





Fossil Fuel Divestment and Engagement on Climate Change: advice for investors

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Climate change poses significant financial and ethical challenges for shareholders, who must decide whether to continue to invest in fossil fuel companies, and/or how they will engage with the firms in which they remain invested. Investors are also coming to recognise the financial risks to their investment portfolios stemming from decarbonisation of the global economy. We discuss these risks below. Fossil fuel divestment and shareholder engagement have both been put forward as appropriate models for responding to this challenge. In this briefing we set out the implications of the Paris Agreement for fossil fuel extraction and for investors in fossil fuels. We explore the origins and progress of the divestment movement and set out divestment principles.

The implications of the Paris Agreement for the fossil fuel sector

The Paris Agreement requires governments to pursue policies for holding the increase in the global average temperature to well below 2 °C and pursue efforts to limit the temperature increase to 1.5 °C, above pre-industrial levels. Global average temperatures have risen by approximately 1 °C, since the nineteenth century, and are climbing at a rate of around 0.2 °C per decade [1]. On current trends, the temperature rise will reach 1.5 °C around 2040 and 2 °C by the 2060s. For temperature stabilisation at any level, and if we are to avoid ever-increasing impacts of climate change, net emissions of carbon dioxide must fall to zero. Therefore, to achieve the goals of the Paris Agreement, no additional CO_2 may be emitted to the atmosphere after human-induced warming reaches "well below 2 °C above pre-industrial levels" [2].

Technologically feasible pathways for meeting the targets of the Paris Agreement have been modelled. They are characterised by a rapid shift away from fossil-fuel combustion towards large-scale renewable energy supplies, reduced energy use, transformation of other greenhouse gas emitting sectors, including agriculture and some industries and use of carbon dioxide capture and sequestration, both from stationary source and, within a few decades, from the atmosphere itself [3]. Achieving the aims of the Paris Agreement would require at least two thirds of known fossil fuel reserves to remain unburned [4], or if they are burned, for the carbon dioxide generated to be safely and permanently stored out of the atmosphere. Since the capacity for carbon dioxide capture and storage on such a massive scale remains unproven and the costs are largely unknown, if the Paris Agreement's goals are to be accomplished, there is a risk much of the value of fossil fuel reserves will not be realised and consequently these assets are currently overvalued.

Along with fossil-fuel suppliers, those investments most at risk from a transition to net-zero emissions include energy utilities, energy-intensive industries and transportation companies. Such companies are already facing increasing competition from renewables or the prospect of existing assets achieving reduced returns, requiring early retirement or retrofitting. Given that sufficient polluting electricity generation assets have already been built to bring the world to 2 °C of warming, there is a very real risk that any new polluting assets could become stranded or underutilised in the near future [5]. Financial analysts are increasingly warning investors of the risk that tighter regulations on emissions and falling demand for fossil fuels could make such assets substantially less valuable, or 'stranded' [6, 7].

The divestment movement

Fossil fuel divestment campaigns typically seek to eliminate institutions' investments in the 200 largest coal, oil and gas companies [8]. This action condemns the practices of targeted firms, seeks to align shareholders' investments with their values and stigmatises this industry, undermining firms' social license to operate [9]. The classification of certain business models as illegitimate and unethical may pave the way for the strengthening of legislation by governments.

A key question to ask around divestment is what should investors divest from? Divestment strategies that have so far been adopted by various organisations include partial divestment (such as coal or tar sands only); full divestment from all fossil fuel companies (usually only the Carbon Underground 200 companies); and strategies that are based on an evaluation of the fossil fuel use in the entire value chain of a company's revenue generation (such as that pursued by the City of Copenhagen). Others, such as the Bill & Melinda Gates Foundation, have substantially reduced their investments in fossil fuel companies without making divestment pledges, or have threatened divestment as part of their engagement with these firms [10].

The adoption of the Paris Climate Agreement in December 2015 affirmed nations' commitments to climate change mitigation and bolstered the economic arguments underpinning divestment. The 15 months following the Agreement saw a doubling of the value of investments pledging divestment [10]. To date the value of assets represented by institutions and individuals committed to full or partial divestment from fossil fuel companies has reached \$6.15 trillion. This includes 889 institutions and 58,399 individuals across 76 countries [10, 11]. Divestment has now become common practice in faith organisations, which represent 30% of divestment commitments and includes the World Council of Churches. A further 18% of divestment commitments are from philanthropic foundations, 17% from governments, 16% from educational institutions and 10% from pension funds [11].

Despite this momentum it must be recognised that divestment also involves a near-term financial risk in reduced portfolio diversity, and insufficient climate change mitigation efforts could mean those that do not divest will achieve higher returns in the short run. Furthermore, despite the large value of investments belonging to the institutions that have made a divestment pledge, the performance, risk, and return for fossil fuel companies have not necessarily been negatively affected by the divestment movement [12].

Institutional investors pursuing a divestment strategy must balance multiple objectives, including minimising short-term financial risk from reduced portfolio diversity, mitigating long-term climate and financial risk posed by potential stranded assets and minimising short-term portfolio carbon footprints. Yet in the context of the rapidly closing emissions budget for limiting climate change to 1.5°C, it is important for ethically-minded investors to employ all possible levers in support of the transition to a net-zero emissions economy. Investors who divest their portfolios without any prior engagement with targeted firms should be aware that doing so may relinquish some of their influence over these companies.

Divestment versus Engagement

Divestment has been criticised for its inability to bring about real 'action on climate change', primarily since the amounts divested account only for a small proportion of targeted companies' value and as there is generally a

"seller for every buyer" the net result might be only that other (less climate-conscious) investors profit from the purchase and ownership of these stocks [13, 14]. Furthermore, a divestment campaign may heighten awareness of the challenges of decarbonisation, but it may not stop climate change [13]. Divestiture alone does not address fossil fuel demand and must therefore be coupled with investment in clean energy solutions to replace fossil fuels.

An increasing number of institutional investors are pursuing alternative strategies to address carbon risks including tilting and engagement [12], the idea being that the most effective strategy might involve remaining invested in targeted firms in order to be able to maintain an influence on their activities. Active engagement makes concrete demands of firms, for instance through writing to company directors or introducing shareholder resolutions. Less active engagement strategies, such as the Transition Pathways initiative (TPI), a joint initiative of the National Investing Bodies of the Church of England and the Environment Agency Pension Fund, assesses publicly available information concerning firms' near-term emission reduction plans, disclosure of the business costs associated with climate change, and executive-level concern for emission reductions [15]. As an initial engagement strategy, the TPI can provide information to complement other investment strategies, but it may not be enough on its own to bring firms' in line with climate change mitigation efforts.

The limited success of divestment and passive engagement is exemplified by the lack of progress made by the fossil fuel industry on carbon capture and storage (CCS). If fossil fuel companies were committed to tackling climate change, they would be investing in CCS, since this is the only mitigation option available that simultaneously addresses the problem while protecting the values of their fossil fuel assets. But to date, only very limited voluntary action has materialised. According to scenarios produced by the scientific community [3] and the fossil-fuel industry [16] CCS must be deployed (and publicly accepted) on a massive scale within the next few decades for these companies to meet Paris climate targets while delivering returns to shareholders from reserves already in development, many of which will not come on-stream until the 2030s. If the Paris goals are to be achieved, there is thus a need for strong shareholder pressure to force the industry to make progress on CCS.

The Oxford Martin Principles for Climate-Conscious Investment

The Oxford Martin Principles for Climate-Conscious Investment were developed to bring together the latest understanding of the science of long-term climate change and the impact of cumulative carbon dioxide emissions, and current financial sector practices. These Principles provide a mechanism for managing the ethical and financial hazards of climate change mitigation [2, 17] and may complement other measures, such as the TPI. Regardless of whether an institution favours divestment or engagement, the Oxford Martin Principles can be applied. These science-based principles offer a robust framework for engagement with all firms (rather than the fossil fuel industry alone) and the potential for divestment from those whose business models remain incompatible with the Principles following reasonable engagement. The Principles set out the following requirements for companies:

1. Commitment to net-zero emissions.

If global temperatures are to be stabilised at any level, global net greenhouse gas emissions must be reduced to zero. Although some industries will decarbonise faster than others, all must ultimately reduce their emissions to net-zero for temperature stabilisation. Companies should develop and publish a net-zero emission plan and commit to a date or temperature increase by which to achieve this goal. The long-term temperature goal of the Paris Agreement potentially requires net-zero emissions to be reached around mid-century [18].

2. Profitable net-zero business model.

Business plans should ensure firms' profitability when compliant with Principle 1. This provides valuable information for investors concerning the long-term financial viability of a firm under efforts to mitigate climate change.

3. Quantitative medium-term targets.

Mid-term targets (e.g. 2030) should be provided that can be monitored by investors. These should be in line with achieving a net-zero business model in the time frame stipulated by Principle 1. This principle ensures transparency and validation as companies decarbonise.

These criteria extend the scope of climate-related investment scrutiny beyond fossil fuel companies and provide a robust framework for near-term active shareholder engagement. For those firms whose business models remain incompatible with these principles following reasonable engagement, disinvestment may be pursued if the benefits of stigmatisation would outweigh the possible advantages of further engagement. Engagement efforts which lack the rigour of the above Principles may be ineffective in making concrete demands of firms and providing quantitative standards for judging when and whether to divest. In particular, the near-term focus of the TPI, in common with other similar initiatives such as the Science-based Targets Initiative, adopted recently by Allianz [19], focuses on emission flows and setting medium-term emission reduction targets compatible with limiting climate change to 2 °C, but does not address the need for companies to disclose whether their long-term business strategy is compatible with a world of net zero carbon dioxide emissions [20].

Implementation of the Oxford Martin Principles

The Oxford Martin Principles can be employed as guidance on divestment and engagement and provide investors with considerable flexibility in their interpretation and implementation. The time frame in which firms would be required to become compliant with the Principles determines whether divestment is pursued in the near-term to align investments with institutional values, or if it is employed as a medium-term response to unsatisfactory engagement outcomes.

Investors should require a succinct board-level vision statement which conforms to an agreed interpretation of the Principles and provides a transparent, viable strategy to eliminate net greenhouse gas emissions in line with the Paris Agreement goals. Compliance with this would require firms to identify a pathway to carbon neutrality soon after 2050 and explain their assumptions regarding technological development, carbon pricing and financing of emissions reductions, all of which must be judged to be realistic. Firms' medium-term targets should be aligned with the long-term goal of reducing emissions to net-zero and transparency should be ensured through regular reporting on progress towards achieving these targets.

Firms compatible with the Oxford Martin Principles would have developed plans which are aligned with the goals of the Paris Agreement. For those companies which do not, their value is contingent on a failure to achieve the Paris goals which imposes a financial risk on their investors.

These principles have recently been adopted by St Hilda's College (University of Oxford) [21] and the Climate Active Endowment Fund managed by Sarasin & Partners [22].

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