<td>GRI</td>
<td>Global Reporting Initiative</td>
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<tr>
<td>ICC</td>
<td>International Chamber of Commerce</td>
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<td>IEA</td>
<td>International Energy Agency</td>
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<tr>
<td>INDCs</td>
<td>Intended Nationally Determined Contributions</td>
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<tr>
<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<tr>
<td>ISAE</td>
<td>International Standard on Assurance Engagements</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
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<tr>
<td>ITMOs</td>
<td>Internationally Traded Mitigation Options</td>
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<tr>
<td>KP</td>
<td>Kyoto Protocol</td>
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<tr>
<td>L3C</td>
<td>Low-Profit Companies</td>
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<tr>
<td>LINGO</td>
<td>Leave It In The Ground</td>
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<td>LNG</td>
<td>Liquefied Natural Gas</td>
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<tr>
<td>MAI</td>
<td>Multilateral Agreement on Investment</td>
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<td>Abbreviation</td>
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<tr>
<td>MEAs</td>
<td>Multilateral Environmental Agreements</td>
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<tr>
<td>MER UK</td>
<td>Maximize Economic Recovery UK</td>
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<tr>
<td>Mt CO\textsubscript{2}e</td>
<td>Metric Tonnes of Carbon Dioxide Equivalent</td>
</tr>
<tr>
<td>MW</td>
<td>Megawatts</td>
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<tr>
<td>NASA</td>
<td>National Aeronautics and Space Administration</td>
</tr>
<tr>
<td>NDCs</td>
<td>Nationally Determined Contributions</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
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<tr>
<td>NFFO</td>
<td>Non-Fossil Fuel Obligation</td>
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<tr>
<td>ODI</td>
<td>Overseas Development Institute</td>
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<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
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<tr>
<td>OFR</td>
<td>Operating and Financial Review</td>
</tr>
<tr>
<td>PPMs</td>
<td>Parts Per Million</td>
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<tr>
<td>PRI</td>
<td>Principles of Responsible Investing</td>
</tr>
<tr>
<td>RBS</td>
<td>Royal Bank of Scotland</td>
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<tr>
<td>RCPs</td>
<td>Representative Concentration Pathways</td>
</tr>
<tr>
<td>RO</td>
<td>Renewables Obligation</td>
</tr>
<tr>
<td>SCM</td>
<td>Subsidies and Countervailing Measures Agreement</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
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<tr>
<td>TNCs</td>
<td>Transnational Companies</td>
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<tr>
<td>UKFI</td>
<td>UK Financial Investment Ltd.</td>
</tr>
<tr>
<td>UNCED</td>
<td>United Nations Conference on Environment and Development</td>
</tr>
<tr>
<td>UNCHE</td>
<td>United Nations Conference on the Human Environment</td>
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<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
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<tr>
<td>UNGC</td>
<td>United Nations Global Compact</td>
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<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<tr>
<td>UNICE</td>
<td>Union of Industrial and Employers’ Confederation of Europe</td>
</tr>
<tr>
<td>UNTNCs</td>
<td>United Nations Transnational Companies</td>
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<tr>
<td>USS</td>
<td>Universities Superannuation Scheme</td>
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<tr>
<td>WRI</td>
<td>World Resources Institute</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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1. Chapter One - Energy Companies and Climate Change: Towards a Greener Corporate Objective?

1.1 Introduction
Climate change is one of the most pressing global threats for this and possibly future generations. Companies are one of the main contributors to climate change through the emission of greenhouse gases (or GHGs). Companies in the energy sector in particular are ‘carbon major’ emitters.\(^1\) However, companies currently treat GHG emissions as negative externalities, and very little existing regulation deals specifically with companies and climate change. As a result, it is likely that further regulation of corporate emissions will have to be developed to deal with climate change.

This Thesis aims to determine whether existing mechanisms dealing with corporate emissions are adequate, and if they are not, what would be the best mechanism(s) to mediate companies’ contributions to climate change. A selection of five sets of mechanisms will be analysed; internal corporate norms, company law, climate change and energy regulation, ‘non-legal’ mechanisms, such as voluntary codes of conduct and market mechanisms, and finally, ‘decentred’ regulatory efforts. This Thesis will focus on the English regulatory environment and related international regulation, and examine a selection of English energy companies’ sustainability reports. This Thesis will test the ideas of what these five mechanisms currently require of companies, particularly carbon-major energy companies, whether these requirements are enforceable, whether there is compliance with them, and finally, whether these requirements are sufficient to meet the looming climate crisis? If these mechanisms are not adequate, this Thesis will suggest how companies can evolve towards a more principled approach of dealing with climate change, one that is effective, practical and achievable.

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Climate change strikes at the heart of the profit maximisation theory of companies by pinpointing corporate GHG emissions as one of the dominant drivers of a changing climate. Climate change has been deemed to be the ‘mother of all externalities’ or ‘perhaps the greatest negative meta-externality ever imposed by economic systems on the natural world.’

While companies are responsible for an enormous amount of greenhouse gas emissions, many companies may incur losses as a result of a changing climate, and so stand to benefit from acting on climate change. Climate change itself can pose significant direct threats, particularly to companies that are highly dependent on stable climactic conditions and that rely heavily on exploitation of natural resources.

Taking action to combat climate change may, therefore, benefit companies. These benefits may include improved environmental performance, more efficient processes, improved productivity, lower compliance costs, new market opportunities, enhanced loyalty from stakeholders, and potentially higher profit margins and better firm performance. However it is difficult to quantify these benefits because they often involve future costs, costs that may be difficult to quantify, regulatory uncertainty about emissions targets, and benefits that may be industry specific and intangible. Climate change can also involve significant risks and costs for companies, which can include increased energy costs, loss of reputation, stranded assets and higher operating costs.

The energy sector includes high emitting companies from the oil and gas, mining and utilities sectors. Companies from the utilities, energy, and mining sectors represent less than a quarter of Global 500 companies, but are responsible for over 87% of the total

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5 Bubna-Litic (n 4) 9.
Global 500 Scope 1 and 2 emissions. Emissions from the three largest global oil companies, BP, ExxonMobil and Shell, accounted for 300 million tonnes of CO₂ in 2004, half the total emissions of the United Kingdom. However, this amount does not include emissions from the sale of their products. BP estimated that carbon emissions from the sale of its products in 2004 would be approximately 1,376 million tonnes. High-emitting companies, such as BP and Noble Energy, cite growth constraints as the reason why they do not reduce their absolute emissions. Not only do energy companies possess large productive and exploratory capacity, they also hold tremendous amounts of reserves of oil and gas and mineral wealth that have yet to be exploited. These reserves are often listed as financial assets. If the world is to stay below the goal of 2°C increase from pre-industrial levels, 80% of these reserves cannot be utilized, and therefore could become stranded assets. The action that energy companies take in relation to their GHG emissions, therefore, is fundamental to global climate change efforts.

As a result, it is instructive to determine whether existing mechanisms dealing with corporate emissions of energy companies are adequate, and if they are not, what the best mechanism(s) would be to mediate these companies’ contributions to climate change.

**1.2 Climate Change and the Climate Crisis**

The 1992 United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as ‘a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods’. Climate change has

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7 Ingvild Andressun Saeverud and Jon Birger Skjaerseth, ‘Oil Companies and Climate Change – Inconsistencies between Strategy Formulation and Implementation?’ (2007) 7(3) Global Environmental Politics 42, 42.
8 CDP (n 6) 24.
9 Heede (n 1) 237-8.
been attributed to the natural and anthropogenic emissions of greenhouse gases, or GHGs, such as carbon dioxide, methane and nitrous oxide. Human activity results in the emissions of four main greenhouse gases: carbon dioxide, nitrous oxide, methane and halocarbons.\textsuperscript{12}

In 2007 the Intergovernmental Panel on Climate Change (IPCC) attributed the largest growth in GHG emissions between 1970 and 2004 to transportation, energy supply and industry.\textsuperscript{13} The IPCC has concluded with very high confidence (a 9 out of 10 likelihood) that the global average net effect of human activity since 1750 has therefore been one of warming.\textsuperscript{14} GHG emissions, and the resulting impact from climate change, account for a large and growing share of global environmental damage, estimated to constitute between 69\% to 73\% of all externalities from 2008 to 2050.\textsuperscript{15} The most recent IPCC report from 2014 stated that the concentrations of atmospheric carbon dioxide, methane and nitrous oxide are unprecedented in the last 800,000 years.\textsuperscript{16}

The increase in GHG emissions from pre-industrial times is attributed primarily to fossil-fuel emissions and, secondly, from net land use changes such as deforestation.\textsuperscript{17} Fossil-fuel combustion and industrial processes now account for approximately 78\% greenhouse gas emission increases from 1970 to 2010.\textsuperscript{18} Fossil-fuel combustion on its own accounts for approximately 90\% of total global carbon dioxide emissions (excluding emissions from forest fires and wood burning).\textsuperscript{19} Emission rates are generally increasing, despite global mitigation policies. The IPCC estimates that greenhouse gas emissions have continued to increase between 1970 and 2010, with larger absolute increases occurring more recently.

\begin{flushright}
\textsuperscript{13} ibid 39.
\textsuperscript{14} ibid.
\textsuperscript{17} IPCC (n 12) 7.
\textsuperscript{18} IPCC (n 16) 4.
\end{flushright}
between 2000 and 2010.\textsuperscript{20} The IPCC report is clear that continuing to emit greenhouse gases will lead to further warming which in turn will lead to long-lasting and potentially irreversible changes to the climate system.\textsuperscript{21} They note that these changes will lead to ‘severe, pervasive and irreversible’\textsuperscript{22} impacts on ecosystems and people.

The Paris Agreement has a goal of limiting average global temperature increases to ‘well below 2°C’, with an aspirational goal of limiting the increase to 1.5°C.\textsuperscript{23} This agreement on temperature goals was partly the result of a Structured Expert Dialogue held between 2013-2015, which found that the previous global goal of limiting temperature increases to 2°C was inadequate to prevent dangerous levels of climate change impacts globally.\textsuperscript{24} The IPCC has estimated that keeping total human-induced warming to less than 2°C with a probability of over 66% would require that cumulative carbon dioxide emissions from all anthropogenic sources be limited to 2900 GtCO\textsubscript{2}.\textsuperscript{25} By 2011, they estimated that we had already reached approximately 1900 GtCO\textsubscript{2},\textsuperscript{26} leaving us with a total global carbon budget of approximately 1,000 GtCO\textsubscript{2}.

The United Nations Environment Programme (UNEP) publishes an annual Emissions Gap Report. The 2016 report states that, while the Paris Agreement will slow climate change, it will not do enough or do enough fast enough.\textsuperscript{27} Under the Paris Agreement, the world is on track for approximately 3.4°C of warming, which the report states is not sufficient to avert a climate disaster.\textsuperscript{28} The report urges immediate and strong action, particularly from major economies.\textsuperscript{29} Without such urgent action, carbon intensive energy infrastructure

\begin{itemize}
  \item\textsuperscript{20} IPCC (n 16) 4; While the rate of increase in emissions slowed between 2012-2013, it is too early yet to determine whether this is a permanent trend; United Nations Environment Programme, ‘The Emissions Gap Report 2016: A UNEP Synthesis Report’ (UNEP, Nairobi, November 2016), xiv.
  \item\textsuperscript{21} IPCC (n 16) 8.
  \item\textsuperscript{22} ibid 8.
  \item\textsuperscript{23} UNFCCC, The Paris Agreement, FCCC/CP/2015/L.9, Article 4.
  \item\textsuperscript{25} IPCC (n 16) 10.
  \item\textsuperscript{26} ibid.
  \item\textsuperscript{27} UNEP (n20) xi.
  \item\textsuperscript{28} ibid xi.
  \item\textsuperscript{29} ibid xiii and xiv.
\end{itemize}
will be locked-in, leaving less ‘solution space’ and fewer options for society in the future, leading to greater reliance on negative emissions, increased costs of mitigation, and greater risks of economic disruption.\(^{30}\)

The IPCC has modeled temperature increases based on representative concentration pathways, (RCPs). These ultimately represent possible global emissions trajectories based on certain socio-economic assumptions. They range from RCP 2.6, which assumes a low-emission trajectory and population growth, with declines and ultimate cessations in the use of oil and fossil fuels. RCP 4.5 assumes intermediate emissions but with generally ambitious reductions in emissions, whereas RCP 6 and RCP 8.5 assume continued heavy reliance on fossil fuels and high emissions. On the basis of RCP 6 and RCP 8.5, the IPCC considers it likely (meaning a 66-100% probability) that global temperature increase will exceed 2°C by 2100, and is likely (meaning a 66-100% probability) to reach a range of increases of between 1.4°C -3.1°C under RCP 6, and up to a 2.6°C -4.8°C temperature increase under RCP 8.5.\(^{31}\) However, at RCP 2.6 global temperature rise is unlikely (meaning a 0-33% probability) to exceed 2°C, and more likely than not (meaning under a 50-100% probability) to exceed 2°C at RCP 4.5.\(^{32}\) These are estimates only, and there is a large range of probability estimates. However, even with greenhouse gas abatement and reductions globally, the world may still at a RCP 4.5 trajectory exceed a 2°C global temperature increase.

Higher global temperature increases above 2°C may put humanity’s very existence at stake. The IPCC projects that climate change impacts above 2°C from the middle of the 21st century onward will undermine global food security and redistribute marine species and biodiversity.\(^{33}\) An increase of 4°C or more would pose ‘large risks to food security

\(^{30}\) ibid 9.
\(^{31}\) IPCC (n 16) 10.
\(^{32}\) ibid 10.
\(^{33}\) ibid 14.
globally',\textsuperscript{34} and would lead to substantial species extinction, global and regional food insecurity and constraints on human activities.\textsuperscript{35}

A recent World Bank Report, ‘Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided’, makes stark reading. It notes that present CO\textsubscript{2} concentrations are higher than paleoclimatic and geologic evidence indicates has occurred at any time in the last 15 million years.\textsuperscript{36} It continues, ‘Recent research suggests that large-scale loss of biodiversity is likely to occur in a 4°C world, with climate change and high CO\textsubscript{2} concentration driving a transition of the Earth’s ecosystems into a state unknown in human experience.’\textsuperscript{37} It warns that the cumulative and interacting effects of such wide-ranging impacts of climate change are not well understood scientifically, and therefore ‘there is no certainty that adaptation to a 4°C world is possible.’\textsuperscript{38} This is because at certain ecological or climate tipping points, the impacts become irreversible. Near-term choices on emissions can lead to what the IPCC refers to as ‘lock-ins or irreversibilities’ in the climate system.\textsuperscript{39} These events could lead to run-away climate change.

It is clear that human activities, particularly GHG emissions and deforestation, are key drivers of climate change, and the impacts are likely to be wide ranging, disproportionate, and potentially severe, leading us to a global climate crisis. However, mitigation and substantial cuts in greenhouse gases in the next few decades could substantially reduce the risks of climate change.\textsuperscript{40} Emissions are cumulative, so some degree of warming is already locked into the atmosphere due to historic emissions, but limiting warming from 2050 and beyond could avert catastrophic climate change. These mitigation pathways, according to the IPCC, are likely to limit warming to below 2°C, but would require substantial emission reductions in the next few decades, and ‘near-zero’ emissions of

\begin{itemize}
  \item \textsuperscript{34} ibid 14.
  \item \textsuperscript{35} ibid 18.
  \item \textsuperscript{37} ibid xvi.
  \item \textsuperscript{38} ibid xvii.
  \item \textsuperscript{39} IPCC (n 16) 87.
  \item \textsuperscript{40} ibid 18.
\end{itemize}
These attempts at mitigation would require 40-70% reductions in GHGs by 2050 in order to establish a stable, declining trajectory of emissions, in order to reach about 450 to 500ppms CO\textsubscript{2} equivalent by the end of the century.\textsuperscript{42} The decline and eventual abolition of fossil fuels would require large-scale changes to existing energy systems and land use\textsuperscript{43}, and therefore companies will be an important part of the energy transition.

### 1.3 Causal Relationship between Companies and Climate Change

Companies are major contributors to the climate crisis through the emission of GHGs. Heede’s quantitative analysis of historic fossil fuel and cement production records of 90 leading investor-owned, state-owned and nation-state producers of oil, natural gas, coal and cement concluded that 63% of cumulative worldwide emissions of carbon dioxide and methane from 1854-2010 were attributed to these ‘carbon major’\textsuperscript{44} entities. Investor-owned entities contributed the majority of these emissions, 315 gigatonnes, followed closely by nation states, and state-owned fossil fuel and cement-producing entities.\textsuperscript{45} Two English companies, BP and AngloAmerican, appear in the top 20 carbon-major emitters, emitting 2.74% (or 35,837 Mt CO\textsubscript{2}e) and 0.50% (or 7,242 Mt CO\textsubscript{2}e) respectively of global totals.\textsuperscript{46}

The majority of these emissions originate from activities such as fossil-fuel combustion, flaring, venting, fugitive or vented methane, fuel use by those entities, and cement production.\textsuperscript{47} The twenty largest investor- and state-owned energy companies are responsible for 29.5% of all global industrial emissions, and the ten largest investor-owned companies alone are responsible for 15.8% of global emissions through 2010.\textsuperscript{48}
Half of the total carbon and methane emissions have been produced since 1984, indicating that emission levels are not abating. In a sample of 153 large companies, Caring for Climate (C4C) estimated that these companies were responsible for the release of approximately 2,107 million metric tonnes of carbon dioxide in 2010 alone. The CDP (previously the Carbon Disclosure Project) found that the emissions from the largest 50 emitters actually increased by 1.65% since 2009. These 50 global companies emitted 73% of total Global 500 emissions in 2013.

The role of companies as major contributors to climate change is therefore enormous. Contributions by companies to GHG emissions are so great that Heede concludes that the vast productive capacity and reserves of ‘carbon major’ entities, combined with their profit-seeking motives, means that these companies and nation states arguably control ‘the future of the planetary climate system.’ It is likely that, as the climate change crisis becomes more severe, corporate GHG emissions will be subjected to further scrutiny and regulation. This leads to the question of what would be the best mechanism(s) to mediate corporate contributions to climate change.

Companies currently treat GHG emissions as a negative externality. Externalities are a cost or benefit associated with a transaction that are not borne by the parties to that transaction, but are instead externalized to others. Companies rarely voluntarily pay for, internalize, reduce or eliminate the externalities they produce without being compelled to do so by regulation. This lack of accountability is often attributed to the sheer profit maximisation theory of modern companies; it is more profitable to externalize costs. The

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49 ibid 234.
51 CDP (n 6) 8. Scope 1 emissions are those emitted directly from sources the company owns or controls. Scope 2 emissions are indirect emissions that arise from the consumption of products/services of a company. The Global 500 are the largest companies by market capitalization included in the FTSE Global Equity Index Series, as at 1 Jan 2013.
52 ibid 8.
53 Heede (n 1) 237-8.
profit maximisation or shareholder wealth maximisation theory of companies derives from the shareholder primacy norm, which has become the dominant theoretical norm guiding and informing English corporate law.

1.4 Shareholder Primacy Norm of Companies

The modern company evolved during the 19th century’s industrial revolution, with the goal of pooling assets to enable investment. The 1970s-1990s saw the emergence of a number of neoliberal ideologies, which remain prevalent today. This movement led to the principle of shareholder primacy becoming the dominant driving force behind Anglo-American corporate activities. The norm developed from a concern with the separation of ownership and control leading to agency costs. The issue of agency costs has become the focus of corporate law, and as a result, shareholders have become the dominant concern of many corporate law theorists.

Many shareholder primacists take an economic approach to explaining the role and function of a company. In their view, the overall objective of a company is to serve the interests of the whole of society; the pursuit of social efficiency in economic terms. As a result, the main, and sometimes only, objective of a company is to increase the wealth of its shareholders. The shareholder wealth maximisation norm is considered by shareholder primacists as the best means of achieving overall social efficiency, although they do acknowledge there are differing opinions over whether this is empirically correct.

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59 ibid 29.
One of the key themes of the shareholder primacy norm is that it privileges the role and value of shareholders within a company, thereby diminishing the role of other, non-shareholder constituents, such as the environment. In addition, shareholder primacists do not value the contributions made to companies by the environment nor attempt to decrease negative externalities, such as greenhouse gas emissions, as this may detract from the short-term profitability of the company. According to shareholder primacists, any attempt at environmental protection is mainly viewed as an agency cost to be avoided. The global atmosphere thereby becomes a free polluting ground for companies to exploit. Dealing with climate change can therefore be seen to be reducing shareholder wealth as it diverts assets from other investments that may be more profitable for shareholders. Shareholder primacy, in its strong form, reduces the role of state intervention in a company, viewing the company as a nexus of consensual contracts. This argument may be inadequate when the environment is considered as a stakeholder in the company, as the environment has little opportunity to negotiate contractually with a company. Under the shareholder primacy norm, non-shareholders can be excluded from consideration by corporate law, and must rely instead on regulation external to the company for protection. The shareholder primacy norm may also have influenced recent amendments to English corporate law through s172 of the Companies Act 2006.

1.5 Shareholder Primacy Norm and English Company Law

Historically English Companies Acts have provided scant legislative guidance to directors on how they should perform their duties. English common law, prior to the 2006 Companies Act, was largely ambivalent as to whether directors owned duties to the company as an entity, or to the shareholders directly. The seminal case of *Re Smith and*

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61 Wen-hsin Hsu and Wong (n 4) 195.
Fawcett Limited\textsuperscript{62} set out the traditional test that directors act in the ‘interests of the company,’ deemed to be the ‘general interests of the company as a whole.’\textsuperscript{63} With a few notable exceptions\textsuperscript{64}, English common law gifted a large amount of discretion to directors as to whose interests were paramount.

Section 172 of the Companies Act 2006 took a directional shift in this regard, providing a much fuller list of objectives that directors are now required to take into account, and encapsulated what the Company Law Review Steering Group (CLRSG) determined was the enlightened shareholder value (or ESV) approach. The primary duty in s172(1) is to promote the success of the company for the benefit of its members, followed by a non-exhaustive, more inclusive list of non-shareholder constituents and considerations in s172(1)(a)-(f). These include a consideration of the long-term effects of decisions (s172(a)), and the interests of the community and the environment (s172(d)). A number of corporate governance reports have also produced non-binding corporate governance codes for English companies.

This Thesis will examine whether English company law provides for a stakeholder approach to managing companies, or whether s172 further entrenches the shareholder primacy approach. If the shareholder primacy approach is reflected in English company law, then company law may not be adequate to deal with corporate GHG emissions. As a result, it will be left to regulatory mechanisms outside company law to mediate corporate contributions to climate change.

1.6 Climate Change Regulation – International and National

The key international convention on climate change is the 1992 United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC is a framework convention that includes general obligations for its parties, but does not mandate specific, binding emissions targets. The main objective of the UNFCCC, found in Article 2, is to

\textsuperscript{62} [1942] 1 Ch 304.
\textsuperscript{63} ibid 308.
achieve ‘stabilization of greenhouse gas concentrations in the atmosphere at a level which would prevent dangerous anthropogenic interference with the climate system’.\textsuperscript{65} The first major protocol agreed under the UNFCCC was the Kyoto Protocol, which came into force in 2005. Unlike the UNFCCC, the Kyoto Protocol does include binding emissions targets for developed country parties that are listed in Annex I of the Protocol. The original and revised targets are modest, and based on assigned amount units (AAUs) per country.

The Kyoto Protocol also includes flexible mechanisms to allow Annex I parties to reach their AAUs. One such mechanism is a market-based mechanism found in Article 6, which allows a party to trade emission reduction units, provided these efforts are supplemental to the parties’ domestic actions.\textsuperscript{66} The main mechanism used in Europe pursuant to Article 6 is the EU Emissions Trading Scheme (EU-ETS). The EU-ETS will be one market mechanism that will be analyzed in this Thesis. The Paris Agreement, agreed in 2015, does away with binding targets and allows parties to submit Intended Nationally Determined Contributions (INDCs) instead. While the Paris Agreement anticipates the integration of market mechanisms such as Internationally Traded Mitigation Options (ITMOs), the details of this trading mechanism have not yet been agreed upon by the parties.

The United Kingdom’s key piece of domestic legislation regarding climate change is the Climate Change Act 2008. The aim of the legislation is to set a target for the reduction of GHGs to at least 80% lower than the 1990 baseline by 2050.\textsuperscript{67} The Act also requires national carbon budgets for five-year periods, starting in 2008\textsuperscript{68}, and establishes an independent advisory body, the Committee on Climate Change (CCC), which advises the Secretary of State and issues progress reports.\textsuperscript{69} The CCC has issued its first three carbon budgets, which are designed to ‘send a strong signal to investors about UK’s carbon

\textsuperscript{65} UNFCCC (n 11) art 2.
\textsuperscript{67} The Climate Change Act 2008, s1(1).
\textsuperscript{68} ibid s4(1).
\textsuperscript{69} ibid s34, s36.
policy’ and help reduce regulatory uncertainty. Regulatory action on corporate emissions may fall under the Climate Change Act 2008.

In addition to binding international conventions and domestic legislation, ‘non-legal’ mechanisms have also been developed. These include investor codes and a number of international voluntary codes that attempt to regulate corporate behavior. Two global voluntary public codes of conduct that cover environmental issues are the OECD Guidelines for Multinational Enterprises and the United Nations Global Compact for Responsible Corporate Citizenship. Both are voluntary and have weak monitoring and enforcement mechanisms. In addition, there are a variety of certification and reporting standards, such as the Global Reporting Initiative (GRI) and, in the context of climate change, the Carbon Disclosure Project, now known as CPD. In addition to participating directly in these ‘non-legal’ mechanisms, a number of English companies have adopted their own voluntary codes of conduct and issue annual corporate responsibility or sustainability reports. A number of corporate responsibility or sustainable reports from a selection of five English energy companies will be examined to determine what types of mechanisms have been implemented and/or complied with by these companies.

1.7 ‘Decentred’ Regulation – Litigation and Fiscal Mechanisms

Apart from the traditional, state-centred mechanisms, there are a variety of other tools that are emerging and may motivate further action by companies to reduce their GHG emissions. These consist of pressures or levers that affect both state and corporate climate change-related activities, and fall into the general categories of litigation and fiscal mechanisms. More specifically, they include an analysis of the impact of litigation on climate change, including an analysis of the relationship between human rights law and companies, and specifically the emerging relationship between human rights and

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73 Global Reporting Initiative <http://www.globalreporting.org>.
climate change. Fiscal barriers and initiatives include fossil fuel subsidies, global carbon taxes, and institutional investment trends, including the principles of sustainable investment, as well as the divestment movement. These mechanisms rely heavily on Black’s definition of ‘decentred’ regulation.\textsuperscript{75}

While there is no clear, hard law yet in the area of businesses and human rights\textsuperscript{76}, there is emerging jurisprudence on human rights and climate change. The United Nations has determined that climate change can potentially violate a number of existing human rights, such as the right to life, adequate food, attainment of the highest standards of physical and mental health, adequate housing, self-determination, safe drinking water and sanitation, and the right to development.\textsuperscript{77} States may become liable for violations of human rights not only within their own state, but also potentially extraterritorially.\textsuperscript{78}

While actions for human rights violations are traditionally made against the state, there is an argument that companies could also be held liable. The extractive industry in particular has been criticized for their close proximity to, if not liability for, human rights violations in general.\textsuperscript{79} These types of suits would involve significant operational, regulatory and reputational risks for enterprises.\textsuperscript{80} There have been a number of pieces of litigation globally that have employed human rights discourse against both states and private entities, energy companies in particular.

In addition to litigation based on human rights violations, a number of fiscal mechanisms have come to the fore that present either barriers or opportunities in the fight against

climate change. Fossil-fuel subsidies encourage the consumption of fossil fuels and therefore GHG emissions, and are therefore inconsistent with policies to combat climate change.\textsuperscript{81} They are, however, deeply entrenched in economies, and prove difficult to remove. While fossil fuel subsidies are proving a barrier to the transition to a green economy, carbon taxes could be an opportunity. A carbon tax is a fee added to the price of a good or service to reflect its carbon content.\textsuperscript{82} While carbon taxes cannot guarantee a certain emissions pathway, they can establish a price pathway on goods and services to dissuade consumers from purchasing carbon intensive goods or services.\textsuperscript{83} In addition, institutional investors have recently taken action on climate change. The investment community is and will be faced with significant risks and opportunities as a result of climate change. Opportunities include investing in cleaner technology, creating jobs and increasing returns.\textsuperscript{84} Risks include physical risks to assets and infrastructure, liability risks to compensate those who have suffered from the negative impacts of climate change, and transition risks of the transition to a low-carbon economy, which could include changes in policy and technology, as well as the re-assessment of the value of assets.\textsuperscript{85} Risks to investors also include increased costs due to increased regulation, and potential non-compliance.\textsuperscript{86}

1.8 Research Question

As companies are major contributors to climate change, this Thesis will investigate whether the existing mechanisms that regulate companies are adequate to address the

\textsuperscript{81} Shelagh Whitley, ‘Time to Change the Game: Fossil Fuel Subsidies and Climate’ (ODI, November 2013), 1.
\textsuperscript{83} ibid.
global challenge of climate change in the areas of internal company norms, company law, climate change and energy law, ‘non-legal’ regulatory mechanisms such as investor codes, voluntary codes of conduct and market mechanisms, as well as ‘decentred’ regulatory efforts. Regulation is therefore used in the traditional sense in terms of state-based regulation such as company and environmental law, and those mechanisms in which companies participate directly such as market mechanisms, corporate codes and voluntary codes. It is also used in a wider, informal sense, including emerging, ‘decentred’ regulatory efforts such as litigation and fiscal mechanisms. This Thesis will examine five sets of mechanisms; the internal theoretical norms of the company; company law; traditional regulatory mechanisms such as climate change and energy law; regulation in which companies participate directly, including market mechanisms, investor codes, corporate codes of conduct and sustainability reports; and finally ‘decentred’ regulatory efforts which are transnational and holistic in approach.

Whilst there already exists a rich literature on theories of the objectives of a company, there has been very little written analysing the company and its objectives from the perspective of companies’ contributions to climate change. As climate change becomes an increasing global threat, the role of companies’ contributions to climate change, and the regulation of their contributions, will become more important. This Thesis responds to this gap in the literature, and will provide an original contribution to the existing literature on the theories of the company.

The research question this Thesis will address is:

Are existing regulatory mechanisms adequate to address companies’ contributions to climate change? The five types of mechanisms assessed will be internal regulatory norms, in particular the shareholder primacy norm; formal external regulatory mechanisms of company law; formal external regulatory mechanisms of climate change and energy law; regulatory mechanisms in which companies themselves participate including market mechanisms and voluntary
codes; and finally ‘decentred’ regulatory efforts such as litigation and fiscal mechanisms.

The aim of this Thesis is to test what these five mechanisms currently require of companies. The focus is to examine whether these current requirements are enforceable and identify levels of compliance. An attendant line of enquiry asks whether these requirements are sufficient to meet the looming climate crisis.\(^87\) If these mechanisms are not adequate, this Thesis will suggest how companies can evolve towards a more principled approach of dealing with climate change that is effective, practical and achievable. Can one, or several theories of the objectives of companies, regulatory models or ‘decentred’ mechanisms assist companies in meeting the global challenge of climate change?

1.9 Methodology

This Thesis will follow a doctrinal approach, and will focus specifically on companies that are either listed or headquartered in England within the energy sector. Companies from the energy sector have been selected for study as they contribute greatly to climate change. A cross-section of English companies in the energy sector will be examined to determine what efforts these companies are making to combat climate change. These companies include, from the utilities sector, National Grid Plc and Centrica Plc, and the oil and gas sector, BP Plc, Royal Dutch Shell Plc, and BG Group Plc.\(^88\) The annual corporate sustainability reports of these companies from the early 2000s to the present day will be examined. Many of these companies are either public, listed companies, or otherwise freely disclose these reports on their websites. Only reports from the early 2000s are currently publicly available for these companies. The analysis of their sustainability reports will be incorporated into Chapter Four.

The English jurisdiction has been chosen as it is an important part of the Anglo-American tradition of company law, has substantial jurisprudence on the objective of companies

\(^87\) UNEP (n 20) xi; IPCC (n 16) 18.
\(^88\) While Shell has recently acquired BG Group Plc, the reports analysed in Chapter Four cover a significant period of time when the two companies were separate entities.
and the obligations of directors, and has a record of innovation and export of its company law model.\textsuperscript{89} Dignam has pointed to the connection between English corporate governance reforms and corporate governance regulation at the international level, particularly the OECD Principles of Corporate Governance.\textsuperscript{90} Recent company law reform in the UK included an examination of what the scope of company law is and should be. England is also one of the few jurisdictions to enact specific legislation dealing with climate change, with the enactment in 2008 of the Climate Change Act.

This Thesis will not directly examine the effects of capitalism, neoliberal ideologies, general environmental law or supply and consumption patterns on climate change, although these form part of the background to the Thesis. This Thesis will focus on assessing whether existing theories of the company, English company law and existing regulations that deal specifically with climate change and energy, and other mechanisms such as voluntary company and investment codes, carbon markets, litigation and fiscal mechanisms are adequate to meet the global challenge of climate change.

1.10 Chapter Outline

The structure of this Thesis will be as follows:

Chapter Two will examine the theories of corporate governance in the Anglo-American tradition, identifying how these theories have privileged the role of shareholders within companies. This chapter will adopt a chronological approach of the relevant theories, tracing the evolution of the shareholder primacy model from the 1930s to present day, with an emphasis on the law and economics movement, as well as other prevailing models, such as communitarianism. The focus of this chapter will be on the primary research question from the perspective of internal theoretical norms, and will be used as a platform for the analysis in Chapter Three.

\textsuperscript{89} Shawn Donnelly, ‘Corporate Governance and the Company Law Review in Britain’ in Byong-Man Ahn, John Halligan and Stephen Wilks (eds), Reforming Public and Corporate Governance (Edward Elgar 2002) 256.

Chapter Three will critically assess English company law regulation, including corporate governance reports in England and Wales, the Companies Act 2006, with an emphasis on section 172 of this Act, and caselaw. This chapter will conclude with an analysis of whether the theories discussed in Chapter Two have, or have not, manifested themselves in English company law. This chapter will also investigate the causal link between corporate governance, the shareholder primacy theory and environmental harm caused by companies, and will therefore examine greenhouse gases as a negative externality produced by companies. The focus of this chapter will be on the primary research question from the perspective of English company law, and the effect the law has had on companies in relation to climate change.

Chapter Four will analyse two mechanisms: the formal and informal regulatory laws and practices relating to companies and climate change both in the English jurisdiction and internationally. This chapter will look at mechanisms formed by states both nationally in England, and internationally, and also informal regulatory mechanisms in which companies participate directly. This chapter will provide an analysis of international attempts at regulating both companies and climate change, with an analysis of the UNFCCC and Kyoto Protocol, the Paris Agreement, the OECD Principles of Corporate Governance and the UN Global Compact. This section will include an analysis of the English Climate Change Act 2008 and subsequent national carbon budgets and the Energy Act 2013. The chapter will conclude with an analysis of soft law approaches of self-regulation and voluntary codes of conduct, and market mechanisms, with a focus on the EU ETS. The approach of this chapter will be to focus on the primary research question from the perspective of existing state-based regulatory mechanisms outside of company law, and those mechanisms in which companies participate directly, to determine whether they are adequate to address companies’ contributions to climate change. Included in this chapter will be an analysis of how these mechanisms have affected the actions of five energy companies on climate change through a review of their sustainability reports.
Chapter Five takes a broader and most holistic view of regulation, focusing on ‘decentred’ regulatory efforts. It will provide an analysis of newly emerging trends, such as litigation against both states and companies, based on human rights violations. It will also look at the efficacy (or otherwise) of existing fiscal mechanisms such as fossil-fuel subsidies and carbon taxes, and the recent calls to eliminate the former and institute the latter. The chapter will also analyse the recent initiatives by institutional investors, including the divestment movement and the sustainable investing movement. The approach of this chapter will be to focus on the primary research question from the perspective of emerging mechanisms that are to a certain extent outside of the control of states and companies, to determine whether they are adequate to address companies’ contributions to climate change.

The final chapter will look at whether these mechanisms can or should be improved, and if so, some reflections as to how this can be achieved. The emphasis in this chapter will be on how companies can evolve towards a more principled approach of dealing with climate change that is effective, practical and achievable. Does the objective of companies need to be amended or updated to reflect the growing climate crisis? This chapter will close with a summary of findings on the extent to which existing mechanisms analysed are adequate to address corporate contributions to climate change, and will aim to provide some reflections for improvement where needed.
2. Chapter Two – Theoretical Underpinnings of Companies: The Dominance of the Anglo-American Shareholder Primacy Norm

2.1 Introduction

This chapter will assess the theoretical underpinnings of company law in order to demonstrate that the shareholder primacy theory, which includes the shareholder wealth maximisation norm, has become the dominant theoretical norm in Anglo-American company law. Whilst this chapter focuses on theory only, Chapter 3 will cover actual company law and practice. The dominance of this norm was assisted greatly by the emergence of the law and economics approach to company law theory. Both this economic approach to the company, as well as the shareholder primacy norm, remain dominant today. This chapter will analyse what this dominance means for the environment, concluding that it has three main effects on the environment, and in particular in relation to climate change. Firstly, as a result of the dominance of the shareholder primacy norm, the interests and roles of other non-shareholder constituents in the company, such as the environment, have been marginalised and made subservient to the interests of shareholders. This results from the shareholder primacy norm’s privileging shareholders as central to the company, and therefore minimising the interests of non-shareholder constituents.1 Secondly, the shareholder primacy norm leads to a focus on short-term, often quarterly, profitability.2 Thirdly, the primacy of shareholders and the emphasis on the economic imperatives of the company in turn incentivises the company to externalize environmental damage, including negative externalities such as greenhouse gases.

The debate regarding the primary interests that a company should serve is particularly relevant in the context of a changing global climate, as companies are major producers of greenhouse gases.\(^3\) If the environment is not considered by theorists as an appropriate stakeholder for the company to consider through company law, it will be left to other regulatory and market mechanisms, external to company law, to deal with a company’s contributions to climate change. In addition, this situation can lead to a conflict whereby companies may be tempted to violate external regulations in order to meet the requirements of internal theoretical regulations or norms.\(^4\) Internal theoretical norms and company law regulation of companies is therefore primarily used to protect shareholders, and environmental concerns are relegated to mechanisms external to company law. These external mechanisms may be inadequate, with a heavy reliance being placed on voluntary codes of conduct and voluntary global compacts.\(^5\) The shareholder primacy norm therefore leads to a negative impact on the environment.

The analysis of regulatory theories of the company is important as companies themselves produce a large quantity of norms and values, and so may themselves have a ‘quasi-regulatory function.’\(^6\) The prerogatives and imperatives of the shareholder primacy theories can also shape the academic and practitioners approach to, and narrative of, company law. As Johnson posits, the story of the rise of the shareholder primacy norm is a compelling example of how a powerful paradigm can shape cultural practices.\(^7\) The sidelining of environmental concerns through the dominance of the shareholder primacy norm therefore becomes appropriate for the majority of company law theorists. In

\(^3\) See section 1.3 Introduction.
\(^4\) Kent Greenfield and D Gordon Smith, ‘Debate: Saving the World with Corporate Law?’ (2007-2008) 57 Emory LJ 947, 960. By internal regulation, this chapter is referring to internal theoretical norms.
addition, Barker notes that scholarly analysis has also failed to identify directors’ duties as a potential regulatory response to deal with climate change, in part due to the predominance of the shareholder primacy norm.  

This chapter will outline some of the major theories governing the internal theoretical norms and objective of companies, taking a chronological approach from the 1930s to the present. Whilst competing theories have emerged, this chapter concludes that the shareholder primacy theory and the law and economics movement have become hegemonic. Much of the scholarly debate from the 1930s has been dominated by American scholars, a number of whom will be covered in this chapter. English scholars have taken a more subdued approach to company law theory, although recent decades have seen the production of more English-based company law theories. While this Thesis focuses primarily on English law, the analysis of American shareholder primacy theorists is relevant to English law, as the American shareholder primacy approach to company law has had a strong influence on English scholarship. English law is deemed to be ‘shareholder centric’ as sweeping powers to appoint and remove directors, to bring derivative action suits as well as voting rights have traditionally been bestowed upon shareholders, as well as s172 of the Companies Act 2006 providing for shareholder interests to be the primary focus of directors duties. However, only a slim thread of caselaw actually supports a shareholder primacy approach to English company law.

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10 Ibid 489.


12 See for example Greenhalgh v Arderne Cinemas [1948] 1 Ch 1951; Gaimon and Others v National Association for Mental Health [1969] 1 Ch 317. This analysis will be expanded upon in Chapter 3.
2.2 The Separation of Ownership from Control

At the end of the 19th century and beginning of the 20th century, American and English companies experienced a ‘revolution’ that would lead to a shift from shareholder-controlled to manager-controlled companies.\(^\text{13}\) Closely held companies gave way to large, publicly held companies that began to dominate economic life.\(^\text{14}\) This transition was related to the changing nature of the company from public-service-type entities undertaking quasi-public projects,\(^\text{15}\) to private entities carrying out a diverse range of business activities. This shift in the nature of the ownership of companies laid the foundation for the development and subsequent dominance of the shareholder primacy norm.

The importance of the transition to widely dispersed ownership of companies, and its attendant implications for company law scholarship, was captured in Berle and Means’ seminal work, *The Modern Corporation & Private Property*.\(^\text{16}\) In it, Berle and Means concluded that the modern company had become such a dominant economic institution in the United States that it was no longer merely a private enterprise but more akin to a social institution.\(^\text{17}\) They noted that one of the major characteristics of the modern company had become the wide dispersion of shareholder ownership.\(^\text{18}\) As a result, ownership of the company had become separated from control. Berle and Means were concerned that this new type of company arrangement would lead to the company being a dominant but largely uncontrolled institution that would have a powerful influence over society.

In their work, Berle and Means set out two related and influential doctrines regarding the modern company: 1) that it had become so dominant that it exercised a tremendous

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\(^{13}\) Brian R Cheffins (n2) 347; Brian R Cheffins, ‘Are Good Managers Required for a Separation of Ownership and Control?’ (2004) 13(4) Industrial and Corporate Change 591, 591.
\(^{16}\) ibid.
\(^{17}\) ibid 46.
\(^{18}\) ibid 64.
amount of control and influence over society,\textsuperscript{19} and 2) that the separation of ownership from control had broken the traditional property relationships between the shareholder and the company, and rendered shareholders vulnerable to the excesses of management.\textsuperscript{20} Their concern was that shareholders’ interests were made subservient to what the controlling managers considered the exigencies of the business.\textsuperscript{21} This latter concern with agency costs has had wide and persistent implications for company law scholarship, and has led to the marginalisation of non-shareholder interests.

Berle himself struggled with the adequate role that shareholders should play within the company. In his work with Means, he concluded that shareholders would not be adequate monitors of companies’ activity.\textsuperscript{22} Together with Means, he concluded that external regulation would prove to be inadequate as powerful companies would make every effort to avoid its reach and might even attempt to dominate the state.\textsuperscript{23} Berle and Means’ comments on external regulation highlight the importance of the current analysis to the research question, of the adequacy of internal norms to constrain companies’ contributions to climate change. According to Berle and Means, the company should not protect shareholder interests to the exclusion of all other constituents.

Several debates emerged from \textit{The Separation of Ownership from Control}, one of the most important being the one Berle engaged in with Edwin Dodd in the 1930s. This debate is highly relevant to the research question, as Berle and Dodd’s views set a foundation that has subsequently been relied upon by later shareholder primacy and stakeholder theorists. It was during this debate that Berle reluctantly changed his mind to conclude that shareholders were the only practical option to monitor management conduct, thereby elevating the role of shareholders within the company, and giving life to a subsequent generation of shareholder primacy theorists.

\textsuperscript{19} ibid 34.
\textsuperscript{20} ibid 4.
\textsuperscript{21} ibid 244.
\textsuperscript{23} Berle and Means (n 15) 313.
2.3 The Berle-Dodd Debate

The Berle-Dodd debate began with Adolf Berle’s 1931 article ‘Corporate Powers as Powers in Trust.’ In it, Berle argued that any power held by directors in a company is held on trust for, and for the benefit of, the shareholders. His article has been identified as the genesis of the shareholder primacy approach. While Berle’s analysis has subsequently been used by shareholder primacists, he was primarily concerned with the power of companies and managers within society. While Dodd focused on public opinion to constrain the power of companies, Berle focused on shareholders. In a shift from his previous approach to shareholders, Berle reluctantly determined that they remained the only appropriate monitors of the company. As a result, for Berle, shareholder primacy was the most practical option in order to achieve the greater goal of managing the power and influence of both directors and companies. His views mark the beginning of the elevation of the role of shareholders within company theory.

Berle’s shareholder primacist approach was firmly challenged by Dodd. Dodd focused on the company form as a key element in his theory. Dodd proposed that if one questioned the theory that the sole function of a company is to make profits for its shareholders, then the company entity as a concept became more important. Here Dodd identified the company form as a key issue that would plague future shareholder primacy theorists, and be relied upon by future entity theorists. Dodd concluded that a company as an entity could take into account the views of all of its constituents, including non-shareholder constituents. His approach constituted the beginnings of stakeholder theories. By challenging the shareholder primacy argument, Dodd developed an approach

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25 ibid 1049.
27 E Merrick Dodd, ‘For Whom Are Corporate Managers Trustees?’ (1932) Harv L Rev 1145.
28 ibid 1146.
29 The entity theory figures prominently in English company Law, see Salomon v A. Salomon and Co. Ltd. [1897] AC 22; Percival v Wright [1902] 2 Ch 421; Macaura v Northern Assurance Co. Ltd. [1925] AC 619; Lee v Lee Air Farming Ltd. [1961] AC 12.
to companies that made room for other, non-shareholder constituents, to have their interests considered by the company.

Dodd also identified a more ‘enlightened’ view, a term that has since gained popularity in recent English Company Law Review Steering Group reports and the enlightened shareholder value approach recently adopted in English company law. In Dodd’s opinion, there was no clear view that companies must act only for the benefit of shareholders, and therefore companies should be accountable to the public as a whole because companies have such a tremendous influence on public life. Even Berle only reluctantly concluded that shareholders are the most practical option to monitor directorial behavior.

This exchange between Berle and Dodd is instructive as a number of later theories would build on their ideas regarding the company form and the objectives that a company should pursue. Their debate also illustrates the tensions between the shareholder primacy and stakeholder theories. Like Berle, contractarians often argue that ultimate social welfare can only be achieved efficiently through satisfying shareholders. Ultimately Berle changed his views again on the role of shareholders, conceding later that Dodd was correct. Berle’s lifelong struggle over the proper role shareholders should play within the company illustrates how problematic shareholder primacy has become within company law. Dodd’s views also demonstrate that from its very inception, shareholder primacy has not been unanimously accepted by all company law theorists. Despite these

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31 Dodd (n27) 1162-3.
32 ibid 1149, 1157.
challenges, shareholder primacy has managed to achieve and maintain a dominant position within company law scholarship.

2.4 The Beginnings of Agency Theory

A large amount of the subsequent analysis of Berle and Means’ work by scholars focused on the divergence of shareholder from managerial interests. Hetherington notes that Berle and Means’ work came to stand as ‘a gun on a rotating platform that could be pointed in more than one direction’.35 Most subsequent academics pointed in the direction of agency cost issues, which became the central focus of company law. The separation of ownership from control led to a concern that untrustworthy managers would pursue their own self-interest, and not the interests of shareholders. Agency theories assume that when a principal delegates decision-making authority to an agent, the principal cannot assume that the agent will act in the principal’s interest at all times at zero costs. As a result, agency costs will have to be incurred in order to monitor and incentivise directors to manage in the interest of the shareholders, otherwise known as the ‘managerial discipline model’.36 Agency costs can therefore include shareholder rights, executive compensation, hostile takeovers, and market forces. The agency approach reduces the varied relationships within a company to solely that of the shareholders’ relationship to the directors, effectively reducing stakeholders to ‘bystanders’ within the company.37 This focus on agency costs was, and is, underpinned by the theoretical assumption that shareholders are the principal constituents of the company, and therefore their interests should be the primary, and often exclusive, consideration of managers. Agency theorists therefore elevated the role of the shareholder and their interests as the exclusive concern of the company and its managers. The unwavering focus of company law academics almost exclusively on the question of agency costs and the primacy of shareholders has de-emphasised the role and interests

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of non-shareholders in the company in the majority of company theory literature, and contributed to the negative impact of company theory on the environment.

Although hailed as a seminal work of company law, Berle and Means’ work was subsequently critiqued, particularly with the rise of the shareholder primacy theorists. Manne bemoaned the general inadequacy of company law scholarship as it omitted an analysis of the company from the perspective of traditional economics. Manne marked the rise of shareholder primacy and agency theorists who conceptualized the company from the perspective of neoclassical economics. By the 1980s, contractarians had put forward free market solutions to the problem of ownership and control in an effort to minimise agency costs, thereby relegating Berle and Means’ public-regarding approach to the company to the minority view among scholars. This period of agency theory and the law and economics movement cemented the dominance of the shareholder primacy norm, providing limited theoretical space, from that period to present day, for environmental concerns to figure prominently, if at all, in company law theory. However, Bratton noted that each generation of scholars is likely to return to the question of the accountability of companies, first raised by Berle and Means, as external regulation is unlikely to ever bring companies’ profits and ‘perceived social goals’ into alignment.

The majority of company law scholarship did not take up the notion of companies being run for the benefit of the community, but fixed onto the concept of the separation of ownership and control and how to converge the various interests of the shareholder and manager groups through the reduction of agency costs. The issue of the separation of ownership from control, and its attendant agency problem, has been a major focus for

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41 Bratton (n 22) 756.
42 ibid 762.
43 ibid 762.
the shareholder primacy theorists, and particularly agency theorists who have come to dominate company law theory.\textsuperscript{44} By focusing almost exclusively on how to protect shareholder interests, agency theorists have sidelined, if not completely ignored, the interests of non-shareholder constituents such as the environment. As a result, company law theory itself has relegated environmental concerns to the realm of external regulation, leaving the company free to focus almost exclusively on making profits for shareholders. The dominance of agency theory coincided with the rise to prominence of the law and economics movement.

2.5 The Law and Economics Movement

The law and economics movement served as the catalyst that catapulted shareholder primacy to prominence within the company law academy. In the mid-1950s, the University of Chicago founded the \textit{Journal of Law and Economics}, promoted by academics such as Richard Posner, Gary Becker, Ronald Coase and Harold Demsetz. 1960-1980 saw the preeminence of the law and economics movement, which used economic analysis to explain legal outcomes,\textsuperscript{45} and the movement is still dominant today in company law scholarship. This movement became known as the Chicago (or Posnerian) school of law and economics.\textsuperscript{46} Law and economics theorists have come to dominate company law scholarship.\textsuperscript{47} According to McChesney, company law has been ‘colonized’ by the law and economics movement.\textsuperscript{48}

Law and economics theorists provide two rationales for shareholder primacy: firstly that contractually it is what the parties have agreed to; and secondly, that it leads to economic efficiency.\textsuperscript{49} The law and economics movement has been criticised because it focuses exclusively on economic behavior motivated purely by ‘rational choices governed by self-

\textsuperscript{46} ibid 59.
\textsuperscript{49} Fisch (n 33) 656.
interest’. The focus has been placed on the primary company actor as a sort of ‘homo economicus’, who is exclusively rational, with stable preferences, and self-interested, primarily in profit maximisation. The fundamental assumption underlying the law and economics theory of the company is that the company is involved in a continuous competitive struggle in the market place, wherein only the rational, i.e. profit maximising, will survive. The theory therefore places emphasis on the profit-making ability of the company above all other imperatives.

There are two major strands of the law and economics movement, the first being the agency strand promoted by Alchian and Demestz in 1972, and elaborated upon by Jensen and Meckling in 1976. The second major strand of the law and economics movement is the institutionalist, or old institutionalist, strand of the law and economics movement that used Coasian transaction costs to explain why one mechanism such as a firm, is chosen over another mechanism, such as the market. The second strand of the law and economics movement focuses on externalities of companies.

Both of these strands view the company in private terms, as a nexus of contracts between private actors, and these theorists are therefore referred to as ‘contractarians’. They also posit the shareholder as the primary constituent of the company, and focus almost exclusively on shareholder wealth maximisation as the major goal of companies. Environmental concerns are largely considered as costs imposed on the company, thereby having a negative impact on shareholder wealth maximisation efforts. Externalisng costs is therefore beneficial to shareholders, meaning the externalisation of

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50 Cheffins (n 9) 462.
55 Cole and Grossman (n 45) 62.
environmental costs are encouraged by many shareholder primacists in the quest for ever greater company profits.

2.6 The Agency Strand of Law and Economics

The agency problem began to dominate company law theory from the 1970s, primarily as a result of the work of Jensen and Meckling, and Demsetz. Jensen and Meckling were the first to explicitly set out the agency problem in 1976 using concepts of neoclassical economics.56 As agency theorists in the neoclassical economics vein, they borrowed the assumptions of neoclassical economics, assuming that both principal and agent were ‘rational, wealth seeking and utility maximizers.’57 The majority of company law scholarship has subsequently focused on the economic interests of shareholders, to the detriment of the environment.

As a law and economics scholar, Demsetz looked to market mechanisms to constrain agency costs, such as providing management with a share in the profits, takeovers, the labour market for managers, and reliance on motivated shareholders to monitor management.58 Relying on neoclassical precepts of self-interest and economically rational actors, Demsetz stated, ‘In a world in which self-interest plays a significant role in economic behavior, it is foolish to believe that owners of valuable resources systematically relinquish control to managers who are not guided to serve their interests.’59 Law and economics theorists unwaveringly believed in the primacy of the economic interests of shareholders; that shareholders only invest in order to make a profit. Therefore, shareholder wealth maximisation became the sole function of the company. In their view, environmental concerns are seen as costs that reduce the profitability of the company. If it is therefore more profitable to externalise

59 ibid 390.
environmental costs, then externalities are encouraged according to the shareholder wealth maximisation approach.

Whether agency costs are actually problematic for companies or not, the issue has captured and fixed the attention of most company law scholars. This near obsession with agency costs necessarily meant that shareholders would become the primary focus of company law scholars. The agency theorists focused on the relationship between shareholder and manager to the detriment of other non-shareholder constituents, which barely figure in the agency theorist literature.

Agency theorists such as Jensen and Meckling and Demsetz focused on market solutions to resolve economic distortions arising from the separation of ownership from control. Although these theorists did not exclude the role of regulation entirely, they focused on market-based solutions with a focus on the relationship between shareholder and manager, to the detriment of environmental constituents. In addition, the neoclassical economic analysis employed by these theorists assessed all company constituents from the perspective of their ability to produce profits for the company. In the case of the environment, this can lead to the encouragement of negative externalities, and the commodification of environmental goods and services.

Agency theorists proliferated a number of views based on the agency problem set out in Berle and Means’ work, and they focused almost exclusively on the relationship between shareholders and managers, with an almost complete disregard for other, non-shareholder constituents. This myopic focus on shareholders has led to the diminishing, 

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61 Moore and Reberiou (n 6) 88.
and almost complete disregard of, the interests and concerns of other non-shareholder constituents, such as the environment, in company law scholarship. Shareholder primacists developed two major models of the company: the firm as owned by its shareholders, and the shareholders as the residual claimants of a web of contracts that makes up the company. In both of these models, the environment does not figure as a concern to be catered for by company law.

2.7 Shareholders as owners

The shareholder primacy norm was originally justified on the basis that shareholders were the owners of the company, and therefore only their interests deserved to be the primary focus of managers. One of the most strident supporters of the shareholder-as-owner model of the company was Milton Friedman, an economist who published an influential article in the New York Times in 1970. In it, Friedman argued that the sole role of company executives was to act in accordance with the wishes of the shareholders, which was generally to ‘make as much money as possible while conforming to the basic rules of the society...’ This anti-regulation position of shareholder primacy theorists has persisted in varying degrees of severity, and supports the position that the shareholder primacy approach to the company may not do enough to ensure that companies act responsibly towards the environment.

Further shareholder primacy theorists argued that shareholders were owners as they bore the risk of any losses to, and the benefit of any profits of, the company, and because they enjoyed the rights of control. Even if shareholders no longer held direct control over managers because of the separation of ownership and control, they held indirect

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64 ibid.
65 ibid.
control through the right of election and removal of directors.67 The shareholder wealth maximisation and shareholder as owner approaches were almost self-reinforcing, positing that shareholders had some sort of ‘intrinsic right to dictate the corporation’s course and receive its profits’.68 It has been argued that only shareholders had sufficient motivation to ensure that the firm maximised profits, which in turn promoted economic efficiency, and therefore shareholders should be treated as owners.69

The shareholder-as-owner model has been roundly criticized.70 Perhaps to counter these criticisms, shareholder primacy theorists developed a second model of the company form, which focused on the company as a nexus of contracts, positing shareholders as the residual claimants of the company.

2.8 Nexus of Contracts

The nexus of contract theory also privileges shareholders and shareholder wealth maximisation as the sole function of company law. Law and economics theorists abstracted from the dual concerns of Berle and Means with the power and control of both managers and companies, a sole concern of cost reduction and profit maximisation by managers within a privately controlled series of contractual relationships.71 They achieved this by reconceptualising the company as a series of privately ordered, consensual contracts amongst the participants of the firm. Due to self-interest, the parties to these contracts will be driven to find the optimal contracting solutions for themselves that maximise profit, as reflected in the share price.72 According to

69 Eisenberg (n 67) 826.
Easterbrook and Fischel, as these consensual contracts do not often impose costs on parties external to the contract, what is ‘optimal for the firms and investors is optimal for society’. As a result, although contractarians do not ignore societal concerns, they use neoclassical economic analysis to argue that these concerns are most efficiently catered for by producing profits for shareholders. This analysis of the company breaks down in the case of negative externalities. Negative externalities are pushed outside of the company and paid for by non-shareholders. While this is profitable for companies in the short-term, it is certainly not welfare-enhancing for society as a whole.

The nexus of contracts approach rejected the shareholder as owner model, because if shareholders were owners of the firm, the firm could not be reduced simply to a network of consensual contracts. This left the role of shareholders as the primary constituent of the company uncertain. Under a pure nexus of contracts approach, there should be no contractual party who deserves to have their rights and interests prioritised. Instead, every right and benefit is ‘up for grabs or, at least, subject to negotiation’. Arguably, therefore, the high costs of greenhouse gas externalities would afford the environment a place at the contract negotiating table, and to have environmental rights prioritised within the company. However, contractarians used the incompleteness of contract, and agency cost theories, to fill the ownership gap and maintain the shareholder as the primary constituent of the company.

Contractarians assert that all parties would choose shareholder wealth maximisation on the assumption that this norm would also serve the interests of all constituents of the firm, and society. The shareholder wealth maximisation approach of contractarians gained such prominence in company law theory that in their seminal article, ‘The End of

73 ibid 1421.
75 Eisenberg (n 67) 825.
History for Corporate Law’, Hansmann and Kraakman concluded that the debate regarding the objective of companies was over, as most jurisdictions would converge on the shareholder primacy principle. In their view, the emerging consensus among company law scholars is that companies should be run for the benefit of shareholders. They also assert that the shareholder primacy norm should profoundly influence the content and structure of company law itself. Although they conceded that generally shareholders have no greater weight in society than others, they conclude that the best way to achieve aggregate social welfare is to make managers directly accountable only to shareholder interests. In addition, not using this norm would subject directors to too many masters, leaving them accountable to no one. Hansmann and Kraakman do discuss non-shareholder constituents, arguing that their interests are legitimate and should not go unprotected, but are better catered for by mechanisms outside of company law, such as through contract or by labour or environmental regulation. Focusing on shareholder concerns is deemed more efficient, and will ensure easy and inexpensive access to capital markets by companies. Contractarians also view shareholders as the residual claimants of the firm, deserving of a prioritised status. Their approach illustrates the dominant theoretical appeal of the shareholder wealth maximisation and shareholder primacy norms. While not all shareholder primacists are contractarians, it is clear that shareholder primacy has, for now, become an almost indomitable theoretical approach to companies.

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79 ibid 440-441.  
80 ibid 441.  
81 ibid.  
82 Bainbridge (n 62) 581.  
83 Hansmann and Kraakman (n 78) 441-442.  
84 ibid 442.  
85 For example, Bainbridge developed a director primacy theory that incorporates shareholder primacy and acknowledges the predominance of shareholder wealth maximization. See for example, Stephen M Bainbridge, ‘Responses to Director Primacy and Shareholder Disempowerment’ (2005-2006) 119 Harv L Rev 1735, 1745, and Stephen M Bainbridge, ‘In Defense of the Shareholder Wealth Maximization Norm: A Reply to Professor Green’ (1993) 50 Wash & Lee L Rev 1423.
Although contractarians view the company as simply a network of consensual contracts, they still regard shareholder concerns as the primary focus of company law.\(^86\) Not only does this not always make sense, it has detrimental effects on the environment. If relationships are purely contractual, no one constituent should have a more privileged status than another; all interests should in theory be worked out through their contractual relationships. Contractarians focus not on shareholders as the owners of the firm, but as the residual claimants who bear the entire risk of the enterprise, who are therefore entitled to any residual profits.\(^87\) Andreadakis notes that the ‘cornerstone’ of shareholder value is the concept that shareholders are residual claimants.\(^88\) Shareholders are therefore considered to be vulnerable participants in the company because other constituents have a contractual, prioritised right to fixed payments, whereas shareholders only have access to any residuals.\(^89\) According to contractarians, shareholders’ vulnerable position within the company, therefore, justifies their right to appoint directors who will focus exclusively on their concerns. However, shareholders are not the only constituents who are vulnerable to the negative impacts of company activities, or who make firm-specific investments.

Stout has criticized the shareholder as residual claimant argument, stating that other constituents of the firm can also be described as ‘residual risk bearers’.\(^90\) Macey has also critiqued this approach, positing that many constituents of a firm with fixed claims may want to participate in company life, and the residual claimant approach does not

\(^{86}\) Cheffins (n 9) 483.
\(^{88}\) Stelios Andreadakis, ‘Enlightened Shareholder Value: Is It the New Modus Operandi for Modern Companies?’ in S Boubaker and others (eds), Corporate Governance: Recent Developments and New Trends (Springer-Verlag, 2012), 416.
therefore explain why a firm should be managed exclusively for shareholders. Macey does, however, agree that shareholders are the most vulnerable constituents, as many other non-shareholders, even communities, can contract for the rights and interests they desire within the company. The fact that many non-shareholders do not do this, according to Macey, means that they may be unwilling to pay for this privilege, whereas shareholders may value exclusive rights to fiduciary duties more. He argues that shareholders are entitled not only to the residual cash flow of a firm, but to residual legal rights that remain after all other non-shareholder constituents have completed their contracts with the firm. Macey and Miller argue that sharing fiduciary duties with other non-shareholder constituents would dilute their value to shareholders. Environmental concerns do not figure prominently in these theoretical approaches.

2.9 Impact of Shareholder Primacy Theories on the Environment

Law and economics theories view the firm as a privately ordered, nexus of contracts, with minimal or no role for state intervention or regulation in the firm. These theorists also often see transactional cost reduction, and consequentially increased profits, as the primary goal of the firm. One of the major normative goals of the law and economics movement is to increase social welfare through the maximisation of profits. It is unclear, however, whether this means increasing profits or the value of the firm. Shareholder primacists often conflate the two, sometimes using shareholder value as the determinant factor. It has also been unclear whether the focus of shareholder primacists is on long-term or short-term profitability. Although there is some conflicting evidence, many theorists argue that shareholder primacy and the shareholder wealth maximisation norm has led to a focus on short-term profits, to the detriment of the long-term value of the

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92 ibid 36.
94 Macey (n 76) 1280.
95 Macey and Miller (n 93) 403.
96 Armour, Hansmann and Kraakman (n 89) 28.
firm, or any focus on long-term issues that may affect society and the company, such as climate change.

The contractarian approach to the firm as an exclusively private entity has a number of implications for the research question. Companies are major producers of negative externalities, and emitters of greenhouse gases. However, the contractarian approach privileges shareholders as the primary constituent of the company to the detriment of the interests and values of other stakeholders. It focuses on shareholder wealth maximisation as the most important function of the company, and therefore can lead to a myopic focus on short-term profitability, and an economic commodification of the environment and negative externalities such as greenhouse gas emissions. It diminishes the role of public regulation and the judiciary, hence reframing company law as almost an entirely default, voluntary arrangement. It diminishes the concept of a firm as an entity capable of serving a variety of interests, and reduces it to a largely contractual sphere. The CLRSG reports identified strongly with a contractarian and largely economic understanding of company law,97 and so the theory has had a strong influence on English company law. There are three major effects of the shareholder primacy theory on the relationship between companies and climate change.

2.9.1. The Focus on Shareholders as the Only Constituent Whose Interests Company Law Should Protect

The shareholder primacy norm privileges shareholders, and their interests, as central to the company and minimises the role and interests of non-shareholder constituents such as the environment. As a result of the dominance of the shareholder primacy norm, the interests and roles of other non-shareholder constituents have been marginalised and made subservient to the interests of shareholders. The hypothetical bargain analysis incorporated into the nexus of contract theory privileges and reifies shareholders as the

97 The Company Law Review Steering Group, Modern Company Law for a Competitive Economy (n 32) 15. See also Sarah Worthington, ‘Reforming Directors Duties’ (2001) 64(3) MLR 439, 443 and 447.
only rational investors in a firm. This is often not the case. In addition, this argument breaks down in the case of the environment, which does not have the opportunity to specifically contract with the company, either at the formation of the company, or through the company’s lifetime. It is also not clear that shareholders are actually any more vulnerable than other participants in the company. Shareholders have a number of rights accorded to them under company law such as the right to formulate the company’s constitution, attend annual general meetings, vote on specific intra-company issues, appoint and remove directors and ultimately to exit the company if they are unhappy. It is much easier to sell shares with a view to reinvesting elsewhere than to leave a job and seek alternative employment. Other constituents do not have as many rights as shareholders within a company, and therefore may be more vulnerable to directorial opportunism. The evidence of environmental damage and greenhouse gas emissions produced by companies can be used as evidence of the vulnerability of the environment to company activities. Zhang and Keay note that non-shareholder constituents can be more vulnerable to ex-post opportunism by directors, but the shareholder-centric view of company law has sidelined their views. As a result, this private, contractual model of the company breaks down in the case of environmental damage and negative externalities.

The contractarian analysis of the company provides a limited to almost non-existent ability for directors to consider either long-term risks to the company, or non-shareholder interests. In addition, shareholder primacy ignores distributional consequences of


99 Shareholders are a fluid, and not a homogenous group and therefore their interests and incentives may vary (See Fisch (n 33) 649; Macey (n 91) 37) and they may not always invest rationally, (see Lynn Stout, ‘The Mechanisms of Market Inefficiency: An Introduction to the New Finance’ (2002-2003) 28 J Corp Law 635, 660). In addition, shareholders can be described as only one of many residual claimants who make investments in the firm and expect benefits over and above their contractual entitlements (See Stout (n 90) 1194; and Margaret M Blair and Lynn A Stout, ‘A Team Production Theory of Corporate Law’ (1999) 85(2) Virginia Law Review 247).

100 Zhang and Keay (n 98) 456.

101 ibid 456.
directors’ decisions when they focus exclusively on shareholder profits. This leads to negative externalities, such as greenhouse gas emissions, being an acceptable part of doing business in the shareholder-primacy world. It also leads to wealth reallocation by directors towards shareholders, leaving others to pick up the costs of these externalities. According to contractarians, environmental interests should be dealt with not by company law, but by regulation external to company law. As a result, the shareholder primacy approach to the company may not provide an adequate mechanism for companies to mediate their contributions to climate change.

2.9.2 The Focus on Short-term Profitability

Contractarians argue that overall societal wealth can be achieved by providing profitable returns for shareholders. Many theorists have argued that a heavy reliance on the shareholder wealth maximisation norm has led to a myopic focus by directors on short-term profits and also short-term thinking generally. The rise of institutional investors has meant that portfolio managers are overly concerned with the quarterly earnings of companies, as their own performance is assessed quarterly. As a result, they often focus on the current market price of the company and not on the long-term value of the firm, leading to a short-term bias. Investors such as hedge funds and mutual funds are deemed to be short-term investors, whereas some institutional investors may have longer-term investment horizons that may be more aligned with other stakeholders’ interests. The liberalisation of capital markets and the introduction of electronic trading in the 1980s compounded this short-term approach. Managers absorbed this

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105 Fisch (n 104) 883.
106 Lipton and Rosenblum (n 68) 206.
108 Gracia (n 104) 6.
short-term thinking, and managed the company for short-term gain, forgoing investments in longer-term projects such as research and development.\textsuperscript{109} Grinyer, Russell and Collison noted in their study of UK directors that ‘a large proportion of finance managers of UK quoted companies was likely to behave in a way that constrained commitments to revenue investments by reference to considerations of short-term accounting profit’.\textsuperscript{110} This managerial behavior was attributed to their beliefs about the preference of capital markets for short-term earnings.\textsuperscript{111} Managerial behavior biased towards short-term goals can lead to inappropriate decisions that impair the long-term value of the company and the interests of other stakeholders.\textsuperscript{112} Others argue that short-termism is merely an effect of the separation of ownership from control as shareholders no longer have control over the long-term strategy of the company, and, in any event, no better alternative to shareholder primacy exists.\textsuperscript{113}

It is not clear whether contractarians advocate short-term profitability or long-term profitability as the driving force behind the shareholder wealth maximisation norm.\textsuperscript{114} Allen noted that company law had effectively ‘papered over’ this conflict between long-term and short-term profit maximisation.\textsuperscript{115} However, share value is so focused on shareholders that it will often exclude value provided by and to non-shareholders.\textsuperscript{116} Keay and Adamopoulou caution against the use of profits as an indicator of shareholder wealth maximisation, noting that profits should not be equated with shareholder value as profits can be used by directors for other firm activities, and not just issued as dividends to shareholders.\textsuperscript{117} Roe notes that weak product markets, and the existence of monopolies

\textsuperscript{109} Grinyer, Russell and Collison (n 2) 19.  
\textsuperscript{110} ibid 21.  
\textsuperscript{111} ibid 21.  
\textsuperscript{113} Dent Jr (n 89) 58-59.  
\textsuperscript{116} Fisch, (n 112) 644.  
may mean that social wealth could be weakened by shareholder wealth maximisation.\textsuperscript{118}

Some contractarians have acknowledged that the efficient capital market hypothesis failed in 2008 as a result of the misplaced faith in the proposition that market price is always efficient.\textsuperscript{119}

There is clearly evidence that shareholder wealth maximisation can lead to a short-term bias in managerial preference and a focus on short-term profitability. This may lead to the interests of non-shareholders, particularly long-term interests such as climate change, being diminished or even ignored by managers. In addition, contractarians’ view of the firm as a privately ordered organization may leave little room for regulatory intervention to balance competing interests within the company. A focus on short-term profitability can encourage managers to push negative externalities outside of the responsibility of the company.

2.9.3. The Encouragement of Negative Externalities Such as Greenhouse Gases

Standard neoclassical economic theory provides that a ‘properly functioning market should always maximize productive and allocative efficiency’.\textsuperscript{120} But its beginning premise is a perfectly functioning and competitive market that assumes several things, such as complete information held by buyers and sellers, that one can enter the market without cost, that market participants always react rationally to changes in market conditions, and that all cost and benefits fall within the market, creating no externalities.\textsuperscript{121}

Externalities or spillover effects are defined by Cole and Grossman as ‘some of the costs or benefits associated with the transactions [are] not borne by those participating in the transaction but are externalized to others’.\textsuperscript{122} Externalities, therefore, can be both positive and negative. The most common example of a negative externality is pollution.


\textsuperscript{119} Ronald J Gilson and Reinier Kraakman, ‘Market Efficiency after the Fall: Where Do We Stand Following the Financial Crisis?’ in Claire A Hill and Brett H McDonnell (eds), Research Handbook on the Economics of Corporate Law (Edward Elgar 2012) 473.

\textsuperscript{120} Cole and Grossman (n 45) 13.

\textsuperscript{121} ibid.

\textsuperscript{122} ibid 14.
Externalities are an example of market failure as they provide a subsidy to the producer that does not absorb the cost of the externality. The product, therefore, is cheaper than it should be to produce, so it then, in a perfect market, should be inefficient to produce.\textsuperscript{123}

Coase, in the law and economics vein, took a novel approach to externalities when he proposed that stopping a negative externality imposed costs on the polluter, and, therefore, the problem of negative externalities was reciprocal.\textsuperscript{124} In his view, the solution to the problem of negative externalities lay in the parties’ ability to bargain in order to arrive at the economically optimal solution: does the negative externality add more value to the polluter than it subtracts from the atmosphere?\textsuperscript{125} In short, what solution is best to ‘maximize the value of production’.\textsuperscript{126}

Greenfield and Smith argue that as an artificial entity, the company is incentivised to externalise costs onto those whose interests are not catered for by the firm.\textsuperscript{127} This may be increasingly the case where managers focus almost exclusively on the pursuit of short-term profitability for shareholders. Millon notes that this short-term bias will curtail corporate social responsibility (or CSR) expenditures in companies as the latter often require long-term investment horizons and will reduce current earnings.\textsuperscript{128} He continues that contractarians focus on a very narrow range of interests of internal constituents,\textsuperscript{129} and assume that contractual strategies can correct externalities.\textsuperscript{130} The shareholder primacy theory as interpreted by contractarians absolves company law from dealing with externalities.

By 2008, the cost of environmental damage caused by the world’s 3,000 largest publicly listed companies was estimated at US$2.15 trillion, constituting one third of all global

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{123}] ibid.
\item[\textsuperscript{125}] ibid 9.
\item[\textsuperscript{126}] ibid 15.
\item[\textsuperscript{127}] Greenfield and Smith (n 4) 959.
\item[\textsuperscript{128}] Millon (n 2) 911-912.
\item[\textsuperscript{129}] David Millon, ‘New Directions in Corporate Law Communitarians, Contractarians, and the Crisis in Corporate Law’ (1993) 50 Wash & Lee L Rev 1373, 1378.
\item[\textsuperscript{130}] ibid 1379.
\end{itemize}
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environmental damage.\textsuperscript{131} Heede’s quantitative analysis of historic fossil fuel and cement production records of 90 leading investor-owned, state-owned and nation-state producers of oil, natural gas, coal and cement concluded that 63\% of cumulative worldwide emissions of carbon dioxide and methane from 1854-2010 were attributed to these ‘carbon major’\textsuperscript{132} entities. It is clear that companies are responsible for a large amount of greenhouse gas emissions that they currently treat as externalities. This represents not only market inefficiency, but also a reallocation of wealth to shareholders, as non-shareholder constituents are asked to absorb the costs and effects of climate change. As a result, the environment may be a more vulnerable constituent of the company than shareholders, and yet is not appropriately catered for by the shareholder primacy theory.

\textbf{2.10 Critics of Shareholder Primacy}

Shareholder primacy as understood by contractarians has become the dominant theoretical perspective of companies today, albeit the theory is not without its critics. A number of theorists find the focus on profit to be unclear,\textsuperscript{133} reference to a share price unreliable,\textsuperscript{134} and the exclusive focus on short-term profits and shareholders injurious to other constituents of the company. Grantham notes that the nexus of contract perspective allows for the implications that ‘there is little room for state regulation, that shareholder interest remains the central concern, and groups with only limited entitlements or with no contractual relationships have no right to consideration, even if they are affected by the company’s conduct’.\textsuperscript{135}

\begin{flushright}
\textsuperscript{133} Keay (n 114) 371.
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The 2008 financial crisis has also led some theorists to question the appropriateness of the shareholder primacy theory in general. Millon notes that it was the shareholder value maximisation culture of firms that led to the pervasive attitude that share prices should be increased at any cost, and without regard to whether the means were legal.\textsuperscript{136} Some contractarians have even acknowledged that the efficient capital market hypothesis failed in 2008 as a result of the misplaced faith in the proposition that market price is always efficient.\textsuperscript{137}

Despite the dominance of the contractarian approach, competing theories have emerged whose authors argue that directors can and should focus on other constituents of the company.

2.10.1 Alternative Theories

The major alternative theory to the shareholder primacy norm has been what has been dubbed the ‘stakeholder’ approach.\textsuperscript{138} This approach was popularized by R Edward Freeman in his 1984 book, \textit{Strategic Management: A Stakeholder Approach}.\textsuperscript{139} Freeman provides a definition of stakeholders as ‘any group or individual who can affect, or is affected by, the achievement of a company’s purpose’.\textsuperscript{140} This includes employees, customers, suppliers, environmentalists and stockholders.\textsuperscript{141} Utting and Marques claim this book is the true beginning of corporate social responsibility.\textsuperscript{142} Others, such as Ireland and Pillay, claim that a more authentic version of CSR began in the 1920s and 1930s with the concept of the company as a public institution, and the belief that the interest of

\textsuperscript{137} Gilson and Kraakman (n 119) 473.
\textsuperscript{139} R Edward Freeman, \textit{Strategic Management: A Stakeholder Approach} (CUP 2010).
\textsuperscript{140} Ibid iv.
\textsuperscript{141} Ibid.
\textsuperscript{142} Peter Utting and Jose Carlos Marques, ‘Introduction: The Intellectual Crisis of CSR’ in Peter Utting and Jose Carlos Marques (eds), \textit{Corporate Social Responsibility and Regulatory Governance Towards Inclusive Development?} (UNRISD 2010) 3.
society as a whole should come before those of shareholders. They claim the more modern version of CSR has become merely ‘ameliorative’ by buying in to the shareholder primacy approach and advocating for voluntarism and self-regulation. Millon argues that strategic CSR merely buys into the cost-benefit analysis and so fails to adequately cater for environmental rights or human rights where they are not financially beneficial to the company.

Keay notes there are a number of stakeholder theories, including communitarianism or progressive theories, that began in 1920s, but were popularized by Dodd in the 1930s, and can be traced to Freeman in the 1980s. It is clear that Dodd was advocating for the company being a social rather than purely private entity. The communitarian movement is associated with management theorist and business ethics scholar, Amitai Etzioni. Etzioni notes that the communitarian approach to the company views all of the participants of the company as part of one community with shared goals and bonds. Communitarians are more concerned with the social effects of companies, and are more willing to use regulation to discipline excesses. The progressive company law approach derived from both communitarianism and stakeholder theory, proposing that companies have more social obligations than just shareholder wealth maximisation. Mitchell notes that companies are public institutions with public obligations. His Progressive Corporate Law book focuses on how to reform companies from within, by using company law instead of external regulation.

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143 Paddy Ireland and Renginee G Pillay, ‘Corporate Social Responsibility in a Neoliberal Age’ in Peter Utting and J Marques (eds), Corporate Social Responsibility and Regulatory Governance Towards Inclusive Development? (UNRISD 2010) 77, 84.
144 Ibid 89.
147 Ibid 1379.
150 Ibid xiv.
CSR in the 1970s advocated for expanding corporate responsibility beyond shareholders to workers, consumers, suppliers and the environment.\(^{152}\) Clarkson divided stakeholders into two main groups: primary stakeholders, whose ongoing contributions the company needs to survive (such as customers, shareholders, suppliers, employees and public groups such as governments and communities), and secondary stakeholders who influence or affect the company, such as the media.\(^{153}\) Haigh and Griffiths argue that, in the case of climate change, companies should consider the environment a primary stakeholder.\(^{154}\)

Stakeholder theory’s foundational assumption is that values are necessary within the company, and that the focus on profits is too narrow a justification for the purpose of the company.\(^{155}\) Freeman himself acknowledged that the stakeholder concept is deceptively simple, as once stakeholders are identified, the task of balancing their interests and managing their relationships is ‘enormous’.\(^{156}\) Keay notes that stakeholderism suffers from a number of potential defects, including that the definition of a stakeholder is nebulous, and the balancing of various interests is difficult.\(^{157}\) In addition, directors may not always know what each stakeholder considers to be a benefit.\(^{158}\) As a result, directors may be accountable to no one as they are left without a clear decisional rule.\(^{159}\) This latter critique is clearly linked to the agency approach to company law dealt with earlier in this chapter. Keay concludes that stakeholder theory has yet to develop into a ‘robust and


\(^{156}\) R Edward Freeman, Strategic Management: A Stakeholder Approach (CUP 2010), 246.

\(^{157}\) Keay (n 146) 259, 278; Andreadakis (n 88) 419.

\(^{158}\) Andrew Keay, ‘Ascertaining the Corporate Objective: An Entity Maximization and Sustainability Model’ (2008) 71(5) 663, 676.

workable\textsuperscript{160} theory. Since the rise to prominence of the law and economics movement, stakeholder theory has been relegated to the minority view among company law scholars. Margaret Blair and Lynn Stout developed in 1999 an alternative theory to explain the public company. In their view, shareholder primacy is not adequately reflected in US company law,\textsuperscript{161} and so their team production model provides an alternative explanation of the public company. While the team production model pays closer attention to the contributions and deserved benefits of constituents other than shareholders, it does not identify specifically with stakeholderism, but instead builds on the nexus of contracts theory.\textsuperscript{162} According to the team-production model, the gap-filling role in the contractual model should be filled not by residual claimants, but by a board of directors.\textsuperscript{163}

The team production model relies heavily on the concept of the company as an entity. A few English theorists have recently developed this concept into a new entity maximisation and sustainability model, and an entity maximisation and viability principle.\textsuperscript{164} A number of theorists argue that company law failed to clearly articulate the actual objective of companies,\textsuperscript{165} and both the shareholder primacy and stakeholder theories failed to completely explain the company. Keay developed a new entity maximisation and sustainability model (or EMS) of the company. Entity maximisation focuses on the common interest of all constituents who have invested in the firm, not by prioritizing one group over the other, but by focusing on the long-term reputation of the organization as an entity.\textsuperscript{166} Entity sustainability entails the company focusing on issues that affect its

\textsuperscript{160} Keay (n 158) 675.
\textsuperscript{161} Blair and Stout (n 99) 291.
\textsuperscript{162} ibid 320.
\textsuperscript{163} ibid 320.
\textsuperscript{164} The entity theory of corporate law is not new. At the end of the 19\textsuperscript{th} and beginning of the 20\textsuperscript{th} century, three approaches to corporate law were debated, the ‘fiction’ or ‘artificial entity’ theory, the ‘contract/association’ theory and the ‘real entity’ theory. See Cheffins (n 9) 478-479.
\textsuperscript{166} ibid 685.
survival, such as environmental considerations.¹⁶⁷ According to Keay, unlike team production, which provides a theory of the firm, EMS provides a normative objective of the company.¹⁶⁸ Attenborough further develops the entity concept into the entity maximisation and viability principle (EMV).¹⁶⁹ The EMV concept consists of two elements, the first of which is the duty to respect, protect and fulfill the interests of those involved in or affected by the activities of the company.¹⁷⁰ This duty would mitigate actual and potential damage caused by the company,¹⁷¹ such as environmental pollution. The second element involves facilitating the viability of the entity itself, separate and apart from the interests of the shareholders.¹⁷² Rather than attempting to prioritise and balance the interests of a number of stakeholders of the company, EMV instead focuses on the viability of the entity defined by its ability to survive without violating the duty to respect, protect and fulfill. The viability of the entity is important only if social and public interests (protected through the duty to respect, protect and fulfill) are not harmed along the way.¹⁷³ These entity theorists provide an alternative, and arguably more balanced approach, to the company than the shareholder primacy theory.

### 2.11 Enlightened Shareholder Value (ESV)

Since the turn of the 21st century, English law has adopted an enlightened shareholder value approach. The Labour Government, through the Department of Trade and Industry, established the CLRSG in 1998 to consider reforms to the existing Companies Act. A comprehensive review of company law of this kind had not taken place for over forty years. As part of its review, the CLRSG produced four major strategy documents,¹⁷⁴ and

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¹⁶⁷ ibid 691-692.
¹⁶⁸ ibid 696-7.
¹⁷⁰ ibid 15.
¹⁷¹ ibid 15.
¹⁷² ibid 16.
¹⁷³ ibid 33.
¹⁷⁴ The Company Law Review Steering Group (n 30).
provided what it considered to be the role of companies. The CLRSG borrowed heavily from the contractarian approach to companies.\footnote{ibid ‘The Strategic Framework’ 10, 15; Worthington (n 97) 443.}

The CLRSG considered two approaches to describe what the objective of companies should be: the enlightened shareholder value approach (or ESV), and the pluralist approach. The ESV approach was described as the approach currently enshrined in English law, that the role of companies was to generate maximum value for shareholders, as this approach was often the best means of providing for overall prosperity and wealth.\footnote{ibid 44.} The CLRSG considered that the pluralist approach would distract directors by forcing them to manage competing considerations at the expense of economic growth and international competitiveness.\footnote{The Strategic Framework’ (n 30) 37.} The pluralist approach to company law reform was thusly discarded.

The CLRSG adopted the ESV approach to the reform of the Act, as they considered this approach to be consistent with the ultimate objective of companies. The aim of the law was ‘to provide a framework to promote the long-term health of companies, taking into account both the interests of shareholders and broader corporate social and environmental responsibilities’.\footnote{Trade and Industry Committee, ‘The White Paper on Modernizing Company Law: Sixth Report of Session 2002-2003’ (HC 439 2003) 10.} The principle of ESV, therefore, was to include a balance between both shareholder interests and broader non-shareholder interests. The CLRSG describes ESV as follows:

...it sets as its basic goal for directors the success of the company in the collective best interests of shareholders. But it also requires them to recognise, as the circumstances require, the company’s need to foster relationships with its employees, customers and suppliers, its need to maintain its business reputation and its need to consider the company’s impact on the community and the working environment.\footnote{CLRG Final Report (n 30) 1.}
The ESV approach recognizes, therefore, that a company’s long-term success is dependent not only upon satisfying shareholder interests, but valuing relationships with non-shareholder constituents as well. In this regard, it differs from shareholder primacy by recognizing and valuing the contributions of non-shareholder constituents to the success of the firm. The ESV principle would ensure that directors consider non-shareholder constituents, and consider the impact of corporate activities on these stakeholders. The ESV principle was adopted primarily through s172 of the Companies Act 2006. Chapter Three will assess whether English legal doctrine has incorporated, and been influenced by, the shareholder primacy norm.

2.12 Conclusion

Although there are a number of competing company law theories, none of them have risen to such prominence as the shareholder primacy norm, which remains the dominant theory in company law. The agency analysis of the company has become so prevalent and pervasive that many theorists believe that only shareholder wealth maximisation can discipline directors to work exclusively for shareholders. Under this model, other constituents’ interests are sidelined and relegated to contractual mechanisms or external regulation in order to gain any protection.

The shareholder primacy approach reconceptualises the firm as an organization almost completely ordered through private, market-based, consensual arrangements. This approach to the firm as an exclusively private entity has a number of implications for the research question. Under the shareholder primacy model, stakeholder constituents such as the environment are excluded from protection by company law, and expected to seek protection from contractual arrangements or regulatory mechanisms outside of company law, such as environmental law or market mechanisms. Shareholder primacy under the contractarian analysis also diminishes the concept of a firm as an entity capable of serving

180 CLRG Strategic Framework (n 30) 41-42.
181 Trade and Industry Committee (n 178) 7.
a variety of interests, and reduces it to a largely contractual sphere. Under the contractual model of shareholder primacy, there remains very little to no opportunity for the environment as a non-shareholder constituent to contract with the company. The contractual model of the company therefore is not appropriate to protect the interests of the environment from greenhouse gas emissions by companies. The shareholder primacy norm privileges shareholders as the primary constituent of the company and of company law, to the detriment of the interests and values of other stakeholders. It focuses solely on efficiency and shareholder wealth maximisation as the sole purpose of the firm. This approach can lead to a myopic concentration on short-term profits, an economic commodification of the environment, and the encouragement of negative externalities. As a result, the shareholder primacy norm appears inadequate to constrain companies’ contributions to climate change.

The remainder of this Thesis will analyse both English company law to determine whether it reflects the shareholder primacy norm, as well as other external regulatory mechanisms such as environmental regulation and market mechanisms, to determine whether these are sufficient to mediate companies’ contributions to climate change. Chapter Three will focus on English company law, and will seek to determine whether English law does now reflect a shareholder primacy approach, if in slightly more ‘enlightened’ terms.
3. Chapter Three – English Company Law and the Environment

3.1 Introduction

The aim of this chapter is to explore the contours of English company law to determine whether it reflects the shareholder primacy theoretical approach, and therefore whether environmental concerns are provided with adequate protection through English company law. The period of English caselaw before 2006 will be examined, as during that period the bulk of legal fiduciary duties were left to the common law to determine. For the most part English common law, prior to the Companies Act 2006, reserved a large amount of discretion for directors, and the common test was that directors owed duties to the company as an entity (or the company ‘as a whole’). Only a slim line of caselaw dictated that directors owe duties to shareholders. This is surprising as a number of theorists, many of whom were examined in Chapter Two, determined that by the company, the common law meant current and future shareholders, and therefore that the shareholder primacy theory was always a part of English company law duties. But this view is not well reflected in the caselaw itself, and this Chapter concludes that English caselaw, prior to the Companies Act 2006, did not reflect the shareholder primacy approach. This means that directors could have taken environmental concerns into account, even above the interests of shareholders, if that approach benefited the company as an entity. Despite this approach, prior to 2006 only one environmental case has been found within English company law. This may reflect the common understanding, or misunderstanding, that environmental rights and duties were not the concern of company law itself, but were best handled by regulation external to the company.

Unlike the common law, many corporate governance reviews and Codes did place the shareholder at the heart of the company. From the Cadbury Review in 1992, to the 2016 UK Corporate Governance Code, shareholders figured prominently in these reports and their resultant Codes. It is not until the Company Law Review Steering Group Reports that the stakeholder approach is seriously considered as a part of company law, although the
CLRSG took a largely economic and even contractarian view of the company.\(^1\) Section 172 of the Companies Act 2006 encapsulates the most up-to-date approach to directors’ duties in English company law. This chapter will conclude with an analysis of the impact, if any, s172 has or will have on environmental concerns, specifically in relation to climate change.

### 3.2 The Previous Common Law Position (Pre-Companies Act 2006)

English company law was developed from partnership law, and early Companies Acts drew from the partnership concept that partners were an integral element of the partnership itself.\(^2\) Keay and Ireland point to the Joint Stock Companies Act 1856, which allowed that seven or more persons formed *themselves* into a company.\(^3\) In their view, the company was equivalent to its creators, or its shareholders.\(^4\) Talbot notes that early deed of settlement companies were fundamentally different from their modern-day counterparts.\(^5\) Under the former, directors acted as trustees who managed the business on behalf of the beneficiaries, or shareholders, who held unlimited liability and also had an interest in the assets of the company.\(^6\) The common law reflected this understanding of directors as trustees, and shareholders as a sort of *cestui que trust*, whose interests were of paramount importance in the company’s affairs.\(^7\) By the time of the Companies Act 1862, however, this position had changed. Shareholders were no longer *the* company, but instead the company was made ‘by but not of shareholders.’\(^8\) Therefore, by the second half of the 19\(^{th}\) century, incorporation of a company was seen to be the creation

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\(^1\) See section 3.4 of this Chapter.
\(^4\) ibid.
\(^6\) ibid.
\(^7\) David Kershaw, ‘The Path of Corporate Fiduciary Law’ (2012) 8 NYU Journal of Law & Business 395, 430, who cites the case of *Aberdeen v Blaikie Brothers* [1854] UKHL 1 to demonstrate that shareholders, as *cestui que trust*, could ratify directorial self-dealing.
\(^8\) Ireland, Grigg-Spall and Kelly (n 3) 150.
of a separate legal entity, which was ‘emptied’ or ‘cleansed’ of shareholders.⁹ Talbot notes that the development of the company as a separate legal entity in law changed the nature of fiduciary duties.¹⁰

The concept of the company as a separate legal entity has not been an easy one for the law to digest and explain. Talbot writes that the judicial concept of separate legal personality has changed over the years.¹¹ Initially, the company was viewed as its assets, then as a function of its assets, with the emphasis on profit-making for shareholders, and, finally, from the 1980s, as a competitive contractual entity.¹² A number of academics argue that the shifting judicial understanding of the nature of the corporate entity has had a corresponding effect on the judicial approach to fiduciary duties.¹³ The result is divergent decisions in the common law as to whether directors owe duties to ‘the company’ as entity, or to shareholders themselves. However, the majority of the pre-2006 decisions appear to follow the entity approach to the company.

The historical approach from the early 19th century, when shareholders were deemed to be the company itself, has led some academics to point to an ambiguity within company law when it dealt with directors’ duties. This ambiguity, at times, conflated the interests of the company entity with the interests of shareholders. As Dignam notes, this ambiguity could be a direct hangover from the historical concept that shareholders were the company. He writes,

A strict adherence to the idea of shareholders “being” the company created tension between the core principle that the company is separate from the shareholders and the principle of judicial consideration of the extent to which directors have an independent power conferred upon them in the articles. How

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⁹ Ireland (n 3) 301.
¹⁰ Talbot (n 5) 159; Separate legal personality became a fundamental tenant of English Company Law through 1897 House of Lords case of Salomon v A. Salomon and Co. Ltd. [1897] AC 22, affirmed by several cases, such as Macaura v Northern Assurance Co. Ltd. [1925] AC 619; Lee v Lee’s Air Farming Ltd. [1961] AC 12; Prest v Petrodel [2013] UKSC 34.
¹¹ Talbot (n 5) 154-155.
¹² ibid.
¹³ ibid; Keay (n 3); Ireland (n 3); Ireland, Grigg-Spall and Kelly (n 3).
can shareholders be both separate from the company and the substance of the company at the same time?\textsuperscript{14}

An alternative, and more appealing, argument is that any judicial ambivalence found in the caselaw may be purposeful, with the judiciary exercising deference to the commercial expertise of directors through use of what may be deemed to be the ‘business judgment rule’.\textsuperscript{15} It is the author’s contention that English common law displays more deference than ambivalence, leaving the directors a large amount of discretion as to whose interests they prefer when taking directorial decisions, provided their decisions benefit the company as an entity.

A number of cases support this view, as the judiciary has consistently referred to the company as an entity when discussing fiduciary duties. The most often cited example of this test is found in the early and leading judgment of \textit{Percival v Wright}.\textsuperscript{16} In this case, a shareholder who sold his share to the company objected when the directors did not disclose that they were negotiating a buy-out of the company. It was clearly held that directors are not the trustees for individual shareholders, and Justice Eady rejected arguments by the plaintiff’s counsel that, as shareholders are beneficiaries, the assets of the company belong to the shareholders in equity.\textsuperscript{17} As a result, the interests of shareholders are made subservient to the greater interests of the company as an entity.


\textsuperscript{15} The business judgment rule has a definition under US law: “a presumption that in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interest of the company” \textit{Aronson v Lewis} 473 A. 2d 805, 812 (December 1984). English law does not have an official business judgment rule test within the common law, but relies instead on statutory duties of honesty and good faith, although Tunc notes that English law has an unarticulated business judgment rule encapsulated in judicial reluctance to interfere with directors’ decisions, see Andre Tunc, ‘The Judge and the Businessman’ (1986) 102 Law Quarterly Review 549. The term is used here to highlight the deference often showed by the judiciary to the commercial expertise of directors.

\textsuperscript{16} [1902] 2 Ch 421.

\textsuperscript{17} ibid 423-424, 426.
Talbot points out that this case represents a shift in understanding from shareholders as ‘partners’, to the view of the company as representing the assets of the company.\textsuperscript{18}

In addition, in the case of *Hutton v West Cork Railway Company*,\textsuperscript{19} the directors were not allowed to disperse the remaining assets of an insolvent company to the company’s employees and directors as this was deemed to be a charitable act that would not advance the interests of the company. Interestingly, a number of comments were made regarding whether this type of ‘charitable’ behavior would be acceptable by directors if the company was a going concern. Bowen LJ noted that a railway company could send its porters for tea at the company’s expense if such an act would ultimately be for the company’s benefit. According to Bowen, any act that does not benefit the shareholders directly can be allowed if it ultimately benefits the company, and leads to its success.\textsuperscript{20} As a result, if directors were to prefer environmental interests to shareholder interests, and this led to further success of the company, this act would not be contrary to English company law.

The seminal case of *Re Smith and Fawcett Limited*\textsuperscript{21} sets out the traditional test that the directors act in the ‘interests of the company’, interpreted as the ‘general interests of the company as a whole’.\textsuperscript{22} This phrase has had enduring value in company law, and the case clearly establishes that directors have the power to decide what is in the best interests of the company.\textsuperscript{23} Eve J, in the case of *Re Lee Behrens*\textsuperscript{24}, sets out three questions that would establish whether directors have complied with their fiduciary duties. These were, 1) is the transaction reasonably incidental to carrying on the company’s business, 2) is it a bona fide transaction, and 3) is it done for the benefit of and to promote the prosperity of the

\textsuperscript{18} Talbot (n 5) 161.
\textsuperscript{19} [1883] Ch Div 654.
\textsuperscript{20} ibid.
\textsuperscript{21} [1942] 1 Ch 304.
\textsuperscript{22} ibid 308.
\textsuperscript{24} [1932] Ch 46.
This test clearly focuses on the company instead of the shareholders. If directorial attention to environmental concerns passes this three-tier test, these concerns may then surpass attention to shareholder interests, even if this involved some sacrificing of shareholder profits. The test of ‘the company as a whole’ allows directors to pay attention to environmental concerns, and would even make room for profit-sacrificing environmental behaviour, if the ultimate objective benefits the company as an entity.

As a result of this line of authority, it is clear that English case law prior to 2006 did not reflect or even mandate the shareholder primacy norm, and therefore environmental concerns could have dictated directorial decisions if they led to the betterment of the company as a whole. Under this approach, the potential effects of climate change could have warranted attention of directors and justified some profit-sacrificing measures to reduce greenhouse gas emissions by companies, if this ultimately led to the company’s success.

Some shareholder primacy theorists, however, have pointed to a slim line of English authority that advocates for shareholder primacy. The case of Greenhalgh v Arderne Cinemas developed a definition that focused exclusively on shareholders. In this case Evershed MR states that ‘bona fide for the benefit of the company’ does not mean the company as a commercial entity distinct from the corporators, but means the corporators as a general body. He states that directors must look at the hypothetical member and ask whether the proposed action is to this person’s benefit. This view reduces directors’ duties solely to considering shareholder interests, and has been criticized by academics. Attenborough states that Greenhalgh is simply bad law, and subsequent cases have repeated Evershed MR’s dicta without the requisite analysis. Grantham notes that there

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25 ibid 51. See also Fulham Football Club v Cabra [1992] WL 895734 CA.
26 [1948] 1 Ch 1951.
27 ibid 291.
was no evidence that Evershed meant to establish a general principle.\textsuperscript{29} Sealy states that although the company as a whole has a ‘notoriously elusive meaning’,\textsuperscript{30} the better view is to focus not on corporators as \textit{Greenhalgh} does, but instead to focus on the corporate body as that is what matters most.\textsuperscript{31} In fact, Evershed MR in \textit{Greenhalgh} sought to rely on the cases of \textit{Shuttleworth v Cox}\textsuperscript{32} and \textit{Sidebottom v Kershaw, Leese and Company Ltd.}\textsuperscript{33} In the latter case, counsel for the respondents argued that the company as a whole meant every individual shareholder. However, a close reading of Lord Sterndale’s judgment shows that he states that the respondents’ counsel’s argument is ‘very difficult to follow’\textsuperscript{34} and that the matter had already been settled by the \textit{Allen v Gold Reefs of West Africa}\textsuperscript{35} case, which refers to the company as a whole. \textit{Shuttleworth v Cox} simply affirmed the \textit{Sidebottom v Kershaw} decision, and so it is unclear which cases, if any, Evershed relied on for his statement.\textsuperscript{36}

It is curious, however, that only one pre-2006 company law case under English law has been found that specifically deals with environmental issues. In \textit{Re Waste Recycling Group Plc},\textsuperscript{37} the company applied to the court to approve a scheme of arrangement under s425 of the Companies Act 1985. The scheme included a reduction of capital in order to carry out a takeover of the company by a private entity. The majority (99.7%) of the shareholders approved the scheme, but one minority shareholder, Mr. Davis, objected. Mr. Davis was concerned that an environmental company should be subject to public

\begin{itemize}
\item \textsuperscript{31} ibid 270.
\item \textsuperscript{32} [1927] 1 Ch 154.
\item \textsuperscript{33} [1920] Ch Div 154.
\item \textsuperscript{34} ibid 164-5.
\item \textsuperscript{35} [1900] 1 Ch 656.
\item \textsuperscript{36} \textit{Gaimon and Others v National Association for Mental Health} [1969] 1 Ch 317, supports the \textit{Greenhalgh} judgment, although this case dealt with a company limited by guarantee, as well as \textit{Multinational Gas and Petroleum Co v Multinational Gas} [1983] 1 Ch 258, which states that shareholders are the company when it is solvent.
\item \textsuperscript{37} [2003] EWHC 2065 (Ch).
\end{itemize}
oversight and not be operated by a private entity. Mr. Justice Lloyd summarized his concerns as follows:

He says – and this seems to be a fair comment from observations – that particular companies with operations which have an environmental impact – whether positive or negative – often attract the attention of shareholders who buy shares more with a desire to try to hold directors to account in respect of environmental interests than just on dividend or other financial returns.  

Although Justice Lloyd appeared to have some sympathy with Mr. Davis’ assertions, he decided that the court had no ability to distinguish between the subjective objectives for holding shares, either for environmental oversight or purely financial gain.

The lack of environmental cases under English company law may mean that English directors did not appreciate the largely ‘entity approach’ of English common law, and assumed that environmental issues were better dealt with by complying with environmental regulations. One of the few English company law decisions that specifically deals with non-shareholder constituents is the Parke v Daily News case, which prohibited directors from making ex gratia payments to employees on the sale of the assets of the newspaper. Plowman J determined that the sale of the newspaper was in the interests of the shareholders, but the payment to employees was not in the interests of the company.

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38 ibid para 10.
39 There are a number of cases that deal specifically with creditors, particularly on the insolvency of the company.
41 ibid 963. It is unclear whether American jurisprudence entirely reflects shareholder wealth maximisation norm. The statement in Dodge v Ford Motor Co et al 204 Mich 459, 170N.W. 668, 3 A.L.R 43 that ‘A business corporation is organized and carried on primarily for the profit of the stockholders’ is often touted as establishing shareholder wealth maximization as intrinsic in US law. However, academics have questioned whether this case establishes such a sound principle, see Lynn Stout ‘Why We Should Stop Teaching Dodge v Ford’ (2008) Cornell Law Faculty Publications Paper 724; and D Gordon Smith ‘The Shareholder Primacy Norm’ (1997-1998) 23 J Corp L 277, 315. Shlensky v Wrigley 237 N.E. 2d 776 established that the Wrigley
The dearth of English cases that deal specifically with non-shareholder constituents such as the environment, and particularly employees, is curious as the precursor of s172 was s309 of the Companies Act 1985, which stated that, ‘The matters to which the directors of a company are to have regard in the performance of their functions include the interests of the company’s employees in general, as well as the interests of its members’. It is interesting that, chronologically, s309 placed the interests of employees before those of the shareholders; however, this provision was unenforceable by employees through a derivative action, and was therefore deemed to be a ‘lame duck’ provision. It is arguable that this foreshadows the effectiveness of s172 for the environment, as there are no mechanisms for non-shareholder constituents to enforce the provisions of s172. The lack of environmental company law cases in the UK also points to the general assumption by directors that company law was not an appropriate forum for environmental issues.

As demonstrated by the previous cases, the judiciary has, for the most part, gifted a wide amount of discretion (absent self-dealing and dishonesty) to directors to manage the company as they deem fit in the interests of the company as a whole. There exists, however, a slim line of authority that does advocate for shareholder primacy as a common-law duty. This inconsistency within the judgments may simply evidence an unfolding of a historical misunderstanding of the proper role of shareholders. The main authorities, however, display a purposeful decision by the judiciary to provide directors

company did not have to install lights to enable night baseball games, even though it would be more profitable and the President of the Board had stated he was concerned not to negatively affect the quality of life of the surrounding neighbourhood. Revlon Inc v MacAndrews & Forbes Holdings Inc 506 A.2d 173 is also cited as establishing that directors must pay attention to shareholders’ profitability, but this has been narrowed to the circumstances of a takeover by the case of Paramount Communications Inc. v Time Warner 571 A. 2d 1140 and Re Trados Inc. 73 A. 3d 17 (2013). In the recent case of eBay Domestic Holdings Inc v Craig Newmark and James Bucknester and Craigslist Inc.16A. 3d (2010), a Delaware court noted, ‘Having chosen a for-profit corporate form, the craigslist directors are bound by the fiduciary duties and standards that accompany that form. Those standards include acting to promote the value of the corporation for the benefit of its stockholders’, although this decision has also been criticized, see David A Wishnick, ‘Corporate Purposes in a Free Enterprise System: A Comment on eBay v Newmark’ (2012) 121 Yale Law Journal 2405. 42 Andrew Keay, ‘Tackling the Corporate Objective: An Analysis of the United Kingdom’s ‘Enlightened Shareholder Value Approach’ (2007) 29 Sydney L Rev 577, 593.
with sufficient commercial (and therefore legal) space to manage companies as they deem fit, according to the business judgment rule. Prior to the 2006, the statutory provisions of the Companies Acts, as interpreted by case law, also provided directors with a large amount of discretion to determine what the best interests of the company meant.\textsuperscript{43} Sealy notes that the phrase ‘the company as a whole’ has had a ‘notoriously elusive meaning’.\textsuperscript{44} This ambiguity led Dignam to rightly question, ‘Why is there no definitive case that ultimately determines a director’s obligations when faced with a difference between his or her honest view as to the future strategic direction of the company and the shareholders’ differing views?’\textsuperscript{45}

A number of academics have seized on the judicial reticence within the common law to tell directors what to do, with the conclusion that English common law mandates that directors must act in the interests of the shareholders. For example, Talbot argues that directors owe duties to capital, and to shareholders alone.\textsuperscript{46} Hannigan notes that although the common law has stated that directors owe duties to promote the success of the company for the benefit of the members as a whole, and for most purposes this means the entity, this calls for a balancing of the short- and long-term interests of the shareholders.\textsuperscript{47} Nolan points out that the purpose of the company has not changed in one hundred and fifty years; it is primarily a vehicle to raise capital and to make and distribute profits.\textsuperscript{48} Wu has stated that the common law has always reflected the shareholder primacy approach, stating, ‘To hold that members’ interests represent the company’s interests is just a recognition of the shareholder primacy principle that has long been deeply embedded in company law.\textsuperscript{49}

\textsuperscript{43} Although note that courts will intervene in exceptional circumstances where directors have acted bona fides and within their powers, \textit{Ultraframe Ltd v Fielding} [2005] EWHC 1638.
\textsuperscript{44} Sealy (n 30) 269.
\textsuperscript{45} Dignam (n 14) 666.
\textsuperscript{46} Lorraine Talbot, \textit{Critical Company Law} (Routledge 2016) 131.
\textsuperscript{47} Brenda Hannigan, \textit{Company Law} (4\textsuperscript{th} edn, OUP 2016) 216.
As stated above, except for a very slim line of cases, the majority of English law authority does not support this contention. Perhaps a more comprehensive view of the previous common law should be adopted, which recognizes that the judiciary has persistently refused to decide that directors must only pay attention to shareholder interests, and has instead pointed directors towards taking care of the company as an entity. Alcock states that pre-existing common law often, but not always, aligned the benefit of the company with the interests of its current shareholders, and provided directors with a large amount of discretion.\textsuperscript{50} He states, ‘That discretion allowed an enlightened shareholder value approach, perhaps entity maximization and even some profit sacrificing social responsibility. It did not enforce rigid shareholder supremacy’.\textsuperscript{51} Attenborough notes that the common law was often ‘surprisingly ambiguous’\textsuperscript{52} when it came to defining management’s primary duties, and Copp notes that there were cases that advocated for shareholder primacy, and those that did not.\textsuperscript{53}

There is clearly some ambiguity within the common law as to what the interests of the company actually mean, but most pre-2006 cases demonstrate that directors did not always have to act in the interests of the shareholders alone.\textsuperscript{54} As a result, the shareholder primacy approach has not always been firmly entrenched as part of English company law.\textsuperscript{55} Even though the common law has fallen short of advocating for a stakeholder approach, it has provided directors with sufficient flexibility to manage the company for the interests they deem the most appropriate in the circumstances. This approach afforded directors the flexibility to consider, and even prioritise, environmental concerns over shareholder profits, if that ultimately benefited the company.

\textsuperscript{51} ibid 6.
The corporate governance reviews that have taken place over the years have not afforded the same amount of flexibility when considering fiduciary duties of directors. Instead, most of these reviews and reports have firmly advocated for the shareholder primary approach, and the Codes that they have produced have placed shareholders at the heart of English company law.

3.3 Corporate Governance Reviews in the UK and the Takeover Code

Many corporate governance reviews that have taken place since 1992 have assumed and explicitly referred to either shareholders as owners of the company, and/or placed their interests at the heart of the company. This approach stands in stark contrast to the pre-existing English case law reviewed above. It is not until the CLRSG review that stakeholders figure in the corporate governance reviews at all. Until that time, it had merely been assumed, arguably incorrectly, that English company law prioritised shareholder interests above all others, including those of the environment. This approach may reflect a misunderstanding by the business community of the role that company law itself had ascribed to shareholders. Alternatively, this may also reflect a co-option by the business community of the economic view of the company, and adoption of the shareholder primacy approach.

In 1992, the first corporate governance report in the UK was published by the Committee on the Financial Aspects of Corporate Governance. Named after the Chairman of the Committee, Adrian Cadbury, the Cadbury Review was a watershed report for its time. It provided a simple yet enduring definition of corporate governance, being ‘the system by which companies are directed and controlled’, and its main recommendation was the establishment of a voluntary Code of Best Practice for all listed companies. The Cadbury Report did not advocate for statutory intervention, stating ‘Statutory measures would impose a minimum standard and there would be a greater risk of boards complying with the letter, rather than with the spirit, of the regulations’. Instead, the Cadbury Report developed the ‘comply or explain’ procedure, whereby listed companies would either

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57 ibid para 1.10.
comply with the voluntary Code of Best Practice, or have to explain any departures from it. The Cadbury approach of ‘voluntarism’ to corporate regulation has become an enduring legacy of corporate governance both in England, and abroad. The Cadbury Report became the springboard for other international corporate governance initiatives such as the 1999 OECD Principles of Corporate Governance.\(^5^8\) It is important to note that the Committee on the Financial Aspects of Corporate Governance was a private-sector initiative, established by non-governmental agencies such as the Financial Reporting Council, the London Stock Exchange and the accountancy profession. It was motivated by the growing mistrust of corporate reporting and governance in the aftermath of the disappearance of pension fund manager Robert Maxwell, and the collapse of the Polly Peck and the Bank of Credit and Commerce International groups of companies.\(^5^9\) Jones and Pollitt note that the Cadbury Report was an effort to stave off government intervention in corporate affairs through legislation.\(^6^0\) Andreadakis posits that non-binding codes of conduct constitute the ‘most liberal version of regulation after complete deregulation’.\(^6^1\)

The Cadbury Report clearly places shareholders at the heart of corporate governance, referring to shareholders as the owners of the company,\(^6^2\) responsible for making directors act in their interests.\(^6^3\) The Report takes on the agency view of companies, stating ‘The issue for corporate governance is how to strengthen the accountability of


\(^{60}\) Jones and Pollitt (n 58) 169.


\(^{62}\) Report (n 56) para 6.1. As a result of the financial crisis in 2008, the Prime Minister requested a review of corporate governance of UK banks and financial institutions, which led to the Walker Report in 2009. Although this review only applied to these types of entities, it also refers to shareholders as owners of the company. ‘A Review of Corporate Governance in UK Banks and Other Financial Industry Entities’ (26 November 2009), 12.

\(^{63}\) ibid para 6.6.
boards of directors to shareholders’. Other stakeholders are not mentioned in the report at all. The Combined Code of Corporate Governance firmly entrenches the ‘comply or explain’ approach first advocated by the Cadbury Report. It also puts shareholders at the centre of corporate governance, describing them as owners of the company. The main principle of the Code states that directors are responsible for the success of ‘the company’ and to meet the interests of shareholders ‘and others’. It is not until 2008 that language that described shareholders as owners of the company was dropped from the Code. In the 2010 version of the Code, the language of long-term success of the company is adopted, perhaps in response to the CLRSG reports and Companies Act 2006.

The Greenbury Review in 1995 looked at remuneration of directors, and again focused on interests of shareholders. The 1998 Hampel Review was prepared in order to review the efficacy of both the Cadbury and Greenbury Reviews. The Hampel Review, however, focused on both corporate accountability and business prosperity. Although the Hampel Review does mention that stakeholders, who have a relevant interest in the company, should be taken into account, the focus of directors’ duties, according to this report, is again on the shareholders, both present and future, and to long-term shareholder value.

As in Cadbury, the Hampel Report focused on the need to restrict regulatory interference with companies. In 1999 the Institute of Chartered Accountants published the Turnbull Guidance to Directors on Certain Aspects of the Combined Code of Corporate Governance. The Turnbull Guidance highlighted the need to safeguard both shareholders’ investments and the assets of the company, reflecting the shareholder

64 ibid para 6.1.
70 ibid para 1.3.
71 ibid para 1.18.
wealth maximisation approach. Until 1999, the private-industry motivated reports, Codes and Guidance all placed shareholders at the heart of corporate governance as the primary, and in most cases only, constituent, in whose interests directors should labour. They firmly reflect the shareholder primacy view of the company.

In 2002, the Government commissioned Derek Higgs to review the role and effectiveness of non-executive directors as a result of chronic corporate underperformance from 2000-2002. The Higgs Report does not mention shareholders as owners of the company, but refers instead to the obligation of directors to act in the interests of ‘the company’ and to promote its success. Despite this more subtle approach, Armour, Deakin and Konzelmann note that the Higgs Review has a shareholder primacy philosophy.

The 2016 edition of the UK Corporate Governance Code released by the Financial Reporting Council describes the goal of the company as being sustainable success of the entity over the longer term. The Code describes the directors as being primarily accountable to shareholders, who are also described as the main focus of the Code. However, the Code does recognize that other non-shareholder constituents do make contributions to the company, and that directors are encouraged to recognize their contributions and listen to their views, provided they are relevant to the overall approach to governance. The Code refers to directors working for the best interests of the company, but is largely shareholder-centric, with some acknowledgement paid to other constituents.

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74 ‘Review of the Role and Effectiveness of Non-executive Directors’ (January 2003), 5 and 6, Principle A1 and A.3.3.
76 The UK Corporate Governance Code (April 2016) Principle 1, para 4.
77 ibid para 9.
78 ibid.
The Takeover Code (or City Code on Takeovers and Mergers) was first published as a non-binding code of conduct regulating takeovers in 1968, and is administered by an independent body, The Panel on Takeovers and Mergers. It has since developed into a binding instrument regulated by Part 28 of the Companies Act 2006. The Takeover Code consists of a set of general principles and rules to ensure fairness and coherence in takeover situations. General Principle 3 and Rule 21 of the Code prevent unilateral or defensive action by a company’s board when subject to an actual or imminent takeover bid.\textsuperscript{79} Often known as the ‘non-frustration’ principle, directors are prohibited from frustrating a takeover without the approval of the shareholders. Kershaw has noted that the non-frustration principle has ‘considerable support’ in the UK, and is consistent with a strong shareholder rights approach in the jurisdiction.\textsuperscript{80} Compared to the US where powers to prevent a takeover are often granted to directors, Black and Coffee have noted that the limited defensive powers granted to directors in the UK may reflect weaker directorial powers in the British system.\textsuperscript{81}

It is clear from these reports, Codes and Guidance that private industry certainly advocated for, and believed the law reflected, the shareholder primacy norm. In the case of the Takeover Code, strong powers are granted to shareholders in takeover situations. This may result from the mistaken assumption by the business community that the law required directors to pay attention to shareholders’ interests. It may also reflect a co-option by the business community of the shareholder wealth maximisation norm, and the contractarian analysis of companies. These reports certainly reflect the agency view of company law that focuses only on shareholders and ‘ex post director opportunism’,\textsuperscript{82} and not on non-shareholder constituents. However, one of the most important reviews of company law in the UK took place from 1999-2001, and led to changes in the Companies


Act. In contrast to previous corporate governance reports, the Company Law Review Steering Group reports acknowledge the issue of stakeholders, and set out the enlightened shareholder value approach to company law.

3.4 Company Law Review Steering Group Reports

Historically, English Companies Acts have provided scant legislative guidance to directors on how they should perform their duties. Section 172 of the Companies Act 2006 took a directional shift in this regard, providing a much fuller list of objectives that directors are now required to take into account, and encapsulated what the Company Law Review Steering Group (CLRSG) determined was the enlightened shareholder value approach. Academics are split, however, as to whether this new legislative approach provides for a new stakeholder approach to managing companies, or whether s172 further entrenches the shareholder value approach. Section 172 now does explicitly mention the environment as a stakeholder for the first time in English company law, and required the reporting of some environmental information under s417, but it is debatable whether this statutory change will have any real impact on environmental concerns.

The Labour Government, through the Department of Trade and Industry, established the CLRSG in 1998 to consider reforms to the existing Companies Act. A comprehensive review of company law of this kind had not taken place for over forty years. As part of its review, the CLRSG produced four major strategy documents, and provided what it considered to be the role of companies. It stated that the role of companies was to facilitate the operation of market forces through contractual and other relationships, although in cases of market failure, the CLRSG acknowledged that other interventions

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83 This business review obligation in s417 was replaced by The Companies Act 2006 (Strategic Report and Directors’ Report) Regulations 2013 with new strategic review obligations in s414.

would be justified.\textsuperscript{85} According to the CLRSG, the objective of the reform of the Act was to achieve competitiveness and the efficient creation of wealth and other benefits from the corporate enterprise.\textsuperscript{86} As a result, the primary objective of the review, and consequently any changes to company law, would be designed to extract as much value from the company as possible in order to increase national competitiveness. In addition, the aim of the reform would also be ‘to minimize the negative impacts of corporate activity on participants and to maximize welfare more widely.’\textsuperscript{87} The latter objective points to a welfarist objective of companies, but was qualified in that the CLRSG stated it only applied to the extent it was appropriate to use the mechanics of company law to achieve these aims.\textsuperscript{88}

The CLRSG considered two approaches to describe what the objective of companies should be: the enlightened shareholder value approach (or ESV), and the pluralist approach. The ESV approach was described as the approach that is currently enshrined in English law, that the role of companies was to generate maximum value for shareholders, as this approach was often the best means of providing for overall prosperity and wealth.\textsuperscript{89} The CLRSG considered that the pluralist approach would distract directors by forcing them to manage competing considerations at the expense of economic growth and international competitiveness.\textsuperscript{90} The pluralist approach to company law reform was thusly discarded.

The CLRSG adopted the ESV approach to the reform of the Act, as they considered this approach to be consistent with the ultimate objective of companies. The reports clearly state that existing English law reflects shareholder wealth maximisation,\textsuperscript{91} and that the company is to be run for the benefit of its shareholders.\textsuperscript{92} The reports describe the

\textsuperscript{85} CLRSG, \textit{Modern Company Law for a Competitive Economy: The Strategic Framework}, 15.
\textsuperscript{86} ibid 36.
\textsuperscript{87} ibid
\textsuperscript{88} ibid
\textsuperscript{89} ibid 37.
\textsuperscript{90} ibid 44.
\textsuperscript{91} ibid 37, 38.
\textsuperscript{92} CLRSG, \textit{Developing the Framework} (n 84) 9.
company in contractual terms, reflecting the contractarian approach, stating that companies ‘can be viewed largely as contractual entities, created and controlled under agreements entered into by members and directors.’\textsuperscript{93} However, unlike the strong form of contractarianism, the review notes that there may be room for regulation in order to secure wider interests.\textsuperscript{94} The CLRSG reports do take a largely economic, and even contractarian view of the company.\textsuperscript{95}

However, according to the CLRSG, the position of English law on directors’ duties is misunderstood. The CLRSG determined that directors understood that the law required them to adopt a short-term focus on profits in order to satisfy their shareholders, but this was not what the law required.\textsuperscript{96} This failure by directors to adopt a long-term approach to a company’s success suggested to the CLRSG that there was a strong case for making the current law more explicit in the new section 172,\textsuperscript{97} by providing for a long-term vision that would necessitate the taking into account of wider interests.\textsuperscript{98} The reports stated that the vast majority of responses they received favoured keeping the basic rule that directors act for the benefit of shareholders, i.e. shareholder primacy, but also supported a more ‘inclusive’ way of accomplishing this goal.\textsuperscript{99} In short, although the overall objective of the company should be pluralist in ensuring maximum welfare for all, the means of achieving this should recognize the realities of running a corporate enterprise.\textsuperscript{100} While these statements appear to be contradictory, the overall consensus of the CLRSG is that companies are to be run for the primary benefit of the shareholders. The restatement of directors’ duties advocated by the CLRSG was taken to depend on two pillars:

\begin{flushright}
\textsuperscript{93} ibid 10.
\textsuperscript{94} ibid 10.
\textsuperscript{95} CLRSG, \textit{The Strategic Framework} (n 84) 15; Sarah Worthington, ‘Reforming Directors Duties’ (2001) 64(3) MLR 439, 443 and 447.
\textsuperscript{96} CLRSG, \textit{Developing the Framework} (n 84) 40.
\textsuperscript{97} ibid 40.
\textsuperscript{98} ibid 49.
\textsuperscript{99} ibid 10.
\textsuperscript{100} ibid 14.
\end{flushright}
1.) an ‘inclusive’ statement of directors’ duties that restates their legal position that the company should be operated in the ultimate interests of its members, but that also takes into account wider relationships; and

2.) a new mandatory operating and financial review (OFR) for all public and large private companies that would include social and environmental impacts.\textsuperscript{101}

The CLRSG’s reports led to a number of changes in company law, ultimately codified in a new Companies Act 2006. In relation to the corporate objective, s172 of the Companies Act 2006 sets out the enlightened shareholder value approach.

3.5 The Companies Act 2006 and Environmental Concerns

It is noteworthy that the primary duty in s172(1) is to promote the success of the company for the benefit of its members, followed by a non-exhaustive, more inclusive list of non-shareholder constituents and considerations in s172(1)(a)-(f). Under s172(d) directors must have regard to the impact of the company’s operations on the community and the environment. This is the first time environmental concerns have appeared in statutory form under English company law. It would appear that the success of companies is to be achieved primarily for the benefit of shareholders, in priority to the interests of non-shareholders such as the environment. However, an outstanding issue debated by academics was whether the interest of non-shareholders would be considered as independent priorities (more in line with the pluralist approach), or whether non-shareholder interests could only be considered where they are consistent with the success of the company and the members’ interests. But what effect, if any, does the new s172 have on the environment? Are environmental concerns now allowed to trump the concerns of shareholders?

The CLRSG reports set out an actual hierarchy that directors are to consider as follows:

1.) Obeying the corporate constitution;

\textsuperscript{101} CLRSG, \textit{Completing the Structure} (n 84) 33.
2.) Promoting what directors calculate (in good faith) would promote the success of the company for the members’ benefit;

3.) As part of the process in 2), directors should take account of factors they believe (in good faith) are relevant for the purpose in 2).\textsuperscript{102}

According to this hierarchy, it is clear that shareholder interests are meant to predominate over environmental concerns. A number of writers note that s172 only requires directors to consider non-shareholder interests when pursuit of those interests would promote the success of the company.\textsuperscript{103} For the first time, s172(1) lists shareholder benefits as part of the definition of the success of the company. As stated above, shareholder concerns under the pre-2006 common law were not necessarily automatically equated with the interests of the company as a whole. However, s172 has removed the old statutory language, and replaced it with the obligation to promote the success of the company, with an explicit reference to shareholders. Alcock argues that the new Companies Act now focuses on shareholder supremacy, and, should directors pay too much attention to the other constituencies listed to the detriment of the company, they may be in breach of their duties of reasonable care, skill and diligence.\textsuperscript{104} Keay argues that the new s172 actually shifts the focus from the company as an entity to the shareholders.\textsuperscript{105} As a result, directors can take into account non-shareholder interests when they serve the economic interests of the company and shareholders. When this is not the case, directors may be free to disregard non-shareholder interests, and instead pursue matters that promote the success of the company.\textsuperscript{106} As a result, environmental concerns may not be prioritized over shareholder concerns if they do not promote the success of the company and the shareholders.

\textsuperscript{102} ibid 40.


\textsuperscript{104} Alcock, (n 50) 9.

\textsuperscript{105} Keay (n 55) 22.

\textsuperscript{106} Success was deemed to be the core objective of s172, although the CLRSG left the definition of success up to directors. See CLRSG, Completing the Structure (n 84) 39.
If success is equated with profit, is there a difference between ESV and shareholder wealth maximisation at all? Zhang and Keay note that the CLRSG advocated for a shareholder value approach to company law, but in fact wanted to change the definition of shareholder value by making it ‘enlightened’. The enlightened element of shareholder value, according to Zhang and Keay, was what they deemed the ‘principle of due consideration for the interests of non-shareholder stakeholders’. This meant that directors should have due consideration for non-shareholder interests while working towards shareholder wealth maximisation. However shareholder wealth maximisation and non-shareholder interests are not always compatible. Although Margaret Hodge couches the two sets of interests as complementary, Bradshaw notes it is dangerous to assume a ‘ready compatibility’ between shareholder and non-shareholder interests. Where environmental concerns reap profits for companies, then an easy compatibility between s172(1) and (1)(d) can be achieved. In the Hansard debates regarding the Bill, it was this compatibility that the then Attorney General Lord Goldsmith stressed. According to Lord Goldsmith, the government’s view was that the best way to promote environmentally and socially responsible conduct by companies was to demonstrate how this behavior can lead to business success. There may, of course, be times when environmental interests and shareholder interests coincide. In the case of climate change, however, reducing the emission of greenhouse gases is often incompatible with increasing profits, as these emissions are currently not restricted or taxed. Lord Avebury, in the Hansard debates, pointed out this very issue, using the example of carbon emissions. He stated:

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107 Zhang and Keay (n 82) 451.
108 ibid 446.
110 Margaret Hodge, ‘Companies Act 2006, Duties of Company Directors, Ministerial Statements, Department of Trade and Industry’ (June 2007), 2.
In many, if not most, cases, the success of the company is dependent on its ability to continue damaging the environment, and within a fairly distant time horizon, making large parts of the globe uninhabitable. The airlines, for example, are spewing enormous amounts of CO$_2$ and low molecular weight hydrocarbons into the upper atmosphere, contributing to a rise in temperature which is likely to result in the melting of polar icecaps and the raising of sea levels by 18 metres. How do British Airways, for instance, “have regard to” this undesirable side-effect of their normal business?\textsuperscript{113}

Lord Avebury advocated for s172 of the Bill to include minimum environmental standards, as opposed to leaving companies’ conduct subject to only voluntary codes of conduct.\textsuperscript{114} Lord Goldsmith’s response to this suggestion was to confirm that including minimum environmental standards in s172 would reflect the pluralist approach to company law, which was rejected by the CLRSG. According to Lord Goldsmith’s response, environmentally responsible conduct would have to be subordinate to, or simply a means of achieving, shareholder value.\textsuperscript{115} One of the three reasons given for the subordination of environmental concerns to shareholder interests was that company law was not considered by the government as the appropriate forum to pursue corporate social responsibility.\textsuperscript{116}

As a result, where environmental and shareholder interests collide, and there is no economic case for ‘inclusive ESV’, s172 requires that shareholder interests predominate.\textsuperscript{117} As a result, ESV only appears to be ‘enlightened’ when the interests of the environment coincide with the profit motive of shareholders. In other words, ESV is enlightened when environmental interests conveniently fall in line with shareholder wealth maximisation. When these interests do not align, ESV appears to reflect the

\begin{enumerate}
\item ibid Col GC266.
\item ibid Col GC267.
\item ibid Col GC273.
\item ibid.
\item Luca Cerioni, ‘The Success of the Company in s172(1) of the UK Companies Act 2006: Towards an “Enlightened Director Primacy?”’ (2008) 4 Original L Rev 8, 16.
\end{enumerate}
predominant shareholder primacy and shareholder wealth maximisation norms. Bradshaw notes that, through s172, environmental interests are reduced to purely economic denominators. She also notes that ESV does not sanction profit-sacrificing behavior on behalf of the environment, and therefore it does not provide a sufficiently direct means to mediate negative environmental externalities. Villiers notes that s172 has no enforcement mechanisms for non-shareholders, and so environmental groups would have to either buy shares in the company in order to bring a derivative action, or rely on existing shareholders to bring a derivative action for breach of directors duties. Ajibo and Langford also point to the lack of enforcement options for stakeholders within s172 as a deficiency in the Act. Keay and Welsh note that many obstacles may bar suits against the company, including that the directors are the wrongdoers and still in control, as well as costs, leading to very few derivative actions being initiated. Keay concludes that this ‘enforcement problem’ with s172 contributes to the provision being ‘largely educational’. Villiers also notes that s172 may now make all stakeholders, including shareholders, worse off as shareholders now have to compete with other constituents’ views. Langford concludes that s172 only contemplates pluralist balancing of interests subject to the ‘overarching requirement to promote success of the company for the benefit of the members as a whole as the final determining issue’. Any other approach would, in her view, be unworkable, and would require a ‘deeper revision’ of company law to effect such stakeholder promotion and protection.

118 Bradshaw (n 111) 142.
119 ibid 156-157.
120 Villiers (n 54) 8.
125 Villiers (n 54) 8.
126 Langford (n 122) 526.
127 ibid.
Other academics have been more positive about the change to the statutory provisions on directors’ duties. Lowry argues that the change in section 172 is modest, largely normative, and would only take effect through increased disclosure obligations in the then proposed Operating and Financial Review requirement in section 417. In his view, the statute does modify the obligation of good faith in that it will now include the failure to consider the factors listed in section 172(1). Fisher argues that, although section 172 will not force directors to consider the interests of third parties, it must be seen as a largely normative measure that, when combined with stakeholder pressure, the prevailing commercial climate, and a few enlightened shareholders, will encourage a more inclusive and longer-term view of what constitutes the success of the company. He couches ESV as a ‘hybrid’ between shareholder wealth maximisation and stakeholderism. Kiarie also notes that ESV could be seen as a ‘third way’ compromise between shareholder value and the stakeholder model, as do Williams and Conley, but mainly based on the Operating and Financial Review (or OFR) provisions that were subsequently removed from the Bill.

It is clear that for the first time directors have a statutory obligation to ‘have regard to’ the impact of the company’s operations on both the community and the environment. ‘Have regard to’ is not intended to constitute merely a tick-box exercise on behalf of directors. The new provisions of s172(1)(d) do mean that directors must now consider or think about the impact the company’s operations may have on the community and the environment. Reisberg and Havercroft conclude that if those impacts are sufficiently serious, and those impacts lead directors to the conclusion that ‘the proper course is to

128 Lowry (n 103) 618-621.
129 ibid 622.
131 ibid 1.
133 Williams and Conley (n 132) 496.
do something positive for the environment’, then directors will have a new duty to act on behalf of the environment. But ‘have regard to’ does not mean ‘give primacy to’, leading Clifford Chance to conclude that some degree of legal or reputational damage may be acceptable if the long-term value of the company will increase as a result. This could include not acting to mitigate greenhouse gases, particularly if no legal requirement or financial penalty exists to decrease them. Villiers concludes that acting on behalf of the environment is only justifiable under s172(1)(d) if it increases the long-term profitability of the company. Therefore, when environmental interests and long-term shareholders’ interests collide, s172(1)(d) would not support profit-sacrificing behavior on behalf of the environment.

Reisberg and Havercroft identify further issues with s172(1)(d), in that the term ‘environment’ is vague and almost incapable of a single definition. They also note that this provision links both the environment together with the community, and therefore it is not clear whether environmental considerations stand alone in directorial decisions, or whether impacts have to be on both the environment and the community in order to be considered. In addition, s417 of the Act required directors to disclose certain information, including environmental information under s417(5)(b)(i), to shareholders. The provision was designed to work together with s172 in order to ensure the ‘enlightened’ part of ESV. Reisberg and Havercroft note some inconsistencies between s172 and s417(5)(b)(i). While s172(1)(d) links the environment together with the community, s417(b) only mentioned ‘environmental matters’ on its own. In addition, while s172(1)(d) refers to the ‘impact’ of the company’s operation on the environment,

136 Villiers (n 54) 8.
137 Reisberg and Havercroft (n 134) 20.
138 Ibid 29.
139 Now largely replaced by s414.
140 Ibid 29.
s417(d) referred instead to ‘environmental matters’ (including the impact of the company’s business on the environment), which is arguably a wider consideration.

On 11th January 2006, Friends of the Earth launched a judicial review of the then government’s decision to remove the OFR’s requirements under s417 and replace it with the business review provisions. The judicial review was subsequently withdrawn, but the removal of the OFR drew criticism from many stakeholders, including environmental NGOs. Friends of the Earth was critical about the replacement of the OFR with the Business Review in s417. They point to a number of deficiencies when the two are compared. These included the facts that the Business Review had a lower level of audit than the OFR, had no mandatory reporting standards and focused only on the impact of environmental issues on the company, and lacked a forward-looking approach. The lack of forward-looking disclosure requirements is particularly detrimental in the case of climate change, the effects of which are anticipated to be largely in the future. If a company has no anticipated future emissions levels or reductions of greenhouse gases, it will be difficult to anticipate its contributions to, and therefore the full effects of, climate change. Villiers notes that companies already struggle with non-financial performance reporting, and often connect non-financial reporting automatically to profits. Reisberg and Havercroft also point to the deficiencies of s417 in terms of environmental reporting, noting that the lack of clear guidelines on reporting or uniform standards, and lack of guidance on the meaning of ‘impact’ on the environment, meant that s417 failed to make environmental reporting by companies more effective.

The Corporate Responsibility Coalition (or CORE) in the UK is made up of a number of environmental and social NGOs, including Amnesty International, Action Aid, Friends of

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143 Friends of the Earth Judicial Review (n 141) para 50.
144 Villiers (n 54) 24.
145 Reisberg and Havercroft (n 134) 39.
the Earth, Traidcraft, War on Want, and the World Wildlife Fund, and was one of the stakeholders consulted by government on the OFR requirements. CORE issued a report in 2010 analysing the effectiveness to date of s417 on company’s reports, comparing Business Reviews of 105 companies.\textsuperscript{146} Their analysis revealed a number of deficiencies of the Business Reviews published when compared to the statutory requirements, and concluded that, overall, the level of disclosures were inadequate. In respect of climate change, the report did find that CO\textsubscript{2} emissions were one of the best-reported issues, but detailed quantitative information on CO\textsubscript{2} emissions was reported by fewer than 50% of the companies analysed.\textsuperscript{147} The report states, ‘even where quantitative information was reported, there was rarely any description or detailed specifications of the indicators used, such as that the Greenhouse Gas Protocol was used for measuring greenhouse gases’.\textsuperscript{148} This supports the conclusion that a lack of mandatory reporting standards in s417 has resulted in companies’ not releasing detailed quantitative analyses of their CO\textsubscript{2} emissions. Interestingly, the report also concludes that, although CO\textsubscript{2} emissions were reported, there was almost no analysis by the companies reports reviewed on the sensitivities of the companies to climate change itself.\textsuperscript{149} This report indicates that s417 has done little to improve environmental reporting by companies. In 2013, new regulations replaced the business review with a strategic reporting requirement.\textsuperscript{150} The purpose of the strategic report was to explain how directors have discharged their duties under s172. The report must describe principal risks and uncertainties facing the company, and quoted companies have to report on the company’s performance and position regarding environmental matters, as well as new disclosure requirements on GHG emissions and methodologies not previously required under the business review. The Department for Business, Energy and Industrial Strategy issued a green paper at the


\textsuperscript{147} ibid 8-9.

\textsuperscript{148} ibid 6.

\textsuperscript{149} ibid 8-9.

end of 2016, soliciting views on a number of corporate governance issues, including stronger reporting requirements under s172.\textsuperscript{151} The report notes that the lack of details on how directors actually perform their duties under this section has led to a lack of ‘clear and transparent’ information about corporate actions to fulfill their s172 duties.\textsuperscript{152} The full impacts, however, of s172 and s414 will only be understood as a result of subsequent cases that interpret these provisions.

3.6 Post-2006 Caselaw

There has been very little caselaw on s172, and therefore the full effects of the new statutory provision may not be clear for some time. The few cases since the new statutory provisions have been enacted have provided very little guidance to directors. In \textit{Re Southern Countries Fresh Food Ltd},\textsuperscript{153} the court stated that the old statutory wording of ‘bona fide in the interests of the company’ is now reflected in the wording ‘in good faith in a way most likely to promote the success of the company for the benefit of the members as a whole’, thus arguing there has been little change in the law. A number of other cases intimate that s172 has done little but codify the previous common law.\textsuperscript{154} In \textit{Re Phoenix Contracts (Leicester)},\textsuperscript{155} the court stated that what promotes the success of the company is for the director’s subjective determination, referring back to the test in \textit{Re Smith and Fawcett}. In \textit{Odyssey Entertainment Ltd. v Ralph Kamp},\textsuperscript{156} Judge Barker QC noted that s172(1) identifies a number of matters that must be taken account of when directors determine what is most likely to promote the success of the company for the benefit of the members as a whole. In \textit{GHLM Trading Ltd v Anil Kumar Maroo & Others},\textsuperscript{157}
s172 was described as the ‘touchstone’ provision, requiring the directors to act in good faith in the company’s interest. In this case, the change ushered in by s172 was described as making the duty to promote the success of the company ‘prescriptive’,\(^\text{158}\) as opposed to the previous ‘proscriptive’ approach in the common law. To date Judge Pelling QC in *Stimpson v Southern Landlord Association*\(^\text{159}\) has provided the most guidance on the judicial understanding of s172. He states that directors can act in any way they consider, in good faith, to be most likely to promote the success of the company, but where the company has mixed objectives, the interests of the members cannot be ignored. In circumstances of conflict between promoting the success of the company and benefiting the members, he states that a balancing exercise will be required.\(^\text{160}\) His approach has been supported by Justice Popplewell in *Madoff Securities International Ltd (in liquidation) v Stephen Raven & Others*,\(^\text{161}\) who stated that ‘the predominant interests to which the directors of a solvent company must have regard are the interests of the shareholders as a whole, present and future’, which he stated was codified by s172.\(^\text{162}\)

One of the most interesting cases relating to s172 and climate change is *The Queen on the Application of the People and the Planet v HM Treasury*.\(^\text{163}\) HM Treasury became a majority shareholder in Royal Bank of Scotland (RBS) through a subsidiary of HM Treasury, UK Financial Investment Ltd (UKFI). An application for judicial review was brought by an NGO to review HM Treasury’s decision not to require RBS to change its usual business practices in order to reduce its carbon emissions and be more respectful of human rights. The Government, having undergone a Green Book Assessment of its investment, determined that UKFI was to take a commercial, hands-off approach as majority shareholder. According to HM Treasury, to take a more interventionist approach would threaten the financial health of RBS, damage investor confidence, and risk the commercial

\(^{158}\) ibid para 193.
\(^{159}\) [2010] BCC 387
\(^{160}\) ibid 399.
\(^{161}\) [2013] EWHC 3147.
\(^{162}\) ibid para 187.
\(^{163}\) [2009] EWHC 3020.
freedom of the bank.\textsuperscript{164} In addition, HM Treasury believed that regulation would be a better approach to target the entire banking industry, instead of just RBS. HM Treasury believed that to take a more interventionist approach would ‘cut across the fundamental legal duty of boards to manage their company in the interests of all their shareholders’,\textsuperscript{165} and violate their duties under s172. HM Treasury took the view that any more of an activist role by UKFI would ‘cut across’ the legal obligations of s172, intimating that any further activity on behalf of non-shareholder constituents such as the environment would in fact violate s172. As a result, the Government, in particular through the HM Treasury, and the court in this instance, took a conservative view of the requirements of s172, preferring competition and profitability to environmental activism on the part of a majority shareholder.

\textbf{3.7 Conclusion}

Most academics believe that s172 will have merely a modest, normative at best, impact on directors’ duties. While the language of the statute appears to include non-shareholder constituents, including the environment, the substantive provisions appear to only require that directors act upon environmental interests when those interests are consistent with the long-term profitability of the company and shareholders. Stakeholders are excluded in s172 in both the goals of the company and any right to enforce the provision.\textsuperscript{166} As such, it would appear that post-2006 company law has done little to promote a broader stakeholder view of the company, and has allowed directors to continue to focus primarily on the interests of their shareholders. Even though shareholder primacy may not have been a firm legal mandate of directors in the old common law approach, directors have continued to focus on shareholder interests as their primary concern. This may be due to the influence of corporate codes of conduct, which advocate shareholder primacy, as well as market forces that have created the

\textsuperscript{164} ibid para 13.
\textsuperscript{165} ibid para 13.
\textsuperscript{166} Bradshaw (n 111) 154.
perception that shareholder primacy is a legal requirement for directors.  

Prior to 2006, however, the company was seen by some as a more malleable entity, subject to market forces, myths, codes, theories, and the greater flexibility afforded by company common law. Post-2006, the position of company law is less flexible when it comes to directors’ duties. Directors now have a statutory requirement to act in the best interests of the company and the shareholders. While directors should also pay heed to the interests of other stakeholders such as the environment, their duties to the shareholders stand, in priority it seems, to the interests of any other stakeholders. As a result, if acting on environmental concerns such as climate change runs counter to the profitability motive of shareholders, directors will not be obliged to reduce greenhouse gas emissions.

A potentially helpful aspect to the new s172 is the focus on the long-term success of the company in s172(1)(a). This was specifically inserted in order to mitigate what the CLRSG determined was a myopic focus on short-term profitability. This may be helpful from the environmental perspective, particularly in relation to climate change as greenhouse gases remain in the atmosphere for long periods of time. If one adopts an entity approach to the company, and given that companies potentially have a perpetual existence, long-term profitability could potentially extend beyond the lifetimes of both shareholders and directors. However, the time periods over which climate change is usually measured and predicted extend hundreds of years into the future, and it is questionable whether directors today will either be able or willing to consider effects so far removed from the pressures of quarterly profit reporting. In addition, as Keay has noted, a number of shareholder primacists already emphasize the long-term requirements of management.


170 Keay (n 55) 39.
It is clear from English statutes and common law that shareholders hold a privileged place within the company. They can appoint and remove directors, bring derivative actions on behalf of the company, and have the right to attend and vote at AGMs. They also receive the directors’ and auditors’ reports and have rights in takeover situations. Under s172, directors owe duties to promote not only the success of the company, but duties to benefit the members as well, and some English cases have interpreted the company as a whole to mean nothing more than its shareholders. Does this mean that directors must run the company exclusively for the benefit of shareholders? According to the CLRSG, it does. In the Developing the Framework document, the CLRSG states that directors must run the company for the benefit of the members, as shareholders have been given the power to hold directors to account. Although the shareholder primacy norm had not previously been uniformly accepted by English courts, it has now clear that under s172 of the Companies Act 2006, through the ‘enlightened shareholder value’ concept, environmental concerns cannot take priority over long-term shareholder interests. The shareholder primacy approach privileges shareholders’ interests to the exclusion of all others, and assumes that wealth maximisation is the singular objective of shareholders. This provides for a rather simplistic explanation of a complex and powerful institution that is the company. More importantly for this study, it provides little room within company law to deal with environmental concerns and externalities such as greenhouse gases, unless these interests coincide with the long-term success of the company. The shareholder primacy norm pushes externalities outside of company law, to be dealt with by voluntary codes of conduct or environmental regulation. English corporate regulatory choices have been directed and informed by the shareholder primacy norm, and the company law reform exercise in 2006 did not consider company law as the appropriate forum to deal with environmental issues. Environmental concerns are then pushed by company law into the realm of voluntary codes of conduct,

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171 s160 and 168 Companies Act 2006.
172 ibid s260.
173 ibid s306-307, s318, s320 (s336-339 for public companies).
174 ibid s417, s423 (s437 for public companies), s495; UK Takeover Code (n 79) Rule 21.
175 CLRSG, Developing the Framework (n 84) para 2.7.
environmental regulation or non-regulatory mechanisms such as market mechanisms. These mechanisms may currently be inadequate to force or even encourage companies to reduce their emissions. Chapter Four will examine the adequacy of non-corporate regulation, and non-regulatory mechanisms such as market mechanisms, to temper the shareholder primacy theory and, as a result, corporate greenhouse gas emissions.
4. Chapter Four – Analysis of Non-Company Law Mechanisms

4.1 Introduction

The purpose of Chapter 4 is to test non-company law mechanisms in order to determine what these various mechanisms require of companies, whether these requirements are enforceable, whether there is compliance with them, and whether these requirements are sufficient to adequately address corporate emissions. The focus will be on mitigation requirements for companies to substantially reduce or eliminate greenhouse gases. To this effect, a variety of key environmental, energy, and climate change mechanisms will be analysed, to determine whether they appropriately address greenhouse gas reductions. These mechanisms will include both formal (regulation and policy) and informal mechanisms (such as market mechanisms and CSR), using a fairly narrow, state-centric approach to regulation. Formal mechanisms will include state-based regulation and policy in the environmental, energy and climate change areas, such as multilateral environmental agreements (MEAs) and Parliamentary Acts. Informal mechanisms will include both state-imposed mechanisms, including market mechanisms such as the EU ETS, and mechanisms that have been voluntarily adopted by companies, such as codes of practice. As Chapters 2 and 3 conclude that the internal regulatory norms of companies and English company law are currently inadequate to satisfactorily address GHG emissions as a result of the influence of the shareholder primacy norm, this chapter will continue the analysis of whether other international, EU and UK mechanisms provide an adversarial and effective response to the ineffectiveness of internal company norms and English company law.

Chapter 4 will also include case study analyses of five energy companies (BP Plc, Royal Dutch Shell Plc, BG Group Plc, National Grid Plc and Centrica Plc), and their application and compliance with the mechanisms explored. This analysis will not be presented in a discrete section of the Chapter, but will be woven into the analysis of the mechanisms. The purpose of the case studies is to test the effectiveness of these regulatory
approaches, and to evaluate the effectiveness and possible limitations of the mechanisms by analysing how they are employed by these companies. All of these companies conduct at least some of their operations in the UK. While many of the companies explored also have subsidiaries all over the world, their parent company is registered in the UK, and their ‘carbon policies’ (meaning their GHG emissions reporting and policies to deal with those emissions) are coordinated at the group level. They are also all ‘carbon major’ entities in that their core operations include oil and/or gas exploration, production and/or distribution. The impact and implementation by these five companies of the formal and informal mechanisms selected will be analysed throughout the chapter. Chapter 4 will pave the way for the analysis of decentred regulation made in Chapter 5.

Currently, the world is not on track to meet the global goal to keep temperature increases well below 2°C, and current estimates, taking into account the Paris pledges, anticipate a 3.4°C rise. Meeting the global temperature goal means that net global emissions will have to approach zero by the second half of this century. Meeting the 2°C global goal will necessitate steep declines in the carbon intensity of all sectors, including the energy sector. While it is still possible to reach the 2°C global goal, the window is ‘closing fast’ in order to do so. The IEA estimates that global emissions should peak in 2020, which means ending coal and oil use within the next five years. Transition to low to zero carbon sources in the energy sector is a critical piece of the global response to climate change, as two thirds of all anthropogenic GHG emissions result from the energy sector. Power must be almost exclusively from zero or low carbon sources in all countries in order to

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3 ibid iii.
4 ibid ix.
6 IDDRI and SDS (n 2) x; OECD/IEA, ‘Energy and Climate Change’ 2015 (n 5) 3.
7 OCED/IEA, ‘Energy and Climate Change’ (n 5) 20.
reach this goal. Business as usual responses or incremental changes from the energy sector will not be sufficient, and therefore an analysis of what a selection of energy companies are actually doing in relation to climate change has important implications for national and global targets.

This chapter will provide an overview of the role of the state in international environmental law-making, an analysis of key MEAs, including international mechanisms on climate change, such as the UNFCCC, the Kyoto Protocol and the Paris Agreement, as well as key EU and domestic climate change and energy mechanisms. This chapter will demonstrate that the only internationally binding agreements that deal with climate change are applicable to states only, and many of the existing obligations are weak. The chapter will analyse states’ roles and obligations under international conventions, and also corporate obligations under both formal and informal mechanisms, and will conclude that no serious regulatory efforts are being made to target corporate emissions.

Domestic legislative initiatives have been complemented by several state-based market mechanisms, the primary one being the EU ETS. The remainder of the chapter will cover informal mechanisms, such as state-based market mechanisms, and purely voluntary corporate social responsibility initiatives. Lack of binding international obligations on companies contributed to the reemergence of the corporate social responsibility movement and voluntary global initiatives such as the United Nations Global Compact, and private initiatives such as the ISO 14000 and the Carbon Disclosure Project. The end result is that all international mechanisms applicable directly to companies in the environmental arena are now voluntary.

The chapter will conclude with an analysis of whether these formal and informal regulatory mechanisms are adequate to ensure that the five energy companies examined reduce their GHG emissions by investigating their levels of compliance with the mechanisms, and the overall effectiveness of these mechanisms.

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8 IDDRI and SDNS (n 2) 35.
9 ibid x.
4.2 Background to Energy Company Case Studies

Five energy companies were reviewed that are all subject to some type of formal or informal regulation in the UK. All of them are incorporated in the UK, and carry out operations both in the UK and around the world. Three companies, BP Plc, Royal Dutch Shell Plc,¹⁰ and BG Group Plc are direct producers and suppliers of fossil fuels to retailers, National Grid is an international electricity and gas company as well as a systems operator, and Centrica Plc is a distributor of fossil fuels through British Gas. The approaches of these companies to climate change are important, not only because they are carbon major emitters and have access to significant amounts of fossil fuel reserves and resources, but also because their activities and existing technologies can shape the approach of regulation to climate change.¹¹ Annual environmental or sustainability reports for each company were examined where they were publicly available. Where available, CDP reports for these companies were also examined together with specific corporate policies, statements or strategy papers on energy outlooks or climate change, as well as external analyses of their climate change activities. For some companies, reports dated back to the 1990s.¹² For other companies, only ten or fewer years of reports were available.¹³

Companies are required to report certain environmental information to shareholders under the strategic report provisions of the Companies Act, in particular s414.¹⁴ These provisions were designed to work in conjunction with s172 of the Companies Act 2006 in order to enshrine the ‘enlightened’ part of the enlightened shareholder value principle.

¹⁰ Royal Dutch Shell Plc’s subsidiaries also operate retail gas stations under the brand ‘Shell’.
¹¹ Catherine Mitchell and Bridget Woodman, ‘Regulation and Sustainable Energy Systems’ in Robert Baldwin, Martin Cave and Martin Lodge (eds), The Oxford Handbook of Regulation (OUP 2010), 582.
¹² For example, Shell had reports on Profits versus Principles dating back to 1998 that looked at corporate environmental issues.
¹³ For example, BG Group only made available reports from 2006-2015. As BG Group was acquired by Royal Dutch Shell in February 2016, the 2015 report (published in 2016) will be its last stand-alone sustainability report.
¹⁴ In addition, The Companies, Partnerships and Groups (Accounts and Non-Financial Reporting) Regulations 2016 transposed the EU Non-Financial Reporting Directive 2014/95/EU, and amended s414CB of the Companies Act, which now requires a non-financial reporting statement that includes environmental matters, as well as principal risks and key performance indicators to measure activity.
The sustainability and environmental reports reviewed for the five energy companies were produced in order to satisfy the Business Review and then Strategic Report provisions of the Companies Act. As Fairfax notes, companies tend to employ stakeholder language because they suspect that simply employing shareholder wealth maximization rhetoric is not sufficient to satisfy public expectations of the role of companies.\(^{15}\) In many instances, these reports were directed at both shareholders and stakeholders alike. These reports, then, perform several functions in the fulfillment of both formal and informal regulatory requirements for companies. They address formal company law requirements and the enlightened shareholder value principle through s414 and 172 of the Companies Act 2006. They also fulfill formal non-company law regulations under s85 Climate Change Act, as well as informal regulatory expectations represented by shareholder and stakeholder theories of companies, and corporate social responsibility mandates. These documents, therefore, represent the culmination of the fulfillment of the entire regulatory package that governs energy companies in relation to climate change. These documents were reviewed in order to determine these companies’ compliance with these various regulatory mechanisms, as well as the general effectiveness of these mechanisms in relation to climate change.

**BP Plc**

BP Plc (originally the Anglo-Persian Oil Company and then British Petroleum) has been operating in the UK from the early 1900s and currently employs over 85,000 people worldwide, mainly in Europe and the US. It is an integrated oil and gas company, which focuses on both upstream (exploration, development and production activities) as well as downstream (transport and trading, manufacture and marketing of fuels, lubricants and petrochemicals) activities.\(^{16}\) Lord John Browne was the Chairman from 1995-2007 and spearheaded the environmental marketing campaign that BP embarked upon in the

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1990s, overseeing the advertising campaign ‘Beyond Petroleum’. Up to the mid-1990s, many of the ‘big carbon’ entities such as utilities, coal and oil and gas companies, denied the science on climate change and opposed government controls on GHG emissions, largely through the Global Climate Coalition.\(^\text{17}\) Lord Browne was the first member of this Coalition to break from this approach in a 1997 speech at Stanford University. Under his leadership, in 1998 the company launched a GHG emission reduction target and an internal carbon-trading scheme. In 2005, the company made a commitment to invest $8 billion in renewable energy by 2015, which was met by 2013. Lord Browne was succeeded as Chairman by Tony Hayward in 2007. Hayward distanced the company from this environmental advertising campaign in order to focus on the core business of oil distribution and extraction, and pursued a short-term, bottom-line approach.\(^\text{18}\) Under his leadership the GHG emissions reduction and the renewable energy investment targets expired, and neither have been renewed.

*Royal Dutch Shell Plc*

Royal Dutch Shell Plc\(^\text{19}\) is the parent of a global group of energy and petrochemical companies that employs over 92,000 people in over 70 countries.\(^\text{20}\) Its business units are divided into three main streams: Upstream operations (International and the Americas), which involve exploration and exploitation of oil and natural gas, including marketing and trading and wind power in the US; Downstream operations, which involve refining, lubricants, petrochemicals, and alternative energy (excluding US wind operations); and

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\(^{18}\) Miriam A Cherry and Judd F Sneirson, ‘Beyond Profit: Rethinking Corporate Social Responsibility and Greenwashing after the BP Oil Disaster’ (2011) 85(4) Tulane Law Review 983, 1009.

\(^{19}\) This parent company was registered in the UK in 2004 and its headquarters are based in The Netherlands. It was formed by combining the original two parent companies of Royal Dutch and Shell Transport and Trading Plc.

finally its Projects and Technology operations.\textsuperscript{21} The company has expanded rapidly into natural gas operations, which now make up one half of Shell’s total global production.\textsuperscript{22}

Shell acknowledges the global challenge that climate change poses, and followed BP Plc by leaving the Global Climate Coalition in 1998.\textsuperscript{23} Shell’s leadership has not been as vocal on its environmental credentials as Lord Browne’s was at BP, perhaps because Shell follows a more collective decision-making process due to its more complex corporate structure.\textsuperscript{24} In the mid-1990s, the company faced strong criticism due to its decision to sink the Brent Spar storage tanker in the North Sea and its operations in Nigeria after the execution of human rights leader Ken Saro-Wiwo; to combat this criticism, the company focused its efforts on CSR initiatives.\textsuperscript{25}

\textit{BG Group Plc}

BG Group Plc is a smaller company, but still considered one of the ‘big six’ oil and gas companies. It employs over 6,000 people worldwide. It is mainly a natural gas company, focused on exploration, production, development, transport, distribution and supply of hydrocarbons. Exploration and production make up the core of its business, and it has production sites in the UK and worldwide. The company’s traditional production sites were located in the UK and Europe, but it has been expanding its operations overseas to explore new shale and coal seam gas fields, particularly in the US and Australia.\textsuperscript{26} As a result, the company is experiencing the heaviest investment period in its history.\textsuperscript{27} The company acknowledges both the risks of climate change to its business operations, and

\begin{itemize}
  \item \textsuperscript{21} ibid 1.
  \item \textsuperscript{23} Ingvild Andressen Sæverud and Jon Birger Skjoerseth, ‘Oil Companies and Climate Change: Inconsistencies between Strategy Formulation and Implementation?’ (2007) 7(3) Global Environmental Politics 42, 49.
  \item \textsuperscript{24} J George Frynas, ‘Royal Dutch/Shell’ (2003) 8(2) New Political Economy 275, 276-7.
  \item \textsuperscript{25} ibid 281-2.
  \item \textsuperscript{26} BG Group ‘Corporate Responsibility Report 2006’ (2006), 1. <http://www.bg-group.com/~/tiles/?tiletype=report&id=440> accessed 1 June 2015. Since its acquisition by Shell, BG Group no longer has its own website, and its reports are not achieved on the Shell website. These links, therefore, refer back to their old website where the reports were housed.
  \item \textsuperscript{27} ibid 3.
\end{itemize}
its direct contributions to climate change. However corporate documents consistently stress the lower carbon emissions of natural gas to coal or oil, and the flexibility of natural gas and LNG as a base load energy supplier to complement the intermittency of renewable energy.\textsuperscript{28} There is no general mention of the carbon intensity required to access shale gas fields, which are extraction areas the company is currently focusing on.

\textit{National Grid Plc}

National Grid is an international electricity and gas company based in the UK and the Northeastern United States. The company employs over 23,000 people\textsuperscript{29} It is also the systems operator of the Great Britain electricity system and its networks distribute gas to over 11 million homes and businesses in the UK. It owns and operates the National Transmission System and therefore has an obligation to plan and develop the system in an economic as well as efficient manner.\textsuperscript{30} National Grid also owns industrial sites and storage facilities, and so it is also a consumer-facing company. The company has also been appointed as the delivery body for the energy market reform (or EMR), and so administrates the capacity market and contract for difference schemes on behalf of DECC (now in the Department of Business, Energy and Industrial Strategy), and provides analyses of these schemes to decision-makers. Its analysis of EMR is currently ongoing.\textsuperscript{31}

\begin{footnotesize}
\textsuperscript{29} National Grid Plc, ‘2014 Sustainability Report Connections That Matter: How We Behave As a Responsible Business’ (2014), 9 <http://www2.nationalgrid.com/responsibility/> accessed 1 June 2015.
\end{footnotesize}
Centrica Plc

Centrica Plc is Britain’s largest energy supplier, operating in the UK as British Gas, and stores gas through Centrica Storage. The company considers itself to play a pivotal role in tackling climate change by changing both how energy is generated and how its consumers use energy. Centrica acknowledges the risks that climate change may entail for its physical assets, including coastal nuclear power stations. The company focuses on trust and reputational issues in relation to climate change. The company established a strategic priority of providing energy for a low-carbon world, and focuses on opportunities in the way that power generation and power use is changing as a result of climate change. The company focuses on the energy ‘trilemma’: how to achieve energy security, affordability and reducing GHG emissions. As a result, they acknowledge that any commitments to climate change abatement must be balanced against the other two competing priorities.

These companies have implemented all or some of the various mechanisms examined in this chapter, and their level of implementation, and the impact, if any, of these mechanisms on GHG emissions will be examined throughout this chapter.

4.3 Formal Regulatory Mechanisms

Formal regulation involves a fairly narrow, state-based approach, including international conventions and protocols, as well as domestic legislation and policy. At both international and national level, formal regulation is the result of state-based negotiation and enforcement, and is therefore compromise-laden. In addition, English common law

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35 ibid 1; See also Centrica (n 32), 21.
36 ibid 1.
has deferred the responsibility of creating environmental rules to the Parliamentary regulatory process. However, domestic environmental regulation can be an imperfect tool, as it is a negotiated outcome and its enforcement can be problematic. Regulation suffers from the concerns of international competitiveness, and in the area of climate change, carbon leakage. International agreements on climate change have led to some domestic movement on climate change in the UK with the introduction of a number of instruments to deal with climate change.\footnote{These include the climate change levy, renewable obligations and general energy market reform in the 1990s.} This chapter will focus specifically on the enactment of the domestic Climate Change Act 2008 and the Energy Act 2013. Whilst energy legislation is directly applicable to companies, the Climate Change Act only regulates national efforts generally, with the exception of the directors’ reporting regulations. These regulations, however, only require the reporting of GHG emissions, and not their reduction, and at the moment only apply to publicly traded companies.

\subsection*{4.3.1 The Role of the State in Environmental Law-making}

Climate change is a complex, transboundary and therefore global issue. It can also be viewed as a multi-scaled problem as sources of greenhouse gas emissions originate at the individual, company and state levels. States have traditionally been reluctant to take unilateral action to reduce their GHG emissions, and have played a largely ambivalent role in regulating transboundary, polycentric and global environmental issues. At the international level, significant competition exists between states regarding their levels of regulation. Firms and other regulated entities may practice a type of ‘regulatory arbitrage’ by exploiting the differences between national regulatory environments to their advantage.\footnote{Amit M Sachdera, ‘Regulatory Competition in European Company Law’ (2010) 30 Eu J Law Econ 137, 137.} Regulatory arbitrage reduces the freedom and scope of regulators.\footnote{Jonathan R Macey, ‘Regulatory Globalization as a Response to Regulatory Competition’ (2003) 52 Emory LJ 1353, 1362.} As a result, in the arena of climate change, states will be constrained not only by the costs of abatement domestically, but also by international competitiveness concerns of carbon
leakage. These dual concerns significantly constrain states, particularly industrialized states, when enacting specific domestic regulation on climate change. As a result, most progress on climate change regulation has taken place at the international level.

There is no international environmental parliament, and, as a result, international organisations, and the UN and its subsidiary bodies in particular, have become the leading fora for international environmental law-making. International treaties, customary international law, non-binding resolutions and state-based diplomacy constitute the main body of international environmental law. States are also the central actors and subjects of international law and they play a primary role in shaping and adopting international environmental law. The ambitions of states, when crafting and implementing international environmental law, depends on their individual economic, political, cultural, geographical and ecological interests. While the negotiation process among over 100 UN-members can be a complex process in and of itself, complex environmental problems, such as climate change, pose additional challenges to the multilateral negotiation system.

International treaties, such as the UNFCCC, are, at the moment, the main international negotiation forum for dealing with climate change. Treaties are one of the main sources of international environmental law; however, they can pander to the lowest common denominator. Agreed outcomes must accommodate the interests and concerns of all states involved in the negotiations, and therefore are compromise-laden. Negotiations are affected by the varying power of each state involved.

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44 ibid 10.
46 ibid 51.
and technical choices, capacity levels and political will often affect the level of ambition written into a treaty.\textsuperscript{48} States are often driven by economic self-interest and the desire to secure or maintain international competitive advantages.\textsuperscript{49} They are, to a lesser extent, concerned with environmental issues. As a result, states do commit to MEAs on particular environmental problems,\textsuperscript{50} but often negotiate for low levels of obligations. If a number of states are reluctant to bind themselves to strict obligations, merely hortatory or weak language is often the end result.\textsuperscript{51} This type of language can often be norm-creating and lead to further and stricter obligations in the future, but this is a gradual process at best. Treaties with such weak language are often ineffectual. MEAs generally suffer from this type of weak or vague language. While there are over 500 MEAs in existence, and compliance levels are generally high, Crossen notes that global environmental conditions continue to deteriorate.\textsuperscript{52} He attributes this to shallow cooperation by states, combined with weak obligations in MEAs that do little more than preserve the status quo.\textsuperscript{53} Weak MEA obligations ensure that states have the discretion whether to increase their national ambition in a particular environmental area.

\textbf{4.3.2 The First Phase of the International Environmental Movement}

The two major international conferences held by nation states were the Stockholm Conference in 1972 and the Rio Conference in 1992. These are formally known as the 1972 United Nations Conference on the Human Environment (UNCHE), and the 1992 United Nations Conference on Environment and Development (UNCED). UNCHE resulted

\begin{itemize}
\item \textsuperscript{48} ibid 14.
\item \textsuperscript{49} Richard B Stewart, ‘Environmental Regulation and International Competitiveness’ (1993) 102(8) Yale Law Journal 2039, 2041.
\item \textsuperscript{51} Abram Chayes and Antonia Handler Chayes, ‘On Compliance’ (1993) 20(1) International Organization 175, 189.
\item \textsuperscript{52} Teall Crossen, ‘Multilateral Environmental Agreements and the Compliance Continuum’ (2003-2004) 16 Geo Intl Envtl L Rev 473, 474.
\item \textsuperscript{53} ibid 477; See also Daniel Bodansky, ‘The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?’ (1999) 93 Am J Intl L 496, 499.
\end{itemize}
in the Stockholm Declaration, a non-binding set of principles that set the stage for the Rio Declaration agreed at UNCED.\textsuperscript{54}

In 1990, in preparation for the Rio Conference, 48 TNCs established a lobbying group called the Business Council for Sustainable Development, which promoted the position that only voluntary approaches to corporate sustainable development be agreed at the 1992 UNCED.\textsuperscript{55} TNCs were heavily involved in the UNCED negotiations, to the point that critics claimed the entire UNCED process had been ‘co-opted’\textsuperscript{56} by business. Both the United States and the United Kingdom lobbied during the UNCED process to ensure that no binding environmental obligations fell upon companies.\textsuperscript{57} Those efforts were successful as the outcome documents of the 1992 UNCED included Agenda 21 and the Rio Declaration, which included only voluntary, non-binding efforts on companies to act in environmentally responsible ways.\textsuperscript{58} UNCED also produced the 1992 UNFCCC, which also included no binding emission reduction targets on either states or companies.

International efforts to regulate companies directly began in the 1970s, which saw the initial phase of growth by multinational companies.\textsuperscript{59} A group of eminent persons was formed, and recommended that a binding Code of Conduct be developed to regulate TNC behavior.\textsuperscript{60} Efforts to agree such a code continued for fifteen years under the UNTNC mechanism, but collapsed in 1992.\textsuperscript{61} The OECD Guidelines for TNCs were established in

\begin{enumerate}
\item[54] Principle 21 of the Stockholm Declaration in particular has continued to have enduring value in international environment law, setting out the customary international rule on transboundary harm. In addition to the Stockholm Declaration, the United Nations Environment Programme was established, as well as a global action plan and an environmental fund.
\item[57] ibid 73.
\item[58] Successful lobbying efforts continued by the World Business Council for Sustainable Development at both the World Summit on Sustainable Development in 2002 and at the Rio +20 conference in 2012, see Clapp (n 55) 26, 29.
\item[60] ‘Effects of TNCs on Development and International Relations’ (1974) UN Doc E/5500/Rev.1/ST/ESA/6, 55.
\item[61] Carusco (n 59) 434; Elisa Morgera, ‘The UN and Corporate Environmental Responsibility: Between International Regulation and Partnerships’ (2006) 15(1) RECEIL 95, 96.
\end{enumerate}
1976 as non-binding guidelines for multinational companies to use, and continue to be one of the only international guidelines directly applicable to companies. International business had a profound influence on the drafting of the Guidelines that were negotiated through the Committee on International Investment and Multinational Enterprises (CIME), who was ‘vehemently opposed’\(^{62}\) to the Guidelines being anything more than voluntary guidelines. The original OECD Guidelines did not include any environmental provisions until 1991, when an Environmental Chapter was added.

By the end of the 1990s, negotiations on both the Draft Code of Conduct for TNCs and the Multilateral Agreement on Investment (MAI)\(^{63}\) had collapsed, and no binding international code of conduct for TNCs existed. The voluntary nature of the OECD Guidelines, together with the flexible but inconsistent and weak nature of its ‘enforcement’ through National Contact Points,\(^{64}\) meant that the Guidelines were often critiqued from an environmental standpoint. In addition, the Guidelines did not explicitly cover climate change, nor contain recommended guidelines on the reduction of GHG emissions for companies. Instead, the Guidelines recommend the use of environmental management systems by companies.

Due to political tensions and successful lobbying efforts by TNCs, at the international level only voluntary initiatives are currently applicable directly to companies. While the 1992 Rio Conference did produce two binding international environmental agreements, these are binding only on states, and not companies, and many of the provisions of the UNFCCC are weak and currently require little more than the status quo from states, and require no formal obligations to reduce GHGs from companies. Lack of an international environmental framework binding on companies has contributed to the large volume of

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\(^{63}\) Negotiations collapsed in 1998 in part because business did not support the OECD’s concessionary efforts to include binding language on social and environmental provisions. See David Egan, ‘The Limits of Internationalization: a Neo-Gramscian Analysis of the Multilateral Agreement on Investment’ (2001) 27 Crit Sociol 74, 85.

voluntary initiatives at the corporate level, which require little climate change mitigation action from energy companies.

4.3.3 The Second Phase of the International Environmental Movement

Article 2 of the UNFCCC sets out the ultimate objective of the UNFCCC as the ‘stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system’.65 While the UNFCCC itself does not contain a definition of ‘dangerous anthropogenic interference’,66 or a specific global temperature increase or atmospheric concentration target, the parties subsequently agreed in 2010 to limit temperature rise to 2° Celsius above pre-industrial levels.67

The Kyoto Protocol (KP) was designed to be a binding legal agreement for developed countries listed in ‘Annex I’ to reduce ‘net’ GHG emissions68 by certain percentages for the first commitment period of 2008-2012.69 The EU participated in the UNFCCC as a Regional Economic Integration Organization70, and GHG targets therefore became applicable to the EU and its individual member nations. The EU initially became a leader in the climate negotiations, as climate change became a ‘saviour issue for EU integration’.71 The UK also took on a climate change leadership role under Tony Blair.72

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67 FCCC/CP/2010/7/Add.1, 1/CP.16, para 4.
68 Net emissions are calculated as the gross release of GHGs minus quantities of GHGs absorbed by carbon sinks such as forests, see Richard L Sander, Michael J Walsh, ‘Kyoto or Not: Opportunities in Carbon Trading Are Here’ (2001) 10 (3) Environmental Quality Management 53, 54.
69 Prior to 2008, Article 3(2) states that parties were obligated to make demonstrable progress towards meeting their commitments.
71 ibid 309.
72 Although Schreurs and Tuberglien note this was largely an effort to distance the UK from the US after the Iraq war, Mirenda A Schreurs, Yves Tuberglien, ‘Multi-Level Reinforcement: Explaining EU leadership in climate change mitigation’ (2007) 7(4) Global Environmental Politics 19, 38.
After the KP was agreed, the 2007 Conference of Parties meeting in Bali produced the Bali Action Plan, which called for mitigation commitments from developed country parties only, on the basis of common but differentiated responsibilities and respective capabilities (or CBDRC), as set out in Article 3(1) of the UNFCCC. CBDRC is the cornerstone of the global climate regime, and was designed to ensure equity and historic responsibility for GHG emissions. However, the principle has papered over major disagreements between developed and developing countries concerning who is responsible for, and will ultimately pay for, the costs of climate change. Developing country parties’ commitment to CBDRC has become deeply problematic as some of the largest global emissions have shifted since the 1990s from developed to developing countries. By 2006, China had surpassed the US as the largest global emitter of greenhouse gases, and by 2010 had become the largest consumer of energy. By 2014, China had exceeded the EU for per capita emissions. Two of the four largest GHG emitters are now developing countries. Developing countries have cited poverty reduction and general development goals as the reason they have refused to commit to binding reduction targets. To a large extent, this position is supported by the UNFCCC, which states that developed countries are to lead the way in combating climate change and that the specific needs, circumstances and vulnerabilities of developing countries are to be fully considered by the parties. EU emissions have, at the same time, declined from 19% of global emissions in 1990 to 11% in 2011, and the admission of fossil-fuel

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73 FCCC/CP/2007/6/Add.1.
76 Brunee, Strack (n 74) 591.
77 UNFCCC (n 65) Article 3(1).
78 ibid Article 3(2).
reliant Eastern European countries into the EU has led to fragmentation in EU climate policy.\textsuperscript{79} Perhaps as a result, EU leadership in global climate policy diminished.\textsuperscript{80}

At the same time, developed countries have consistently failed to accept their historic responsibility for climate change\textsuperscript{81} or to provide leadership or adequate funding to developing countries to assist them in the transition to a green economy. The US refused to ratify the KP, while Canada, Australia, New Zealand and Japan have refused to agree to a second commitment period under the KP. As a result, the KP only covers approximately 35\% of global emissions,\textsuperscript{82} leading Campbell to question whether any domestic action in the UK to reduce GHG emissions should be taken until developing countries commit to binding legal targets.\textsuperscript{83} In addition to their obligations under the UNFCCC, there are strong arguments as to why developed countries should take the lead on reducing their GHG emissions. As Shue writes, to insist that no developing country emits any more carbon emissions would relegate significant parts of their populations to grinding poverty,\textsuperscript{84} and deny them even subsistence emissions. He explains that if developed countries had taken appropriate measures as they had committed to do from 1992, they could have made room for subsistence emissions from developing countries without an increase in overall global totals of emissions.\textsuperscript{85}

\textsuperscript{81} The EU may be an exception in this regard as regionally it conditionally agreed to more emission reductions if other developed countries did the same.
\textsuperscript{84} Henry Shue, ‘Climate Hope: Implementing the Exit Strategy’ (2012) 13 Chi J Intl L 381, 391.
\textsuperscript{85} ibid 392.
Negotiations and debates surrounding the KP have focused on the costs of mitigation actions.\textsuperscript{86} As a result, the existing targets are weak; the enforcement mechanism, although extensive compared with most multilateral environmental agreements, is also weak\textsuperscript{87} and the KP, to date, has failed to stabilise global GHG emissions. The Paris Agreement and its related COP decision were concluded at the end of 2015. The Agreement itself is a historic treaty as, unlike the KP, it includes obligations on both developed and developing states, although many of the substantive provisions are non-binding, collective ones.\textsuperscript{88} It adopted a new ‘bottom-up’ approach to global climate regulation, and relies on quasi-voluntary nationally determined contributions (or NDCs) from states to reduce their greenhouse gas emissions. Powerful states, such as the US, India and China, did not want obligations of results in relation to their NDCs, and so there are no legally binding obligations on emission caps or targets in NDCs.\textsuperscript{89} The Agreement includes ambitious long-term temperature goals of holding any increase in the global average temperature to ‘well below 2°C’, with an aspirational goal of pursuing efforts to limit that increase to 1.5°C above pre-industrial levels.\textsuperscript{90} There are, however, no obligations on states to ensure that their NDCs collectively meet the agreed long-term temperature goal. The Agreement does contain provisions for five-yearly global stocktakings to assess progress, and sets an expectation that NDCs will demonstrate progress over time.\textsuperscript{91} The level of progressive ambition in NDCs, however, is left entirely up to each party to determine.\textsuperscript{92}

\textsuperscript{90}FCCC/CP/2015/L.9, Article 2(1)(a).
\textsuperscript{91}Articles 14(1) and 3.
\textsuperscript{92}Rajamani (n 89) 11.
Article 4(1) states that parties are to achieve a balance between anthropogenic emissions by sources and removals by sinks by mid-century. Gerrard notes that in order to achieve that balance, emissions of greenhouse gases from fossil fuels need to end by mid-century. Bodansky has also noted that Article 4(1), combined with the long-term temperature goals, can send a strong signal to business that governments are serious about ending fossil fuel emissions. Levin, Morgan and Song note the date of mid-century is more ambitious than previous language, which referred to ‘by 2100’. The provision does not, however, include a date when global emissions must peak and then start decreasing, an annual rate of decline, or the date when fossil fuel use should end.

The global stocktakes are to consider progress towards the achievement of the net zero goal in Article 4(1). Bodle et al note that the language about finance flows also has the potential of sending a strong signal to the private sector for them to re-assess and redirect their investments. They also note, however, that stronger language to remove fossil fuel subsidies, institute a price on carbon- and mainstream-enabling environments did not make their way into the final agreement. The Agreement is also historic as it encourages commitments from non-state actors, and over 1200 stakeholders signed the Paris Pledge.

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99 ibid 13.

4.3.4 National Regulatory Theory

The concept of regulation is varied, and there is no universal definition of the term. Patterson provides a narrow, state-based definition as nontax, non-criminal, legal directives issued and enforced by a governmental body, primarily through sanctions or incentives other than criminal penalties.\footnote{Dennis Patterson, A Companion To Philosophy of Law and Legal Theory (Wiley-Blackwell 2010) 592.} Types of regulation can vary from command and control types to incentive-based regulation.\footnote{Jorge Riviera and others, ‘Business Responses to Environmental and Social Protection Policies: Towards a Framework for Analysis’ (2009) 42(1) Policy Sci 3, 22.} These categories can include legal directives, performance standards, regulatory taxes, tradeable permits, and information (such as labelling).\footnote{Matthew D Adler, ‘Regulatory Theory’ in Dennis Patterson (ed), A Companion to Philosophy of Law and Legal Theory (2nd edn, Wiley-Blackstone 2010), 592.} Alder defines regulation as being ‘nontax, noncriminal, public law: legal directives (of some sort) that are issued by governmental bodies’.\footnote{Robert Baldwin, Martin Cave and Martin Lodge, ‘Introduction: Regulation – The Field and the Developing Agenda’ in Robert Baldwin, Martin Cave and Martin Lodge (eds), The Oxford Handbook of Regulation (OUP 2010), 5-6.} The concept of regulation has evolved from these rather narrow definitions to include less formal mechanisms, which can include market mechanisms such as emission trading schemes.\footnote{Patterson (n 102) notes that regulation is often cited to deal with a number of market failures such as externalities, public goods, monopolies and imperfect information, 596. See also Robert W Kling, ‘Building an Institutionalist Theory of Regulation’ (1988) 22(1) Journal of Economic Issues 197; Although Veljanovski cautions that viewing regulation as simply a reaction to market failure may be misleading, as both markets and governments can fail, Cento Vejanovski, ‘Economic Approaches to Regulation’ in Robert Baldwin, Martin Cave and Martin Lodge (eds), The Oxford Handbook of Regulation (OUP 2010), 19.}

Regulation is often cited as a means to correct certain market failures,\footnote{Patterson (n 102) 603.} and in this case the negative externality of corporate GHG emissions. Cheffins and Reynolds note that state intervention through regulation in corporate affairs has both efficiency
justifications, and non-economic or equity justifications.\textsuperscript{108} Contractarians, for the most part, insist that non-corporate regulatory mechanisms are preferable to mediate any negative social outcomes of corporate activities,\textsuperscript{109} on the basis that regulation generally constrains competitiveness and economic growth. Baldwin, Cave and Lodge argue that while regulatory oversight is still necessary in a market economy, ‘better regulation’ focuses on the nature and performance of the regulation, and often includes regulatory impact assessments and cost-benefit analyses.\textsuperscript{110}

Regulation is a political outcome, resulting from a negotiated process. Regulation can therefore be exploited either at its formative stage, through powerful lobbying groups, that can act on behalf of companies,\textsuperscript{111} or at its post-enactment stage, through lack of monitoring and enforcement. Kling notes that explicit regulation is a product of a political mechanism that can allow narrow interests to capture the process, and overrule the interests of the majority.\textsuperscript{112} Politicians and bureaucrats may be overly concerned with their own political ambitions to regulate appropriately, and suffer from time constraints as a result of a tight Parliamentary schedule.\textsuperscript{113} Vague or unclear legislative language may result. In the UK, maintaining a relationship with industry in the regulatory environment is considered crucial.\textsuperscript{114} Consequentially, Government tends to consult with the same


\textsuperscript{109} Marc T Moore, \textit{Corporate Governance in the Shadow of the State} (Hart 2013) 66.

\textsuperscript{110} Baldwin, Cave and Lodge (n 106) 7-8.


\textsuperscript{112} Kling (n 107) 202.


interest groups, such as the CBI and Institute of Chartered Accountants of England and Wales, and their views may be overly considered during the consultation process.\textsuperscript{115} Black notes that the interdependencies between social actors and governments are so intertwined that the public/private distinction of governance has collapsed, and regulation is now ‘co-produced’.\textsuperscript{116} The regulatory outcome may therefore transfer wealth to specific interest groups.\textsuperscript{117} In fact, oil and gas companies, such as Shell and BP, have been accused of heavily influencing the UK Government’s climate change policies.\textsuperscript{118} At the post-enactment stage, compliance and enforcement can depend on the character and resources of the regulator.\textsuperscript{119} Regulators often have discretion when selecting compliance cases\textsuperscript{120} and may suffer from regulatory capture by particularly powerful firms.\textsuperscript{121} Firms themselves can often react to regulation in a number of ways, including compliance, over-compliance\textsuperscript{122}, manipulation, avoidance, and compromise.\textsuperscript{123}

Coase made a significant contribution to the understanding of regulation through his article, ‘The Problem of Social Cost’.\textsuperscript{124} In it, Coase posits that social cost, illustrated by harm caused by environmental pollution, is a reciprocal problem,\textsuperscript{125} and may not necessarily justify government regulation.\textsuperscript{126} According to Coase, in order to achieve the

\textsuperscript{115} Cheffins (n 108) 182.
\textsuperscript{120} Amitai Aviram, ‘Allocating Regulatory Resources’ (2011) 37 J Corp L 739, 741.
\textsuperscript{121} Dale D Murphy, ‘Interjurisdictional Competition and Regulatory Advantage’ (2005) 8(4) J Int Economic Law 891, 891.
\textsuperscript{123} Jorge Riviera and others (n 103) 7.
\textsuperscript{125} ibid 2.
optimal allocation of resources, both parties should take into account the harmful effects of the nuisance, and bargain in order to efficiently allocate the harm. Through this reciprocal bargaining, polluters and their victims could achieve what Coase considered to be a socially optimal level of pollution. In Coase’s view, the courts, through regulation and legal rights, fail to efficiently allocate the costs of regulation, and government regulation can be costly and inefficient. Coase’s theories laid the groundwork for market-based mechanisms, and in particular cap-and-trade programmes where parties bargain in the absence of transaction costs.

4.3.5 The Role of Regulation at the Regional and National Level

The EU

The UK has been an active participant in the international negotiations on climate change, and contributes to the KP targets through the EU commitments. The UK and Germany are the two largest emitters in the EU. In 2008, the EU 2020 climate package agreed to reduce GHG emissions by 20% below 1990 levels by 2020 (with a conditional agreement to reduce by 30% if other developed country parties made similar commitments), and by 50% by 2050. In 2012, the EU signed on to a second commitment period under the KP to reduce GHG emissions by 20% below 1990 levels. The UK’s share of that target equated to a 16% reduction of non-EU-ETS emissions relative to 2005 levels. Most recently, the

127 ibid 13.
129 Coase (n 124) 16.
132 Perez de las Heras (n 82) 585.
EU agreed to reduce GHG emissions by 40% below 1990 levels by 2030 in preparation for the 2015 Paris conference.\textsuperscript{134}

\textit{The UK}

The UK Government has cited both moral and economic reasons for reducing their domestic greenhouse gas emissions. The Government cited a desire that the Paris Agreement be ‘credible and fair’, and should therefore reflect past and future climate change activities, as well as domestic capabilities.\textsuperscript{135} In addition, the report notes the significant damages that the UK has already incurred, particularly as a result of flooding events in 2012-2013,\textsuperscript{136} and concern over future impacts that UK companies and domestic markets face as a result of climate change impacts overseas.\textsuperscript{137} The UK has implemented its share of the EU targets through domestic action on climate change, largely through legislative efforts such as energy market reform and the Climate Change Act 2008.

English common law has explicitly deferred the power of law-making in the environmental arena to Parliament through the landmark case of \textit{Cambridge Water v Eastern Counties Leather}.\textsuperscript{138} In this leading judgment, Lord Goff denied the pollution claim, but also made some important statements about the role of the courts in environmental law-making. He stated that in the area of environmental protection and preservation more generally, international and national public bodies were taking steps to establish legislation on these matters, and as a result, there was less need for the courts

\textsuperscript{136} Estimated to be between £200-277 million, with indirect costs reading £260-620 million, ibid 18.
\textsuperscript{137} ibid 21.
\textsuperscript{138} [1994] 2 AC 264. Cambridge Water purchased the Sawston Mill in 1976, and constructed a facility to extract water from the existing borehole on the land. Eastern Counties Leather had been operating a tanning facility for many years on a nearby property, and had used small amounts of perchloroethylene (or PCE) to degrease leather pelts. Small amounts of PCE had seeped into the ground and infiltrated the aquifer at the Sawston Mill, leading to small amounts of PCE in the drinking water. PCE only became regulated in 1980. The House of Lords considered whether the rule of strict liability was to be enforced through the common law of nuisance to prevent environmental pollution as stated in \textit{Rylands v Fletcher} [1868] UKHL 1.
to develop a common law principle to achieve the same environmental goal, and it may be undesirable for the courts to interfere.\footnote{ibid 306, paras G-H.}

As a result, the common law of nuisance was nullified as an effective tool to develop standards on environmental protection and preservation, and the House of Lords ‘abdicated’ their role in developing common law principles of nuisance.\footnote{Rosalind Lee, ‘Cambridge Water v Eastern Counties Leather: The Polluters’ Charter?’ (1994) 12(3) Property Management 29, 29. Although see O’Quinn, who states that this was a strategic decision by the House of Lords to avoid opening the floodgates to historic pollution claims, John C O’Quinn, ‘Not-so-strict Liability: A Foreseeability Test for Rylands v Fletcher’ (2000) 24 Harv Env L Rev 287, 296.} The courts are, as a result, reluctant to delineate explicit environmental law principles, and have relegated this role specifically to Parliament. Regulation, therefore, has become the primary mechanism to deal with environmental issues.

4.3.6 Energy Market Reform

Action on climate change in the UK began in earnest in the 1980s, and the deregulation and reform of the energy market has been inextricably linked to domestic climate action.\footnote{Simon Dresner, Tim Jackson and Nigel Gilbert, ‘History and Social Response to Environmental Tax Reform in the UK’ (2006) 34 Energy Policy 930, 930.} The first UK subsidy for renewable energy was introduced in 1990 through the non-fossil fuel obligation (or NFFO).\footnote{Till Stengel and Alexander Frenzel, ‘Regulating Technological Change – The Strategic Reactions of Utility Companies toward Subsidy Policies in the German, Spanish and UK Electricity Markets’ (2008) 361 Energy Policy 2645, 2648; Doerte Forquest and Thomas B Johansson, ‘European Renewable Energy policy at a Cross-roads – Focus on Electricity Support Mechanisms’ (2008) 36 Energy Policy 4079, 4082. The Climate Change Levy (or CCL) was implemented in April 2001 as a tax on energy use by business of fuels such as gas, coal, electricity and non-transport LPG, see Adarsh Varma, ‘UK’s CCL: Cost Effectiveness, Competitiveness and Environmental Impacts’ (2003) 31 Energy Policy 51, 52.} During the 1990s, the ‘dash for gas’ in the UK meant that emissions were declining nationally, as the UK transitioned from coal to gas use. As a result, reduction of GHGs was not such a challenging issue for the government in the 1990s when it signed on to the KP.\footnote{Shane Fudge and Michael Peters, ‘Behaviour Change in the UK Climate Debate: An Assessment of Responsibility, Agency and Political Dimensions’ (2011) 3 Sustainability 789, 792.} Further modernisation of the UK energy...
industry occurred in 2000 under the Utilities Act, which updated the 1989 Electricity Act that introduced the Renewables Obligation (RO) for energy suppliers.\textsuperscript{144}

4.3.7 The Climate Change Act 2008 and Energy Companies

Energy reform complemented the national legislative movement on climate change, which was comprehensively set out in the Climate Change Act 2008. The UK was the first country to enact specific legislation on climate change through the Act.\textsuperscript{145} The motivation for the Act is set out in the Explanatory Notes, which states:

> It is widely accepted that urgent action is required to address the causes and consequences of climate change. The 2006 Stern Review set out the economic case for action on climate change, and concluded that the cost of inaction will be far higher than tackling climate change now.\textsuperscript{146}

The aim of the legislation is to set a target for the reduction of GHG emissions by 2050 at least 80\% lower than the 1990 baseline.\textsuperscript{147} This target can be amended by the Secretary of State, subject to certain conditions set out in section 2(2). The Secretary of State can also establish five-yearly carbon budgets, starting with the period 2008-2012, and the national UK ‘carbon account’ cannot exceed those carbon budgets.\textsuperscript{148} The carbon budgets must be in line with EU and international obligations.\textsuperscript{149} Three carbon budgets have been established, set out in the 2009 UK Low Carbon Transition Plan.\textsuperscript{150}

The major decreases in greenhouse gas emissions in the United Kingdom from the 1990 baseline were achieved through fuel switching (the transition from coal to gas), reduced

\textsuperscript{144}The 10\% percentage would be increased to 15.4\% by 2015, see JJ Foxton and PJG Pearson, ‘Towards Improved Policy Processes for Promoting Innovation in Renewable Electricity Technologies in the UK’ (2007) 35 Energy Policy 1539, 1539.
\textsuperscript{145} Matthew Lockwood, ‘The Political Sustainability of Climate Policy: The Case of the UK Climate Change Act’ (2013) 23 Global Environmental Change 1339, 1339.
\textsuperscript{147} Climate Change Act 2008, Chapter 27, section 1(1).
\textsuperscript{148} ibid s4(1).
\textsuperscript{149} ibid s8.
methane emissions from coal mines and upgrades and reduced leakages in national gas distribution networks.\textsuperscript{151} The ease with which the targets were achieved meant that there was no substantive investment in low-carbon capacity.\textsuperscript{152} The increasing reliance on gas will ensure that the UK target up to 2020 can also be achieved, which may prolong and delay the necessary investment in low-carbon capacity.\textsuperscript{153} As a result, longer-term targets of an 80% reduction by 2050 will be more challenging to meet, and will necessitate a decarbonisation of the electricity system in the 2020s.\textsuperscript{154} Overall, the trajectory of GHGs nationally has been decreasing in an inconsistent fashion with a 3.5% increase in GHG emissions in 2012 from 2011,\textsuperscript{155} and a 12% increase in coal generation emissions in 2009.\textsuperscript{156} As a result, UK emissions have fluctuated instead of steadily decreasing in recent years,\textsuperscript{157} and the progress on decreasing emissions threatens to be reversed.\textsuperscript{158} In addition, it is ‘highly uncertain’ whether post-2020 targets can be achieved.\textsuperscript{159}

The Act does have provisions that implicate companies directly, but only in relation to reporting requirements. Section 85 requires that the Secretary of State must make regulations pursuant to s416(4) of the Companies Act to require directors to report such information as may be specified regarding GHG emissions from their corporate activities.


\textsuperscript{153} ibid 112.


\textsuperscript{155} HM Government (n 151) October 2013, Executive Summary, 9. The report notes that the increase resulted from greater use of coal and gas for electricity generation and a colder than average winter, but also notes this increase is not a long-term trend.

\textsuperscript{156} Committee on Climate Change (n 152) 41.

\textsuperscript{157} DECC and Ricardo-AEA, (n 151) 13; Committee on Climate Change (n 152) 40-41.

\textsuperscript{158} ibid 109.

Section 416(4) of the Companies Act 2006 allows the Financial Reporting Review Panel to monitor and amend accounts of large public and private companies. Failure to comply with their reporting requirements is an offence under s419(3) of the Companies Act. Regulations requiring mandatory reporting were made necessary as voluntary approaches to corporate GHG emissions reporting had not led to a ‘sufficiently high level of reporting nor consistency of reporting’.\(^\text{160}\) In 2011, DEFRA made a recommendation that only Scope 1 and 2 emissions be required to be reported, and that Scope 3 emissions be encouraged to be reported.\(^\text{161}\) Following consultation, there was clear support for mandatory reporting for all large companies, although the majority of industry and trade associations, and a ‘sizeable minority of companies’\(^\text{162}\) advocated for voluntary reporting instead of regulation. In June 2012, DEFRA released the ‘Consultation on GHG emissions reporting draft regulations for quoted companies’, confirming that only UK-quoted companies would be subject to mandatory GHG reporting. The regulations do not require the use of a coherent methodology for reporting,\(^\text{163}\) although DEFRA did issue guidance on GHG reporting.\(^\text{164}\) Companies can set their own targets (on the basis of absolute reductions or intensity targets) and report on their compliance. DEFRA issued a report in 2010 that concluded that, although reporting of GHG emissions is important, it does not automatically lead to a reduction in GHG emissions.\(^\text{165}\) DEFRA concluded that while many


\(^{161}\) ibid 16; Scope 1 emissions are direct emissions, Scope 2 emissions are indirect from other organisations that produced steam, electricity, cooking or heat for Scope 1 emissions, and Scope 3 emissions are indirect from other organizations used as inputs into the company concerned to produce direct emissions, see DEFRA ‘Environmental Reporting Guidelines: Including Mandatory Greenhouse Gas Emissions Reporting Guidance’ (June 2013), 38 <https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance> accessed 30 May 2015.


\(^{163}\) DEFRA (n 161) 15, 23; Companies Act 2006 (Strategic Report and Directors’ Report) Regulations 2013.

\(^{164}\) ibid 15, 23.

FTSE companies report figures on climate change or energy use, there was a lack of quantitative data in these annual reports as the reports tend to contain more qualitative data.\textsuperscript{166}

All of the energy companies reviewed report their GHG emissions, although in differing amounts of detail. Only two of these companies, however, have currently made a formal commitment to reduce their GHG emissions. The table below summarizes their reporting activities.

\textbf{Table 1 Reporting Activities of Energy Companies}

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Date Began Reporting Emissions</th>
<th>Scope 1, 2 or 3</th>
<th>Absolute- or Intensity-Based Emissions Targets</th>
<th>Emission volume and direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>2002</td>
<td>1, 2 and 3</td>
<td>Absolute targets from 1998-2010</td>
<td>Direct = 48.9 million tonnes in 2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None since 2010</td>
<td>Emissions increased from 2014</td>
</tr>
<tr>
<td>Royal Dutch Shell</td>
<td>1997</td>
<td>1 and 2 regularly</td>
<td>Absolute targets from 1999 to 2010</td>
<td>Scope 1 = 72 million tonnes;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None since 2010</td>
<td>Scope 2 = 9 million tonnes;</td>
</tr>
</tbody>
</table>

\textsuperscript{166} ibid 7.
<table>
<thead>
<tr>
<th>Company</th>
<th>Year</th>
<th>Scope(s)</th>
<th>Target Description</th>
<th>Scope 1</th>
<th>Scope 2</th>
<th>Scope 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG Group</td>
<td>2006</td>
<td>1, 2 and 3</td>
<td>Absolute target from 2007-2012; from 2012 intensity targets of 8% reduction in GHGs per barrel of oil for upstream activities 15% reduction per barrel of oil for natural gas liquefaction activities No intensity targets listed in 2015</td>
<td>Scope 1  = 9.6 million tonnes Scope 2 = 1.3 million tonnes Scope 3 = estimated at 102 million tonnes in 2015</td>
<td>Scope 1 and 3 emissions increased over 2014 levels</td>
<td></td>
</tr>
<tr>
<td>National Grid</td>
<td>Unclear</td>
<td>Scope 1 and ‘indirect’ emissions (Scope 2)</td>
<td>Absolute target of a reduction of 45% to 2020 and 80% 2050</td>
<td>Scope 1 and 2 = 7.3 million tonnes in 2014/2015 year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>Year</td>
<td>Scope</td>
<td>Target</td>
<td>Notes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
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<td>--------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centrica</td>
<td>2006</td>
<td>Scope 1 and 2</td>
<td>Regularly</td>
<td>Absolute from 2010-2015 but unclear if renewed post-2015; CPD 2016 Response report mentions 20% absolute reduction target but its calculation does not meet all of the science-based criteria of CDP. Intensity based up to 2020 of 200gCO₂/kWh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Scope 1 and 2 = approximately 4.4 million tonnes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

BP’s emissions have declined from 65 million mte tonnes in 2009 to 49.2 million mte tonnes in 2013 and 48.9 million tonnes in 2015, although the 2013 decline was due to the divestment of two oil refineries in the US.\(^{167}\) However, the company anticipates that the carbon intensity of its activities will increase over the next few years as energy-intensive areas remain flat or decrease.\(^{168}\) While the company did establish absolute GHG emission reduction targets in 1998, they were not renewed after 2010 as they were deemed to be ‘no longer practical and useful in driving emissions reductions at the plant and operational

\(^{167}\) BP plc (n 16) 9.
level’. The company chose to focus instead on reducing flaring, increasing energy efficiency and applying a shadow carbon price to all new projects.

Royal Dutch Shell’s direct GHG emissions have declined from 1990 levels, largely as a result of its commitment to ceasing venting and flaring, and of its implementation of energy-efficiency measures and operational changes such as the closing of production sites, divestments. Also playing a role was the economic recession in 2008. In 2010, the company pledged to invest $2.1 billion over a five-year period in alternative energies (including carbon capture and storage). Since 2010, the company has established no new GHG reduction targets, which may be due to the major new projects coming on stream in 2010, and the consequential acknowledgement by the company that its GHG emissions will increase in the future. Its emissions have been steadily increasing since 2013, and the company anticipates it will be more difficult to maintain energy-efficiency levels as the fields they access age and they access more energy-intensive sources.

The BG Group only reported their Scope 1 emissions in 2006, but have since expanded this reporting to include Scope 1, 2, and 3 emissions. The company anticipated a rise in emissions due to their new operations in Australia and the mining of maturing gas fields, which requires more energy input to extract the resource. BG Group did establish an

169 ibid 3-1c.
170 ibid 3-1c.
172 ibid 1, 12.
174 Royal Dutch Shell Plc (n 20) 5.
177 BG Group (n 26) 26.
internal target in 2007 to reduce their GHG emissions by one million tonnes by 2012, and set annual reduction targets. Their reduction targets were achieved mainly through energy-efficiency measures, switching to tri-fuel ships for LNG, and upgrading ageing plants and infrastructure. However, in 2012 the company decided not to renew absolute targets but instead switched to carbon-intensity targets of an 8% reduction in GHG per barrel-of-oil equivalent for their upstream production, and a 15% reduction per barrel-of-oil equivalent for their natural gas liquidification activities, although no intensity targets are listed in its 2015 report. The decision not to renew absolute reduction targets was due to the fact that the business is anticipated to grow substantially in the next five years, and it can be assumed that the company therefore did not want emissions targets to constrain its growth.

National Grid has developed four long-term energy scenarios, and set itself targets, based on those scenarios, of a decrease in GHG emissions by 45% by 2020 and by 80% by 2050. However the company acknowledges that there is still considerable policy uncertainty as to which scenario the UK will follow. Meeting its targets depends on the company’s helping its customers reduce their use of fossil fuels by increasing the availability of sustainable energy and energy-efficiency programmes. National Grid considers investment in repairing, modernizing and extending its infrastructure as the key to transforming to a sustainable energy system.

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179 BG Group (n 28) 26.
180 BG Group (n 178) 37.
184 National Grid (n 31) 5.
185 ibid 3.
186 ibid 13.
Centrica has been reporting GHG emissions since 2006, and supports mandatory GHG emissions reporting.\(^{187}\) It reported its Scope 1, 2 and 3 emissions in 2012, but only 1 and 2 in 2015. The company has reduced its carbon intensity in recent years, mainly through the deployment of nuclear power\(^{188}\) as well as a result of a strategic review carried out in 2015. As a result of this review, the company decided to reduce its investment in oil and gas, as well as its exploration and production, but also to divest from renewable energy.\(^{189}\) In 2009, the company stated that it would not establish a target for investing in renewable energy as rising investment costs and uncertainty around carbon pricing made it difficult for the company to establish estimated paybacks for the investments.\(^{190}\) In 2010, the company adopted a target of decreasing absolute emissions by 20% from the base year of 2007 by 2015.\(^{191}\) It is not clear whether the company has set future absolute emission reduction targets.

4.3.8 The Energy Act 2013

The Energy Act 2008 complemented the Climate Change Act 2008 by covering renewable energy, carbon capture and storage (or CCS) technology, and feed-in tariffs, and was quickly updated by the Energy Act 2010 and Energy Act 2013. The Energy Act 2013 led to sweeping energy market reform in the UK, with the objectives of achieving secure, reasonably priced and low-carbon sources of energy for the national market. These reforms included a contract for difference (CfD) to secure minimum purchase prices through long-term investment contracts of fifteen years for renewable energy, and the establishment of Emissions Performance Standards (or EPS) to limit annual carbon dioxide emissions from new fossil fuel power stations.\(^{192}\) The EPS acts as a regulatory backstop to

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\(^{187}\) Centrica Plc (n 37) 11.
\(^{188}\) Centrica Plc (n 33) 18.
\(^{190}\) Centrica Plc (n 34) 55.
\(^{191}\) Centrica Plc (n 32) 26.
effectively prevent the build of new coal-fired plants without CCS technology attached to them.\textsuperscript{193} The regulations require that power plants over 50 MW limit their emissions to 450g CO2/kwh.\textsuperscript{194} Government documents have noted that the use of CCS will allow coal and gas to continue to play a role in the energy mix for the medium term.\textsuperscript{195} As a result, existing coal-fired power plants will be grandfathered into the EPS system until 2018 at a minimum.\textsuperscript{196} The carbon price mechanism has been moved from a primary to secondary place in the legislation, possibly indicating political pressure to keep electricity affordable.\textsuperscript{197} In addition, energy-intensive industries are exempted from the CfD, which means they would not be subject to any carbon price incentives to switch to renewables. This is curious, as energy-intensive industries are the very industries that must move towards renewable sources in order to transition away from fossil fuels, and market mechanisms are often touted by businesses as a more appropriate route than regulation to mediate their carbon emissions.

4.3.9 Analysis of Formal Mechanisms and Energy Companies

Most companies reviewed have cited regulatory uncertainty and the costs of regulating GHG emissions as direct threats to their business operations because they result in increased operational costs.\textsuperscript{198} However BP Plc acknowledges that it is regulation of GHG emissions that has most influenced their internal climate change policy.\textsuperscript{199} In the view of the BP Head of Policy, the most effective approach to climate change for their company

\begin{footnotes}
\item[194] DECC (n 154) 12.
\item[196] DECC (n 154) 32.
\item[197] ibid 3.
\item[199] ibid para 2.2a.
\end{footnotes}
is to assess and then mirror government policy. BP sees regulatory approaches to GHG emissions as ‘increasingly stringent regulatory constraints’ on emissions. Although BP has taken innovative steps on climate change, it is important not to overstate its achievements. The company currently has no target for GHG emissions reductions, or investment targets in renewable energy. Cherry and Sneirson note that the Beyond Petroleum campaign was nothing more than a ‘glittering public relations campaign’, and that the company is still focused on profit-making. BP’s energy outlook asserts that oil and gas will remain the dominant source of energy, contributing over ¾ of the total energy supply in 2035.

While Royal Dutch Shell has acknowledged the risks that climate change poses to its business, it continued until September 2015 to be a member of the American Legislative Council Exchange, a political organization that opposes policies to address climate change. The expert review committee of the company’s own sustainability reports have also pointed out the company’s hypocrisy on this matter. Following a shareholder resolution in 2015, Shell published a report specific to climate change and portfolio resilience, although the company notes that its reserves will not become stranded, and that oil and gas will remain integral to the global energy system for decades.

BG Group is also concerned about its increasing ‘exposure to climate change policy risk’ because of government efforts to price carbon and to introduce environmental trading.

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201 ibid 7.

202 Cherry and Sneirson (n 18) 1009.


205 Royal Dutch Shell (n 22) 54.


207 BG Group (n 181) 8.
and ‘stringent’ new regulations.\textsuperscript{208} Centrica Plc also views the level GHG regulations as ‘large’, and identifies risks if a sufficient carbon price is not established in order to make investments in renewables financially viable.\textsuperscript{209} In 2011, the company considered whether to renew their GHG reduction targets ‘given [the] rising production profile’ of the company.\textsuperscript{210} The company chose to adopt carbon-intensity targets instead, applicable from 2013-2017, and published a Public Position on Climate Change in 2012. Their position states a willingness to contribute to climate change mitigation through energy efficiency, technical investments, natural gas switching, policy frameworks and reporting.\textsuperscript{211} Absolute reductions of GHG emissions are not mentioned in this policy document. The company also clearly states that they view natural gas not as a transition fuel to renewable energy, but as a ‘destination fuel’.\textsuperscript{212} Centrica is also concerned about the risk of regulation threatening the profitability of its upstream assets and downstream supply business.\textsuperscript{213} The company does acknowledge regulatory opportunities, such as new services, product markets and market opportunities such as microgeneration.\textsuperscript{214}

National Grid appears to be more sanguine about regulatory changes and is the only company to have clear absolute emissions targets, perhaps because it assists in the deployment of the EMR regulatory regime. The company supports renewable energy targets,\textsuperscript{215} and identifies regulatory risk such as making investments too early, and the risks of congestion costs because network capacity has been added too late.\textsuperscript{216} National Grid acknowledges the risks of climate change, supports renewable energy obligations, and participates in national and international dialogues on climate change. As a systems

\begin{thebibliography}{99}
\bibitem{208} ibid 8.
\bibitem{209} Centrica Plc (n 34) 2.
\bibitem{210} BG Group, ‘Sustainability Report 2011’ (2011) (n 28) 3.
\bibitem{211} BG Group, ‘Climate Change Public Position’ (2012) (n 28) 4-5.
\bibitem{212} ibid 1.
\bibitem{213} Centrica Plc (n 34) 4.
\bibitem{214} Centrica Plc (n 32) 21.
\bibitem{215} National Grid (n 183) 1.
\end{thebibliography}
operator, they describe themselves as ‘generation neutral’\(^{217}\) in that they merely match supply and demand and use a diverse mix of energy sources.

The view of many of these companies to GHG emissions regulations as ‘stringent’ is surprising as very little formal regulation exists requiring these energy companies to comply with absolute GHG emissions reductions. The only formal regulatory mechanisms that directly regulate these companies are the emission performance specifications (EPS) and the directors’ regulations to report GHG emissions. The EPS has fairly simple requirements that no new coal fuel plants can be built without CCS being attached to it. None of the five companies examined operate many coal plants, and therefore the EPS does not have any significant impact on their operations and therefore emissions.

The directors’ regulations require that publicly traded companies report their GHG emissions. All of the five energy companies examined are publicly traded and therefore subject to the GHG regulations. However, the regulations only require that these companies report their GHG emissions, which they do, and therefore they are all compliant with the regulatory mechanism, and enforcement of the regulations is achievable. Failure to report GHG emissions becomes an offence under s419(3) of the Companies Act 2006. The regulations, however, have very low levels of requirements. For example, they do not require a specific or coherent format of reporting, which in fact makes it difficult to compare emissions both within the same company over time, and between companies. The regulations only require reporting of Scope 1 and 2 emissions, and only recommend the reporting of Scope 3 emissions. As a result, some companies reported both Scope 1, 2 and 3 emissions, and some companies reported only Scope 1 and 2 emissions. Most importantly, the regulations do not require that companies reduce their GHG emissions, only that they report them. As a result, under the regulations, companies can voluntarily set their own targets on the basis of absolute reductions or intensity targets, and report on their own compliance. Consequentially, only two out of

the five companies analysed have set any GHG emissions targets, and only one company has absolute targets. It is clear, therefore, that the regulations have not been effective in motivating any reduction in GHG emissions by the companies reviewed. In fact, in a number of cases, GHG emissions are either increasing or are anticipated by many companies to increase in the future. Many of the companies cite growth, expansion and profit motivators as reasons they anticipate an increase in their GHG emissions in the near future. Shareholder wealth maximization and the incentive to profit and grow continues to drive GHG emissions from the companies examined, and formal regulatory mechanisms do not sufficiently mediate this incentive, or, therefore, contribute to reductions in GHG emissions.

4.4 Market Mechanisms

Market mechanisms can be either state-based and regulated, or entirely voluntary initiatives. This section will therefore analyse market mechanisms that have been incorporated into regulated mechanisms such as the Kyoto Protocol and the EU ETS, and non-regulated market mechanisms such as CSR. Market-based mechanisms are designed to lead to greater efficiency in environmental and energy policies by reducing the costs of implementing and complying with environmental measures, thereby incentivizing technological change.\(^{218}\) However, market mechanisms have been largely unsuccessful at ensuring adequate emission cuts in developed countries. In addition, using market mechanisms for environmental protection can alter how nature is perceived by putting a price on ecosystem services, which may be counterproductive in the long run.\(^{219}\)

4.4.1 State-based Market Mechanisms

Market mechanisms are not ideologically neutral\(^{220}\) and states often rely heavily on industry expertise to design and implement market-based mechanisms.\(^{221}\) Regulators of


\(^{220}\) ibid 7.

these mechanisms also often become buyers and sellers within the market place, and therefore may not question the robustness\(^{222}\) or environmental soundness of the system. As a result, long-term structural changes in developed countries needed to reduce use and reliance on fossil fuels become divorced from the imperatives of a carbon market.\(^{223}\)

The main mechanism used under the KP is the emissions trading mechanism, and offsets are reflected in the clean development mechanism and the joint implementation mechanism. These are all regulated through the KP and the institutions that have been established under the Protocol, and so are regulated market mechanisms; however, participation in the mechanisms is voluntary and emissions trading is designed to be supplemental to parties’ domestic emissions cuts. The main goal of carbon trading is to make it cheaper for governments and companies to meet their GHG targets.\(^{224}\) As a result, many countries have linked increased ambitions of carbon targets to the availability of market-based mechanisms to enable them to make cost-effective carbon cuts.\(^{225}\)

An effective cap and trade system relies on robust and binding emissions targets to ensure that the permits are scarce and not oversupplied, and therefore that trading of permits will generate revenue and incentivize emissions reductions. It also requires robust reporting and strong mechanisms to monitor, track and verify emission reductions, and to force state compliance with the regime.\(^{226}\) The KP, however, currently only makes inadequate demands on member states\(^{227}\) to keep global temperature rise to 2\(^\circ\)C above pre-industrial levels. The moral hazard at the heart of carbon trading is that the low level of commitments currently enshrined in the KP delays developed countries from making

\(^{222}\) ibid 88.

\(^{223}\) ibid 90.


domestic reductions. The use of tradable permits in the KP was introduced to overcome the rigidities of regulation, but permit allocations were often made without cost in order to ‘buy the acceptance’ of industry of the new cap and trade regime. The ‘grandfathering in’ of existing pollution levels through the free allocation of permits effectively froze the status quo of emissions. The low level of ambition in the international carbon market has led to an oversupply of international carbon credits, which keeps the price of carbon at almost zero.

The EU ETS is the largest regional carbon trading mechanism, and was motivated by the emissions trading mechanism in the KP. The EU ETS was originally designed as a stand-alone mechanism, but was later linked to the KP to ensure that allowances were freely bankable by the EU at the international level. The aim of the EU ETS was to internalize the social cost of GHG emissions so that market prices would reflect the actual cost of GHG emissions. This in turn was designed to incentivize investment in low-carbon technologies and therefore lead to a low-carbon society in the EU by 2050. The scheme covers approximately 11,500 power stations and half of the EU’s CO₂ emissions. The overall EU cap is allocated to countries on the basis of National Allocation Plans, which historically gave the largest allocations to the worst polluters.

While industry opposed the institution of a carbon tax at the EU level through the Union of Industrial and Employers' Confederations of Europe (UNICE), industry supported the introduction of a market-based trading system. This was largely based on the experience of BP, which had instituted its own internal carbon trading scheme. There was, however, significant opposition to the EU ETS from German industry. To overcome this opposition,

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230 Incremental reductions were to have taken place under the second commitment period of the KP.
231 Seppanen (n 225) 44.
234 Gilbertson and Reyes (n 224) 32.
235 ibid 32.
it was agreed that free initial allowances would be provided to industry under the scheme.\textsuperscript{236} During the first trading period of the EU ETS from 2005-2007, free allocations of permits were provided to installations covered by the scheme, which meant that industry was not forced to make substantial GHG reductions.\textsuperscript{237} In 2013, 80\% of allowances were allocated for free for the third trading period. This will decline to 30\% by 2020 for the fourth trading period, and 0\% by 2027 for the fifth trading period.\textsuperscript{238} Although the percentage of free allowances are expected to decline, granting free allowances divorced from historic emission amounts provides subsidies to polluters.\textsuperscript{239}

While subsequent trading periods have implemented more stringent measures for emissions reductions, the oversupply of permits on the market has meant that the EU ETS has not successfully ensured large-scale reductions of GHG emissions, as industry is able to cheaply acquire pollution permits instead of making required GHG cuts.

When the EU ETS was designed, it assumed an upward trajectory of emissions, which was reflected in the initial supply of permits on the market. The recession from 2008-2009 led to a reduced demand for allowances.\textsuperscript{240} In addition, at the end of the second trading period from 2008-2012, there were leftover permits available to be banked in the third trading period (2013-2020).\textsuperscript{241} This meant that there was an oversupply of permits available in the market, and as a result the price of carbon permits crashed. In January 2013, the price remained low at €5/tCO\textsubscript{2}. Because of the oversupply of carbon permits in the marketplace and fluctuations in fossil fuel prices, technology costs and electricity prices,\textsuperscript{242} it is anticipated that the price of carbon will remain below €10/tCO\textsubscript{2} to the end of the third trading period in 2020.\textsuperscript{243} In addition, in the UK, the proposed carbon price mechanism in the Energy Act 2013, which would have provided a minimum price for

\begin{thebibliography}{99}
\bibitem{236} Convery (n 232) 402.
\bibitem{237} Javier de Centra de Larragan, ‘Case Note: Republic of Poland v Commission’ (2010) 1 Climate Law 199, 201.
\bibitem{238} PBL (n 233) 19.
\bibitem{239} ibid 24.
\bibitem{240} Committee on Climate Change (n 152) 59.
\bibitem{241} PBL (n 233) 14.
\bibitem{242} Committee on Climate Change (n 152) 70.
\bibitem{243} PBL (n 233) 10.
\end{thebibliography}
carbon, has been moved from a primary to secondary place in the legislation, possibly indicating political pressure to keep electricity affordable, and further weakening the legislative signal to support a high carbon price. The low price of carbon will not send an adequate price signal to industry to decarbonise. While the EU has agreed to include a stability mechanism in the EU ETS in future years, it is not clear whether this will correct the inadequacies of the EU ETS.

The following table sets out a summary of the companies’ use of market mechanisms:

Table 2 Summary of Energy Companies’ Use of Market Mechanisms

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Internal Trading Scheme</th>
<th>Shadow Price on Carbon</th>
<th>Participation in EU-ETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>1997-2002</td>
<td>Yes, $40 per tonne</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stress-test at $80 per tonnes at 2050</td>
<td>In 2012 held approximately 11,892,505 allowances</td>
</tr>
<tr>
<td>Royal Dutch Shell</td>
<td>1999-2002</td>
<td>Yes, $40 per tonne</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In 2015 held 11,117,195 allowances</td>
</tr>
<tr>
<td>BG Group</td>
<td>None</td>
<td>Not clear</td>
<td>Yes, but no detail on allowances</td>
</tr>
</tbody>
</table>

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244 ibid 3.
<table>
<thead>
<tr>
<th>Company</th>
<th>Carbon Price Floor</th>
<th>Generation Sites</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrica Plc</td>
<td>None</td>
<td>Carbon price floor of £22/tCOe</td>
<td>Some generation sites are but not clear which ones</td>
</tr>
<tr>
<td>National Grid Plc</td>
<td>None</td>
<td>Not clear</td>
<td>Not clear</td>
</tr>
</tbody>
</table>

BP Plc was originally a leader in emissions trading, establishing its own internal trading system in 1997, which was a key element in meeting its internal GHG emission reduction targets.\(^{246}\) BP calculated emissions and allocated targets for each individual business unit, and grandfathered in historic emissions.\(^{247}\) Their scheme did not actually involve the exchange of money for the purchase of permits, and there was no real penalty if targets were missed.\(^{248}\) While the scheme was innovative for its time, it was not renewed after 2002, possibly due to cost.\(^{249}\) The Shell group launched an internal pilot emissions trading scheme for three years, ending in 2002,\(^{250}\) but not many details of the results of the scheme were included in its reports. It started to apply a shadow price to major investments of $40 per tonne.\(^{251}\) BP, Royal Dutch Shell and BG all participate in the EU ETS and are members of the UK Emissions Trading Group, an industry-led association that informs and represents companies that are subject to the EU ETS,\(^{252}\) but there is a general lack of transparency in this mechanism. It is difficult to determine how many permits each company has acquired, and how many tonnes of GHG emissions this has allowed them to continue to emit.

\(^{247}\) Victor and House, 2006 (n 17) 2103.
\(^{248}\) ibid 2108.
\(^{249}\) Victor and House, 2006 (n 17) 2112.
\(^{251}\) Royal Dutch Shell Plc (n 175) 2.
\(^{252}\) See ETG <http://www.etg.uk.com/>
Six of the major oil and gas companies issued an open letter to the Executive Secretary of the UNFCCC and the President of COP 21 on 29th May 2015. The Chairmen of BP Plc, Royal Dutch Shell Plc and BG Group were three of the six signatories. The companies stated that they required clear, stable, long-term, ambitious policy frameworks, preferably global in nature, in order for their companies to do more on climate change. In particular they called for a price on carbon, and to eventually connect national trading systems into an international system.\(^{253}\) These companies are citing a clear preference for market mechanisms through a pricing and trading scheme in order for them to be incentivized to reduce their GHG emissions.

The lack of ambition in emissions targets at both the international and European level, combined with the free allowances of permits, has led to an oversupply of permits that has kept the price of carbon below a level that currently incentivises business to make emissions reductions. The carbon markets, as a result, have largely failed to ensure GHG emissions are reduced, and may lead to a loss of faith in the use of carbon markets.\(^{254}\) The market mechanisms included in both the KP and EU ETS have been largely unsuccessful at stabilising GHG emissions and ensuring dramatic emissions cuts by companies.\(^{255}\) Simply put, at the moment ‘the Invisible Hand will not stop climate change’.\(^{256}\)

### 4.4.2 Voluntary Market Mechanisms

*Corporate Social Responsibility*

From the 1970s to the 1990s, the international business community strongly resisted any internationally binding regulations directly governing their environmental activities. This approach was broadly consistent with the Anglo-American shareholder approach reviewed in Chapter Two, which generally denies ‘any significant role for the


\(^{254}\) Seppanen (n 225) 44.

\(^{255}\) Catton (n 87) 5636.

\(^{256}\) Shue (n 84) 396.
“interventionist regulatory state”. The UK government itself has been mindful of the costs that regulation imposes upon firms, and adopted an official position in a 1985 White Paper that the costs of regulation would be taken into account when any new regulation is suggested. This antagonistic approach to regulating company activities facilitated the rise of the CSR movement as a voluntary, self-regulatory approach to corporate environmentalism, and forms part of the deregulatory movement in the 1970s and 1980s.

CSR is usually understood to mean non-state based initiatives that are developed and implemented entirely by private entities. There is no universal definition of CSR, although Carroll has provided a pyramid approach to CSR that is often referred to by academics. The economic incentive of ‘be profitable’ forms the base of the pyramid, followed by the legal obligation to obey the law, the ethical imperative and lastly the philanthropic or charitable imperative. The European Commission has provided another well-used definition of CSR as a ‘concept whereby companies integrate social and

257 Moore (n 109) 92, although note that some interventionist contractarians are amenable to some regulatory intervention by company law, see note 228.
262 Carroll (n 261) 42. Carrol subsequently developed a Venn diagram of CSR, see Mark S Schwartz and Archie B Carroll, ‘CSR A Three-Domain Approach’ (2003) 13(4) Business Ethics Quarterly 503.
environmental concerns into their business operations and in their interactions with their stakeholders on a voluntary basis.'263 A number of academics have determined that CSR involves firms voluntarily going ‘beyond compliance’264 or focusing on the triple bottom line of people, profits and the planet.265 Pesmatzoglou et al. simply define it as an ‘umbrella’ term encompassing the relationship between companies and civil society.266 Johnston has argued CSR can be a more cost-effective mechanism than national regulation at tackling externalities, precisely because governments fail to efficiently deal with externalities.267

There has also been an attempt to define environmental CSR as voluntary, environmentally friendly actions, or the internalising of negative environmental externalities.268 Environmental debates on sustainable development in the 1990s viewed CSR as part of long-term business sustainability initiatives,269 but these have yet to crystalize into a coherent definition.270 Many of these initiatives have focused on the cost-savings that can be achieved by environmental activities such as waste reduction and reduced natural-resource consumption.271 Reif and Rexhauser posit that environmental

266 Pesmatzoglou and others (n 260) 191.
CSR is motivated only by cost-savings, staving off the threat of environmental regulation and consumer demand of green goods and services.\textsuperscript{272} As a result, environmentally friendly activities are usually only employed by companies when they can benefit economically.\textsuperscript{273}

CSR constitutes a business-initiated response to perceived shareholder exclusivity, and attempts to align profits with socially responsible behavior.\textsuperscript{274} While there is no international definition of CSR, it is often referred to as providing companies with the ‘social licence to operate’,\textsuperscript{275} and derives from the stakeholder approach to the corporate objective and the sustainable development agenda.\textsuperscript{276} Kagan, Thornton and Gunningham note that some companies operate beyond the requirements of regulation as a result of the confluence of pressures of various licences.\textsuperscript{277} These include the licence to operate (consisting of shareholder return requirements as well as social harm), the regulatory licence (consisting of regulatory compliance requirements) and the social licence (consisting of various stakeholder pressures on the company).\textsuperscript{278} It is often only the regulatory and social licences that will demand reductions of emissions from companies,\textsuperscript{279} and these efforts will be constrained by economic concerns if management recommends non-incremental activities.\textsuperscript{280}

A number of the companies analysed positioned GHG emission reductions at the parent level within some sort of CSR administrative grouping or approach. At Centrica Plc, it is the Board-level Corporate Responsibility Committee that analyses the group’s

\textsuperscript{274} Polishchuk (n 260) 76.
\textsuperscript{275} Pesmatzoglou and others (n 260) 189.
\textsuperscript{276} ibid 192.
\textsuperscript{277} Kagan, Thornton and Gunningham (n 122) 76.
\textsuperscript{278} ibid 77.
\textsuperscript{279} ibid 78.
\textsuperscript{280} ibid 68.
environmental risks. BG Group’s approach to climate change is incorporated through their Business Principles, which set out the group’s core standard of ethical conduct, and the company’s responsibility to people and the environment. Royal Dutch Shell positions their ‘core values’ of honesty, respect and integrity as the basis of their eight General Business Principles (which include health, safety and the environment).\(^\text{281}\) The group’s Corporate & Social Responsibility Committee was formed in 2005 and monitors the group’s adherence to its Business Principles.

In addition, a number of the companies reviewed mentioned their social and operational licences in their annual reports. Centrica was concerned that damage to their reputation as a low-carbon supplier of energy would affect their social licence to operate.\(^\text{282}\) BP Plc notes that its licence to operate is earned through real benefits delivered to the communities in which they operate.\(^\text{283}\) Shell couched its ability to grasp the challenge and opportunities of climate change as integral to its ‘licence to grow’.\(^\text{284}\) When BG Group’s GHG emissions rose in 2013, it put in place a ‘Licence to Operate’ scheme in order to satisfy its stakeholders,\(^\text{285}\) although this scheme did not include concrete absolute GHG emission reduction pledges. It appears that CSR is particularly important to all of the companies analysed, but it is a voluntary mechanism used in order to appease concern over environmental damage, including increasing GHG emissions. The CSR mechanisms employed by these companies do not necessitate binding GHG emission reductions by the companies that consistently mentioned CSR mechanisms, but focus on ethical, non-binding responsibilities.

\(^{281}\) Royal Dutch Shell Plc (n 22) 7.
\(^{282}\) Centrica Plc (n 34) 11.
\(^{285}\) BG Group (n 178) 5.
Voluntary Codes of Conduct and the United Nations Global Compact

While CSR and corporate governance codes are distinct concepts, voluntary corporate codes were promoted as part of the CSR agenda towards the environment. For example, the OECD Guidelines included an environmental chapter in 1991, and the CERES coalition of investors, concerned about the environmental impact of business, was formed in 1989 following the Exxon Valdez oil spill. Codes can be either public (applicable to all companies or an industry) or private (developed for a specific company), and are often used as a mechanism to avoid regulation. Codes are flexible in that they are often voluntary and not binding, and therefore can be catered to the individual needs of a company or industry. Codes can also bring predictability and stability to a particular area of corporate activity, foster public trust, and align corporate activities with public expectations. Codes can also be used to curry favour with the public, or to respond to public outcry or concern in a particular area, without binding a company to taking specific, often costly, steps to rectify the issue, which would contravene the shareholder primacy norm of profit maximization. Teubner states, 'They try both to overcome the primacy of shareholder value in favour of a stakeholder-orientation as well as to realize self-restraint in the areas of labour, product quality, environment and human rights'. The voluntary nature of codes means that they are often not effective in ensuring compliance by companies, particularly in the environmental arena, where preventive or clean-up actions are often costly.

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286 Yeung, Huang and Liu (n 261) 5.
288 Jenkins divides codes into five types: company codes, trade association codes, multi-stakeholder codes, model codes and inter-governmental codes. Jenkins supra (n 259) iv.
291 ibid 400, 405, 415.
292 Teubner (n 289) 613.
The United Nations Global Compact

Given the failure of the international community to agree binding obligations on companies, the weak obligations existing in the UNFCCC, KP, and the Paris Agreement, the abdication of English national courts to regulate environmental issues, and the inherent challenges of regulation to effectively deal with climate change, the role of corporate environmental regulator was largely left to the UN and CSR. The United Nations, realising this gap in global governance,\(^{294}\) put forward the idea of a global compact directly between the UN and global companies. However, international business organisations were resistant to the idea of the compact as a binding international code, and only agreed to engage with the United Nations on the basis that the compact remained a voluntary initiative.\(^{295}\)

The UN Global Compact (or UNGC) provides for ten voluntary principles to which all companies can sign. The principles cover broad areas of CSR such as human rights, labour rights, environmental rights, and anti-corruption. Principles 7-9 cover environmental areas, and stipulate that companies should support the precautionary approach to environmental challenges (Principle 7), should undertake initiatives to promote greater environmental responsibility (Principle 8), and should encourage the development and diffusion of environmentally friendly technologies (Principle 9). The principles are broad, and contain guidance regarding steps that companies can take to implement them. These steps include the development of codes of conduct and strategies, and the use of environmental management, monitoring and verification programmes. The UNGC currently has over 12,000 participants, which include companies, NGOs and other stakeholders, located in 145 countries, and is presently the largest global voluntary

\(^{295}\) ibid 71.
corporate initiative.\textsuperscript{296} Participants include a large number of companies in the extractive industry, including energy, oil, timber and mining companies.\textsuperscript{297}

None of the principles specifically refer to the reduction of GHGs by companies, although the Caring for Climate (C4C) initiative was developed in 2007 by the UNGC, United Nations Environment Programme and the Secretariat of the UNFCCC. The goal of the C4C is to advance the role of business in addressing climate change by companies endorsing a UN ‘Caring for Climate Statement’, setting goals and targets, and disclosing their emissions under the UNGC Communication on Progress.\textsuperscript{298}

Any company, regardless of its past environmental performance, can join the UNGC. Every participant can choose which four of the ten principles to cover in their Communication, and can choose their own methodology to measure performance. The lack of monitoring and enforcement, coherence, or minimum criteria for the Communications, as well as the fact that any NGO criticisms are not included in the Communications themselves, has led some academics to conclude that the UNGC is ineffective, toothless,\textsuperscript{299} and has led to a loss of public trust in the UN.\textsuperscript{300} The UNGC has also been criticised for incorporating some assumptions of ameliorative CSR: for supposing that an automatic balance can be struck between the demands of the market and socially responsible norms,\textsuperscript{301} and for diminishing areas of conflict between the shareholder profit maximisation imperatives of business and the costs of environmentally responsible corporate behaviour.\textsuperscript{302}

\textsuperscript{296} United Nations Global Compact <https://www.unglobalcompact.org/AboutTheGC/index.html>.
\textsuperscript{298} See www.caringforclimate.org.
\textsuperscript{302} Hughes (n 299) 157.
This criticism can be extended to the concept of voluntary codes of conduct for companies as a whole, as they inherently rely upon self-regulation and self-restraint by companies. To date there are no international codes directly binding upon companies in the environmental arena, or specifically in relation to climate change and the reduction of GHGs. As a result of their voluntary nature, none of the existing global codes ensure that companies are accountable. This is particularly true where inadequate monitoring or enforcement mechanisms exist, resulting in no guarantees of compliance. Vague or inadequate language in codes can also result from the self-interest of the companies involved. A number of academics have criticised the effectiveness of codes in ensuring environmental improvements by companies, and have stated that they should merely complement, and not replace, regulation.

Private, voluntary initiatives

A number of private-based, voluntary initiatives have been developed to fill this void, such as the ISO 14000, the Carbon Disclosure Project (or CDP), the Global Framework for Climate Risk Disclosure, and the Global Reporting Initiative (GRI), which all advocate voluntary reporting of environmental performance and GHG emissions. The ISO standards are a hybrid of public- and private-sector standards, and are voluntary, industry-based...
tools309 developed to measure environmental-management procedures of companies. The ISO 14000 was developed in collaboration with the participation of the ICC and other industry representatives on the ISO technical committees.310 However, even these private initiatives are voluntary, and companies self-regulate their adherence to them, unless they use an external certification mechanism.

Most of the companies reviewed do report their GHG emissions under the CDP initiative. BG Group’s documents have been in compliance with the Global Reporting Initiative since 2008311 and 90% of BP Plc’s emissions were verified by ISAE3000 (a CDP project). Royal Dutch Shell Plc and National Grid take into account ISO 14001, and Centrica subscribes to the WRI GHG Protocol and the GRI Sustainability Reporting Guidelines.

Several of these companies have either signed up to, or themselves formed, new voluntary initiatives such as the World Bank Zero Routine Flaring by 2030 initiative, or the Oil and Gas Climate Initiative launched by the UN Secretary General in September 2014, which provides an industry-driven platform for companies to voluntarily share technical solutions to climate change.

4.4.3 Analysis of Market Mechanisms and Energy Companies

The EU ETS appears to be the informal mechanism most used by the companies examined, but due to system design, or perhaps to problems inherent to market mechanisms, the EU ETS has not been effective in reducing GHG emissions. There is also a general lack of transparency in the system; it is difficult to determine how many permits each company has actually acquired, and what impact, if any, the purchase of the permits has had on their GHG emissions. Therefore, it is difficult to determine exactly what the EU ETS requires, and what impact, if any, if has had on each of the companies examined. Three of the six companies examined have also advocated strongly for a price on carbon instead of regulatory mechanisms requiring a reduction of GHG emissions. While many of

the companies examined apply a shadow price on carbon, this policy has not detracted from initiatives by the companies to access hard-to-reach and therefore more expensive oil and gas reserves such as shale oil and seams, and therefore, at the moment, an informal carbon price is also not effectively disincentivising these companies from expanding their production to high-emitting resources.

All of the companies analyzed are members of the UNGC; however, these companies created very few discrete documents to demonstrate their compliance with the UNGC principles, and it was not clear which of the principles they were subscribing to. Most companies merely provided links to their existing sustainability reports, and to their CDP Information Request reports where these were available. The UNGC does not, therefore, require that companies do anything more than employ existing, business-as-usual, voluntary initiatives. The CDP reporting format, while voluntary, also seems to be very popular with many of the companies examined. This voluntary, private initiative does motivate more detailed disclosure by these companies of their GHG emissions, and may have prepared them to be compliant with the regulations of the GHG directors. The CDP initiative does not, however, require that companies reduce their GHG emissions.

All of the companies analysed employ CSR initiatives in one form or the other. Some type of CSR committee is often the mechanism to analyse environmental risks and activities. It is difficult to quantify the output of CSR and compliance with voluntary codes, or their contribution to sustainable development and environmental goals.\(^{312}\) Voluntary mechanisms often lack coherence, and so can be manipulated by companies by choosing their own baselines and methodologies for monitoring and enforcement.\(^ {313}\) As a result, it is often difficult to measure and verify progress towards CSR goals either within the same company, or between companies or industries. This criticism of CSR is borne out by the examination of the companies analysed. Their CSR initiatives cover many areas such as human rights, employment benefits, as well as environmental initiatives. When reporting increases in GHG emissions, a number of these companies referred to some type of CSR

\(^{312}\) Pesmatzoglou (n 260) 198.

\(^{313}\) Rosen-Zvi (n 308) 551.
licence as a potential tool to address this problem, but did not identify how, if at all, this CSR initiative could contribute to reductions in GHG emissions. There seems to be no concrete connection between CSR initiatives that direct, or cause, GHG emission-reduction initiatives.

4.5 Conclusion

International binding agreements on states such as the UNFCCC, KP and the Paris Agreement are compromise laden, and fail to provide stringent, binding targets on GHG emissions. This is largely due to lack of political will and to industry concerns with international competitiveness and carbon leakage. As a result, there are no internationally binding obligations on companies to reduce GHG emissions. National regulation, while targeted and policy-driven, is a flawed process and currently only involves obligations on directors to report, not reduce, GHG emissions. Voluntary initiatives are currently the main mechanisms employed by the energy companies analyzed. CSR is an amorphous concept that is general and evolving. The same can be said for strategic environmental CSR. While CSR may motivate some movement, this will only be the case where the social licence requirements exceed those of licence to operate and the profit motive of companies. Although limits to these licences (even the economic licence) are as yet unclear, drastic reductions of GHG emissions by companies are faltering because only external stakeholders are exerting pressure on corporate managers. Johnston argues that CSR in the realm of companies should consist of internalizing externalities and may be more cost-effective than regulation, but would require changes to shareholder value in order to be truly effective.

None of the companies reviewed are subject to regulatory requirements to reduce their GHG emissions, and only one company employs absolute GHG emissions reductions

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314 Polishchuk (n 260) 75.
316 Lyon and Maxwell (n 268) 17; Lozano (n 270) 33; Valentine (n 270) 286.
317 Kagan, Thornton and Cunningham (n 122) 82.
318 Johnson (n 267) 237.
targets. The main regulatory tool that they are subject to is the EU ETS, but there is a general lack of transparency on their level of participation and levels of credits and transfers obtained. Most of these companies seem to view formal regulatory action to reduce emissions as a risk to their business, and many seem to prefer the market mechanism of pricing carbon to regulatory action. Market-based mechanisms may reduce or eliminate the incentive for companies to invest in costly innovations\(^{319}\) that reduce or eliminate emissions over the long term. While many of these companies have experimented with voluntary targets, and in the case of BP even a trading scheme, cost and growth constraints take precedent. Instead of emissions reductions, these companies (with the exception of National Grid), appear to prefer voluntary initiatives, including reporting initiatives such as CDP. Instead of absolute emissions reductions, these companies appear to rely heavily on energy-efficiency measures that are cost-effective, and on investing in research and technology that would capture existing emissions. For example, BG Group has created technology hubs for carbon management, and focuses heavily on carbon capture and storage (CCS)\(^{320}\). Royal Dutch Shell Plc supports the future use of CCS\(^{321}\). In fact, these companies see their oil and gas resources as a necessary and significant part of the energy future for several decades to come\(^{322}\), even though they acknowledge that they are tapping mature fields, accessing hard-to-reach hydrocarbons, and are involved in the shale gas boom. BP estimates that fossil fuels will make up 3/4 of the energy mix by 2035\(^{323}\), and Royal Dutch Shell Plc estimates that fossil fuels could still meet 65% of global energy demand by 2050\(^{324}\). Many of these companies did not agree with the position that their reserves may become ‘stranded assets’ if we are to meet the global 2°C goal\(^{325}\). Without having GHG emission targets or providing a long-

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321 Royal Dutch Shell Plc (n 22) 16.
322 BP Plc (n 16) 13; BG Group, ‘Climate Change Public Position’ (2012) (n 28) 1.
324 Royal Dutch Shell Plc (n 175) 6.
325 BP Plc, ‘Sustainability Review 2014’ (2014), 16 <http://www.bp.com/content/dam/bp/pdf/sustainability/group-
term vision on climate change, these companies are not making plans to divest from fossil-fuel exploration, extraction and exploitation, but in many cases are planning to increase production of fossil fuels, which will necessitate an increase in their GHG emissions. The external review committee’s review of Shell’s 2014 sustainability report encapsulates the deep ambiguity that pervades many of the companies’ reports when it comes to climate change. It states:

While the report explains Shell’s present strategy in the context of the energy transition, it does not yet present a long-term vision with goals that make clear how Shell envisions its future role. Are future energy solutions including renewables perceived as a threat to Shell’s business model or does Shell welcome and support the future they herald? How and in what time frame will Shell capital investment evolve from today’s fossil fuel predominance?326

While most of the companies reviewed discuss the importance of sustainability, it is often linked with the success of the business.327 In fact, many of the companies reviewed call their annual reports ‘Sustainability’ reports. However, none of the reports mention profit-sacrificing activities in order to achieve sustainability goals. In fact, future efficiency aims are linked to short pay-back periods.328

While all of the companies discuss and recognise the importance of climate change, none of them have long-term plans on how their business operations will change in order to dramatically reduce their GHG emissions and contributions to climate change. In fact,
many of the companies anticipate that their traditional fossil-fuel activities will continue to play a significant role in the energy future.

Saeverud and Skjørseth note that actual investments linked to emissions reductions and the application of climate-friendly technologies demonstrate an actual commitment to climate change strategies. While a number of the companies reviewed have invested in GHG emission reductions and renewable energy technologies, their commitments to these endeavours have waned and profits appear to continue to be the primary motivator; GHG emissions of these energy companies are slowly increasing as their production activities increase. The CDP 2013 Global 500 Report supports the case study analysis of these five energy companies. The CDP report states that while total Scope 1 and 2 emissions from the largest, ‘Global 500’ companies are decreasing, the same emissions from the largest 50 global emitters have actually increased since 2009. The report continues that the largest percentage of the Global 500 companies that have no environmental targets are the highest-emitting companies, such as energy companies. According to the CDP, energy companies give similar explanations for why they do not have company-wide, absolute GHG emission targets: business is expanding and emission reduction targets will constrain their growth. Expansion, profit incentives and shareholder primacy, therefore, are continuing to be the main incentives for company operations in this area, and override any other incentives to reduce GHG emissions. Given the limitations of the mechanisms analyzed in this Chapter, Chapter 5 will explore the potential of decentralised regulatory mechanisms such as litigation and fiscal mechanisms.

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329 Saeverud and Skjørseth (n 23) 45.
331 ibid 24.
332 ibid 24.
5. Chapter 5 – Decentred Regulation: Litigation and Fiscal Mechanisms

5.1 Introduction

Chapter 5 will provide an analysis of additional mechanisms that often fall outside of the traditional remit of state-centred regulation. These consist of pressures or levers that affect both state and corporate climate change-related activities. These mechanisms fall into the general categories, litigation and fiscal mechanisms. More specifically, they include an analysis of the impact of litigation on climate change, including an analysis of the relationship between human rights law and companies, and specifically the emerging relationship between human rights and climate change. Fiscal barriers and initiatives include fossil-fuel subsidies, global carbon taxes, and institutional investment trends, including the principles of sustainable investment, as well as the divestment movement.

The chapter will begin with an analysis of the connection between climate change and human rights, and the increase of global climate change litigation against states and energy companies. These initiatives are closely related to environmental regulation covered in Chapter 4, but take a more transnational approach. The second half of the chapter will cover the wide range of financial pressures being exerted on companies. These include the issue of fossil-fuel subsidies, global carbon taxes and institutional investment trends. Chapter 5 will conclude by charting the rise of institutional investors’ activities on climate change, including the sustainable investment trend, and the more recent divestment movement. These initiatives are related to company theories and law analysed in Chapters 2 and 3, but focus less on the corporate governance role that investors play, than on recent initiatives by investors themselves on climate change. The chapter concludes by highlighting some parallels between shareholder wealth maximisation and the challenges of short-termism identified in previous chapters.

This chapter draws on a more holistic and pluralistic approach to regulation than the state-centred definition employed in Chapter 4. Chapter 4 focused more intently on black-letter law, international conventions where states have direct obligations, and market mechanisms and voluntary initiatives in which companies participate directly. Instead, Chapter 5 expands the theoretical analysis of regulation initiated in Chapter
4 through the exploration of broader, more contextual approaches to regulation by relying more heavily on the ‘decentred’ concept of regulation employed by Black.¹ According to Black, decentred regulation can be defined as follows:

Regulation is the sustained and focused attempt to alter the behavior of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behavior-modifications.²

According to her approach, a wider concept of regulation disperses power between social actors and between non-state actors and the state.³ Although she notes that once ‘untethered’ from the state, it is not clear where the boundaries of decentred regulation lie,⁴ the concept would include the courts, and as such, litigation.⁵ Litigation includes mediated rights of litigants against regulated bodies such as states, which indirectly affects companies. Decentred regulation could also include actions by private groups and associations, including private environmental governance regimes.⁶ This Chapter also draws on Heyvaert’s concept of transnational environmental law, which includes a ‘richer, more diversified notion’ than state-centred regulation.⁷ The initiatives covered in Chapter 5 are emerging ones, and often transnational. They are also generally excluded from traditional understandings of state-based regulation or market mechanisms, and to a large extent also fall beyond the direct control of companies. These mechanisms, however, can exert a tremendous influence over climate and energy regulation and policies going forward, and therefore are likely to impact corporate policies and practices on climate change in the near future. For example, decisions made by institutional investors may fall outside the control of companies, but may affect them significantly, particularly fossil-fuel companies. Many of these mechanisms involve recent developments, such as the

¹ Julia Black, ‘Critical Reflections on Regulation’ (2002) 27 Australian Journal of Legal Philosophy, 1; also see the discussion regarding state-centred regulatory theory in Sections 4.3.4 and 4.3.5 of Chapter 4.
² ibid 26.
³ ibid 5-6.
⁴ ibid 2.
⁵ ibid 17.
⁶ ibid 83-84.
emerging relationship between human rights and climate change, the divestment movement, as well as the Oslo Principles of Global Climate Change Obligations. These emerging issues, therefore, pave the way for the recommendations provided in the concluding chapter.

5.2 Global Litigation Trends

As set out above, litigation can be considered part of a more nuanced approach to regulation, and as such the rise of litigation against both states and fossil-fuel companies is analysed here. The US jurisdiction has seen the bulk of climate change litigation, and several countries have looked to this jurisdiction for ‘normative and legal developments’\(^8\) to support other climate-change litigation suits. There have been two cases in the EU, one in The Netherlands and one in the UK, as well as a case in Pakistan, that could establish a more progressive approach to climate change litigation in the years to come. Most of the litigation involves human rights issues, and there is an emerging area of human rights and climate change law. As such, the relationship between human rights and companies is explored below.

5.2.1 Human Rights as an Environmental Concern to Companies

Concerns regarding the negative impact of corporate activities on human rights grew in the 1970s, particularly with the rise of transnational corporations’ operations in developing countries.\(^9\) The OECD Guidelines for Multinational Corporations were agreed in 1976,\(^10\) followed by the International Labour Organization’s Tripartite Declaration of Principles Concerning Multinational Enterprises in 1977.\(^11\) Concerns continued to grow in the 1990s concerning corporate activities, which affected labour issues such as the employment and exploitation of children and intimidation of union leaders. In addition, concerns grew regarding corporate environmental pollution, and also indirect participation in human rights abuses.\(^12\) These concerns were fueled by

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human rights abuses, such as the execution of Ken Sara Wiwo in Nigeria, where Shell had significant operations, the activities of the Occidental Petroleum Corporation in Columbia, and ExxonMobil’s activities in Indonesia. In 1998, the Human Rights Act in the UK incorporated the European Convention on Human Rights into domestic law, and these rights are therefore applicable to ‘private commercial activities’.

Further global voluntary initiatives were promulgated as a result of these concerns, such as the United Nations Global Compact and the Voluntary Principles on Security and Human Rights in 2000, the Kimberley Process Diamond Certification Scheme and the Extractive Industries Transparency Initiative in 2002. However, there was also a push to go ‘beyond volunteerism’ globally, a push that resulted in the United Nations Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights (or UN Norms).

The UN Norms were controversial as they sought to impose legal obligations on transnational corporations to ‘promote, secure the fulfillment of, respect, ensure respect of and protect human rights’. They sparked a divisive debate between human rights advocacy groups, which supported binding obligations, the business community, such as the International Chamber of Commerce, and countries, such as the US and UK, that strongly resisted the imposition of legal obligations on companies. Dine notes that imposing human rights obligations on companies is difficult and complex, mainly due to the fact that companies are not formal legal actors under international law and therefore are not directly bound by international human rights law. In order to resolve this deep divide, John Ruggie was appointed in 2005 as special representative of the Commission of Human Rights on the issue of business and human rights, with the mandate to ‘identify and clarify’ international standards.

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13 ibid Murphy and Vives.
15 Mantilla (n 9) 285-6.
17 ibid Article A.1.
and policies.\textsuperscript{20} The United Nations Human Rights Council unanimously welcomed his 2008 Framework.

Perhaps having learned the lesson of the UN Norms\textsuperscript{21}, the 2008 Framework established a three-pronged approach of ‘protect, respect and remedy’, but only included a responsibility, not a legal duty, of companies to ‘respect’ human rights. While this responsibility includes a duty to avoid causing or contributing to adverse human rights impacts, and to establish policies and processes to meet the responsibility to respect,\textsuperscript{22} it is non-binding and voluntary only in respect of companies. Ruggie also produced a set of ‘Guiding Principles’ in 2011 to operationalize the framework.\textsuperscript{23} The Guiding Principles recommend that companies institute a formal policy to respect human rights, a human-rights due diligence process to identify impacts, and a remediation process.\textsuperscript{24} The 2015 UN Guiding Principles Reporting Framework provides further procedural details for companies.\textsuperscript{25} Academics are divided as to the actual impact of the Ruggie Framework and Guiding Principles. Bellace notes that the Guiding Principles have ‘changed the landscape’\textsuperscript{26} of human rights. Davis notes that the 2008 Framework and the 2011 Guiding Principles were the driving force behind the addition of a human rights chapter to the OCED Guidelines in 2011.\textsuperscript{27} Other commentaries have taken a less enthusiastic approach, noting that the Guiding Principles constitute the least common denominator of recommendations,\textsuperscript{28} are too expensive and time consuming for companies to institute, and are unlikely to be effective unless policy makers put pressure on companies to incorporate them.\textsuperscript{29}

\textsuperscript{20} Mantilla (n 9) 289; Janice R Bellace, ‘Hoisted on Their Own Petard? Business and Human Rights’ (2014) 56(3) Journal of Industrial Relations 442, 453.
\textsuperscript{21} Miretski and Bachman (n 18), 35; Bjorn Fasterling and Geert Demuijnck, ‘Human Rights in the Void? Due Diligence in the UN Guiding Principles on Business and Human Rights’ (2013) 116 J Bus Ethics 799, 800.
\textsuperscript{22} Human Rights Council (n 18) Annex, Article II.
\textsuperscript{24} ibid pp 13-25.
\textsuperscript{25} See <http://www.ungpreporting.org/>.
\textsuperscript{26} Bellace (n 20) 454.
\textsuperscript{27} OECD <http://www.oecd.org/corporate/mne>.
What is apparent is that the Framework and Guiding Principles constitute soft law instruments only, and do not impose legal obligations on companies to abide by international human rights standards. Ruggie’s approach has generally followed the incrementalist, voluntary approach advocated by companies. This approach mirrors the Corporate Social Responsibility movement covered in Chapter 4. Businesses have no substantive, direct legal obligations except to institute policies and remediation procedures, and companies have been successful in ensuring the minimisation of their legal responsibilities.

5.2.2 Human Rights and Climate Change

While there is no clear, hard law yet in the area of businesses and human rights,\(^\text{30}\) there is emerging jurisprudence on human rights and climate change. The United Nations has determined that climate change can potentially violate a number of existing human rights, such as the right to life, adequate food, attainment of the highest standards of physical and mental health, adequate housing, self-determination, safe drinking water and sanitation, and the right to development.\(^\text{31}\) Many constitutions also specifically protect the right to a healthy environment as a collective, third-generation human right.\(^\text{32}\) There have also been arguments that there is a human right not to be exposed to dangerous climate change,\(^\text{33}\) otherwise deemed as ‘climate rights’. The 2007 Male Declaration on the Human Dimension of Global Climate Change was the first intergovernmental statement on the relationship between climate change and human rights.\(^\text{34}\) In the lead-up to the Paris Conference of Parties (COP), a number of countries made a voluntary pledge to facilitate the sharing

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\(^{32}\) These include countries such as Republic of Azerbaijan, Kingdom of Belgium, Republic of Chile, Costa Rica, Colombia, Cape Verde, Federal Republic of Ethiopia, Finland, Greece, Kenya, South Korea, Republic of Turkey, Ukraine and Republic of Yugoslavia, see Binod Prasad Sharma, ‘Constitutional Provisions Related to Environment Conservation’ (September 2010), 3-5 <https://cmsdata.iucn.org/downloads/constituti on_provisions_related_to_environment_conservati on_final.pdf> accessed 4 May 2017.

\(^{33}\) Eric Brandstedt and Anna-Karin Bergman, ‘Climate Rights: Feasible or Not?’ (2013) 22(3) Environmental Politics 394, 395.

\(^{34}\) Available at <http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf>
of knowledge and experience between human rights and climate change.\textsuperscript{35} The Paris Agreement is the first international environmental agreement to explicitly recognise the relationship between climate change and human rights.\textsuperscript{36} It contains a preambular reference acknowledging that states, when taking climate action, should respect, promote and consider their obligations on human rights.\textsuperscript{37} Knox notes that, ‘In an important sense, the Paris Agreement signifies the recognition by the international community that climate change poses unacceptable threats to the full enjoyment of human rights….’\textsuperscript{38} However, he continues that the causal links on attribution for specific effects of climate change are still uncertain,\textsuperscript{39} and further work needs to be done in order to fully implement and strengthen the rights set out in the Paris Agreement.\textsuperscript{40}

In his recent report to the Human Rights Council, Knox outlines specific obligations that states have in respect to climate change. These include largely procedural obligations to assess environmental impacts, facilitate public participation and provide access to remedies for harm.\textsuperscript{41} They also include obligations on states to adopt legal and institutional frameworks to protect against and respond to environmental harm.\textsuperscript{42} This obligation on states also applies to harm caused by companies, as companies have an obligation to respect human rights.\textsuperscript{43} It is not clear whether climate rights would be recognised as traditional, enforceable human rights, or, as Brandstedt and Bergman have argued, simply as criteria by which certain political, social and economic developments and institutions could be judged.\textsuperscript{44}

\textsuperscript{37} ibid.
\textsuperscript{38} Human Rights Council (n 36) para 22.
\textsuperscript{39} ibid para 34.
\textsuperscript{40} ibid 22.
\textsuperscript{41} ibid para 50.
\textsuperscript{42} ibid para 66.
\textsuperscript{43} ibid para 66.
\textsuperscript{44} Brandstedt and Bergman (n 33) 395.
Whether or not specific climate rights have emerged for companies, there is a clear consensus that the impacts of climate change will affect a number of existing, traditional human rights. States may become liable for violations of human rights not only within their own state, but also potentially extraterritorially.\(^{45}\) While actions for human rights violations are traditionally made against the state, there is an argument that companies could also be held liable. The extractive industry in particular has been criticised for their close proximity to, if not liability for, human rights violations in general.\(^{46}\) These types of suits would involve significant operational, regulatory and reputational risks for enterprises.\(^{47}\) Globally, there have been a number of pieces of litigation that have employed human rights discourse against both states and private entities, particularly energy companies.

5.2.3 Climate Change Litigation

Climate litigation has been a self-help tool used for several years to motivate regulatory action on climate change. While it is difficult to define the parameters of what constitutes ‘climate litigation’, it is generally thought that the first climate action was initiated in the United States in 1990.\(^{48}\) This type of litigation has taken a variety of forms, including using public law tools such as human rights, constitutional law and judicial review,\(^{49}\) but also private law mechanisms, such as tort, nuisance or negligence.\(^{50}\) Osofsky has noted that most climate change litigation is targeted toward incentivising stricter carbon regulation as well as generating greater public attention and therefore greater social pressure on states to take action.\(^{51}\) Flynn notes that, even


\(^{50}\) Preston (n 48) 4.

if litigation suits are unsuccessful, they can persuade companies to shift assets to more sustainable sources, put pressure on them to lobby legislatures to develop comprehensive climate change legislation, and also keep the issue of climate change alive in the public consciousness.\textsuperscript{52}

There has been very little climate change litigation in Europe,\textsuperscript{53} and even less in the UK. Jurisdictions such as New Zealand, the United States, Australia and South Africa, have been more active in terms of suits filed against the Government and even private entities. Citizen action has taken place in jurisdictions such as Pakistan and more recently, the Philippines and South Africa.\textsuperscript{54} As part of the common law tradition, these cases can throw light on potential suits both in the UK and also against UK-based transnational energy companies. A recent Dutch case of \textit{Urgenda} does have direct relevance for EU energy policy. This section also covers a UK case that deals with government policy on an air pollutant, although not directly a greenhouse gas.

Private entities, particularly carbon-major entities, have also been subjected to climate change litigation.\textsuperscript{55} The US has seen the bulk of climate change litigation, and several countries have looked to this jurisdiction for ‘normative and legal developments’\textsuperscript{56} to support other climate change litigation suits. US claims can be broadly divided into nuisance-based claims directed against private entities, and regulatory challenges, directed mainly against the Environmental Protection Agency.

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\textsuperscript{54} See Ashgar Leghari v Federation of Pakistan, Lahore High Court P. No. 25501/2015, as well as a citizen petition filed in The Philippines against 47 carbon major companies in May 2016, <http://www.greenpeace.org/seasia/ph/PageFiles/735232/Climate_Change_and_Human_Rights_Petition.pdf> and a case brought by an NGO against the Government for failing to take into account climate change considerations when approving a new coal-fired power plant, Earthlife Africa Johannesburg v Minister of Environmental Affairs (and others), High Court of South Africa, Pretoria Case number 65662/16 decided on 8 March 2017, <http://www.saflii.org/za/cases/ZAGPPHC/2017/58.html>.


The American Electric Power v Connecticut case was an example of a public nuisance suit brought by eight states and New York City against six electric and utility companies. They essentially argued that the emissions of these companies were interfering with public rights, and asked the court to impose emission caps on these entities, with a scale of decreasing caps to force them to reduce their emissions. The Supreme Court rejected the claim of the plaintiffs on the basis of that the Clean Air Act ‘displaced’ any federal nuisance action dealing with climate change. Justice Ginsberg provided the unanimous decision of the court and she stated that there was no ‘parallel track’ for federal nuisance claims on climate change in addition to federal regulatory action already taken under the Clean Air Act. This definitive statement by the Supreme Court has effectively closed the door to future federal nuisance common law claims on climate change, even though Flynn notes that the EPA had not taken comprehensive action on climate change at the time.

The case of Native Village of Kivalina v Exxonmobil Corporation involved the self-governing Village of Kivalina in the Arctic bringing a suit for public nuisance against twenty-two fossil-fuel producers. The Tribe of Inupiat Eskimos claimed that these companies had contributed to climate change, which had led to the dramatic erosion of the Arctic sea ice that had sheltered their Village from winter storms. In September 2012 the 9th Circuit Court of Appeals dismissed their claim on the basis that common law claims had been ‘displaced’ by legislation. In May 2013 the Supreme Court dismissed their appeal without giving reasons, leaving the 9th Circuit ratio intact.

Sorenson has argued that the Kivalina case relied heavily on the ‘displacement’

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57 Flynn (n 52) 832.
58 131 S Ct. 2527 (2011).
59 American Electric Power (n 55) 1.
61 American Electric Power (n 55) p. 11.
62 Flynn (n 52) 856; Dirisek (n 56) 109.
63 Flynn (n 52) 847-8. Flynn argues that the Clean Air Act only addresses domestic air resources whereas the impacts of climate change are more complex, exceeding impacts on air, and are also transboundary.
64 663 F. Supp 2d 863.
argument of the American Electric Power case, confirming that American Electric Power applies to all federal climate change litigation cases, regardless of whether mitigation action or damages is being sought. Both the American Electric Power case and the Kivalina case make it clear that US courts are employing the displacement doctrine to ensure that climate change is decided by the legislature. While regulatory litigation has seen more success in the US, it is clear that federal common law nuisance claims on climate change will be much more difficult to launch.

A case in the Commonwealth region is the New Zealand case of Greenpeace New Zealand v Genesis Power Ltd, where an NGO, Greenpeace New Zealand, launched a suit against the Auckland District Council for failing to consider climate change when issuing a resource consent to Genesis Power to build an electricity generating plant. The majority opinion relied heavily on a textual interpretation of s104E of the Resource Management Act 1991, deciding that the legislative text only required a consideration of climate change when issuing resource consents for renewable energy projects. A powerful dissenting judgment by Chief Justice Elias focused instead on the purpose of the legislation, and the importance of mitigation of greenhouse gas emissions.

While much of this litigation has been between domestic actors, there is an argument that carbon-major entities could also be sued for harm caused to other international actors, especially low-lying states. There are a number of hurdles for tort-based

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68 Flynn (n 52) 837.
69 For example see Massachusetts v EPA 549 US 497 (2007) where several states and NGOs successfully sued the EPA for not regulating greenhouse gases.
70 A recent class action suit was launched by young people in the District Court of Oregon, claiming that failure by Government to take action on climate change has violated their 5th Amendment rights by denying protection provided to previous generations by favouring economic short-term interests and denying future generations of essential natural resources; see Juliana et al. v United States of America et al. Case No. 6:15-cv-01517-TC, Opinion and Order (10 November 2016) U.S. District Court - District of Oregon.
71 [2008] NZSC 112.
72 ibid.
73 ibid para 65.
actions, in particular the issues of causation due to the diffuse nature of GHG emissions, how to identify an appropriate class of defendants, as well as the difficulty in linking any harm caused to specific emissions either from one state or one company.\textsuperscript{76} However, as the scientific knowledge on attribution evolves, these causation hurdles may become easier to navigate.\textsuperscript{77}

Despite these difficulties, two new cases have emerged that reveal some interesting liability issues for states. The first case of \textit{Urgenda Foundation v The State of The Netherlands (Ministry of Infrastructure and the Environment)}\textsuperscript{78} in June 2015 allocated vicarious liability to the Dutch state for emissions from all national sectors, including private entities.\textsuperscript{79} Urgenda is an NGO, which was established in 2008 and advocated for stricter climate regulation from the Dutch state.\textsuperscript{80} Urgenda brought a suit against the Dutch state, claiming that the national targets of a reduction of 17\% against 1990 levels by 2020 was not sufficient to avoid the dangerous impacts of climate change. The Dutch District Court agreed, stating that climate science would require a reduction of at least 25-40\% below 1990 levels by 2020. It is interesting to note that the 17\% target that The Netherlands adopted was in line with EU national targets. The Court found that, on the basis of scientific reports, the risks of later-action were much greater than earlier, lower-cost action, citing concerns over locked-in carbon intensive infrastructure, economic disruption, failure to meet the 2\^\circ C global goal, higher rates of emissions and greater dependence on certain technologies in the medium term.\textsuperscript{81} The state argued, in its defence, that requiring more ambitious targets than had been agreed regionally or internationally would lead to the risk of carbon leakage and competitiveness concerns.\textsuperscript{82} The Court disagreed with these arguments and took a

\begin{footnotesize}
\textsuperscript{76} Preston (n 48) 7; Josephine van Zeben, ‘Establishing a Governmental Duty of Care for Climate Change Mitigation: Will Urgenda Turn the Tide?’ (2015) 4(2) Transnational Environmental Law 339, 348.
\textsuperscript{77} Péloffy (n 66) 143; Human Rights Council (n 36) para 36; see also a recent report on attribution and climate change, Committee on Extreme Weather Events and Climate Change Attribution, Board on Atmospheric Sciences and Climate, Division on Earth and Life Studies, National Academies of Sciences, Engineering, and Medicine, \textit{Attribution of Extreme Weather Events in the Context of Climate Change} (National Academies Press, 2016).
\textsuperscript{78} C/09/45689/HAZA 13-1396, (24 June 2015).
\textsuperscript{79} Nyinevi and Nkrumah (n 75) 143.
\textsuperscript{80} van Zeben (n 76) 342.
\textsuperscript{81} \textit{Urgenda v The State} (n 78) 13.
\textsuperscript{82} van Zeben (n 76) 343.
\end{footnotesize}
‘pioneering’ approach to tort law by deciding that the state had a requirement to reduce GHG emissions by 25% against 1990 levels by 2020, and failure to do so would trigger liability for endangerment under Dutch tort law. The Court found a sufficiently close nexus between Dutch emissions, global climate change, and a changing Dutch climate to establish a duty of care upon the state. The Court also found that the state did not have unlimited discretion to establish its own climate policy, due to the risk of dangerous climate change. As a result, while Urgenda was not permitted to rely exclusively on human rights under the European Convention on Human Rights, the Court held that one of the fetters to state discretion in establishing a national climate policy was the jurisprudence of the European Court of Human Rights. While the decision is unusual in its treatment of attribution, Ferreira argues the case offers persuasive normative arguments that can and have been used in other national courts.

A recent decision in Pakistan is also interesting as it posits that inaction by the state in the face of climate change is a breach of human rights. As Pakistan is a common law jurisdiction, this case may have implications for any actions by UK citizens advocating for better adaptation actions by Government, particularly in response to recent flooding events. Mr. Ashgar Leghari brought a suit against the state of Pakistan for its failure to implement its National Climate Change Policy and Framework for Implementation of Climate Change Policy, on the basis that such inaction violated his rights. The court decided that the lethargy exhibited by the state on this issue did violate the fundamental rights of the citizens of Pakistan, and in particular the rights of the weak and vulnerable segments of the population. The court ordered that a climate change focal point be appointed as well as a Climate Change Commission, responsible for appointing key personnel to the institution.

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83 ibid 344.
84 ibid 352.
85 Urgenda v The State (n 78) para 4.90.
86 ibid para 4.74.
87 ibid paras 4.45 and 4.74.
89 Ashgar Leghari (n 54).
90 ibid 5-7 and 11-13.
While there is no domestic case on climate change action against the state to reduce GHG emissions in the UK, the recent case of *R v Secretary of State for the Environment, Food and Rural Affairs*[^91] could provide some insight into what a climate change suit could look like in the UK. In this case an NGO, ClientEarth, brought a claim against DEFRA for not complying with an EU Air Quality Directive[^92] on nitrogen dioxide. Nitrogen dioxide can cause respiratory problems and can lead to premature death. Despite the fact that the levels of nitrogen dioxide had failed to reach mandatory levels by 2010 due to issues beyond the Government’s control[^93] the Supreme Court held that DEFRA had to prepare new air quality plans to remedy the ‘real and continuing danger to public health’.[^94] While the mandatory nature of the Directive differs from the national carbon budgets under the Climate Change Act, parallels could be drawn between the public health hazard of nitrous oxide and domestic impacts due to climate change on public health, including heat stroke, increased vector diseases and effects of flooding.

The US cases demonstrate a clear difficulty in overcoming the displacement doctrine applied in these cases. The judiciary is generally reluctant to step into the shoes of the legislature, even though domestic climate legislation in that jurisdiction is not progressive or ambitious. In addition, these cases also demonstrate that federal common law nuisance claims are very difficult to launch. Tort-based actions struggle to overcome the hurdles of causation, as GHG emissions are diffuse and difficult to attribute to one particular class of defendants, such as companies. It is also challenging for courts to link harm caused to specific emissions from a company or state, and the *Kivalina* case illustrates these difficulties. The *Urgenda* case, at the first instance at least, has wide-ranging implications both internationally and regionally within the EU and is outlier to these general litigation trends. This case managed to overcome the hurdles mentioned above, and to clearly attribute liability and responsibility to the state as a global actor to reduce emissions. It is not clear what the implications are for The Netherland’s overcompliance with EU targets, particularly in relation to the EU.

[^92]: 2008/50/EC
[^93]: DEFRA claimed that the high levels of nitrous oxide were largely due to diesel vehicles whose emission levels in real-world scenarios were different than emission levels in regulatory test cycle scenarios.
[^94]: ibid para 27.
ETS.\textsuperscript{95} However, it is clear that the Court’s decision is progressive compared to other, particularly US cases, and therefore may motivate new climate change litigation suits within the EU.

There are already new EU suits being filed, for example, by the NGO Klimaatzaak in Belgium to challenge government inaction on climate change,\textsuperscript{96} and so climate change is likely to continue to be an ongoing issue for state liability. Both The Netherlands and Pakistan are highly vulnerable to climate change, and so the decisions regarding state liability make sense in that context. Litigation in the UK has mainly involved renewable energy companies suing the state for changes in policies regarding renewable energy subsidies and have relied little on human rights jurisprudence.\textsuperscript{97} The successful ClientEarth case provides a useful model demonstrating what a claim against the state for inadequate GHG targets could look like. Analogies can be drawn between the Urgenda case and the ClientEarth case in the UK. In the latter case, DEFRA was clearly found to be in violation of regulations dealing with environmental pollution. Parallels between the health impacts of nitrogen dioxide and climate change can be drawn, and this case provides an interesting example that could motivate more national litigation on health impacts from climate change in the UK.

However, the cases also illustrate the emerging issue of state and company liability in the face of growing threats from climate change. The recently published Oslo Global Principles summarize the existing obligations of both states and business enterprises in relation to climate change.

5.3 The Oslo Global Principles

In addition to ongoing climate litigation, a new set of principles has been promulgated encapsulating existing obligations of both states and business enterprises in the context of climate change. While they remain a soft law document, these global principles begin to develop an outline of possible state and enterprise obligations in relation to climate change. They do, however, differ in nature from the multilateral

\textsuperscript{95} van Zeben (n 76) 352.
\textsuperscript{96} See \textltt{www.klimaatzaak.eu/en}.
environmental agreements covered in Chapter 4, which bind states only. Unlike, for example, the UNFCCC or the Paris Agreement, the Principles have not been signed or ratified by any states, and have been formed not by state parties, but by a group of experts and academics.

In March 2015 a group of experts in international law, human rights, tort and environmental law published the Oslo Principles on Global Climate Change Obligations to Reduce Climate Change.\(^{98}\) The Principles distil existing legal obligations relevant to both states and companies to constrain the dangerous impacts of climate change and to avert ‘critical levels of global warming’.\(^{99}\) The Principles are designed to set out the basic obligations of states and companies that are required in order to meet that obligation. Principle 1 is based on the precautionary principle, and requires GHG emissions to be reduced, and reduced at a pace that would protect against the threats of climate change that can still be avoided. States and companies have a requirement to take measures to achieve this without regard to cost (unless that cost is completely disproportionate to the reduction in emissions).\(^{100}\)

On the basis of Principle 1, states and enterprises should take measures to ensure that global average surface temperatures never exceed pre-industrial temperatures by more than 2°C.\(^{101}\) In addition, states and enterprises should refrain from starting any new activities that would cause excessive GHG emissions unless they take countervailing measures (with exceptions for least developed countries or GHG-emitting activities that are indispensable).\(^{102}\)

The Principles are new and therefore their implications are uncertain. While the Principles are not directly legally binding on states, they are designed to crystalize existing international obligations. They are innovative for a number of reasons. They have been promulgated by international legal experts, and therefore could be deemed to be part of customary international law.\(^{103}\) They avoid the contentious issue of

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\(^{99}\) Oslo Global Principles 1.

\(^{100}\) ibid para 1.b.

\(^{101}\) ibid para 6.

\(^{102}\) ibid para 8.

\(^{103}\) Article 38(1)(d) Statute of the International Court of Justice.
foreseeability and liability for future emissions by attempting to establish current international obligations, and they apply to both developed and developing countries, with some exceptions for least developed countries. Interestingly, these obligations are specifically identified as persisting even if national or international law set lower standards.\textsuperscript{104} The Principles, therefore, flesh out legal obligations that would avoid the risk that any commitments under the Paris Agreement are not sufficient to reach the new ‘well below 2°C’ global goal. The Principles may provide further guidance and support for future climate litigation efforts against both states and companies. The Principles are innovative in that they specifically attempt to impose obligations on companies, an achievement that general international human rights law has so far failed to achieve. However, it is important to note that the Principles have not been adopted by the UN or any nation state, and therefore constitute soft law at best. While the Principles are an innovation in international law on climate change, fiscal incentives, including fossil-fuel subsidies, continue to persist and present barriers to the transition to a low-carbon economy.

\textbf{5.4 Fossil-fuel Subsidies}

Subsidies are difficult to estimate as they have no universal definition, and they can take many different forms. Subsidies can affect both the price and quantity of available goods and services.\textsuperscript{105} Fossil-fuel subsidies encourage the consumption of fossil fuels and the consequent GHG emissions, and are therefore inconsistent with policies to combat climate change.\textsuperscript{106} Externalities, such as GHG emissions, can also be a subsidy as pollution is often not internalized by the emitters.\textsuperscript{107} Blyth argues that the lack of a carbon price also constitutes a subsidy to GHG emitters as they are not paying for the full cost of their production.\textsuperscript{108}

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\item \textsuperscript{104} Oslo Global Principles, para 12.
\item \textsuperscript{105} William Blyth, ‘Energy Subsidies in the UK’ Oxford Energy Associates, Command by Environmental Audit Committee (17 April 2013), 8.
\item \textsuperscript{107} Blyth (n 105) 10.
\item \textsuperscript{108} ibid 10.
\end{itemize}
\end{footnotesize}
Arguments in support of the use of subsidies include the protection of infant industries, protection from foreign competition, and to support pro-poor policies, specifically affordable energy. Instituting a carbon price is politically sensitive due to the carbon leakage argument, and the impact a carbon price may have on international competitiveness of industry.

5.4.1. Subsidies under the WTO Rules

In September 2009, G20 leaders committed to rationalize and phase out inefficient fossil-fuel subsidies that lead to wasteful consumption. More recently, G7 states have agreed to phase out fossil-fuel subsidies by 2025. However, there is no systematic reporting of fossil-fuel subsides at the international level, and the definition and phasing out of harmful subsidies remains a national decision. Since the 2009 commitment, there has been little political appetite for the phasing out of fossil-fuel subsidies. As a result, the only definition of subsidies at international level remains the one developed by the World Trade Organization (WTO).

For a long time energy and energy subsidies were considered to fall outside of the GATT 1947, primarily because, between the period of 1940s-1970s, energy remained concentrated within a cartel of a few international companies. As a result, it was felt that there was no need for special rules on energy at the WTO, and there is still no ‘energy agreement’ within the WTO-covered agreements. Despite this, energy is covered by the WTO agreements as the topic was discussed during the various rounds

\[\text{\[109\] ibid 5.}\]
\[\text{\[110\] ibid 10.}\]
\[\text{\[114\] ibid 9.}\]
of the GATT Agreement, and energy is covered in not only the Subsidies and Countervailing Measures (SCM) Agreement, but also crosses over rules on government procurement and competition. The Subsidies and Countervailing Measures Agreement has the clearest definition of subsidies within the suite of the WTO covered agreements. It divides subsidies into two types: prohibited and actionable. The third category of subsidies, non-actionable subsidies, expired on 1 January 2000. Article 3 governs prohibited subsidies, which include export subsidies (where a subsidy is tied to export performance) or import substitution subsidies. Actionable subsidies are those that must be withdrawn only if they cause adverse impacts to the interests of member states. These are further defined in Article 5 and include injury to domestic industries, nullification or impairment of benefits, and serious prejudice to the interests of another member state. The SCM Agreement has no environmental exception, so fossil-fuel subsidies are theoretically treated in a fashion similar to subsidies to support renewable energy within member states.

Thousands of subsidies have been notified by member states to the WTO, indicating their widespread use by national governments. Both fossil-fuel subsidies as well as subsidies to support renewable energy deployment have been used by governments. While fossil-fuel subsidies can distort markets, discourage production and use of clean energy, and can hamper the transition to sustainable energy, they are hard to

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124 Bossche and Zdouc (n 121) 748.
dispense with as they have helped to ‘lock in’ fossil-fuel technologies and infrastructure with large sunk costs. Removing fossil-fuel subsidies could expedite the development and deployment of renewable energy technology through reallocating these resources to renewable energy sellers and by leveling the playing field for renewables. Governments have also used subsidies as an ‘essential tool’ to introduce emissions-reduction schemes. These so-called ‘green subsidies’ can be used to enhance public goods, redistribute income, and compensate for market failure or government failure to remove fossil-fuel subsidies.

There have been a number of disputes at the WTO level regarding renewable energy subsidies, with one of the most notable being the Canada-Renewable Energy Feed-in-Tariff case. In 2009, Ontario introduced a feed-in-tariff with a fixed price over the next 20 to 40 years to support renewable energy deployment. Included in the scheme was a local content requirement that a certain percentage of wind turbine or solar panels used had to be produced in Ontario in order to make the higher prices of energy more palatable to the public. The Appellate Body found that there was no benefit

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127 Asmelash (n 115) 267; Liesbeth Casier and others, ‘Shining a Light on Fossil Fuel Subsidies at the WTO: How NGOs Can Contribute to WTO Notification and Surveillance’ (October 2014) 13(4) World Trade Review 603, 604;
128 Lauren Henscheke, ‘Going It Alone on Climate Change – a New Challenge to WTO Subsidies Disciplines: Are Subsidies in Support of Emission Reduction Schemes Permissible under the WTO’ (2012) 11(1) World Trade Review 27, 28. It is questionable whether cap and trade permits would be covered by the SCM, but renewable energy measures can span services areas such as metering, scoping, engineering, maintenance as well as intellectual property rights, see Thomas Cottier, ‘Renewable Energy and WTO Law: More Policy Space or Enhanced Disciplines?’ (2014) 1 Relp, 42.
129 Charnovitz (n 119) 11.
to the industry based on a market-analysis of the renewable energy market (not the electricity market as a whole). While the case was a victory for renewable energy subsidies, it has been criticized for ‘legal acrobatics’ in order to exempt renewable energy subsidies from the SCM disciplines.

Given the number of disputes regarding renewable energy subsidies, it is curious that there have been no disputes at WTO level regarding fossil-fuel subsidies. Commentators have argued that, while the SCM agreement attempts to balance the legitimate use of public funds for public purposes through subsidies against unfairly promoting domestic industries, it still requires that the adverse impact from a subsidy be tied to a specific industry. Fossil-fuel subsidies, which often take the form of dual-pricing subsidies, lack the requisite specificity as they are tied to all industries and enterprises, and therefore are very difficult to challenge at the WTO. Fossil-fuel subsidies also rarely rely on local content requirements, and strong domestic lobby groups for the fossil-fuel industry can also prevent a dispute being brought. This leaves the unfortunate circumstance that subsidies tailored toward supporting the renewable energy industry will continue to be subject to challenge under the WTO system, particularly where they involve a local content requirement, but fossil-fuel subsidies remain difficult to challenge at the WTO. This has led a number of commentators to advocate for the revitalization of the non-actionable subsidy list, particular for subsidies that promote public goods. To date, the WTO has failed to create such a list.

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132 Cosbey and Mavroidis (n 120) 28.
134 Henscheke (n 128) 29.
136 Meyer (n 131) 4; Asmelash (n 115) 281.
137 Asmelash (n 115) 281-282.
138 For example, in 2014, 13 countries pledged to proceed to negotiate a ‘Green Goods Agreement’ to liberalise trade in goods that had environmental, trade and development benefits, see International Bar Association (n 53) 70; Henscheke (n 128) 51; Cosbey and Mavroidis (n 120) 46; Luca Rubini, ‘Ain’t Wastin’ Time No More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space and Law Reform’ (2012) 15(2) Journal of Intl Economic Law 525, 571.
139 Meyer (n 135) 3; See the WTO website on plurilateral negotiations to develop a list of environmental goods and services <https://www.wto.org/english/tratop_e/envir_e/envir_neg_serv_e.htm>
5.4.2 Industry-based Subsidies

The fossil-fuel industry has received subsidies in many forms over the decades. It is estimated that, on a global level, fossil-fuel consumption benefited from approximately US$490 billion worth of subsidies in 2014, and the International Energy Agency estimates that fossil-fuel subsidies could reach US$660 billion in 2020. The Overseas Development Institute (ODI) has characterized these subsidies as ‘tantamount to G20 governments allowing fossil fuel producers to undermine national climate commitments, while paying them for the privilege’.

The main type of subsidy provided in the UK has been tax allowances to the oil and gas sectors, which partially offset the petroleum revenue tax, but the level of subsidies to the fossil-fuel industry has gradually decreased over time. The Environmental Audit Committee estimated that in the UK, energy subsidies amounted to approximately £12 billion per year, much of which benefits the fossil-fuel industry. The ODI reported that the UK was listed as one of the top OECD-subsidizing countries, with approximately £280 million tax subsidies provided to oil and gas production alone in 2011. The majority of these include field allowances to oil and gas development, which are most damaging as they create incentives for companies to find and develop new fossil-fuel resources.

In 2013, the Environmental Audit Committee recommended that the new budget reduce the proportion of energy subsidies that support the fossil-fuel industry. In response, the Government denied that it provides harmful energy policies, rejected that subsidies amounted to £12 billion per year, and denied that it provides subsidies

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143 Blythe (n 105) 20.
145 Whitley (n 106) 1.
146 ibid 17.
147 House of Commons (n 144) para 71.
to the fossil-fuel industry. This denial may be related to a failure in 2009 of the G20 to agree on a definition of fossil-fuel subsidies, leading eleven of the G20 members to claim that they had no inefficient fossil-fuel subsidies to report. Alternatively, the denial by the UK Government may be related to its most recent initiative to ramp up subsidies for exploration in the North Sea, due to poor exploration results and falling profits. The recommendations of the 2015 Woods’ Review were recently implemented through the Infrastructure Act 2015 and Energy Act 2016, which establish a new Oil and Gas Authority, and an obligation to maximize economic recovery (MER UK) of oil and gas resources in the North Sea. The Wood’s Review specifically recommended an independent Authority be established to pursue MER UK due to the fact that the Department of Environment and Climate Change (or DECC) was under-resourced, and to ensure that the MER UK Authority would not have to ‘compete internally’ with DECC priorities, including avoiding dangerous climate change.

It is unclear what has motivated the discrepancy between the ODI reports, the Blyth report, and the official government position. However, in the face of government opposition on the very existence of fossil fuel subsidies and the new MER UK principle, it is difficult to imagine that any change in policy on fossil fuel subsidies will take place in the near future. In fact, subsidies for renewable energy are facing cuts by the existing administration in both wind and large-scale and medium-scale solar farms, and therefore it is unlikely that subsidies will be a mechanism employed to

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148 ibid para 9-12.
149 Casier and others (n 127) 609.
150 Bast and others (n 142) 42.
152 Wood (n 151) 13.
153 ibid 55.
counter GHG emissions in the UK. In fact, the decrease in renewable energy subsidies, combined with the continuance of fossil-fuel subsidies, may incentivize continued GHG emissions by carbon-major firms. Alternative fiscal mechanisms, such as carbon taxes, have gained in popularity with carbon-major firms.

5.5 Carbon Taxes

A carbon tax is a fee added to the price of a good or service to reflect its carbon context.\(^{156}\) While carbon taxes cannot guarantee a certain emissions pathway, they can establish a price pathway on goods and services to dissuade consumers from purchasing carbon-intensive goods or services.\(^{157}\) One of the main problems with climate change is that it produces externalities that are not factored into the price of goods and services, or internalised by the producers of carbon-intensive products. A carbon tax internalises these externalities, and encourages individuals to consider the carbon content of the goods and services they consume.\(^{158}\) Carbon taxes were first applied in the 1990s in Scandinavian countries, and have since spread to countries such as the UK and France.\(^{159}\)

5.5.1 The Benefits of a Carbon Tax

Imposition of a carbon tax sends an economic signal to industry to motivate the reduction of their emissions.\(^{160}\) It is often touted as the most cost-effective method to

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157 ibid.


159 Kennedy and others (n 156) 3.

achieve a low-carbon global trajectory. Given that the estimated emissions gap after the Paris Agreement contributions remains at 12-16 GtCO\textsubscript{2}e by 2030, a mechanism is required to stimulate cost-effective decarbonisation globally. Carbon pricing can align private and social costs of carbon, and helps to factor the adverse impacts of climate change into everyday decision-making by consumers.

Carbon taxes are often seen to be simpler to administrate than a cap and trade system. A carbon tax does not require a reduction in emissions but instead establishes a ‘stable price trajectory’ and therefore provides both a signal and certainty to business. Environmental taxes generally work to shift consumer behavior away from polluting activities, and they can also encourage the development of newer and cleaner technologies. Carbon taxes shift the burden of externalities from society to the emitters. In respect of energy, a carbon tax can make alternative and cleaner sources of energy more cost competitive with fossil fuels. Carbon taxes can also provide a stable price for carbon, which can in turn make emissions trading mechanisms more effective.

Carbon taxes can also generate for the state revenue that can be used in a variety of ways. Tax revenues can be used to offset decreases in real incomes, particularly in relation to household energy bills. Revenues could also be used to invest in public infrastructure such as energy grids, research and development towards more clean energy technologies, or as tax credits given directly to households to offset increased

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161 ibid 1.
162 ibid 3.
163 Farid (n 158) 6.
164 Kennedy and others (n 156) 10.
167 Kennedy and others (n 156) 2.
169 ibid 165.
170 Kennedy and others (n 156) 3.
taxes. Revenues can also be used to reduce public deficits, provide transitional assistance to displaced workers, as well as invest in combating climate change, such as funding climate-change adaptation activities. Revenues could also be used to assist and support industries that have been adversely and disproportionately affected by the tax. Additional benefits include the generation of co-benefits for the state, such as reduced pollution, enhanced energy security, increased deployment of renewable energy and increased energy efficiency.

5.5.2 Development and Application of a Carbon Tax

Carbon taxes can be based on several environmental principles, such as the polluter-pays, precautionary, and least-cost abatement principles. The main design considerations of a carbon tax are its scope, point of regulation, reporting and verification mechanisms, and establishment of a carbon price. In terms of its scope, a tax could be imposed on all greenhouse gases, or just a select few, such as carbon. A tax could also be applied to specific fossil fuels, or to sectors of the economy. Ideally, a carbon tax would cover all activities that produce climate externalities.

Establishing a price on carbon is one of the most difficult areas in relation to carbon taxes. In theory, the rate of the tax should equal the marginal harm from emissions. The tax should be able to compensate for the social marginal damages from the production of an additional unit of emissions. While there is no disagreement between economists that the costs to society of burning carbon exceeds its private costs, there is no agreement on what exactly the social costs of carbon really amount

172 Kennedy and others (n 156) 2.
173 Dahan and others (n 160) 2.
174 ibid 2.
176 Kennedy and others (n 156) 4.
177 ibid 4.
178 ibid 4; Global Utmaning (n 175) 22.
179 Metcalf and Weisbach (n 158) 521.
180 ibid 501.
181 ibid 511.
to.\textsuperscript{182} Information on climate change and its impacts is continuously evolving, and tremendous uncertainties remain regarding the scale and scope of damage.\textsuperscript{183} Predicting and modeling impacts of climate change, and then monetizing those impacts, remains challenging.\textsuperscript{184} Litterman points to two major difficulties with pricing carbon: the long time between emissions and impacts leads to difficult questions about the appropriate discount rate to apply, and the potential for low-probability but catastrophic scenarios are often not included in calculations on the social costs of carbon.\textsuperscript{185} Not only will establishing an initial price be difficult, but the price will have to be monitored and modeled over time, taking into account evolving climate science.\textsuperscript{186} Ultimately, the application of a carbon tax will require the balancing of objectives, including the achievement of maximum emissions against the near-term economic effects of a tax.\textsuperscript{187}

In addition to the difficulties of establishing and maintaining a price on carbon, the application of a tax at the industry level has raised concerns about competitiveness and carbon leakage. This is particularly acute where the application of a carbon tax is made at the national and not global level. The benefits of a carbon tax would be felt globally, but the costs would be applied nationally.\textsuperscript{188} The application of a tax at the consumption level has raised issues of equity and welfare, particularly for low-income homes that spend more of their income on energy-intensive goods and services.\textsuperscript{189} While this latter concern can be mediated through the application of revenues to households, the former issue of carbon leakage is more difficult to tackle.

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\textsuperscript{182} Robert S. Pindyck, ‘Pricing Carbon When We Don’t Know the Right Price’ (Summer 2013) 36(2) Regulation 43, 43.
\textsuperscript{183} Metcalf and Weisback (n 158) 519; Pindyck (n 182) 44.
\textsuperscript{185} Bob Litterman, ‘What is the Right Price for Carbon Emissions?’ (Summer 2013) 36(2) Regulation 38, 38.
\textsuperscript{186} Kennedy and others (n156) 20.
\textsuperscript{187} ibid 22.
\textsuperscript{188} Kennedy and others (n 156) 5.
\end{flushright}
The idea of a carbon tax has encountered resistance from the business community particularly due to concerns about loss of competitiveness. The concern is that goods and services produced in jurisdictions that do not have carbon taxes will be sold at lower prices, forcing firms to move overseas. Clarke notes that the extent of the carbon leakage problem may be controversial, as energy costs are often only a small fraction of the costs of goods or services, and affected industries such as energy companies are primarily domestic industries and do not often trade their services internationally. These competitiveness concerns can be mediated in certain ways, such as providing free allocations on the taxes to exposed industries, or applying border tax adjustments (BTAs). BTAs generally consist of the application of a tax on imported goods or services to compensate for the domestically imposed carbon tax. BTAs are not without their own difficulties, as it can be a complex task to determine the carbon content embedded in imported products. It is also not clear whether they would survive a challenge at the World Trade Organization, although the WTO has stated that it is possible to design a BTA that does not violate WTO agreements.

5.5.3 Towards a Global Carbon Tax?
Arguments have been put forward recently in favour of a global carbon tax, in order to promote the global rationalisation of the costs of carbon and promote alternative energy. A globally co-ordinated carbon tax would eliminate carbon leakage concerns, as well as the free-rider problems of nationally-based taxes. Weitzman argues that imposing a uniform price on carbon could overcome the free-rider problem in international negotiations and incentivise all nations to internalise carbon

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190 Dahan and others (n 160) 2.
192 Dahan and others (n 160) 2; Global Utmaning (n 175) 20.
193 Kennedy and others (n 156) 20; Metcalf and Weisbach (n 158) 540.
195 Global Utmaning (n 175) 27.
He argues that a uniform, globally imposed but nationally collected carbon price would also disincetivise countries from wanting to impose a low tax. Recent initiatives, such as the G7 Carbon Market Platform established in 2015, aim to link G7 carbon markets and to explore avenues for co-operation between developed carbon markets. In addition, global initiatives such as the World Bank Carbon Pricing Leadership Coalition are designed to co-ordinate both private and public sector actors to share their experiences and recommendations regarding the imposition of carbon taxes. Dahan et al. note that such a high-level, multilateral initiative has played a leading role in sending a strong signal to businesses regarding the likely expansion of projects on which a carbon tax will be placed. They also note that the 2015 Paris Agreement establishes a global framework that could be suitable for the establishment of transnational carbon pricing policies. While the establishment of a globally determined carbon price may not be imminent, and calculations of a minimum carbon price are challenging, carbon pricing has been determined to have a key role in the transition to a low-carbon economy. Many companies, including BP and Royal Dutch Shell, have already begun to place a shadow price on carbon in their projects.

5.6 Institutional Investors and Climate Change

Institutional investors include banks, insurance companies, pension funds, as well as pooled investment vehicles, such as hedge funds, mutual funds, endowments, unit trusts, sovereign wealth funds and private equity. The types, activities and behaviours of institutional investors vary across jurisdictions. Dispersed ownership

197 ibid 43.
198 Dahan and others (n 160) 3.
199 ibid 1.
201 Richard M Buxbaum, ‘Comparative Aspects of Institutional Investment and Corporate Governance’ in Guilliano Campioni, Pablo D’Orio and Maria Christina (eds), Institutional Investors and Corporate Governance (Walter de Gruyter 2011), 10; Mark J Roe, ‘Some Differences in Corporate Governance in
in the US means that American institutional investors hold less power and influence over the corporate boardroom than those in Germany and Japan. In the UK, institutional investors ‘dominate’ the domestic equity markets, and include mainly pension funds and insurance companies.

The investment community is and will be faced with significant risks and opportunities as a result of climate change. Opportunities include investing in cleaner technology, and creating jobs and increased returns. Risks include physical risks to assets and infrastructure, liability risks to compensate those who have suffered from the negative impacts of climate change, and transition risks of the transition to a low-carbon economy, which could include changes in policy and technology, as well as the reassessment of the value of assets. Risks to investors also include increased costs due to increased regulation, and potential non-compliance. Regulatory risk is mostly a concern to investors as it has a short-term impact on them.

5.6.1 Stranded Assets

Carbon-major entities in particular are faced with transition risks that can include the risk of stranded assets. Fossil-fuel assets can become stranded due to the following events; regulation, carbon pricing, energy innovation and reduced costs of renewable energy, social and economic pressures, the growing risk of litigation against fossil

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Germany, Japan and America’ in Guiliano Campioni, Pablo D’Iorio and Maria Christina (eds), Institutional Investors and Corporate Governance (Walter de Gruyter 2011), 28.

Roe (n 201) 24.

Paul L Davies, ‘Institutional Investors in the United Kingdom’ in Guiliano Campioni, Pablo D’Iorio and Maria Christina (eds), Institutional Investors and Corporate Governance (Walter de Gruyter 2011), 258.


fuel companies, as well as physical environmental challenges.\footnote{Nancy Schneider, ‘Revisiting Divestment’ (2015) 66 Hastings Law Journal 589, 608.} Prior to the Paris Agreement, Mark Carney estimated that if the world were to meet the 2°C global temperature goal, it would render the vast majority of fossil-fuel reserves as stranded assets, ‘literally unburnable without expensive carbon capture technology’.\footnote{Mark Carney (n 205) 11.} He also emphasized that the exposure of UK investors to such shifts was ‘potentially huge’.\footnote{ibid 11.} The new lower global temperature goal in the Paris Agreement increases the likelihood that fossil-fuel reserves may become stranded assets if states decide to limit domestic emissions to reach the global temperature goal. LINGO estimates that achieving a 33% chance of meeting the 1.5°C global temperature goal would mean that only 16% of global fossil fuel reserves could be used, and 84% or 2,427 Gigatonnes of reserves must be kept in the ground.\footnote{Kjell Kühne, ‘The Global Carbon Budget after the Paris Agreement’ (LINGO 18 February 2016) <http://leave-it-in-the-ground.org/wp-content/uploads/2016/02/Post-Paris-Carbon-Budget-LINGO.pdf> accessed 4 May 2017.}

The risks of transition to a low-carbon economy are so great that the Financial Stability Board determined that, if the re-pricing of assets occurs at an abrupt rate, it could negatively impact financial stability.\footnote{Financial Stability Board (n 205) 1.} Institutional investors, in particular, should be concerned about these risks to carbon-major entities as institutional investors are ‘universal owners’ in that they invest in highly diversified and long-term portfolios.\footnote{PRI and UNEP, ‘Universal Ownership: Why Environmental Externalities Matter to Institutional Investors’ (2011), 3 <http://www.trucost.com/published-research/43/universal-ownership-why-environmental-externalities-matter-to-institutional-investors-full-report> accessed 4 May 2017; Lubber (n 207) 87.} Institutional investors cover a number of actors, including the asset owner who is the institution having direct rights over the asset, and asset managers or investment/fund managers who are responsible for the day-to-day management of the schemes the assets are invested in.\footnote{Tony Hoskins and Martin Batt, ‘Corporate Responsibility and Environmental Investing’ in Angelo Calvello (ed), \textit{Environmental Alpha: Institutional Investors and Climate Change} (John Wiley & Sons 2010), 347; The Law Commission, ‘Fiduciary Duties of Investment Intermediaries’ (2014) Law Com No. 350, xiii <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/325509/41342_HC_368_LC350_Print_Ready.pdf> accessed 4 May 2017; Myners (n 200) para 2.1.} Authority is delegated to these managers by the asset owners, and instructions are often included in the investment mandate, while trustees
remain the ultimate decision maker. While institutional investors are shareholders without fiduciary duties owed to the companies if they invest in equities, asset owners are often trustees who have fiduciary duties to their beneficiaries. Fiduciary duties can also be applied to asset managers who have an obligation to invest prudently in order to facilitate profitability, diversification, liquidity and ultimately the safety of investments as well as the preservation of investment capital. While fiduciary duties are an ‘intractable problem’ in law, the Law Commission recently characterised the duty as an ‘undertaking to act to advance the interests of another’. Trustees of pension funds are also governed by s34 of the Pensions Act 2004, which provides pension trustees with wide investment powers, with fiduciary duties being defined in caselaw, particularly the problematic case of Cowan v Scargill.

Climate change can potentially lead to ‘systemic risks’ to the whole economy, and therefore directly impact long-term investors such as pension funds. These types of investors have a direct interest in ensuring the long-term overall health of the economy. This is also of concern to UK investors as 19% of FTSE 100 companies are involved in natural resource and extraction, and a further 11% are involved in the energy, utilities, chemicals and construction industries. Leading fossil-fuel companies, such as Royal Dutch Shell and AngloAmerican, are listed on the London Stock Exchange, and UK pension funds are heavily invested in fossil-fuel companies. Despite this, investors have generally been slow to realize the impact of climate change, and have not actively encouraged the mitigation of GHG emissions. Although the CDP estimated in 2010 that 78% of companies reported at least one significant risk

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216 Law Commission (n 215) xxiii; Myners (n 200) para 2.1.
218 ibid para 3.14.
219 This includes elements of trust, vulnerability and expectation, ibid, para 3.17.
220 ibid para 4.12-4.35.
223 PRI, ‘Universal Ownership’ (n 214) 9; Lubber (n 207) 79.
224 Carney (n 205) 11.
from climate change to their business, another analysis noted that the majority of respondents took a very narrow view of climate risk, and 44% said they did not consider climate change a material issue to their portfolio investments. According to this study, 82% of asset managers relied on SEC filings, and 72% relied on sustainability reports of companies. Even the insurance industry has been slow to realize the damages caused by climate change. Leuring notes that the industry focuses mainly on coastal threats, and does not pay sufficient attention to other threats such as floods, droughts, snowstorms or climate change litigation.

In the late 1980s to mid-1990s, institutional investors were not very interested in climate change in the UK. Amendments to the Pensions Act, the Myners and Kay Reviews and the socially responsible investment movement began to increase interest. The 2001 Myners Review highlighted the problem of quarterly reporting reviews of asset managers leading to short-termism, and encouraged institutional investors to be more active and mindful of social, environmental and governance issues. The 2012 Stewardship Code also led to increased attention by institutional investors in corporate governance generally. The motivation behind the Code is to promote long-term success of the company by having institutional investors play a role in keeping the directors accountable. The Code sets out principles that are to be employed by institutional investors to achieve effective stewardship of the

228 ibid 16.
231 Amendments made in 2000 to the 1995 Pensions Act required trustees to disclose the extent to which they had taken into account social, environmental or ethical considerations in their investment process.
232 ibid 255.
233 Myners Review (n 200) para 51.
234 Pfeifer and Sullivan (n 230) 255.
companies they invest in. These include that institutional investors will monitor the activities of companies, and be willing to act collectively with other investors. The Guidance, which accompanies the Code, suggests that institutional investors should identify issues that may result in significant losses to their investment values, and make the company’s board aware of their concerns, where appropriate. These risks could arguably include impacts from climate change.

The 2012 Kay Review concluded that short-termism was a problem in UK equity markets, stemming from a decline of trust as well as a misalignment of investment horizons and incentives throughout the investment chain. The Review also found that hyperactivity in equity trading was also contributing to short-termism. The churning of stocks was in part due to divergences in investment time horizons, an issue most recently raised by Mark Carney. The Kay Review found that performance horizons, by which asset managers are judged, was much shorter than value discovery horizons where the fundamental value of an asset is revealed. Shortening of the performance horizon to quarterly performance reports led to an emphasis on short-term profits and away from longer-term values of assets.

Pfeifer and Sullivan note that the publication of a report on climate change by the Universities Superannuation Scheme (USS) pension fund in 2001 was the real catalyst for motivating institutional investors in the UK to pay more attention to the issue. In addition, the launch of the EU-ETS in the mid-2000s further captured the attention of investors. The USS is the UK’s largest pension fund, and it has highlighted the infiltration of short-termism in the industry.

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236 ibid para 3.
237 ibid Principles 2 and 3 respectively.
239 ibid 14.
240 Mark Carney (n 205) 4.
241 ibid 39.
242 ibid 40; see also Law Commission Report (n 215) 24.
243 ibid 255.
245 UNEP, ‘Fiduciary Responsibility Legal and Practical Aspects of Integrating Environmental, Social and Governance Issues Into Institutional Investment’ (July 2009), 22.
5.6.2 Fiduciary Duties and Short-termism

It is, in fact, the effort to maximise profits in the short-term and the misunderstanding of fiduciary duties that may be undermining action by institutional investors on climate change. While institutional investors are shareholders without fiduciary duties owed to the companies if they invest in equities, asset owners are often trustees who have fiduciary duties to their beneficiaries. Fiduciary duties can also be applied to asset managers, who have an obligation to invest prudently in order to facilitate profitability, diversification, liquidity and ultimately the safety of investments as well as the preservation of investment capital.246 Trustees of pension funds, for example, have fiduciary duties to their beneficiaries. A report by Freshfields Bruckhaus Deringer reported that fiduciary duties are a key limitation on the exercise of discretion by investment decision-makers.247 However, they note that the profit maximisation incentive exercised by trustees managing investments on behalf of institutional investors stems from a misunderstanding of the Cowan v Scargill case,248 and a perceived requirement of profit maximisation has become a barrier to the better integration of environmental, social and governance issues into institutional investment activities.249 Pfeifer and Sullivan note that the fiduciary duties on trustees to act in the best interests of their beneficiaries has been interpreted in the context of pension funds as ‘exclusively in financial terms as the optimization of investment returns’.250 This interpretation, combined with a focus on short-term profits, has led to environmental issues, such as climate change, being ‘ignored’251 by institutional investors. The Freshfields report was groundbreaking in that it determined that asset managers and institutional investment consultants have a proactive duty to raise environment, social and governance (ESG) considerations with their clients.252 This finding has been commented on by a recent Law Commission report that states that

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246 Staub-Bisang (n 217) 82.
248 ibid 9.
249 ibid 82.
250 Pfeifer and Sullivan (n 230) 247; See also Paul Q Watchman, ‘The Case for Climate Change as the Paramount Fiduciary Issue Facing Institutional Investors’ in Angelo Calvello (ed), Environmental Alpha: Institutional Investors and Climate Change (John Wiley & Sons 2010), 101.
251 ibid 248.
252 Staub-Bisang (n 217) 81 and 121.
trustees are not required to maximize returns but instead must strive to secure realistic returns over the long term.\textsuperscript{253} The report notes that, while there is no duty on trustees to take ESG factors into account, they should take into account risks to the long-term sustainability of a company’s performance.\textsuperscript{254}

Asset owners and advisors often point to fiduciary duties as one of the barriers to responsible investing.\textsuperscript{255} In addition, traditional valuation tools employed by institutional investors emphasize short-termism and can directly contravene the longer time frames that need to be considered for many ESG impacts.\textsuperscript{256} Spalding notes that three-quarters of the asset managers interviewed for her study did not consider climate change risks as part of their traditional due diligence process.\textsuperscript{257} Concerns about climate change are often too long-term for the short-termism employed by many investment managers.\textsuperscript{258} Emphasis by institutional investors on short-term profits, particularly in carbon-intensive industries, will create a barrier to the transition to low-carbon economies.\textsuperscript{259}

Dhar and Barker have noticed a recent spate of activity with more investors engaging with companies on climate change at an ‘unprecedented rate’.\textsuperscript{260} This is partly due to the recognition that climate change involves medium- to long-term risk implications, and therefore is attracting the interest of more mainstream investors whose focus is

\begin{itemize}
\item \textsuperscript{253} Law Commission Report (n 215) para 5.52.
\item \textsuperscript{254} ibid 5.76.
\item \textsuperscript{257} Spalding (n 227) 90.
\item \textsuperscript{258} Pfiifer and Sullivan (n 230) 259.
\item \textsuperscript{259} McKenzie and Ascui (n 222) 36.
\end{itemize}
firmly centred on risk and return. Harper Ho points to recent literature that links better governance on ESG metrics with better financial health of firms. Deeks notes that the rise of material risk due to climate change and other ESG factors may now be so great that fiduciaries may now be exposed to liability for breach of duties of care and diligence by failing to take them into account.

Zou et al note there is a problem matching supply and demand of low-carbon capital, as investors need a level of market and policy expertise for low-carbon investing that is currently missing, and acquiring this expertise involves high transaction costs that are unattractive to investors. A recent OECD paper confirms that the financial sector faces information and knowledge barriers, but attributes this to a lack of standardised corporate information on GHG emissions and climate risks. In response to this inertia, the concept of sustainable investing has emerged.

5.6.3 Sustainable Investment

There have been a number of definitions of sustainable investing that have emerged, and there is no one stable definition at the moment. The European Sustainable Investment Forum defines it as ‘any type of investment process that combines

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266 Meg Voorhes and Joshua Humphries, ‘Recent Trends in Sustainable and Responsible Investing in the United States’ (2011) 20(3) Journal of Investing 90, 91. Kierman notes that sustainable investing differs from socially responsible investing, which is only values-based, whereas sustainable investing focuses on investment risk and return, see Matthew J Kierman, ‘SRI or Not SRI?’ in Angelo Calvello (ed), Environmental Alpha: Institutional Investors and Climate Change (John Wiley & Sons 2010), 131-132.
investors’ financial objectives with their concerns about environmental, social and governance (ESG) issues’. Institutional investors can adopt a variety of sustainable investment strategies that include active approaches such as including ESG factors into the investment process, and shareholder activism through the use of shareholder resolutions and engagement with management. Passive investment strategies can involve screening potential investments for ESG factors. The three broad courses of action investors are taking on ESG issues include shareholder resolutions, mandated disclosures through public listing agencies, and voluntary disclosure initiatives. A number of groups of institutional investors are taking the lead in mainstreaming these initiatives through voluntary initiatives, such as the CDP, CERES, the Investor Network on Climate Risk, and Institutional Investor Group on Climate Change. CERES has been particularly active in providing support to institutional investors who are instituting shareholder resolutions against fossil-fuel companies. These voluntary, transnational networks are forming a type of private environmental governance that aims to reorient the behavior of investors regarding climate change.

The United Nations Environment Programme and the Principles of Responsible Investing (or PRI) have, as a central premise, that responsible investing must acknowledge and consider the relevance to investors of environmental, social and governance factors, as well as the long-term health and stability of the entire economy. PRI defines responsible investing as recognising that ‘the generation of long-term sustainable returns is dependent on stable, well-functioning and well-governed social, environmental and economic systems’.

Investors can use their influence as shareholders to incentivize companies to be more proactive on climate change, and also to explicitly factor in climate change to core

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268 Staub-Bisang (n 217) 15; Sullivan and Gouldson (n 244) 61.
269 ibid 143.
270 Lubber (n 207) 88.
272 PRI (n 214) 6; Sullivan and others (n 255) 3.
273 PRI (n 214) 7.
business plans and processes. Responses to climate change by institutional investors can be tailored to their investment approach and asset class mix. The PRI and UNEP provide a detailed list of suggested actions by investors on environmental costs, which in the context of climate change include evaluating impacts on companies, incorporating climate change costs and risk into shareholder voting initiatives, engaging with policy makers and regulators, and regular monitoring and reporting by investment managers.

Measuring a portfolio’s carbon footprint and improving investor engagement with companies and policy makers are important parts of the transition to a low-carbon economy. Institutional investors are a critical piece of the transition to a low-carbon economy, and the private sector must participate in the trillion-dollar investment price tag needed through 2050 to meet increased energy needs through clean technology. Pension funds are one of the most important drivers of the sustainable investment movement, which is being led by European countries such as Norway, Sweden, Denmark and the UK. Westphal and Bednar note that large institutional investors can exert ownership power over managers to make changes in corporate behavior through proxy contents, filing shareholder proposals demanding certain changes. However, they note that institutional investors have largely failed to bring about widespread changes in corporate governance.

While awareness of climate change has increased among institutional investors in the past few years, there has been limited action on the ground to mainstream climate change into investment strategies. There is an assumption that more and better disclosure on climate change risks will by itself create market incentives that will

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274 Pfeifer and Sullivan (n 230) 245.
275 PRI (n 214) 5.
277 Mark Fulton and Bruce M. Kahn, ‘Investing in Climate Change’ in Angelo Calvello (ed), Environmental Alpha: Institutional Investors and Climate Change (John Wiley & Sons 2010), 190.
278 Staub-Bisang (n 246) 43-47.
280 ibid 30.
281 Kierman (n 266) 129; Fulton and Kahn (n 277) 177.
motivate investors to promote and encourage climate change mitigation. However, the profitability barrier persists. It is still difficult to prove a causal relationship between sustainability and financial returns, and institutional investors continue to only be concerned with climate change when it has short-term or immediate impacts on assets and performance. As a result, the majority of the discourse on climate change by institutional investors remains economics-centred and risk-driven. Substantial obstacles still remain for institutional investors interested in mainstreaming climate change into their investment strategies. These include the perception that greater involvement in governance will not increase performance and may be incompatible with fiduciary duties, concerns about insider trading allegations from pro-active engagement with management, as well as a lack of credible research linking environmental performance with financial performance. According to Kierman, investors still need an investment case in order to take climate change more seriously, as well as better, company-specific analytics to enable them to assess climate risks. The Financial Stability Board has recently recommended to the G20 that an industry-led disclosure task force on climate change be established to help investors assess transition plans and changes in the value of assets. The initiative would be voluntary and would help to establish the needs of investors regarding disclosures and develop common disclosure principles or recommendations. While this is a welcome and timely initiative, further voluntary disclosure initiatives are

286 Tom Hadden, ‘Corporate Governance by Institutional Investors? Some Problems from an International Perspective’ in Guiliano Campioni, Pablo D’Iorio and Maria Christina (eds), Institutional Investors and Corporate Governance (Walter de Gruyter 2011), 100; Kierman (n 266), 131; Sorensen and Pfeifer (n 284) 67.
288 Financial Stability Board (n 205) 2.
289 ibid 4.
unlikely to overcome the short-term performance incentive that is creating a barrier to systemic mainstreaming of climate change risk.

While sustainable investing initiatives is just one of the ways through which investors try to motivate the transition to a low-carbon economy, the divestment movement is a recent and more dramatic tactic taken by some investors.

5.6.4 The Divestment Movement

In the face of increasing risks confronting carbon-major entities due to climate change, investors can either hold on to their investments and minimise the downside of these risks, or divest.\(^{290}\) The divestment movement began in US colleges in 2011\(^{291}\) by students asking their institutions to freeze new investments in the fossil-fuel industry and divest existing stocks.\(^{292}\) These student movements were assisted by NGOs such as ‘350.org’, and popularized by Bill McGibbon and his cross-country road trip in the US in 2012 advocating for divestment.\(^{293}\)

Since 2011, the divestment movement has grown, with the Rockefeller Brothers Fund announcing in September 2014 that it will decrease its investments in fossil fuel. It has also reached the UK, with the Church of England announcing its divestments in thermal coal and tar sands in May 2015\(^{294}\) and a long-standing campaign by The Guardian newspaper called ‘Keep it in the Ground’, advocating for divestment in fossil-fuel industries.\(^{295}\) In May 2016, the Gates Foundation divested its entire holdings in BP, an investment of approximately US$187 million.\(^{296}\) In 2015, Oslo became the first capital city in the world to completely ban investments in fossil fuels, and has agreed

\(^{290}\) HSBC, ‘Stranded Assets’ (n 208) 13.

\(^{291}\) The movement began in Swarthmore College in 2011 and quickly spread to other academic institutions such as the University of North Carolina and the University of Illinois.


\(^{293}\) Jessica Grady-Benson and Brinda Serathy, ‘Fossil Fuel Divestment in US Higher Education: Student-led Organizing for Climate Justice’ (2016) 21(6) Local Environment 1, 4-5.


\(^{295}\) See <http://www.theguardian.com/environment/series/keep-it-in-the-ground>.

to divest its pension fund from coal, oil and gas companies.\textsuperscript{297} A number of other cities around the world have made divestment commitments, including Belfast, Oxford, Berkeley, Palo Alto, San Francisco, Seattle, Victoria and Melbourne, and in January 2017 the Irish Parliament decided to divest its national strategic investment fund from fossil fuels.\textsuperscript{298}

Divestment can take a number of forms, including 100\% divestment from all fossil-fuel-producing companies, partial divestment, value-chain analysis of companies involved in fossil fuels, and divestment from the ‘worst-in-class’, based on the carbon intensity of companies.\textsuperscript{299} The divestment initiatives mentioned above are diverse in their approaches, and have involved some or all of these approaches. The divestment movement has grown significantly in the past few years, and is motivating stakeholder-driven support for taking action on climate change.\textsuperscript{300}

Schneider has noted that there are three phases of divestment: action taken by public organizations, followed by action taken by investors, cities and public institutions, and finally, market-recognition of risks in continued investment.\textsuperscript{301} She notes that in 2015, the divestment movement was in its second phase,\textsuperscript{302} which means that market investors have not systematically started to divest from the fossil-fuel industry. There may be several reasons for this lack of movement on the part of investors. Critics of the divestment movement in South Africa have noted that it had no effect on the targeted companies, and there is no evidence that the current divestment movement is affecting the stock prices or business decisions of targeted firms.\textsuperscript{303} Critics also note that the divestment movement will potentially replace environmentally sensitive investors with neutral investors, thereby removing one mechanism to pressure

\textsuperscript{299} HSBC, ‘Stranded Assets’ (n 208) 15.
\textsuperscript{300} Linneluecke and others (n 292) 486.
\textsuperscript{301} Schneider (n 209) 592.
\textsuperscript{302} ibid 592.
companies to make changes. Divestment can also involve high transaction costs for firms because there is no uniform set of standards by which to judge firms that are either fossil-fuel intensive or environmentally friendly. Critics have also pointed out that divestment may be a breach of fiduciary duties, as it may be difficult to replace these types of industrial investments in portfolios, and neutral investors will simply replace divesting investors. It is unlikely that the divestment campaign will have a significant impact on carbon-major firms until it enters the third phase: when the markets systematically begin to divest from the fossil fuel industry.

5.7 Impact of These Initiatives on Companies
There have been significant developments in recent years in relation to human rights jurisprudence, climate litigation and sustainable investing. These developments display a general trend away from fossil-fuel investments, and towards a low-carbon economy. The inclusion of references to human rights in the Paris Agreement was an historic achievement, even though it is a preambular reference only. However, it is clear from this analysis that, while states have obligations to protect human rights and these extend to the arena of climate change at the national level, in terms of international obligations, these are primarily characterized as international cooperation obligations. National obligations to mitigate climate change under human rights jurisprudence has not yet emerged as very few states have singular responsibility for global climate change. In addition, imposing human rights obligations on companies is challenging, and public nuisance suits against companies have been particularly difficult. Tort actions in particular have been challenging.

Most tort actions against states and companies have been defeated by difficulties in attributing impacts to specific emissions or specific emitters. In addition, the judicial reluctance in the US to circumvent climate change regulation will be instructive for other litigation claims worldwide. However, recent European jurisprudence under the Urgenda case has highlighted that states are vulnerable to climate change litigation

304 Linnenluecke and others (n 292) 480.
305 Fischel (n 303) 13-14.
306 Schneider (n 209) 591.
307 Human Rights Council (n 36) para 45.
308 ibid para 71.
suits targeting lack of regulatory action. While the *Urgenda* is an outlier to the general trends in climate change litigation, it is instructive that courts are willing to overcome the complex issues of attribution. With the increases in certainty regarding climate change attribution science, it is likely that the levels of litigation across the globe will increase as these hurdles can be overcome. In addition, the recent case against DEFRA illustrates that, where public health issues arise, the judiciary may become more activist in holding states responsible for regulatory inaction.

While renewable energy subsidies have been subjected to numerous disputes at the WTO, fossil-fuel subsidies have faced very little scrutiny at the international level. The absence of a category of non-actionable subsidies at the WTO, combined with very slow progress during the Doha Development Round in agreeing to a list of environmental goods and services, means this forum is unlikely to lead to swift progress on trade and energy in the near future. Despite recent assertions by G7 states to phase out fossil fuel subsidies by 2025, the lack of definition and concrete regulatory plans at the national level also cast doubt on their ability to achieve this target. The circumstances surrounding fossil-fuel subsidies in the UK is non-transparent, and it is unlikely that fossil-fuel subsidies will be eliminated for some time. The recent MER UK legislative initiative is also potentially contradictory to the efforts to transition to a low-carbon economy in the UK, and may explain the Government’s opaqueness on fossil-fuel subsidies.

Carbon taxes appear to be a more viable approach. Their implementation is simple, and companies appear to have been advocating for them for some time. While a global carbon tax would overcome the issues of competitiveness and carbon leakage, the difficulties of orchestrating a global price on carbon may be challenging. The Paris Agreement provides a framework for the implementation of such a tax, and there is no barrier to states imposing it themselves. Several states and sub-state areas have already done so. However, establishing the price of the tax is complex, and will remain so as the science on climate change progresses.

The trend of sustainable investing is, by contrast, hopeful. A number of large institutional investors, with the assistance of transnational governance networks, are taking climate change seriously. They are particularly concerned with the issue of
stranded assets, and some shareholder resolutions and other management engagement have been successful in forcing companies to at least consider the risks of climate change to their operations. There have also been some interesting developments by institutional investors in the context of the Paris Agreement. These have largely concerned shareholder resolutions being put forward by concerned investors in conventional energy companies. In April and May 2015, at the AGMs of both BP and Royal Dutch Shell, shareholder resolutions were passed, supported by a majority of shareholders as well as by management. The shareholder resolutions requested enhanced reporting by these companies on their exposure to climate change, including portfolio resistance to the International Energy Agency’s 2030 energy scenarios. They also requested further information on operational environmental management and public policy positions on climate change. The resolutions were submitted specifically in light of the upcoming Paris negotiations. The reasoning behind the shareholder resolution, as shared by ‘Aiming for A’, was to understand how these companies were preparing for the low-carbon transition, reveal systemic risks that may impact investors, and to engage in more collective fiduciary duties and enhance shareholder voice on climate change.309 At the end of May 2016, a similar resolution requesting more action on climate change, including increased disclosure, was put forward at the AGM of ExxonMobil with the support of British insurer Aviva, as well as the Church of England. However, this resolution was not accepted by the majority of shareholders. Shareholders did, however, pass a resolution that could enable them to appoint board members who are more concerned about climate change.310 The CEO for ‘As you Sow’ stated that investors are asking companies to take a broad, systemic analysis of their climate policies, and how they affect the broader economy.311 On 9th March 2017, Shell announced that, due to investor pressure to mitigate climate change, it was selling most of its Canadian oil

311 ibid.
sands assets and that 10% of directors’ bonuses would be tied to how well it manages GHG emissions.\footnote{Karolin Schaps, ‘Shell Sells Canadian Oil Sands, Ties Bonuses to Emissions Cuts’ (Reuters, 9 March 2017) <http://www.reuters.com/article/us-shell-divestiture-cdn-natural-rsc-idUSKB16G0PH> accessed 4 May 2017.}

Energy companies are particularly vulnerable to transition risks that could leave their main assets ‘stranded’, and this may have motivated the increased activism by shareholders. The new, lower temperature goals in the Paris Agreement increase the risk of stranded assets if countries take action to implement the temperature goals. The stark warnings from the Governor of the Bank of England at the end of 2015, highlighting the risk of climate change to general fiscal stability, should be noted by companies, and particularly by institutional investors who invest in companies that are particularly exposed to climate change risks. Despite these warnings, the markets are not systemically pricing the emerging risk of stranded assets in fossil-fuel companies. Carbon Tracker and the Grantham Institute note, ‘An implicit assumption is that the fossil fuel owned by listed companies will go on to be developed and sold and the capital released used to replace reserves with new discoveries.’\footnote{Carbon Tracker Initiatives in collaboration with the Grantham Research Institute of Climate Change and the Environment, ‘Unburnable Carbon 2013: Wasted Capital and Stranded Assets’, 5 <http://carbontracker.live.klin.digital/Unburnable-Carbon-2-Web-Version.pdf> accessed 4 May 2017.} They note that 100% reserve replacement ratios are performance metrics that are currently rewarded by the markets,\footnote{ibid 29.} thus encouraging investors to view reserves as valuable assets. In their view, valuation tools need to be recalibrated as the markets should not reward the replacement of reserves, should take into account increasing global temperatures and re-price assets.\footnote{ibid 36.}

The divestment movement has also attracted a lot of publicity, although it is clear that it is not an ideal tool to convince companies to transition away from fossil-fuel resources. While this movement has reached its second phase with public institutions and even cities divesting from fossil-fuel companies, it is unlikely that the divestment campaign will have a significant impact on carbon-major firms until it enters the third phase: when the markets systematically begin to divest from the fossil-fuel industry.

\footnote{ibid 29.}
\footnote{ibid 36.}
The variety of information sources and lack of company-specific impacts of climate change on assets poses information barriers for many institutional investors. The Financial Stability Board has recently recommended to the G20 that an industry-led disclosure task force on climate change be established to help investors assess transition plans and changes in the value of assets.\(^\text{316}\) Their first report identified some of the barriers facing investors on climate change, which include fragmented and incomplete reporting by companies, as well as weak corporate governance mechanisms.\(^\text{317}\) They conclude that inadequate disclosures can lead to mis-pricing of assets, and misallocation of investments could lead to risks to general fiscal stability if re-pricing of assets is abrupt and widespread.\(^\text{318}\)

The Task Force initiative identified seven principles for effective reporting of climate-related financial disclosures.\(^\text{319}\) Adherence to the principles would be voluntary and would help to establish the needs of investors regarding disclosures and to develop common disclosure principles or recommendations.\(^\text{320}\) While this is a welcome and timely initiative, further voluntary disclosure initiatives are unlikely to overcome the short-term performance incentive that is creating a barrier to systemic mainstreaming of climate change risk.

### 5.8 Conclusion

Collectively, while human rights and financial initiatives have had some impact, they have yet to be successful in forcing states and companies to transition away from fossil-fuel resources and towards clean energy. While these pressures and drivers have the potential to stimulate a transition to a low-carbon economy, they have not yet coalesced into actual achievement. With the exception of the *Urgenda* case, litigation and human rights movements are not motivating significant change on

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\(^{316}\) Financial Stability Board (n 205) 2.


\(^{318}\) ibid 21.


\(^{320}\) Financial Stability Board (n 205) 4.
behalf of states, companies or investors. Fossil-fuel subsidies have yet to be phased out, and a global carbon tax is not yet on the immediate international agenda.

While awareness of climate change has increased among institutional investors in the past few years, there has been limited action on the ground to mainstream climate change into investment strategies.321 There is an assumption that more and better disclosure on climate change risks will by itself create market incentives that will motivate investors to promote and encourage climate change mitigation.322 However, the profitability barrier persists. It is still difficult to prove a causal relationship between sustainability and financial returns,323 and institutional investors continue to be concerned with climate change only when it has short-term or immediate impacts on assets and performance.324 As a result, the majority of the discourse on climate change by institutional investors remains economics-centred and risk-driven.325 However, as the risks of climate change increase, the issue of mitigation of climate change risk is likely to figure more prominently on the agenda of mainstream investors.

Asset owners and advisors often point to fiduciary duties as one of the barriers to responsible investing.326 In addition, traditional valuation tools employed by institutional investors emphasise short-termism and can directly contravene the longer time frames that must to be considered for many environmental, social and governance impacts.327 Concerns about climate change are often too long-term for the short-termism employed by many investment managers.328 Emphasis by institutional investors on short-term profits, particularly in carbon intensive industries, will create a barrier to the transition to low-carbon economies.329

321 Kierman (n 266) 129; Fulton and Kahn (n 277) 177.
322 Harnes (n 282) 101; Mark Carney (n 205) 12; Financial Stability Board (n 205) 1.
323 Ingeborg Schumacher Hummel, ‘Equities’ in Staub-Bisang (n 217) 148; Kim and Lyon (n 283) 23.
324 Harnes (n 282) 104-105; Sorensen and Pfeifer (n 284) 67.
326 Sullivan and others (n 255) 16.
327 PRI (n 256) 6; Lake (n 256) 19.
328 Pfeifer and Sullivan (n 230) 259.
329 McKenzie and Ascui (n 222) 36.
The pressures of short-termism, as well as confusion around the extent of fiduciary duties on trustees of institutional investments, still pose a barrier to the mainstreaming of climate change into investment strategies. These challenges mirror the challenges of shareholder wealth maximisation and short-termism identified in Chapters 2 and 3. As highlighted previously, the shareholder wealth maximisation privileges shareholders as the primary constituent of the company to the detriment of the interests and values of other shareholders. It focuses on shareholder wealth maximisation as the most important function of the company, and therefore can lead to a myopic focus on short-term profitability, and an economic commodification of the environment and negative externalities such as greenhouse gas emissions. The rise of institutional investors has meant that portfolio managers are overly concerned with the quarterly earnings of companies, as their own performance metrics is assessed quarterly. As a result, they often focus on the current market price of the company and not on the long-term value of the firm, leading to a short-term bias.\textsuperscript{330} This trend can also be identified by the way markets reward fossil-fuel replacement values, while ignoring the risks of stranded assets.

The mechanisms identified in the previous chapters all have the potential to garner significant movement by fossil-fuel companies to make the transition to sustainable energy. Significant legal and market-based challenges, however, remain. Short-termism, shareholder wealth maximisation, and the inability of institutional investors to divest completely from these companies, all combine to leave fossil-fuel companies free to continue to extract, accumulate, and exploit fossil fuels. The conclusion will provide an analysis of the cumulative impact of company, environmental as well as human rights and financial initiatives covered in Chapters 3 to 5 on energy companies, and provide some initial recommendations on the way forward.

6. Chapter 6 - Conclusion

6.1 Introduction
The purpose of the conclusion is to summarize the most important parts of the analysis that has taken place over the previous chapters, and provide a summary of the findings. This Thesis aims to determine whether existing mechanisms dealing with corporate emissions are adequate, and if they are not, what the best mechanism(s) would be to mediate companies’ contributions to climate change. This Thesis analysed a selection of mechanisms: internal corporate norms\(^1\), state-based regulation such as company law,\(^2\) energy and climate change regulation, mechanisms in which companies participate directly such as voluntary codes of conduct and market mechanisms\(^3\) as well as ‘decentred’ approaches to regulation such as litigation and fiscal mechanisms.\(^4\) The aim of this analysis is to test what these mechanisms currently require of companies, whether these requirements are enforceable, whether there is compliance with them, and finally, whether these requirements are sufficient to meet the looming climate crisis. The Thesis also aims to set out some reflections on potential ways forward if the mechanisms are not sufficient.

Some of the main findings of the Thesis are that the shareholder wealth maximisation norm is subverting the efficacy of environmental regulation on climate change, and disincentivising carbon major companies from reducing their emissions and transitioning away from fossil fuels. While efficiency is one of the main tenets in the support of shareholder primacy, there are very few critiques of whether this efficiency

\(^1\) Chapter 2 provides an assessment of the theoretical underpinnings of company law in order to demonstrate that the shareholder primacy theory, which includes the shareholder wealth maximisation theory, has become the dominant theoretical norm in Anglo-American company law.
\(^2\) Chapter 3 lays out an exploration of English company law to determine whether it reflects the dominance of the shareholder primacy theory.
\(^3\) Chapter 4 provides an analysis of non-company law mechanisms that includes predominantly state-based regulations and policy, as well as market-based mechanisms such as trading mechanisms and corporate social responsibility mechanisms that are used directly by carbon major entities. This chapter also explores how well used these mechanisms are by analysing a selection of five carbon major companies.
\(^4\) Chapter 5 provides an overview of decentred initiatives that are either transnational or emerging trends. These include both human rights mechanisms and litigation against both states and companies, as well as fiscal mechanisms such as fossil-fuel subsidies, global carbon taxes and institutional investment trends.
is socially valuable or environmentally sustainable.  

5 Sjåfjell notes that, while the 2008 financial crisis has motivated critical reflections on the role of short-termism, shareholder primacy has not been pinpointed as part of the problem in company law and corporate governance.  

6 This Thesis analyses the efficacy of the shareholder primacy and, in particular, the shareholder wealth maximisation norm in the context of climate change.

In June 2016, via a referendum, the public in the United Kingdom voted to leave the European Union, otherwise known as ‘Brexit’. The energy policies developed over the past few decades in the UK have evolved in tandem with EU energy and climate policies.  

As a result, while the implications of Brexit are as yet unclear, this development provides both regulatory uncertainty, but also perhaps opportunities in the arena of environmental law and climate change. While the departure from the EU may mean that the UK will weaken its carbon targets, it may also provide the country with more autonomy to strengthen carbon targets. Targets already set out in the Climate Change Act extend to 2050, but, after Brexit, these could be more easily changed by Parliament without the constraints of EU targets. It is less clear what the impact of Brexit might be on renewable energy policies in the UK, as these are not specifically captured as targets in EU policies. It is also likely that the UK would leave the EU-ETS, and perhaps develop its own national carbon trading system. It remains

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5 Carol Liao, ‘Limits to Corporate Reform and Alternative Legal Structures’ in Beate Sjåfjell and Benjamin J. Richardson (eds), Company Law and Sustainability: Legal Barriers and Opportunities (CUP 2015), 279.


9 Froggatt and others (n 7) 24.

10 Ibid 24.

11 Ibid 25.
to be seen on what terms the UK will leave the EU, and how or whether the negotiation of these terms is likely to affect UK energy policies and climate targets going forward.

Given this development, reflections are provided on potential ways forward that could provide a more cohesive and beneficial relationship between company law and climate change law, and would involve requirements for energy companies to more actively report and reduce greenhouse gases. To this effect, two potential approaches will be put forward. The second section of the conclusion will contain a brief review of existing mechanisms from Chapters 2, 3, 4 and 5, and their particular failings, as well as an analysis of what energy companies are actually doing and the constraints with which they are concerned.

The third section will put forward two potential approaches, the first being what the author is referring to as a ‘light green approach’: tackling GHG emissions through tighter environmental regulation requiring more coherent and holistic approaches to reporting, as well as amending s172 so that stakeholder (including environmental) concerns are placed on equal footing with the interests of shareholders. This would entail emphasising a long-term profitability approach, which incorporates some shareholder concerns but waters down shareholder primacy. Unlike ESV, as reflected in its current statutory form under s172 of the Companies Act 2006, this light green approach would not create a hierarchy of interests with shareholders’ interests being paramount. Instead it would adopt a more stakeholder/entity approach to the balancing of interests with more emphasis on the long-term success of the company. This is a natural extension of the phased approach currently taken from voluntary and reporting-only initiatives, to mandatory reporting and reduction obligations under existing regulatory mechanisms.

The third section will also outline what the author is referring to as a ‘deep green approach’: tackling the shareholder wealth maximisation theory and dismantling the myopic concern with agency costs that may in turn lift the competition constraints felt by many companies in the area of climate abatement. This would involve amending s172 so that shareholders’ interests are in fact limited by long-term profitability concerns and constrained by planetary boundaries. The latter two issues would
become the key obligations for directors, and shareholder interests would be made subservient to these objectives. This may involve a radical theoretical rethinking of the obligations of a company, with an emphasis on the entity approach raised in Chapter 2. While this may not be entirely feasible from a political perspective, it may be the most effective option in the long term. A brief exploration of some recent changes in the corporate form to include social enterprise companies may signal a willingness to rethink the objective of the company.

The final section will highlight some reflections on whether a combination of all or some of these mechanisms could be effective. Perhaps strengthening the bridge already established between the Climate Change Act and Companies Act is the best approach to tackling corporate emissions, but a bridge beyond simply disclosing GHG emissions to reducing and eliminating GHG emissions would be a more effective approach. These comments will highlight the necessary role of law in tackling climate change.

6.2 Review of Key Findings

6.2.1 The Dominance of the Shareholder Wealth Maximisation Theory

The shareholder primacy approach exerts both pressure and incentives on companies to maximise shareholder profits at any cost, and shareholder rights within the corporate governance framework have perpetuated the misconception of shareholder profit maximisation.\(^\text{12}\) Stakeholder interests only become important when they dovetail with the pursuit of shareholder profit maximisation.\(^\text{13}\) As a result, instilling a long-term perspective in the board room will be difficult while short-term interests remain high on the agenda.\(^\text{14}\)

By focusing almost exclusively on how to protect shareholder interests, agency theorists have sidelined, if not completely ignored, the interests of non-shareholder constituents such as the environment. As a result, company law theory itself has

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\(^{12}\) Beate Sjåfjell and Benjamin J Richardson, ‘The Future of Company Law and Sustainability’ in Beate Sjåfjell and Benjamin J. Richardson (eds), *Company Law and Sustainability: Legal Barriers and Opportunities* (CUP 2015), 319.

\(^{13}\) ibid 280.

\(^{14}\) ibid 281.
relegated environmental concerns to the realm of external regulation, leaving the company free to focus almost exclusively on making profits for shareholders.  

Companies do not choose low-carbon options because of the overriding social norm of shareholder primacy. This norm leads to a narrow, short-term, profit-maximisation focus. Sjåfjell notes that the shareholder value norm has flourished precisely because company law has not specified what societal value a company should provide. She notes that company law has left a vacuum that shareholder value has attempted to fill. Shareholder primacy and profit maximisation have become the principal barriers to the increased sustainability of business.

6.2.2 Incorporation of the Shareholder Wealth Maximisation Theory in Company Law

It is clear that English case law prior to 2006 did not reflect or even mandate the shareholder primacy norm, and therefore environmental concerns could have dictated directorial decisions if they led to the betterment of the company as a whole. Under this approach, the potential effects of climate change could have warranted directors’ attention, and justified some profit-sacrificing measures to reduce greenhouse gas emissions by companies, if this ultimately led to the company’s success.

Despite this approach, corporate codes and guidance demonstrate that private industry certainly advocated for, and believed the law reflected, the shareholder primacy norm. This may result from the mistaken assumption by the business community that the law required directors to pay attention to shareholders’ interests. It may also reflect a co-option by the business community of the shareholder wealth maximisation norm, and the contractarian analysis of companies. The contractarian

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15 See Section 2.4 and 2.9 of Chapter 2 of this Thesis.
16 Sjåfjell (n 6) 115.
17 ibid 115.
18 ibid 106; see also Liao (n5) 282.
19 Sjåfjell (n 6) 106.
21 See section 3.2 of Chapter 3 of this Thesis.
approach was largely reflected in the Company Law Review Steering Group’s reports, which formed the basis of the amendments to the Companies Act 2006.\textsuperscript{22}

As a result, a hierarchy was established in s172 of the 2006 Act, making it clear that shareholder interests are meant to predominate over environmental concerns. For the first time, s172(1) lists shareholder interests as part of the definition of the success of the company. As a result, directors can take into account non-shareholder interests when they serve the economic interests of the companies and shareholders. When this is not the case, directors may be free to disregard non-shareholder interests, and instead pursue matters that promote the success of the company.\textsuperscript{23} As a result, environmental concerns may not be prioritised over shareholder concerns if they do not promote the success of the company \textit{and} the shareholders.\textsuperscript{24}

A potentially helpful aspect to the new s172 is the focus on the long-term success of the company in s172(1)(a). This was specifically inserted in order to mitigate what the CLRSG determined was a myopic focus on short-term profitability. If one adopts an entity approach to the company, and given that companies have potentially a perpetual existence, long-term profitability could extend beyond the lifetimes of both shareholders and directors.

\textbf{6.2.3 Traditional Regulatory Approaches to Climate Change}

A variety of key environmental, energy, and climate change mechanisms were analysed. Combined with case study analyses of five energy companies (BP, Royal Dutch Shell, BG Group, National Grid and Centrica), it is clear that most traditional environmental regulatory approaches do not require reductions of greenhouse gases from carbon major entities.\textsuperscript{25} Most companies considered that regulatory uncertainty and the costs of regulating GHG emissions were a direct threat to their business operations because of increased operational costs.\textsuperscript{26}

\begin{footnotesize}
\begin{enumerate}
\item See sections 3.3-3.4 of Chapter 3 of this Thesis.
\item Success was deemed to be the core objective of s172, although the CLRSG left the definition of success up to directors. See Company Law Steering Group, \textit{Modern Company Law for a Competitive Economy Completing the Structure} (A Consultation Document from the Company Law Steering Group 2000), 39.
\item See section 3.5 of Chapter 3 of this Thesis.
\item See sections 4.3-4.4 of Chapter 4 of this Thesis.
\item See sections 4.3.7-4.3.8 of Chapter 4 of this Thesis.
\end{enumerate}
\end{footnotesize}
International agreements, such as the UNFCCC and KP, have to date failed to provide binding, stringent targets on states for GHG emissions reductions. This is largely due to lack of political will and industry concerns with international competitiveness and carbon leakage. Governments and companies alike are concerned that with stringent domestic targets may come increased costs of doing business and therefore reduced competitiveness. While the Paris Agreement was historic in its near universal membership, it is not directly applicable to companies. In addition, countries have ‘quasi-voluntary’ commitments in the submission of their nationally determined contributions to emissions reductions. They are provided with significant flexibility in crafting their national commitments. As a result, there are no internationally binding obligations on companies to reduce GHG emissions.

The only formal regulatory mechanisms that directly regulate carbon major companies are the emission performance specifications (EPS) and the directors’ regulations to report GHG emissions. None of the five companies examined operate many coal plants, and therefore the EPS does not have any significant impact on their operations and consequentially their emissions.

The directors’ regulations are innovative in that they cross over both the Companies Act 2006 and the Climate Change Act 2008. All of the five energy companies examined are publicly traded, and therefore subject to the GHG regulations. However, the regulations only require that these companies report their GHG emissions, which they do, and therefore they are all compliant with the regulatory mechanism, and enforcement of the regulations is achievable. The regulations do not require that companies reduce their GHG emissions. As a result, under the regulations, companies can voluntarily set their own targets on the basis of absolute reductions or intensity targets, and report on their own compliance. Consequentially, only two out of the five companies analysed have set any GHG emissions targets, and these are only intensity and absolute targets.\textsuperscript{27} Only one company examined has clearly established absolute GHG emissions targets. As a result, the regulations have not been effective in motivating any significant reduction in GHG emissions by the companies reviewed. In

\textsuperscript{27} See section 4.3.8 of Chapter 4 of this Thesis.
fact, in a number of cases, GHG emissions are either increasing or are anticipated by many companies to increase in the future. Many of the companies cite growth, expansion and profit motivators as reasons they anticipate that their GHG emissions will increase in the near future. Shareholder wealth maximisation and the incentive to profit and grow is still driving GHG emissions, and thus formal regulatory mechanisms are not sufficiently mediating this incentive, or, therefore, contributing to reductions in GHG emissions.

Companies only become beholden to externalities if they are considered serious enough to regulate. In addition, the current regulatory regime focuses on incremental change, and therefore does not address the ‘fundamental shift’ that is required from business as usual. The approach of ‘light touch’ regulation, while palatable to government and businesses, may not be sufficient to achieve a low- or no-carbon future. The driving force behind many regulatory efforts is neoclassical economics, and as Sjåfjell and Richardson point out, ‘the singular logic of the economic thinking where the fact that a finite planet cannot hold infinite growth is blatantly ignored’. Relying solely on environmental regulation has its limitations. It can be a poor driver of success as it lies outside of company law; it is a limited tool so it cannot address all of the environmental responsibilities of companies; it is not dynamic and so cannot accommodate changing environmental circumstances. The coverage of environmental legislation may also be limited as governments are not always aware of the full extent of corporate externalities. The ability of regulation to cater for social cost is also inadequate. Implementing a transition to a low- or no-carbon future may require a fundamental change to the purpose of the corporate entity, as

28 See sections 4.4.3-4.5 of Chapter 4 of this Thesis.
29 Laio (n 5) 279.
30 Sjåfjell and Richardson (n 12) 312.
31 ibid 316.
32 ibid 317.
33 Sjåfjell and Richardson (n 12) 335.
35 ibid 222.
well as accepting the limitations of regulation to address and engage with a global energy transition.  

6.2.4 ‘De centred’ Regulatory Approaches
There have been significant developments in recent years in relation to human rights jurisprudence, climate litigation and sustainable investing. These developments display a general trend away from fossil fuel investments, and towards a low-carbon economy. The inclusion of references to human rights in the Paris Agreement was an historic achievement, even though it is only a preambular reference. However, it is clear from this analysis that, while states have obligations to protect human rights and these extend to the arena of climate change at the national level, in terms of international obligations these are primarily characterized as international cooperation obligations. National obligations to mitigate climate change under human rights jurisprudence have not yet emerged as very few states have singular responsibility for global climate change. In addition, imposing human rights obligations on companies is challenging, and public nuisance suits against companies have largely failed. Most tort actions against states and companies have been defeated by difficulties in attributing impacts to specific emissions or specific emitters. With the increase in certainty regarding climate change attribution, it is likely that the levels of litigation will increase as these hurdles can be overcome.

The reduction of subsidies for fossil fuels could also be a useful mechanism to reduce emissions. While renewable energy subsidies have been subjected to numerous disputes at the WTO, fossil-fuel subsidies have faced very little scrutiny at international level. The absence of a category of non-actionable subsidies at WTO level, combined with the very slow progress during the Doha Development Round, indicate that this forum is unlikely to lead to swift progress on trade and energy in the

38 Ibid para 71.
39 See sections 5.2.1-5.2.3 of Chapter 5 of this Thesis.
40 See section 5.2.3 of Chapter 5 of this Thesis.
near future. Despite recent assertions by G7 states to phase out fossil-fuel subsidies by 2025, the lack of definition and concrete regulatory plans at the national level also cast doubt on their ability to achieve this target.\textsuperscript{41} The circumstances surrounding fossil-fuel subsidies in the UK is non-transparent, and it is unlikely that fossil-fuel subsidies will be eliminated in the near future. The recent MER UK legislative initiative is also potentially contradictory to the efforts to transition to a low-carbon economy in the UK, and may explain the Government’s opaqueness on fossil-fuel subsidies.\textsuperscript{42}

Carbon taxes appear to be a more viable approach. Their implementation is simple, and companies have been advocating for them for some time now. While a global carbon tax would overcome the issues of competitiveness and carbon leakage, the difficulties of orchestrating a global price on carbon may be challenging.\textsuperscript{43} Carbon taxes may be more economically efficient and politically feasible than imposing quantitative restrictions or instituting internal reforms within companies.\textsuperscript{44} Carbon taxes, however, hold the danger of reducing a moral and ethical issue regarding the destruction of ecosystems to a largely economic re-allocation of resources.\textsuperscript{45}

The trend of sustainable investing indicates a positive development in this area. A number of large institutional investors, with the assistance of transnational governance networks, are taking climate change seriously.\textsuperscript{46} They are particularly concerned with the issue of stranded assets, and some shareholder resolutions and other management engagement tactics have been successful in forcing companies to at least consider the risks of climate change to their operations. There have also been some interesting developments by institutional investors in the context of the Paris Agreement. These have largely concerned shareholder resolutions being put forward by concerned investors in conventional energy companies. Shareholders, including institutional investors, could use their influence to demand a shift towards a more

\textsuperscript{41} See section 5.4.1 of Chapter 5 of this Thesis.
\textsuperscript{42} See section 5.4.2 of Chapter 5 of this Thesis.
\textsuperscript{43} See section 5.5 of Chapter 5 of this Thesis.
\textsuperscript{44} Andrew Watt, ‘Signal Change: Environmentally Sustainable Corporate Behaviour Requires a Change in Incentives’ in Sigurt Vitols and Norbert Kluge (eds), \textit{The Sustainable Company: A New Approach to Corporate Governance} (ETUI, 2011), 254.
\textsuperscript{46} See section 5.6 of Chapter 5 of this Thesis.
ethical and socially responsible business model\(^47\), but this trend has not been fully institutionalised in markets to date as markets are not systemically pricing the emerging risk of stranded assets in fossil-fuel companies.\(^48\)

While awareness of climate change has increased among institutional investors in the past few years, there has been limited action on the ground to mainstream climate change into investment strategies.\(^49\) There is an assumption that more and better disclosure on climate change risks will by itself create market incentives that will motivate investors to promote and encourage climate change mitigation.\(^50\) However, the profitability barrier persists. It is still difficult to prove a causal relationship between sustainability and financial returns,\(^51\) and institutional investors continue to only be concerned with climate change when it has short-term or immediate impacts on assets and performance.\(^52\) As a result, the majority of the discourse on climate change by institutional investors remains economics-centred and risk-driven.\(^53\)

6.2.5 Summary of Analysis

The pressure of short-termism, as well as confusion around the extent of fiduciary duties on trustees of institutional investments, still poses a barrier to the mainstreaming of climate change into investment strategies. These challenges mirror the challenges of shareholder wealth maximisation and short-termism identified in

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\(^{47}\) Sjåfjell and Richardson (n 12) 320.

\(^{48}\) See section 5.6 of Chapter 5 of this Thesis.


\(^{52}\) Harnes (n 50) 104-105; Ole Beier Sorensen and Stephanie Pfeifer, ‘Climate Change Issues in Fund Investment Practices’ (2011) 64 4) Intl Social Security Review, 67.

Chapters 2 and 3. As highlighted previously, the shareholder primacy norm privileges shareholders as the primary constituent of the company to the detriment of the interests and values of other stakeholders. It focuses on shareholder wealth maximisation as the most important function of the company, and therefore can lead to a myopic focus on short-term profitability, and an economic commodification of the environment and negative externalities such as greenhouse gas emissions. The rise of institutional investors has meant that portfolio managers are overly concerned with the quarterly earnings of companies, as their own performance is assessed quarterly. As a result, they often focus on the current market price of the company’s shares and not on the long-term value of the firm, leading to a short-term bias. This trend can also be identified by the fact that markets reward fossil fuel replacement values, while ignoring the risks of stranded assets.

The mechanisms identified in the previous chapters all have the potential to garner significant movement by fossil-fuel companies to make the transition to sustainable energy. Significant legal and market-based challenges, however, remain. Short-termism, shareholder wealth maximisation, and the inability of institutional investors to divest completely from these companies, all combine to leave fossil-fuel companies free to continue to extract, accumulate, and exploit fossil fuels.

6.3 New Approaches

Most of the mechanisms reviewed above are failing to incentivise long-term action by carbon major entities to reduce greenhouse gas emissions. This failure is largely due to the pervasive influence of the shareholder wealth maximisation norm. As such, new approaches may be required to create a more cohesive and beneficial relationship between company law and climate change law, and to incentivise energy companies to undertake aggressive reduction requirements. To this effect, two potential approaches are put forward below, as a combination of one or more mechanisms may be needed to effectively reduce corporate GHG emissions.

6.3.1 Light Green Approach

Improved and more integrated reporting by companies could lead to a better understanding of these entities’ impacts on the environment, and on the climate in particular. Natural capital inventory accounting includes the recording of the impacts of companies on natural capital over the long term.\textsuperscript{55} This type of ‘sustainability accounting’\textsuperscript{56} would have to be implemented through legislation, and would have to exceed the conventional accounting and reporting requirements employed by companies to date.\textsuperscript{57} New informational tools, including concepts such as ‘ecological wealth’, would have to be employed, and new thresholds including planetary and climate thresholds would have to be devised.\textsuperscript{58} While companies themselves may not be able to develop these concepts and thresholds, they would need to cooperate in the observance of them, and incorporate them into their reporting cycles.\textsuperscript{59} In combination with increased regulatory reporting requirements, carbon accounting would have to become mandatory for all companies, and in particular carbon major companies. Standardised and enforceable methodologies would be developed, and compliance with these reporting methodologies would have to be monitored.

Linkages between increased environmental reporting and company law (and consequentially economic incentives) would have to be investigated and aligned. For example, stakeholder concerns could be elevated to be on par with shareholder interests under the Companies Act, and directors would have legal obligations to balance both in equal measure. Improved and integrated reporting on environmental sustainability would provide a more holistic and firm-specific picture of the environmental externalities produced by firms, and therefore provide directors with more accurate guidance on how to balance stakeholder and shareholder concerns in this area. It would also provide managers with a longer-term perspective of firm activity, as well as sustainability. This would enable managers to better determine

\textsuperscript{56} ibid 221.
\textsuperscript{57} ibid.
\textsuperscript{58} ibid.
\textsuperscript{59} ibid.
whether, and how detrimental, short-term gains are to longer-term value creation, including ecological value. As Jackson and Petraki note, managers tend to be less short-term oriented when they have access to better and more accurate information regarding trade-offs between short- and long-term results. While linking corporate reporting and financial performance with environmental and social goals may be useful, economic incentives such as shareholder wealth maximisation would most likely continue to constitute a significant barrier to corporate sustainability. As a result, a more fundamental change to the corporate objective itself may be necessary. This is framed as a ‘deep green’ approach below.

### 6.3.2 Deep Green Approach

A deep green approach is based on the idea that transformation, and not incremental change, is required to achieve the transition to a low- or no-carbon future within timeframes that would preserve planetary boundaries, and in particular a stable climate, to ensure stability and preservation of the human condition as we now know it. Much of this analysis draws on work previously done by Sjåfjell and Richardson. While a transformation on this scale is likely to encounter political and social resistance, it is based on the idea of sustainability as the ‘new normative basis’ for both law and policy. A concept of green growth has already been developed at the OECD level; the concept is based on fostering economic growth and development while preserving natural assets so they can continue to provide resources and environmental services upon which our well-being relies. Growth based upon the business-as-usual approach threatens to erode the existing natural capital that we rely on for human existence. It may become more expensive (or unfeasible) to replace natural capital with physical capital, and any such change may not follow a stable trajectory, leading to the risk of dramatic and unforeseeable risks and changes.

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61 Ibid 203.  
62 Villiers and Mähönen (n 55) 225.  
63 Sjåfjell (n 6) 117.  
65 Ibid 5.
Jackson notes, larger systemic changes will be necessary, including changes in the measurement of wealth, changes to the maximisation of production and consumption, and the efficient use of resources, and changes towards the improvement of human well-being, social equity and environmental protection.66 Ensuring lasting global prosperity will require that much closer attention be paid to imposing ecological limits on economic activity.67

A new paradigm of growth would require the redefinition of the purpose of the company, through reform of company law, to enshrine the concept of a company operating within ecological limits and planetary boundaries.68 While this approach preserves the concept of profitability in companies, that concept is redefined as achieving sustainable value within the constraints of the overarching social value of a company.69 As Sjåfjell notes, while companies can and should continue to profit, that profit should be constrained by the overall purpose of sustainable development.70

Sjåfjell has proposed the following definition of the corporate objective: ‘The purpose of a company is to create sustainable value within the planetary boundaries while respecting the interests of its investors and other involved parties’.71 This would have to be amended as appropriate to align with different jurisdictionary contexts, but stakeholder interests and long-term value in s172 of the Companies Act 2006 can be included into such a redefined purpose, but in a different hierarchical order. This approach would still involve the adoption of concepts such as sustainability reporting as outlined above, combined with a new approach to profit maximisation as sustainable, long-term value, with a focus on the company as an entity. This may be unpalatable to some businesses such as carbon major entities, which may have to either transition to a new asset base, or simply close. However, as Sjåfjell notes, if there is no other alternative to allowing such companies to continue to operate and

68 Sjajfell (n 6) 107.
69 ibid 107.
70 Sjåfjell (n20) 131.
71 ibid 108.
cause irreparable damage to the global community, their activities can no longer be allowed. As she notes, ‘the global challenges we face may necessitate larger changes than those we have experienced or even considered so far’.

The destruction of non-viable businesses can be considered part of the ‘creative destruction’ of the capitalist system itself. While this approach may be unpalatable to many carbon major companies, it does open up new business opportunities. As Hsu notes, many carbon major entities have human capital reserves that could be retrained towards green or renewable energy, or geoengineering technologies. By the end of the century, economic production must centre around ‘negative emissions’, or the removal of carbon from the atmosphere. The vast capital reserves of these companies could be invested in research and development of greener technologies. Hsu has envisioned the development of a strategy by carbon majors designed to retool their human capital to meet the technological challenges of the transition away from fossil fuels and towards non-fossil energy systems, and a deeper understating of our climate system.

6.3.3 Emerging Corporate Structures

Such a radical restructuring of the company structure will require the development of a new concept of a ‘sustainable company’. As Vitols and Kluge describe, it is a company that ‘is economically successful, cares for social interests inside and outside of the company, respects workers’ rights and is environmentally friendly’. This type

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73 ibid.


77 Hsu (n 75) 1.


79 ibid 10.
of company would operate within a legal framework designed to ensure sustainability.\textsuperscript{80}

New models of the corporate form have already started to emerge and reflect initial, legislative approaches to protect and foster other communities in the company other than shareholders. These approaches provide alternatives to the shareholder primacy norm, and have coalesced around a concept of ‘social enterprise’ companies. Social enterprises go beyond stakeholder value approaches, as they are required to have a social purpose in order to be established.\textsuperscript{81} Social enterprise is a broader term than sustainable business, and includes any ventures that create social or environmental benefits.\textsuperscript{82} These new types of company models are designed to harness the power of the private sector and business in order to address and resolve existing social and environmental issues.\textsuperscript{83} These ‘hybrids’ attempt to combine profit-making activities with social enterprise pursuits, and as a result the attempt to ‘side step’ shareholder primacy through alternative legal structures.\textsuperscript{84} These new models put forward ‘blended corporate purposes’ that avoid intractable debates about removing shareholder wealth maximisation.\textsuperscript{85} While European approaches largely view social enterprise models as an extension of traditional charities, the US jurisdiction has tended to see these new models as building a ‘fourth sector’ of the economy, where profit maximisation can be ‘usurped’ by social or environmental goals.\textsuperscript{86} New models include developments such as the community interest company (CIC), benefit companies and low-profit companies, which will be very briefly discussed below.

\textsuperscript{80} ibid 10.
\textsuperscript{82} Esposito (n 36) 647.
\textsuperscript{83} Liao (n 5) 303.
\textsuperscript{84} ibid 309.
\textsuperscript{85} Esposito (n36) 648.
\textsuperscript{86} ibid 647.
Community Interest Companies (CICs)

Community interest companies (CICs) were developed in the UK in 2005 as part of a larger social enterprise policy.\textsuperscript{87} CICs are primarily limited companies that operate not for the benefit of their shareholders, but instead for the benefit of an identified community.\textsuperscript{88} Profits are to be dedicated to these community interests. While these entities are allowed to pay dividends to shareholders, these are capped, and an asset lock ensures that assets must be preserved and not sold for the profit of shareholders.\textsuperscript{89} CICs have a statutory obligation to ensure the company meets the needs of the community interest, and must file an annual report demonstrating how they have done so. These types of companies have struck a balance by accepting higher level of constraints upon profitability, in exchange for providing a clear signal regarding their community purposes.\textsuperscript{90} CICs can be used as a legal vehicle to attract private capital and distribute benefits to local communities.\textsuperscript{91} Liao notes they may be more appropriate for the non-profit sector rather than for the private sector.\textsuperscript{92}

CICs would be well suited to act as vehicles to implement the new Community Energy Strategy ushered in by DECC in 2014. The purpose of the Strategy is to make community energy an easier option for communities to implement.\textsuperscript{93} The Strategy envisions putting communities themselves in charge of the kinds of energy they use in order to create jobs, build stronger communities, support the local economy and

\textsuperscript{87} Alex Nicholls, ‘Institutionalizing Social Entrepreneurship in Regulatory Space: Reporting and Disclosure by Community Interest Companies’ (2010) 35 Accounting, Organization and Society, 394, 396.


\textsuperscript{89} ibid 10-11.


\textsuperscript{92} Liao (n 5) 295.

reduce the environmental impacts and costs of energy.\textsuperscript{94} Shared ownership of energy assets is one of the primary ways these objectives can be achieved, and CICs can therefore be a useful vehicle for the ownership of renewable energy assets. The Strategy envisages the defining feature of these community ownership schemes to be ‘demonstrable benefit[s] to the community’.\textsuperscript{95} CICs would allow these ownership structures to focus on both financial but also social outcomes. Devolving energy ownership to the community level through a vehicle that is specifically geared towards creating social benefits seems like a good fit. Not only could this vehicle promote civic involvement in energy choices, but also the distribution of the benefits of renewable energy to specific communities, which if successful could lead to wider dispersion of renewable energy and a reduction in GHG emissions.

\textit{Benefit Companies}

Benefit companies were introduced in the US in 2010, and are designed to be ‘for profit’ companies.\textsuperscript{96} Originally developed in Delaware, benefit companies have spread throughout several states in the US. B Lab is a private, non-profit company that certifies their own type of B-corporations, and has been a major lobbying force behind the passing of benefit company legislation in various states.\textsuperscript{97} Legislation on benefit companies varies from state to state, but essentially it is designed to allow these companies to work in the best interests of those stakeholders who are materially affected by these companies. These benefits are identified in the certificate of incorporation of the company.\textsuperscript{98} Benefit companies are therefore explicitly designed to have a corporate purpose that creates positive social impacts.\textsuperscript{99} There are also mandatory requirements to report on the company’s social and environmental

\textsuperscript{94} ibid 5.
\textsuperscript{96} Sorensen and Neville (n 81) 6.
\textsuperscript{98} Sean W Brownridge, ‘Canning Plum Organics: The Avant-Garde Campbell Soup Company Acquisition and Delaware Public Benefit Corporations’ (2014) 39 Del J Corp L 703, 710.
performance using independent third-party accreditation. A further safeguard is the requirement to appoint ‘benefit directors’ who are specifically appointed to oversee the fulfilment of stakeholder benefits. These companies are designed to both make a profit, and do so in an environmentally and socially responsible manner. As Clark and Babson point out, these companies were developed against the backdrop of shareholder primacy, and therefore put forward alternative models of the company. However, as Brownridge notes, as these are for-profit companies, there may be inherent tensions between shareholder wealth maximisation and public beneficiaries. The model law on benefit companies does not provide directors with clarity on how they are to weigh and balance competing interests. In addition, models laws on benefit companies are permissive and not mandatory, and so they merely allow directors to consider non-shareholder interests.

Low-Profit Companies (L3Cs)

The low-profit company was first introduced in 2008 in Vermont. It is often conceived of as a ‘hybrid’ between the non-profit company and the for-profit company. It is designed to allow both investments geared towards profit-making, and also towards donations. It must be incorporated with an explicit charitable mission, and profit-making is designed as a secondary consideration to its social mission. Nission notes that L3Cs can be aligned with social enterprise efforts and help to develop alternative models that can be useful in the design and roll out of new

100 ibid.
101 ibid 22.
103 ibid 838.
104 Brownridge (n 98) 710.
106 Liao (n 5) 304.
109 ibid; Liao (n 5) 299.
technologies such as renewable energy.\textsuperscript{110} He notes that L3Cs have the flexibility to communicate, educate and develop small-scale renewable energy projects, and can cater their products and services to demand-side investors and consumers.\textsuperscript{111}

These models are all relatively new, and very little research has been carried out on their efficacy.\textsuperscript{112} It is unclear at the moment whether they will become popular within wider corporate practice.\textsuperscript{113} While it is unlikely that carbon major companies analysed in this Thesis will re-register as social enterprise companies, these new models provide space and ideas for progressive reform of the corporate model. These new models are useful as they have institutionalised the flexibility they need in order to cater for other constituencies than shareholders.\textsuperscript{114} They provide models that demonstrate that both the pursuit of profits and wider social interests can peacefully co-exist within one corporate form, and allow the entity to achieve these dual pursuits.\textsuperscript{115} They allow and even encourage profit-minded companies to integrate wider stakeholder concerns and interests into their business models, and allow shareholder and stakeholder concerns to co-exist in a better integrated fashion than the traditional shareholder primacy model allows.\textsuperscript{116}

\textbf{6.4 Reflections}

While these emerging corporate models are exciting, they are currently insufficiently widespread to challenge the hegemony of shareholder primacy.\textsuperscript{117} Sjåfjell and Richardson note that these models are largely incrementalist and not well suited for the comprehensive and urgent transition required towards sustainable prosperity.\textsuperscript{118}

Humanity is ‘perched on the precipice of a crisis in the biosphere, with climate change as the gravest threat’.\textsuperscript{119} The danger of runaway climate change has now become very

\textsuperscript{111} ibid 265.
\textsuperscript{112} Liao (n 5) 294.
\textsuperscript{113} ibid 310.
\textsuperscript{114} Liao (n 5) 288.
\textsuperscript{115} ibid 292.
\textsuperscript{116} ibid 292.
\textsuperscript{117} Sjåfjell and Richardson (n 12) 322.
\textsuperscript{118} ibid 322.
\textsuperscript{119} Sjåfjell and Richardson (n 12) 313.
real. Since 2011, the World Economic Forum has consistently ranked the failure of climate change mitigation and adaptation as one of its top five global risks in terms of impact, joining other environmental risks such as water crises and extreme events.

In addition to an environmental crisis, the world is also facing an economic crisis as well as a social crisis with trends towards inequality. Vitos and Kluge note that a large proportion of the responsibility for this ‘triple crisis’ lies with companies.

The behaviour of carbon major companies in the face of these overwhelming threats has been less than ideal. A recent publication regarding the behaviour of some of the world’s major fossil-fuel companies points to a co-ordinated campaign of misinformation and obstruction of climate action orchestrated and supported by these companies, which include BP and Shell as well as Chevron, ExxonMobil, Conoco Phillips and Peabody Energy. The report by the Union of Concerned Scientists notes that, despite their knowledge of the contributions of greenhouse gases to climate change, these companies ‘continued to engage in an active campaign to deny the science, deceive the public, and delay action, rather than acknowledge the science publicly, or change their business models and lobbying goals to be consistent with the urgent need to work toward a lower-carbon economy’.

This is largely understandable, although unjustifiable. As Hsu notes, asset owners of fossil-fuels stocks will be resistant to policies that lead to the erosion or depletion of large capital stocks and reduce capital value. The scientists note that at a minimum these carbon majors should stop spreading misinformation, support fair and cost-effective policies to reduce greenhouse gases, reduce emissions from their current operations and prepare for future global limits on emissions, as well as pay their fair share of costs.

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120 ibid.
122 Vitos and Kluge (n 78) 23.
123 ibid 23.
125 ibid 5.
126 Hsu (n 75) 5.
from climate change and prepare for the risks of climate change facing the world today, and in the future.\textsuperscript{127}

Coplan notes that efforts in recent decades to gradually reduce emissions have been ‘completely unsuccessful’,\textsuperscript{128} and as a result, in order to avoid a climate catastrophe, the complete cessation of emissions through the abolition of fossil fuels is required.\textsuperscript{129} This ‘New Abolitionism’ movement, popularized by Christopher Hayes in 2014,\textsuperscript{130} has gained ground among activists. Hayes notes that human civilization cannot survive in ‘any recognizable form’\textsuperscript{131} if temperature increases exceed 2°C, noting that we have an approximate carbon budget of 565 gigatons of carbon remaining up to mid-century. The National Oceanic and Atmospheric Association has declared 2016 the warmest year on record, concluding that 16 out of the 17 warmest years on record have occurred since 2001.\textsuperscript{132} NASA has concluded that the earth as already warmed by approximately 1.1°C.\textsuperscript{133} Hayes also notes that since reserves held by carbon major’s total approximately 2,795 gigatons (approximately five times the remaining global carbon budget), these companies have to be convinced or coerced to walk away from about $20 trillion of wealth in order for humanity to survive.\textsuperscript{134} There will obviously be significant economic, political and social hurdles that will have to be overcome in order for this to occur, and ‘monumental’ social and economic changes are necessary to achieve this.\textsuperscript{135} Coplan notes that while a transition to a no-carbon, renewable energy future is possible, dramatic social adjustments, as well as ‘extreme’\textsuperscript{136} changes (including economic and legal changes) are necessary.

\textsuperscript{127} Mulvey and Shulman (n 124) 29.
\textsuperscript{128} Coplan (n 45) 225.
\textsuperscript{129} ibid 225.
\textsuperscript{130}ibid 225.
\textsuperscript{131}ibid.
\textsuperscript{133}ibid.
\textsuperscript{135}ibid.
\textsuperscript{136}Hayes (n 130).
\textsuperscript{137} Coplan (n 45) 227. He notes that there is not sufficient evidence of the safety or effectiveness of geoengineering alternatives to abolition at this point, 238.
\textsuperscript{138}ibid 227.
As Sjåfjell and Richardson highlight, the key question that faces us are what elements of regulatory reform are needed, can we accomplish these, and if so, can we do so in time to save the world from dramatic climate impacts. They also identify two key trends at the intersection of sustainability and company law: the recognition of companies’ negative impact on public goods such as the climate, and the trends of solidifying shareholder primacy and short-termism. Unfortunately, as highlighted in this Thesis, the second of these two trends is diametrically opposed to efforts to combat climate change. One of the key pieces of regulatory reform that they identify is the reform of the legal infrastructure of companies to put the objective of all companies on a path towards attaining sustainable development. While such reform to long-standing principles such as shareholder wealth maximisation and shareholder primacy appear rather radical, they note that continuing with the status quo cannot be a substitute for ensuring viable ecosystems for human existence.

The levels of destruction and the potential altering of the existence of humanity by the impacts of climate change, justify a radial rethinking of old assumptions, constructs, and norms, including neoclassical economic assumptions, contractarian theory, and the drive for short-term shareholder profits. It is arguable that these norms and theories never contemplated the extreme damage, including the permanent alteration of civilization as we know it, that may result from their propositions. The destruction of entire ecosystems and the irrevocable alteration of the planetary system can no longer be couched as a simple corporate externality. It is no longer a question of climate-as-usual, and as a result, it can no longer be a question of business as usual.

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137 Sjåfjell and Richardson (n 12) 314.
138 ibid 316-317.
139 ibid.
140 ibid 323.
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