DIVESTMENT AND ENGAGEMENT IN THE CONTEXT OF CLIMATE CHANGE

CONTENTS

FOREWORD BY BORDER TO COAST

Climate change is one of the fundamental societal challenges of our time – and therefore a defining investment theme. Representing asset owners – our Partner Funds – we have a role to play in providing capital to help drive the transition to net zero and in influencing those companies and organisations in which we invest to take into account climate change. This includes providing better climate-related financial disclosures which assist us in making better-informed investment decisions. Reflecting its importance, Border to Coast has developed a standalone Climate Change Policy and Net Zero Implementation Plan.[1] These set out how we factor climate change into our investment approach but also how we will meet our commitment to achieve net-zero greenhouse gas emissions across our investments by 2050 or sooner.

We see climate change both as an investment risk and as a systemic risk to the economy and society. The risks to the investments we make on behalf of our Partner Funds arise both from the direct physical impacts of climate change – such as flood and storm damage, extreme heat stress, and changes in rainfall patterns – but also from the changes to government policies designed to limit carbon emissions – for example carbon taxes, electrical vehicle mandates, and energy efficiency standards. More broadly, pressures arising in society from climate change create risks to the economic and social context within which our Partner Funds operate.

"The risks to investments arise both from the direct physical impacts of climate change and from the changes to government policies designed to limit carbon emissions."

From an investment perspective, it's important to recognise that climate change creates winners as well as losers. The winners may be companies in existing industries that adapt quickest and best to changes in the physical and regulatory environment, or those that innovate to create the new technologies that become pivotal in our changing world. The losers may be companies who fail to adapt to the inevitable trend of decarbonisation. We believe businesses that are governed well and managed in a sustainable way are more resilient, able to survive shocks and have the potential to provide better financial returns for investors through taking advantage of the investment opportunities the derive from climate change and the journey to net zero.

As such, climate change is a factor of high importance in Border to Coast's investment process. Beyond this, we believe that we have the responsibility to contribute to and support the transition to a low carbon economy in order to positively impact the world in which pension scheme beneficiaries live and pension fund returns will be made. We believe that an orderly and just transition to a world that limits global warming in line with the goals of the Paris Agreement is far preferable, and better for sustainable risk-adjusted returns, than a disorderly transition, or no transition.

"We believe businesses that are governed well and managed in a sustainable way are more resilient, able to survive shocks and have the potential to provide better financial returns for investors through taking advantage of business opportunities from climate change."

[1] See https://www.bordertocoast.org.uk/investments/responsible-investment/

One of the ways we can support the transition is by encouraging companies to operate their businesses in a way that is consistent with the shift to net zero. A key debate in relation to fossil fuel producers is whether it is better to remain engaged with such companies to provide support and accountability as they transition, or whether it is better to divest from them entirely. As stated in our responsible investment policies, we believe in engagement rather than divestment and that by remaining engaged we can effect change at companies. Our investment approach is not to divest or exclude entire sectors, however there may be specific instances when we will look to sell or not invest in some industries based on investment criteria, the investment time horizon, and if there is limited scope for successful engagement to affect company strategies in a way that improves the investment case. For example, our updated Climate Change Policy states that we will not invest in companies with exposures above certain thresholds to thermal coal and oil sands, differentiating between developed and developing markets for thermal coal power generation. This is based on our view of the financial risk and limited long-term viability of such businesses.

But the perception of slow progress or even backtracking by certain sectors, especially oil and gas, has led some stakeholders to favour divestment from fossil fuels more widely. Others believe we should remain engaged, both to continue to influence change in these companies but also to meet our primary purpose of delivering long-term returns for Partner Funds. Border to Coast has commissioned this review by Dr Tom Gosling of London Business School to assess the evidence and arguments on divestment and engagement in the context of climate change and to inform our ongoing process of keeping our responsible investment policies under review. We are publishing this report to make it available to stakeholders, consistent with our approach to transparency in policy development and decision making. We hope that making the report public will also help other asset owners who are grappling with these difficult and nuanced issues.

ABOUT BORDER TO COAST

Border to Coast Pensions Partnership was created to pool the investments of like-minded Local Government Pension Scheme (LGPS) funds – our 'Partner Funds'. Regulated as an FCA asset manager in 2018, we are one of the largest LGPS pools in the UK.

Our purpose is to make a difference for the Local Government Pension Scheme. We seek to do this by providing cost-effective, innovative, and responsible investment opportunities that deliver returns over the long-term. This is on behalf of the more than 1.1 million LGPS members, over 2,800 employers, and the millions of taxpayers associated with our Partner Funds.

The work Border to Coast undertakes is centred on ensuring we deliver on our purpose by building a sustainable organisation that invests in a responsible manner.

ABOUT DR TOM GOSLING

Tom Gosling is an Executive Fellow at London Business School where he contributes to the evidence-based practice of responsible business by connecting academic research, public policy, and corporate action. He is also an Executive Fellow of the European Corporate Governance Institute, a member of the FCA's ESG Advisory Committee, and a member of the Advisory Panel and the Stakeholder Insight Group at the Financial Reporting Council. His research interests include responsible investing, corporate governance, and executive pay. He has published on these topics in journals including the Journal of Financial Economics, Human Relations, the Capital Markets Law Journal, and the Journal of Applied Corporate Finance. He has more than 20 years of experience as a board adviser having been a senior Partner at PwC. He has a PhD in mathematics and is a Fellow of the Institute of Actuaries.

We would also like to thank Harald Walkate of Route17 for his assistance in writing this report.

EXECUTIVE SUMMARY

There is a vibrant debate about the appropriate role for asset owners seeking to fulfil their fiduciary duty to clients in the context of sustainability challenges. The primary sustainability issue being considered by investors is climate change. A key question has been how to deal with fossil fuel ("FF") companies; some view them as responsible for the climate crisis and want investors to hold them to account. Others say these companies are simply meeting a societal demand and that the best way to tackle climate change is to change demand for fossil fuels.

There is also debate about the most appropriate way to hold FF companies to account: divestment or engagement. While many asset owners apply focussed exclusions based on legal or risk considerations (for example, controversial weapons or focussed segments of FF such as thermal coal generation) some stakeholders are pushing for broader sector-wide exclusion of FF producers.

This paper provides an independent perspective on the relative merits of divestment and engagement, based on a review of the academic evidence.

MOTIVATIONS FOR TAKING CLIMATE INTO ACCOUNT

There are three potential motivations for incorporating climate considerations into investment decision-making:

- Financial: managing physical and transition risks related to climate change.
- Impact: the desire to contribute to climate solutions using investor influence.
- Values-alignment: avoid making returns from activities considered controversial.

CLIMATE & FIDUCIARY DUTY

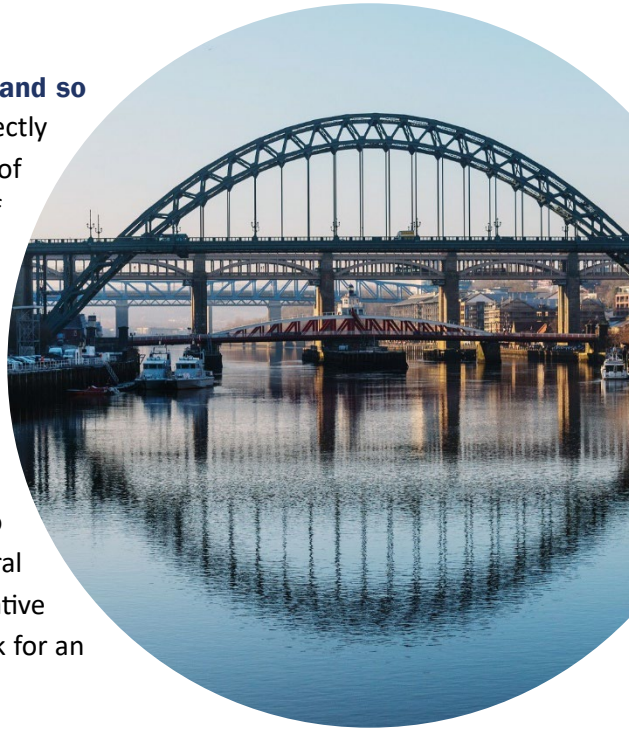
Based on legal analysis including the recent UK Financial Markets Law Commission review into climate change and fiduciary duty, it can be concluded that:

- Climate factors that are material to financial returns should be considered.
- Pension schemes generally cannot invest with the objective of achieving sustainability goals at the material cost of financial returns.
- Investment strategies that result in short term gains but also create longer term identifiable risks may need to be rejected.
- "Impact investments" involving a lower return could in principle be considered if they contribute positively to the risk and return profile of the overall portfolio including through impact on the economy in which the fund is situated.
- Exclusions motivated by values-alignment may potentially be considered if they are limited in scope, are aligned with beneficiary preferences, and leave a sufficiently wide investment universe so as not to incur material costs.

The primary motivation for pension funds tends to be risk and return arising from consideration of physical, transition and liability risk at the stock or industry level.

ANALYSIS OF ARGUMENTS FOR DIVESTMENT

Fossil fuel companies face stranded assets so should be divested to reduce risk: Whether FF companies are risky investments depends on how much of the risk has been factored into prices and whether the market is over- or underestimating the speed of the transition. Financial losses on investments in FF companies are not inevitable.



Divesting fossil fuels impacts cost of capital/share prices and so incentivises them to transition: Divestment does not directly reduce emissions but simply changes their ownership. The act of selling shares could in principle affect share price and cost of capital. However, cost of capital impacts tend to be insignificant and are unlikely to lead to meaningful changes in corporate behaviour; incentives created for executives through share price changes are also unlikely to lead to desired changes, especially if the changes are costly for the company.

Divesting from oil and gas delegitimises the industry: This argument has some force (based on tobacco experience) but to be successful requires vocal divestment with a clear moral motivation; also, investors need to consider potential negative financial impacts. It is also unclear if delegitimisation could work for an industry as embedded in our way of life as FF.

Fossil fuels will never change so we should divest and focus engagement resources elsewhere: Engagement effort should be focused on where the investor believes it can achieve the greatest impact . But diverting engagement resource elsewhere does not imply FF assets should be divested; even passive supporters can be helpful to others who do engage.

THE COSTS OF DIVESTMENT

The financial costs of FF divestment are real and not negligible; however, they should not be over-stated and are arguably manageable, if exclusions remain narrowly focussed. But there is also a non-financial cost arising from blanket sector exclusions, relating to loss of influence on FF companies.

EVIDENCE ON ENGAGEMENT

Academic views on engagement: The academic literature provides more support for the impact of engagement than of divestment. Engagement is more likely to be successful if led by a knowledgeable lead investor (in particular, if through a collaborative engagement approach), and if the asks are realistic and aligned with company priorities. There is some evidence that engagement is effective if backed up by a divestment threat (though it must be realistically possible for the company to act to divert this threat).

Impact of engagement on climate outcomes: What constitutes a "success" in academic studies is often extremely modest; it may relate to (potentially undisclosed) milestones set by investors themselves; to disclosure commitments (e.g. TCFD); or to commitments that cannot be tested for some years (e.g. science-based targets). There is little evidence that engagement can achieve major changes in business model that are financially harmful for the engaged company.

Limitations of engagement*:* These observations suggest the "limitations-aware approach" to engagement is necessary in the climate context, focusing less on cutting FF production and more on ensuring that the FF we still need are produced as responsibly as possible, while supporting investment in the transition and the development of over-arching climate policy through work on lobbying and policy engagement.

DOES COMPANY-LEVEL CHANGE LEAD TO SYSTEM CHANGE?

Investors seeking to have impact on climate change through investment and engagement activity need to address the question: to what extent do company changes lead to system changes? There are several important considerations:

- Investors cannot drive the transition to net zero without government action.
- Effective investor action on system change requires a clear theory of change.
- Company-level changes may be offset by competitive responses elsewhere in the system.
- In the absence of regulation, improvements to a company's operations that go with the grain of long-term value creation in the company are more likely to have a genuine impact at the system level.
- Roles for investors can include: policy advocacy directly with governments; work on ensuring transparency and alignment in lobbying practices by corporates and their industry associations; engagement with government agencies and development banks to help create structures (e.g. blended finance) to enable investor participation in hard to finance decarbonisation projects, especially in emerging markets.

CONCLUSIONS

The argument that FF companies inevitably face stranded assets and so should be divested from a risk perspective should instead be viewed as an investment thesis: that the market is underestimating the speed of the energy transition and its effect on FF demand. Given current valuations of FF equities, it is not clear that this is the case. Blanket divestment from FF has the potential to create costs for asset owner beneficiaries by reducing the investment opportunity set, especially given the tendency for medium term cyclicality in energy stocks. However, these costs should not be overstated.

Turning to the question of what best helps the transition to net zero, the academic evidence is much more supportive of the impact of engagement than divestment on corporate action, and majority academic opinion would in our view support "voice" over "exit".

There is very little evidence that divestment can trigger significant change through cost of capital impacts. Instead, the most plausible impact of divestment is through delegitimisation of the divested industries, seeking to undermine political support and create an environment for regulatory change, although by its nature it is hard to find definitive evidence on this. For this channel to be adopted requires divesting institutions to be vocal about the reasons for divestment, often relying on a moral argument.

Multiple studies show engagement has impact and show respectable success rates, especially for collective engagements. However, overall the evidence suggests that we should be cautious about the extent of that impact. In particular, there is no systematic evidence of investor engagement causing companies to take strong climate action that is against their long-term financial interests. Therefore, to succeed, investors' engagement asks must be realistic and aligned with long-term value creation pathways. By remaining engaged investors may be able to help ensure that fossil fuel companies act more responsibly than they otherwise would. However, they will also have to accept being invested in companies that may not be acting as responsibly as they wish.

INTRODUCTION

CONTEXT

Sustainability is increasingly seen as an important consideration for asset owners in fulfilling their fiduciary duty to clients. But there remain active debates about both the objectives and the means. Starting with objectives, is sustainability important only because of the risks and opportunities created for companies and therefore the impact on long-term risk-adjusted returns? Or is there a role for asset owners in promoting sustainability outcomes to create "a world that beneficiaries want to retire into"? Moving to means, what are the most effective ways for asset owners to meet whatever objective they have chosen? Is divestment better than engagement? What is the role of policy advocacy and lobbying? How should investment strategy reflect sustainability opportunities and risks?

These questions are giving rise to a vibrant debate about the appropriate role for asset owners seeking to fulfil their fiduciary duty to clients in the context of significant sustainability challenges for the world as a whole. Given the increasing polarisation of debates relating to sustainability issues, now more than ever it is important for asset owners to be clear about the principles and rationale for their approach.

The primary sustainability issue being considered by investors is climate change. Many asset owners have made net zero commitments and have adopted specific climate strategies as part of their responsible investment approach. At the same time, for organisations that have set ambitious net zero goals, it is natural to ask how the investments of pension funds or endowments they sponsor are contributing to, or hindering, the net zero transition.

A lightning rod issue has been the question of how to deal with fossil fuel ("FF") companies. With the burning of fossil fuels so clearly being the root cause of climate change, many view FF companies as ultimately responsible for the climate crisis and as such want investors to hold these companies to account for the damage they are causing and to push them to reduce emissions. Others take a different perspective, viewing these companies as simply meeting a demand created by society and believe that the best way to tackle climate change is to address demand for, rather than supply of, fossil fuels.

"A lightning rod issue has been the question of how to deal with fossil fuel companies."

Even amongst those seeking to push for emissions reductions from companies in the FF sector, there are differences of view as to the most appropriate means. Should investors remain engaged with FF companies, seeking to use their influence as shareholders to improve the Paris-alignment of these firms? Or should investors instead seek to wash their hands of, or indeed punish, FF companies by divesting from them, using scarce resources instead to focus on policy advocacy and engagement with

heavy *users* rather than *suppliers* of fossil fuels?[2] High profile campaigns at various university endowments have, according to one report, led to more than 100, or around two-thirds of, university pension plans and endowments in the UK to commit to FF divestment.[3]

But while divestment is often presented as a high-profile part of a commitment to net zero, there are serious questions as to whether it truly contributes to that goal.

PURPOSE OF THIS PAPER

This paper has been commissioned by Border to Coast to provide an independent perspective on the relative merits of divestment and engagement, based on a review of the academic evidence on this issue. The paper aims both to assist Border to Coast in determining the appropriate policy on divestment versus engagement and to provide background information for discussion of that policy with stakeholders.

This report focusses on divestment versus engagement, which is far from the only important topic in responsible investing. Indeed, this discussion only focusses on how investors can most effectively bring about change and manage risks at the company level. In developing an approach to responsible investing, an investor wanting to have impact must also consider how changes in company behaviour affect the system, and whether individual company change does in fact translate into system change. This requires development of a theory of change, onto which actions the investor can take are then mapped. While we touch briefly on these points, they are largely outside the scope of this report. But they are no less important for that.

AUTHORSHIP AND APPROACH

The main body of this report, including this introductory section, has been prepared by Dr Tom Gosling of London Business School. At appropriate parts of this paper, a separate box is provided to enable Border to Coast to give their point of view, explaining their policy in the context of the evidence provided. While Tom and Border to Coast clearly collaborated on this report, the contents of the main body entirely reflect Tom's views; and the contents of the separately identified foreword and pull-out boxes entirely reflect the views of Border to Coast. The opinions of one cannot be inferred as being the opinions of the other.

[2] This debate was brought to life in the UK context by the decision in 2023 by a group of investors, led by the Church Commissioners, to divest from the vast majority of FF companies, see for example Adam Matthews, LinkedIn post April 2023: https://tinyurl.com/95f47hz2

[3] See, for example: https://www.theguardian.com/education/2022/oct/27/uk-universities-divest-fossil-fuels

APPROACH TO ACADEMIC EVIDENCE

The views set out in this paper are robustly grounded in the available academic evidence, informed by the author's research and practitioner activities in the field of responsible investing. However, the paper is not designed to be an academic literature review. Therefore, in the interests of readability, this paper does not contain extensive academic referencing throughout. Instead, the Appendix provides a description of four key academic literature review sources we have drawn upon, which provides an entry point for those readers interested in exploring the literature in more detail. For brevity, we do not separately reference all the papers contained within those reviews that we draw upon in forming our conclusions. However, on occasion we wish to refer to a paper that is not included within these four references sources, either because it is too recent or is drawn from a broader field of literature. In these cases we provide the relevant reference in a footnote. However, papers directly referenced in this way are included for completeness and should not be taken as more relevant than papers referenced within the four literature review papers.

There are very few academic papers that provide results that, by themselves, provide definitive conclusions that can be applied to real world practice. Instead, each paper should be viewed as a single tile in a mosaic, which, taken as a whole, can reveal the picture painted by the literature in its entirety. This is why our approach has been to take a broad overview of the research literature in informing our conclusions, rather than relying on one or two studies. Continuing the mosaic analogy, even a complete review of the academic literature results in a minority of the tiles being definitively and accurately placed. These tiles give a sense of the whole picture but there will always be substantial gaps and uncertainties. Therefore, any real-world conclusions drawn from even a broad body of academic literature will inevitably require significant application of interpretative judgement on which reasonable people could certainly disagree. The views presented here are the author's good faith interpretations of the literature, and the report aims to highlight where there is less or more agreement and certainty.

ORGANISATION OF THE PAPER

In Part A we establish some **fundamentals** relating to the engagement versus divestment debate, including:

- motivations for incorporating climate into investment decision-making.
- fiduciary duty context.

In Part B we analyse the **arguments for and against divestment** as follows:

- FF companies face stranded assets and so should be divested to reduce risk.
- Divesting from FF companies increases cost of capital and incentivises them to transition or shrink.
- Divesting from FF companies delegitimises the industry.
- FF companies will never change so we should divest and focus engagement resource elsewhere.
- The costs of divestment.

In Part C we analyse the **evidence on engagement**, as follows:

- Academic views on engagement.

- Impact of engagement on climate outcomes.
- Limitations of engagement.

In Part D we discuss company versus system level change:

- Does company level change lead to system change?

In Part E we provide **conclusions**:

- Conclusions and implications for Border to Coast.

PART A: FUNDAMENTALS

MOTIVATIONS FOR INCORPORATING CLIMATE CHANGE INTO INVESTMENT DECISION-MAKING

There are several motivations for incorporating climate change into investment decision-making.

The first is **financial**: managing risk and return at the individual stock, sector and portfolio level. Climate change gives rise to investment risk due to:

- *Physical risk*: the risk from increased physical damage and disruption to assets, productivity, supply chains, and logistics arising from, primarily, changes to weather, climate, and sea levels.
- *Transition risk*: the risk from climate policy or new technologies to the profitability of existing fossil-fuel-dependent ways of doing business.
- *Liability risk*: the risk of third-party damages claims for climate harms.

The second is **impact**: the desire to use influence as an investor to create real-world climate impact and to help limit global warming.

The third is **values-alignment**: the desire simply to avoid making returns from activities that are viewed as undesirable or unethical.

Financial and impact motivations can combine, in the form of what is variously referred to as "system-level investing", "systemic stewardship", or "universal ownership". The idea here is that climate change is damaging for society and the economy, and therefore for a widely diversified market portfolio. Limiting climate change can limit the damage to society and the economy and therefore prevent impairments to the portfolio of widely diversified investors. The universal ownership idea therefore creates a *financial* motivation for asset owners to have *impact*.

FIDUCIARY DUTY CONTEXT

It is not the purpose of this paper to set out in detail the fiduciary duties of investors and directors in relation to climate change and other sustainability matters. In a UK context the Financial Markets Law Committee (FMLC) has recently sought to provide greater clarity on how investors should consider sustainability matters and in particular climate change, and within that report can be found references to other key works on the topic.[4] However, it is worth summarising a few key points that are most relevant to the discussion here.

First, although dependent on the details of the trust and applicable legislation, trustees of a defined benefit pension scheme generally cannot invest with the objective of achieving sustainability goals **at the material cost of financial returns**. But second, of course, sustainability objectives can be pursued instrumentally **if they improve** risk-adjusted financial returns. Indeed, part of the purpose of the recent FMLC report was to lessen confusion about "financial" versus "non-financial factors". Non-financial

[4] Financial Markets Law Committee, 'Pension Fund Trustees and Fiduciary Duties – Decision-Making in the Context of Sustainability and the Subject of Climate Change' (FMLC, 6 February 2024) https://fmlc.org/publications/paper-pension-fund-trustees-and-fiduciary-duties-decision-making-in-the-context-of-sustainability-and-the-subject-of-climate-change/

factors, such as climate change, can clearly have financial consequences, which should be taken into account by trustees in fulfilment of their fiduciary duties. The FMLC emphasises how wide ranging these financial consequences may be.

However, the FMLC also went further and indicated that: third, it may be necessary to consider whether a strategy should **reject shorter term gains because they create identifiable risks** to the longer term sustainability of investment returns in the fund; and fourth, individual **investments of an impact orientation** (involving a reduction in financial return to reflect the achievement of climate impacts) could be considered, provided financial return and risk were the considerations at the level of the investment, portfolio, and whole economies that are material to the pension fund. These further clarifications have been interpreted as indication that trustees may consider universal owner motivations for investment if appropriately founded.

Fifth, although not explicitly covered by the FMLC, **exclusions motivated by values alignment** on a wide scale are generally not permissible for a pension fund but may be considered if they are limited in scope, can reasonably be expected to be aligned with beneficiary preferences, and leave a sufficiently wide remaining investment universe. We do not discuss exclusions motivated by values-alignment further in this paper as this is unlikely to be a primary motivation for divestment for a fiduciary investor such as Border to Coast. As a result of the above considerations, the primary motivation for pension funds considering climate change has been the straightforward financial motivation – risk and return – arising from consideration of physical, transition and liability risk at the stock or industry level. The FMLC guidance has arguably opened the door to a more expansive financial motivation based on universal ownership theory.

"As a result of these fiduciary duty considerations, the primary motivation for pension funds considering climate change has been the straightforward financial motivation – risk and return – arising from consideration of physical, transition and liability risk at the stock or industry level."

This paper will not discuss universal ownership theory in detail (see Gosling (2024), referenced in the Appendix, for an in-depth discussion). However, we note that trustees face particular difficulties when **investing for impact** towards a given climate goal (e.g. 1.5C with limited or no overshoot) as advocated by universal ownership ideas. Given that they do not have control over the climate outcome, they need to take particular care that the manner in which they pursue the climate goal does not expose their beneficiaries to unacceptable costs and risks in the situation where the goal is not achieved. The more stretching (and consequently less likely) the goal is, the more significant is this consideration.

The final observation on fiduciary duties relates to the role of board directors of portfolio companies. These directors have duties towards promoting the interests and success of the company and its shareholders. Fiduciary duties make it very difficult for directors of a company to agree to action that damages the prospects of their company, even if an argument could be made that it is to the benefit of a shareholder's wider portfolio. This constraint becomes important when considering the realistic scope of engagement action. In practice, therefore, many climate-concerned institutional investors adopt an attenuated version of universal ownership theory. The primary focus is risk-adjusted return at the portfolio level, but there is a widespread acceptance that limiting the worst impacts of global warming reduces portfolio risks. Therefore, asset owners commonly have concern about whether their investment actions are, at the margin, having positive or negative impact on climate change. They

would generally prefer for their activities to have climate impact that is at least somewhat positive, provided their beneficiaries are not exposed to undesirable costs or risks in the process.

BORDER TO COAST VIEW

Fiduciary duty is at the heart of all we do at Border to Coast, and our focus is on delivering sustainable long-term risk-adjusted financial returns for our Partner Funds. We believe that physical and transition risks are material investment risks and that the net zero transition also creates substantial investment opportunities. We fully take these into account in our investment decision making.

Border to Coast is not an impact investor but we do consider environmental, social, and governance factors in our investment process, and believe this results in better risk adjusted returns. We also recognise that, due to the nature of some of our investments, they will also have an impact – for example, those in our private markets Climate Opportunities strategy which, while investment led, is supporting the transition to net zero. Border to Coast also believes that the portfolios we manage on behalf of our Partner Funds will be more resilient, and more able to pay pensioner benefits, in an economy that transitions in an orderly and timely manner to net zero.

Therefore, we view it as in our ultimate beneficiaries' interests to contribute, where we can, to such an orderly and timely transition. However, we also recognise that our ability to influence climate outcomes is limited and that the trajectory towards net zero will largely be set by Government policy and society more widely. We also have a requirement to protect our clients' interests in a range of climate scenarios, both scenarios that we view as desirable and those that are less so. Therefore, in seeking to influence climate outcomes we must ensure we do so in a way that does not expose our clients to unintended costs and risks in the event that our desired climate trajectory is not achieved by society.

Border to Coast does not make exclusion decisions based on values-alignment on behalf of Partner Funds. Instead, we implement limited exclusions where we believe the regulatory, legal, reputational, and other financial risks of investment undermine the investment case and long-term viability of the companies concerned, and where we believe that this cannot be mitigated by constructive engagement. Currently these exclusions are focussed on companies operating in aspects of thermal coal and oil sands production and power generation and companies directly involved in manufacture of controversial weapons, such as cluster munitions.

PART B: ANALYSING ARGUMENTS FOR AND AGAINST DIVESTMENT

In this part of the report we analyse a number of arguments commonly made in favour of divestment from FF companies as well as considering potential costs of FF divestment.

"FF COMPANIES FACE STRANDED ASSETS AND SO SHOULD BE DIVESTED TO REDUCE RISK"

Divestment is often presented as downside risk management. Carbon Tracker has stated that to hit 1.5C as much as 90% of proven FF reserves will need to remain unexploited.[5] This fact is often taken as prima facie evidence that FF firms face dramatic stranded asset risks, which themselves justify divestment.

However, the extent to which proven reserves will remain unexploited is very dependent on the trajectory of emissions and climate change. One recent analysis of over 100 scenarios from the Sixth Assessment Report from the International Panel on Climate Change found that while combined oil and gas demand had to fall by around 60% by 2060 to limit global warming to 1.5C with limited or no overshoot, the required reduction fell to around one-third in a 2C world.[6] Moreover, reserves do not create balance sheet liabilities for FF firms until capital is committed to exploit them, and firms therefore have substantial optionality to react to their view of demand and price changes. Therefore, non-exploitation of reserves does not necessarily result in balance sheet or equity value write-downs. Finally, what counts is what is in the price. To give one example, at the time of writing BP is valued at just over 3x operating cashflow and 6x earnings. The valuation is supported by a relatively short runway of performance and so is not obviously over-valued even in the case of a rapid energy transition.

More broadly, there is mixed evidence on the relationship between emissions and stock price performance. If high carbon stocks are viewed as riskier by the market, perhaps because of the possibility of increasing carbon prices or other regulations, then it might be expected that a "carbon risk premium" applies. This would lead higher emitting stocks to have *higher* expected returns as a reward for the risk. Some research does indeed find that high emitters outperform because of such a risk premium. However, other research finds that this outperformance arises not because of a risk premium but because of positive earnings surprises – perhaps regulation proceeds slower than the market expects, or, with inadequate carbon pricing, firms benefit from *not* focussing on emissions reduction. Alternatively, it could be that some investors divesting from, say, oil and gas stocks cause

[5] https://www.brinknews.com/1-trillion-of-oil-and-gas-assets-risk-being-stranded-by-climate-change/ and https://www.iea.org/reports/the-oil-and-gas-industry-in-net-zero-transitions/executive-summary

[6] Achakulwisut, P., Erickson, P., Guivarch, C. *et al.* Global fossil fuel reduction pathways under different climate mitigation strategies and ambitions. *Nat Commun* **14**, 5425 (2023). https://doi.org/10.1038/s41467-023-41105-z - it is worth noting the authors state that based on what they view as more realistic (conservative) assumptions for carbon capture utilisation and storage the required falls in consumption by as late as 2060 would be substantially greater under all scenarios.

their prices to be depressed leading to higher future returns – a similar effect has been documented in the tobacco sector.

The point of this section is not to say that FF firms are necessarily a good investment. Nor is it to say that stranded asset risks do not exist: they clearly do.[7] Rather it is to say that there is no prima facie reason why they should be a *bad* investment. It all depends on how the (very clear) risks that the sector faces have been factored into current prices and whether the market in aggregate is correctly, under- or over-estimating the speed of the energy transition. Different investors may have different views on the extent to which this is the case and therefore managing this risk requires expert judgment in specific investment situations. Therefore, while it is perfectly legitimate to form a view that market valuations in the oil and gas sector underestimate the speed of the transition, leading to the conclusion that certain companies are over-priced and should be divested, this is better understood as the expression of an investment belief. This is a belief that, if held in good faith, can legitimately inform an active investment strategy, but should not be seen as "no regrets" risk management justifying sector-wide divestment.

"Whether FF companies are stranded assets depends on how the (very clear) risks have been factored into current prices and whether the market in aggregate is correctly, under- or over-estimating the speed of the energy transition."

Indeed, stranded assets do not only arise in FF. Restrictions on permitting and grid access coupled with rising interest rates and inflation has resulted in offshore wind assets off the US eastern seaboard becoming stranded – in this case the market *overestimated* the speed of transition and underestimated potential changes in the inflationary and interest rates environment. What counts is the extent to which the risk of different scenarios is built into the current price of the company's shares.

Finally, an issue we return to in Section 8, FF assets are plausibly most likely to provide return upside in transition or climate scenarios that might overall be viewed as negative. In this way, it has even been argued that a prudent fiduciary should retain exposure to FF and other "brown" assets.[8] The risk arguments are far from one way.

[7] For an analysis of the extent to which FF companies have CAPEX plans that are aligned with different temperature scenarios see Carbon Tracker's recent report 'Paris Misaligned II', by Maeve O'Connor, available at: https://carbontracker.org/reports/paris-maligned-2/

[8] Brav, Alon and Heaton, J.B. (2021), 'Brown Assets for the Prudent Investor', Harvard Business Law Review Online, art. 2, at 1, available at: https://journals.law.harvard.edu/hblr/wp-content/uploads/sites/87/2022/02/Brav-and-Heaton-Brown-Assets-for-the-Prudent-Investor.pdf

"DIVESTING FROM FOSSIL FUEL COMPANIES INCREASES COST OF CAPITAL AND SO INCENTIVISES THEM TO TRANSITION OR SHRINK"

It is important to recognise that, to first order, divestment does not reduce real-world greenhouse gas emissions, but just changes their ownership. This is as true in the case of selling securities as it is in the case of a company selling individual carbon intensive assets. Indeed, there is evidence that from 2005 to 2019, climate-concerned institutional investors significantly reduced portfolio GHG emissions, but overwhelmingly through shifting those emissions to other owners rather than real-world reductions. In order for divestment to lead to real-world emissions reductions requires creation of incentives for companies to change their operations in ways that such reductions arise.

There are two financial channels through which divestment from FF companies can create incentives for them to change behaviour:

- If a segment of the market refuses to finance FF companies, those segments of the market that are prepared to finance them inevitably become over-exposed to this sector, relative to market weights. In compensation for this, they demand an extra return, resulting in an increased cost of capital for the divested company. This translates into a higher hurdle rate for capital budgeting, and pursuit of fewer FF projects.
- At the same time, flows out of FF companies creates downward pressure on share prices, which reduces the value of executive compensation, which is generally stock based. This creates an incentive for executives to take action to reverse the negative flows.

Starting with the evidence on cost of capital, overall, there is some evidence of divestment leading to cost of capital impacts (a "greenium") for both equity and debt. The greenium acts to reduce the cost of capital for green firms compared with brown firms. The evidence relating to equity divestment is weaker, given that *expected* returns are difficult to observe. Estimates range from close to zero to around 300 basis points, although a recent paper that sought to replicate a number of these estimates concluded that the greenium on equity is less than 100 basis points.[9] For debt, where the greenium can be directly observed, the evidence is stronger, but the effect weaker, with a greenium of less than 20 basis points typically found. These impacts combine into cost of capital impacts of tens rather than hundreds of basis points.

Cost of capital impacts at this level are unlikely to lead to meaningful changes in corporate behaviour. Corporate managers calculate cost of capital periodically often using a fairly imprecise model and are unlikely to be attuned to small changes in cost of capital over short periods. Indeed, one study found that over 60% of managers leave their investment discount rate unchanged for as long as five years, even as interest rates changed quite significantly. As interest rates fell in the first two decades of this century, the study found that discount rates remained elevated, with the result that the 'wedge' between the market cost of capital and the discount rate used for investment appraisal increased by around 200 basis points over the period.

[9] Eskildsen, Marc and Ibert, Markus and Jensen, Theis Ingerslev and Pedersen, Lasse Heje (2024). 'In Search of the True Greenium', working paper, available at https://papers.ssrn.com/abstract=4744608

Even upper-end estimates for the impact of preference-driven increases in cost of equity amount to at most around 300bp. This sounds like a lot but based on return on equity of 10%-15%, this is economically equivalent to an impact of around 25% of profits. This is much lower impact than a carbon tax even at $100 a tonne, the minimum required to keep the world on a 1.5C path, which, a study shows, would wipe out entirely the profits of over half of companies in heavy emitting sectors. Indeed, a recent working paper shows that to mimic a carbon tax of $100 per Tonne of CO2 would require a cost of capital increase in the FF sector of around 1,000 basis points.[10]

A study that tries to link selling pressure directly to investment decisions supports this view. It found that firms subject to higher selling pressure did indeed cut investment, but only by a few percent and then only when the firm was capital constrained and subject to external equity financing constraints. This does not apply to oil and gas firms, which are typically cash rich and buying back stock.

Finally, even if these cost of equity effects were successful in driving corporate change, it is not clear in which direction the change will occur. Financially constrained 'dirty' firms may respond to increases in financing costs by doubling down on dirty activities, while reducing the cost of capital for firms that are already green has little real-world impact, so impacting cost of equity may have exactly the opposite result to that desired. Whether increasing cost of capital makes firms greener or browner is therefore an empirical question.

Overall, those signals that are sent via the cost of capital channel, even if they were fully recognised and acted upon by management, appear to be entirely insufficient to have a material impact on the trajectory of emissions and global warming.

"Signals that are sent via the cost of capital channel, even if they were fully recognised and acted upon by management, appear to be entirely insufficient to have a material impact on the trajectory of emissions and global warming."

It should be noted at this point that the evidence on the impact of bank financing on coal consumption is more positive. There is some evidence of a flow-through from restrictive bank financing policy to reduced coal investment and early retirement of coal plants; but observed impacts on retirement rates and emissions, although statistically significant, are small and not yet widely replicated across studies. We do not discuss this further as this paper focusses on equity divestment, but for a further discussion of this question see the Appendix of Gosling (2024), referenced in the Appendix to this paper.

We turn now to the evidence on incentives being created through share price effects on executive compensation. There is good evidence that negative (positive) sustainable investing flows affect share prices negatively (positively), and this has a knock-on effect on executive compensation. This can create incentives through stock-based incentive plans, but only if managers have a viable pathway to prevent or reverse the divestment by changing behaviour. So, for example, if divestment is conditioned on an oil and gas company failing to reduce methane leakage then the managers of the company have a clear action that can be taken to avoid the divestment. However, if the divestment is a blanket approach

[10] Pedersen, Lasse Heje, Carbon Pricing versus Green Finance (March 9, 2023), available at: https://ssrn.com/abstract=4382360

based on sector, then the oil and gas company does not have a pathway to avoiding divestment. The share price impact would still apply, but not the incentive.

Moreover, whether the right incentive is actually created for executives depends on where they are in their career and whether they are currently a net seller or net recipient of equity awards. This is because selling pressure from divestment reduces the share price today but increases expected returns in the future (assuming that new selling pressure cannot be maintained indefinitely). This is the source of the "sin premium" observed in tobacco stocks. For an executive with large equity holdings that they are seeking to sell down, there will be an incentive to meet shareholder demands in order to forestall the share price fall. However, an executive with limited short-term selling plans and an expectation of substantial future awards, may prefer a low price today (resulting in more shares awarded per $ value) and higher share price appreciation in future. So even via this channel, whether the incentive acts to create the desired behaviour is uncertain.

Set against all this, it is clear that companies do not like, and seek to avoid, divestment (a topic we return to in the next subsection). There is evidence that divestment threats from even a fairly modest shareholder can cause companies to take mitigating action, provided it is not costly to the company.[11] However, substantial changes to emissions are, generally, costly. Moreover, when seeking to avoid the negative share price impact of divestment, the executives will need to compare this to the negative share price impact of any costs incurred to avoid the divestment. To give an example of this, one study produced a model showing that a company would need 20% of its register to threaten divestment in order to justify an action that merely cost 5% of operating cashflow.

Overall, there is little evidence that divestment causes material levels of operational or strategic change through the incentives created by financial channels of cost of equity or share price impacts.

"There is little evidence that divestment causes material levels of operational or strategic change through the incentives created by financial channels of cost of equity or share price impacts."

"DIVESTING FROM OIL AND GAS DELEGITIMISES THE INDUSTRY"

An alternative view considers divestment not as creating financial incentives for firms, but instead as contributing to the delegitimisation of the FF industry, which helps to create an environment in which it is possible to create robust climate policies. In particular, delegitimisation aims to increase the political cost for democratic representatives supporting the FF industry and thereby act as a counterweight to the industry's significant lobbying efforts.

There is conflicting evidence on divestment campaigns (e.g. against apartheid South Africa, against Sudan military action in Darfur, against the tobacco industry), but overall, there is little evidence that such campaigns had impact through financial channels, and indeed even divestment campaigners tend not to make the financial case. Instead, campaigners point to delegitimisation contributing to a political context in which politicians distance themselves from the industry and are more inclined to move

[11] Heeb, Florian and Kölbel, Julian (2024), 'The Impact of Climate Engagement: A Field Experiment', working paper, available at SSRN: https://ssrn.com/abstract=4711873

against it through regulation. Divestment campaigns also provide the opportunity to maintain momentum on climate action (given that, for example, there are many separate university endowments that can be targeted) and to engage a range of activists (for example students and academics as well as NGOs and civil society groups).

Causality is always extremely difficult to prove, but there are claims that divestment campaigns contributed to a regulatory environment in which tobacco control was more possible. The strong resistance of affected companies to divestment campaigns is itself evidence that they have some effect. Documents disclosed as part of legal proceedings show that Phillip Morris felt it necessary to "respond aggressively" to the emerging divestment campaign amid fears it "labels the company as being different from others – a rogue" and a "poor investment".[12]

There is some evidence that markets view divestment pledges as meaningful signals as to the likelihood of regulation, given negative stock price reactions to social media news flows about divestment campaigns. However, it is generally not possible to infer a causal connection from divestment campaigns to policy action.

The delegitimisation argument has some force, and is certainly plausible, but brings consequences with it: divestment must explicitly be grounded in moral, not just financial, motivations, must be talked about openly in such terms, and should be more effective than other avenues open to the investor.

Moreover, it is unclear whether delegitimisation could work for an industry as embedded in our way of life as FF. Analysis of the theory of boycotts suggests that "progressive delegitimisation" may be more successful: focussing on elements of FF activity where there are reasonable alternatives and existing players can adapt at reasonable cost. Examples might include recent initiatives on thermal coal and methane leakage.

"The delegitimisation argument has some force, but brings consequences with it: divestment must explicitly be grounded in moral, not just financial, motivations, must be talked about openly in such terms, and should be more effective than other avenues open to the investor."

Alternatively, it might be considered that delegitimisation efforts are better focused on *users* of fossil fuels rather than producers. Especially where there are substitute power sources or technologies that are not too costly, the logic of divestment campaigns might better be focussed here. This is consistent with the idea of "perimetric boycotts" in the academic literature.[13] Overall, the lack of direct causal evidence would make it difficult to use the delegitimisation justification as part of a financial fiduciary argument – nonetheless it could reinforce an argument based on articulated beneficiary preferences.

[12] Dunham J (1996), 'Issues Management Divestment Action Plan' Philip Morris. Bates No. 2078279058/9068, available at: http://legacy.library.ucsf.edu/tid/fir75c00, accessed 18 March 2024

[13] N Offen, E A Smith, R E Malone (2005), 'The perimetric boycott: a tool for tobacco control advocacy', Tobacco Control, 14, 272 doi: 10.1136/tc.2005.011247

"FF COMPANIES WILL NEVER CHANGE SO WE SHOULD DIVEST AND FOCUS ENGAGEMENT RESOURCES ELSEWHERE"

Resources for engagement are scarce and cannot be focussed on every issue. One justification for the Church of England divesting from FF companies was that they did not have the resources to maintain engagement which was having so few results.[14] They said they would refocus engagement efforts where results are more likely. In particular, the focus should shift to major *consumers* of FF rather than producers. By engaging with major FF users to encourage changes to industrial processes (cement, chemicals, steel) or fuel sources (transport and logistics, data centres), investors can have more impact. Referring back to the delegitimisation argument, it is also almost certainly the case that, given its role in society, the Church viewed continued investment in FF companies as providing positive moral licencing for them, and that divestment by the Church would bring additional moral force to bear. The Church also had explicit support from the General Synod for the divestment pathway and, being a charitable foundation, faces subtly different considerations from other fiduciary investors.

There is undoubtedly merit in focusing on demand rather than supply, given the difficulty of creating supply reductions when profitable demand exists. But even if engagement resource is diverted elsewhere this does not necessarily imply that FF assets should be divested, especially if this gives rise to costs and risks for clients or beneficiaries (see below). Even passive supporters can be helpful to others who do decide to engage, as they provide follow-on support on shareholder resolutions and other issues. Part of the evidence cited by oil and gas companies for soft-pedalling on climate commitments is the declining support for shareholder resolutions demanding just that. Divestment simply adds to that momentum.

> *"Even if engagement resource is diverted elsewhere this does not necessarily imply that FF assets should be divested. Even passive supporters can be helpful to others who do decide to engage."*

Finally, engagement efforts that seem hopeless can subsequently be seen to be ahead of their time as they become mainstream later. Many campaigns on environmental and social issues started through the advocacy of small minorities before gaining widespread support.

THE COSTS OF DIVESTMENT

The financial costs of divestment from fossil fuels potentially arise from both reduced returns and loss of diversification. Indeed, recent experience has highlighted underexposure to fossil fuels as one reason for the underperformance of ESG funds. Over 2021 and 2022 the MSCI World Energy Index delivered cumulative returns of 109% while the MCSI World Index delivered 1%.[15] However, it is important not to read too much into this. ESG funds also outperformed in earlier periods because of overexposure to technology stocks. Indeed just one year earlier, in 2020, the MSCI World Energy Index fell by 30% while the MSCI World Index returned 16.5%. The real question is whether there are long-term systematic penalties to risk-adjusted returns from FF divestment.

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[14] https://www.churchofengland.org/media/press-releases/church-commissioners-england-exclude-oil-and-gas-companies-over-failure-align, see also Joel Moreland (2023), 'Why we should abandon climate engagement with oil & gas firms', available at: https://www.netzeroinvestor.net/news-and-views/why-we-should-abandon-climate-engagement-with-oil-and-gas-firms#

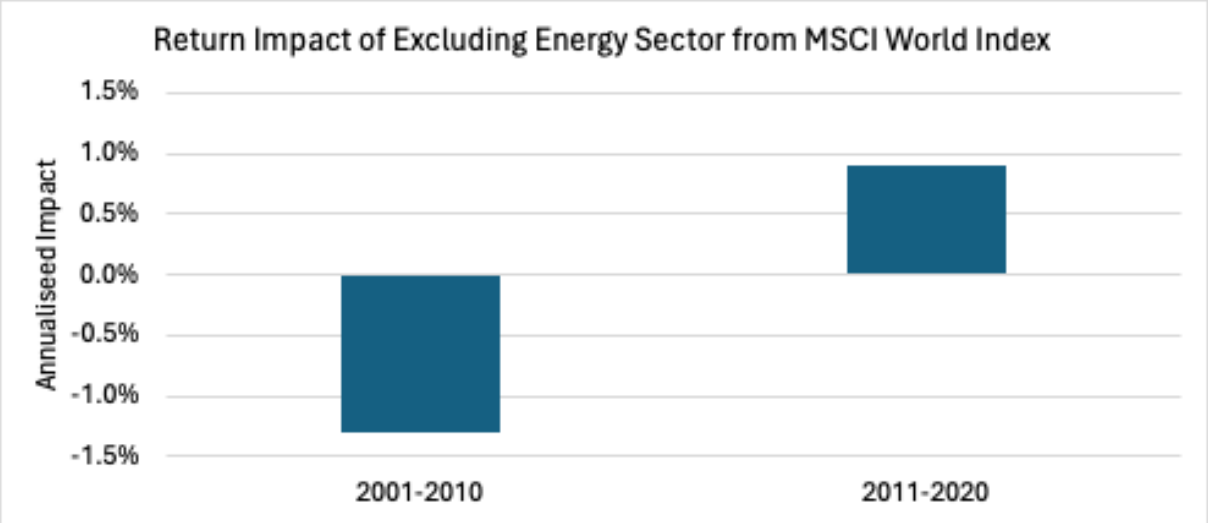
[15] See https://www.msci.com/www/fact-sheet/msci-world-energy-index/09000857

In Part 4 we argued that FF companies are not inevitably subject to equity market write-downs because of stranded assets. Indeed, one argument is that if FF companies are subject to systematic preference-based selling pressure then the resulting suppression of current valuations will go beyond what is justified based on risk alone and so may create a probability of *outperformance* in the future. This is similar to the "sin-stock" premium in tobacco stocks identified by some researchers.

However, in Section 5 above, we noted that cost of equity impacts from divestment are not that large, probably less than 100 basis points, suggesting at most a 1% pa enhancement to expected returns for FF companies. Moreover, FF companies make up less than 5% of global portfolios. As a result, divestment from this single sector is unlikely to create severe or unmanageable impacts for tracking error and portfolio risk and return over the long term even if there is a "sin stock premium". Indeed, a number of studies suggest that, over the very long term, average returns and Sharpe (risk-return) ratios of global portfolios are not significantly affected by the exclusion of FF companies.[16] Although it should be noted that in specific markets such as the UK or Canada where the weighting to energy stocks exceeds 10%, the risk-return implications of divestment could be more significant.

However, these long-term trends hide the material medium-term impact of FF exposures in secular bull and bear markets for oil and energy which can persist over a decade. For example, a study has found that excluding the energy sector from a global portfolio during the predominantly bear market conditions for oil and energy from 2011 to 2020 would have *enhanced* portfolio returns by around 0.9% pa. By contrast, the same exclusion would have *impaired* portfolio returns by around 1.3% pa over the predominantly bull market conditions for oil and energy from 2001 to 2010, as shown in Figure 1:

Figure 1: Return impact of excluding the energy sector from MSCI World Index



Reproduced with permission from Blitz (2022)[18] © With Intelligence

[16] For discussion and references to relevant studies see Blitz, David (2022), 'Betting Against Oil: The Implications of Divesting from Fossil Fuel Stocks', The Journal of Impact and ESG Investing, 2(3), 95, doi: 10.3905/jseg.2022.1.039, available at: https://www.pm-research.com/content/pmrjesg/2/3/95

Therefore, while FF exclusion might not have a material impact on risk-adjusted returns over a multi-decade time horizon for a passive investor, it can have a material impact over a decade and can remove a significant opportunity set for active investors able to trade in and out of the sector. Moreover, if calls for divestment spread to other heavy emitting sectors, such as materials, extraction, or transport then the impact of restricting the investible universe could have significant impacts on portfolio risk, return, and liquidity.

A final observation is that the impact of FF exclusions can depend on the benchmark considered. As an example, the MSCI UK Energy Index has outperformed the MSCI UK Index by around 1.5% a year since its 1994 inception.[17]

"While FF exclusion might not have a material impact on risk-adjusted returns over a multi-decade time horizon for a passive investor, it can have a material impact over a decade and can remove a significant opportunity set for active investors able to trade in and out of the sector."

Other risk considerations relate to the outcomes for portfolios in a range of climate scenarios given the high beta of FF companies relative to the oil price and energy sector trends. Investment in FF companies creates a cost and risk if the energy transition proceeds faster than the market expects; but provides upside in a scenario in which the energy transition is slower than expected, which for example could arise given particular sets of outcomes in democratic elections around the world during 2024. Indeed, FF exposure may be considered to provide some protection for clients or beneficiaries in adverse transition or climate scenarios. For example, an inflationary energy price shock if renewables capacity is not brought on stream fast enough to meet growing energy demand while offsetting declining FF investment; or a slow transition where FF continue to be used at a greater than anticipated rate resulting in FF companies showing relative outperformance compared with sectors that are increasingly impaired by the physical impacts of climate change.

Overall, the financial costs of FF divestment, whether relating to return or risk, are real and not negligible, particularly for an active investor. However, they should probably not be over-stated and are arguably manageable with careful maintenance of factor and indirect oil price exposures in the remaining portfolio, provided divestments remain narrowly focussed on direct FF producers. The extent to which these costs are viewed as material will depend upon the investor's investment style and strategy; geographic exposure; beliefs on climate change and transition pathways; views on current valuations; scenarios and risks of primary concern; and timeframes. Again, there is not an obviously right answer that investment in FF will, in future, be either good, or bad, for risk-adjusted returns.

"The financial costs of FF divestment, whether relating to return or risk, are real and not negligible, particularly for an active investor. However, they should probably not be over-stated and are arguably

[17] https://www.msci.com/www/index-factsheets/msci-uk-energy-index/0129572611

manageable… But there is also a further, non-financial, cost, which relates to loss of influence on FF companies."

But there is also a further, non-financial, cost of blanket FF divestment, which relates to loss of influence on FF companies. In Section 7 we explored the argument that FF companies will never change so why not divest? However, industry divestment of a blanket nature, which cannot be prevented by realistic action of "good" FF companies, unambiguously involves giving up influence on that sector and transferring that influence to other investors in the sector, who are likely less concerned about climate change. None of this should be taken to suggest that an investor should remain invested in FF companies come what may – the financial investment case remains critical. On the other hand, the removal of a constraining investor influence on the FF sector, through blanket divestment, may make companies in that sector less concerned about the environmental impact of FF production and may make them an even more determined lobbying force against climate regulation.

There is some evidence in support of this view, with one detailed study finding that the presence of European institutional investors and signatories to the UN Principles for Responsible Investment (UN PRI) is associated with, and probably the cause of, higher environmental and social performance from investee companies. [18] Therefore, a reduction in the presence of such investors via divestment would be expected to have the opposite effect. The channel for this improvement is found to be engagement rather than capital flows due to investment or divestment. Although these results are persuasive, the effects are, in absolute terms, not that large and so should not be over-stated.

The potential improvement in a company's environmental scores even from a large increase in environmentally conscious ownership was found to be 13% which represents only around one-tenth of the total variation in scores between companies.[19] Moreover, ESG ratings can be a poor proxy for

[18] Dyck, Alexander and Lins, Karl V. and Roth, Lukas and Wagner, Hannes F. (2019), 'Do institutional investors drive corporate social responsibility? International evidence', Journal of Financial Economics, 131(3), 693 available at https://doi.org/10.1016/j.jfineco.2018.08.013

[19] For example, a one standard-deviation increase in ownership by UN PRI signatories led to a 13% improvement in environmental performance, which equates to between one-third and one-half of the sample standard deviation, depending on the environmental performance measure used. This is equivalent to an improvement of 7 to 12 positions in a ranking of 100 companies ordered by environmental performance.

environmental impact. We return to the extent to which this influence is meaningful when we review the evidence on engagement in the next part of the report.

BORDER TO COAST VIEW

We carefully monitor the financial viability of fossil fuel businesses against what we consider to be plausible climate trajectories based on realistic policy, economic, and technology developments. This involves considering likely fossil fuel demand, taking into account the global trend towards decarbonisation, and then considering the ability of fossil fuel firms to remain competitive through this transition, including considering their ability to transition to new businesses with long-term viability in a net zero world. This includes consideration of the company's transition plan and financial exposures to key regulatory, liability, physical, and stranded asset risks. The final consideration is the extent to which these prospects, and the risks of future market and regulatory changes, are reflected in current market valuations of the company's shares and whether, therefore, they remain an attractive investment for our portfolios or not based on prospective risk-adjusted returns.

On this basis we have concluded that thermal coal and tar sands are high risk and, especially in developed markets, ever more substitutable for cleaner technologies – we have therefore introduced exclusion policies based on thresholds relating to thermal coal and oil sands exposure and thermal coal power generation. For the latter these thresholds differ in emerging markets, where the opportunities to substitute are fewer and where the demands of a just transition means that these fuels may legitimately play a role for longer in such markets.

Based on the likely long-term demand requirements for oil and gas, even in net zero scenarios, we do not currently see the same risk issues arising in oil and gas at current valuations. These investments still offer the prospects of attractive returns and, importantly, diversification for our Partner Funds, including in more challenging climate scenarios.

Continued next page.

Existing exclusion criteria remain appropriate – however these would be based on considerations of financial risk rather than impact, given the uncertainty of the latter, and our fiduciary duties to Partner Funds.

Furthermore, we are not persuaded there is credible evidence that divestment would create financial incentives to bring about meaningful changes in company actions and emissions. Blanket divestment would simply result in us giving up the influence on the industry that we can currently have through engagement. Indeed, there is a risk that by divesting, we pass our influence to investors who are less concerned about climate change than we are.

We understand the case for delegitimisation of the fossil fuels industry but given that the industry will be with us for decades to come as an integral part of our economy, we are not convinced that such delegitimisation will be successful in reducing emissions quicker. We see our role more usefully as ensuring the oil and gas business is conducted responsibly to the extent we are able.

While fossil fuel divestment would be manageable, financially, for our portfolios, it would in our view impair our ability to provide the best risk-adjusted return for our Partner Funds across a range of market conditions and climate scenarios. Moreover, if the arguments for divestment were to extend beyond this single sector, the implications for returns, diversification, and liquidity could become significant.

We will continue to keep the fossil fuel industry under review on a granular basis, and as viable substitutes and use cases become available, will consider whether extension of our criteria remains appropriate – however these would be based on considerations of financial risk rather than impact, given the uncertainty of the latter, and our fiduciary duties to Partner Funds.

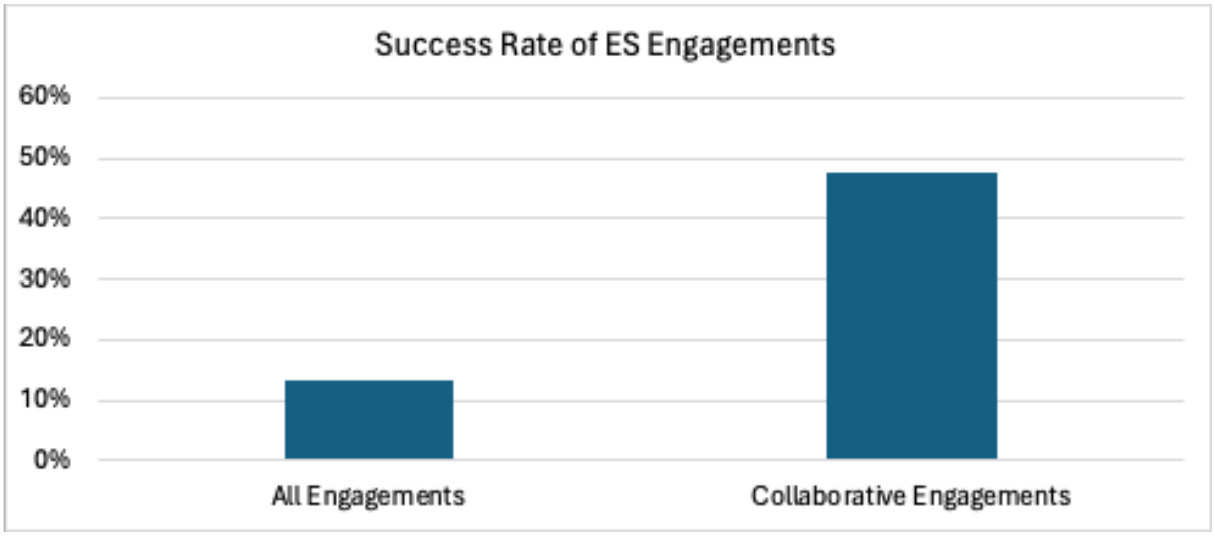
PART C: EVIDENCE ON ENGAGEMENT

ACADEMIC VIEWS ON ENGAGEMENT

Divestment is often placed in counterpoint to engagement: should responsible asset owners wash their hands of climate-damaging firms or engage with them to produce better outcomes?

There is a general academic consensus that engagement "works", albeit not entirely unqualified. Success rates for environmental engagements are typically found to be in the range of 10% to 50%, with the higher rates arising for some collaborative engagements. Results from one prominent study are shown in Figure 2.

Figure 2: Success rates of ES engagements from Dimson et al (2015)



Shown are success rates of all Environmental and Social (ES) engagements and of collaborative engagements, figures from Dimson, Elroy and Karakaş, Oğuzhan and Li, Xi (2015), 'Active Ownership', The Review of Financial Studies, 28(12), 3225, available at: https://doi.org/10.1093/rfs/hhv044

Although there is a general consensus that collaborative engagements are more effective, there is also evidence that, where actions are not costly for companies, engagement even from a relatively small number of investors can trigger action.

Overall, the academic literature provides more support for the impact of engagement than of divestment. Success factors for engagement identified in the literature are also not surprising. Engagement is more likely to be successful if led by a knowledgeable lead investor, with a body of supportive investors on the register (in particular if through a collaborative engagement approach), and if the asks made of the company are realistic and aligned with the company's priorities. There is also some evidence that engagement is effective if backed up by an ultimate divestment threat,[20] although we would note the caveats raised in Section 7 that the engagement asks must not be too costly and it must be realistically possible for the company to act to divert this threat.

Another stream of academic evidence shows that investors play different roles in engagement. Not all investors have to be actively engaged in order to be impactful. For example, evidence from the activist literature suggests that motivated and knowledgeable investors are attracted to targets where they believe they have potential support from institutional investors, whether active or passive. Engagement therefore needs to be viewed in the context of an ecosystem of investors with different skills, resources, and motivations. Potentially supportive, climate-concerned investors on a company's register can make it a more attractive target for environmentally-focused engagement from other investors.

IMPACT OF ENGAGEMENT ON CLIMATE OUTCOMES

The discussion in the previous section reflects the general view in academia that "engagement works". However, this should not be accepted without some qualification. Perhaps the strongest criticism of the "engagement works" narrative is that what constitutes a "success" in academic studies on engagement is often extremely modest. Success often relates to milestones set by the investors themselves and potentially not disclosed. Where the definition of success is transparent then the achieved objectives have often related to disclosure commitments (e.g. adopting TCFD or disclosing emissions) or relate to commitments about the future that cannot be tested for some years (e.g. committing to adopt science-based targets).

Evidence of engagement leading to material improvements in real-world dimensions such as emissions reductions are generally not found in the systematic academic evidence, and when they are found they tend to be modest, although this does not mean that such improvements do not exist. For example, it seems hard to accept that the attitude of European investors to climate change has been entirely irrelevant to the decision of European oil and gas firms to adopt more "Paris-aligned" strategies than their US counterparts. Whether this of itself contributes to combatting climate change is a topic we return to in Section 12.

"Evidence of engagement leading to material improvements in real-world dimensions such as emissions reductions are generally not found in the systematic academic evidence, and when they are found they tend to be modest, although this does not mean that such improvements do not exist."

[20] See for example Heeb, Florian and Kölbel, Julian (2024), 'The Impact of Climate Engagement: A Field Experiment', working paper, available at: https://ssrn.com/abstract=4711873

LIMITATIONS OF ENGAGEMENT

As highlighted in the previous section, there is little in the way of systematic evidence of engagement leading companies to undertake costly changes in order to deliver beneficial climate outcomes. Indeed, a number of studies find a positive relationship between successful engagements and share price movements, suggesting that the engagements studied in the academic literature focus on the "win-win" areas where shareholder value and environmental or social performance is aligned.

Taken as a whole, the evidence suggests that engagement cannot be used as a mechanism for correcting the carbon externality, which would be very costly for companies. Directors of companies will not accept engagement asks that are fundamentally misaligned with long-term value creation at their company. Indeed, even one of the most commonly cited examples of environmental investor activism – Engine No. 1's campaign to appoint new directors to Exxon's board – was very much framed in terms of building climate and industry expertise on the board in order to ensure that climate risks were adequately reflected in the company's strategy. There was no suggestion that these directors would be pushing Exxon to undermine its own business model for the purposes of environmental impact, which has been borne out in practice.

It is this reality that has caused some of the recent problems with oil and gas engagement. Setting strong production cut targets is generally not seen by directors as being in their company's long-term interests given what they view as the realistic outlook for oil and gas demand. As such, investor attempts to impose such targets will always have a low likelihood of success, even if backed up by the threat of divestment, as they go to the heart of these companies' business models.

> *"The limitations-aware approach to engagement would focus less on trying to cut fossil fuel production … but instead to focus on ensuring that the fossil fuels we need over the coming decades are produced as responsibly as possible, while enabling investment in the transition and the development of over-arching climate policy."*

This leads to the concept of "limitations-aware engagement", where investors focus on asks that are realistic for the company, but go in the direction of travel they wish to see. The best examples of investor engagement reflect this realism, while being determined in execution. A good example of this is the work led by the Church of England on the issue of tailing dam safety in the mining industry.[21] Tailing dam failures have devastating social consequences and can be addressed by determined industry action which, while involving some cost, is far from unaffordable for the industry, and does not undermine their business model. Indeed, improving tailing dam safety can be said to support the industry's long-term viability by protecting against a risk to its licence to operate.

[21] https://www.churchofengland.org/about/leadership-and-governance/church-england-pensions-board/pensions-board-investments/investor-1

Translating this thinking to the oil and gas sector would result in engagement objectives that relate less to the core business parameter of production and more to factors such as the environmental impact of production (for example methane leakage); or to limiting the negative impact of FF-sponsored lobbying.

The limitations-aware approach to engagement would focus less on trying to cut FF production (which in any case is unlikely to be achievable by investors in aggregate – see next section) but instead to focus on ensuring that the FFs we need over the coming decades are produced as responsibly as possible, while enabling investment in the transition and the development of over-arching climate policy.

None of the above should be taken to discourage investors from engaging with companies on specific asks relating to FF production that they believe to be value maximising. For example, an investor might conclude that aspects of a firm's portfolio that are likely to face rapidly declining demand or are likely to be substituted for cleaner forms of energy as the world decarbonises should not receive further capital investment. Or the investor might divest from such firms to avoid financial risk.

BORDER TO COAST VIEW

Border to Coast continues to believe that engagement is the most productive channel for us to have impact as an investor, both directly where we hold assets ourselves and through influencing the engagement practices of our asset managers. We work closely with external asset managers and provide clear feedback on areas we wish to see them improve, including the integration of RI into business and investment processes. By way of example, as a result of dialogue with one of our Multi-Asset Credit Fund managers, we noted a material improvement in the manager's ability to demonstrate the integration of ESG factors into its investment process. It has formalised a framework to escalation, with centralised engagement tracking against milestones and objectives.

In order to amplify our voice, we also take part in a number of collaborative engagement initiatives including Climate Action 100+, LAPFF, IIGCC, and a number of issue or industry specific initiatives led by other asset managers or asset owners. We see these as core to our engagement approach.

Our focus is on consistent pursuit of realistic asks aligned with our climate objectives. Companies will not always meet our demands in full, and when they do not we may escalate our actions, as when we voted against the chairs of 95% of all fossil fuel companies last year.

By remaining engaged we have to accept that at times our investee companies will disappoint us. But we believe that by remaining engaged we maintain a consistent voice in favour of, and constituency of support for, Paris-aligned climate action.

Overall, we believe that this is a more powerful use of Border to Coast's capacity for influence, and more consistent with our fiduciary duties, than the immediate but temporary message sent by divestment.

PART D: COMPANY VS SYSTEM LEVEL CHANGE

DOES COMPANY-LEVEL CHANGE LEAD TO SYSTEM CHANGE?

A key question for investors seeking to have impact on climate change through their investment and engagement activity is: to what extent do company changes lead to system changes? In order to stick, company-level changes must not be offset by competitive responses elsewhere in the system.

As an example, in the market for industrial pollution, there is evidence that companies react to pressure on pollution by divesting problematic assets to less scrutinised segments of the market, with no overall reduction in pollution. Evidence in relation to FF divestment is mixed, with some studies finding evidence for polluting assets being "passed on" but others not finding such an effect, but overall there are strong suggestions that decarbonisation of institutional portfolios is not equating to decarbonisation of the economy, with polluting activities instead being picked up in private or state-owned firms.

But this same finding applies to engagement on FF production profiles. Engagement with FF companies on Scope 3 emissions targets effectively translates into divestment pathways for those companies – assets are not mothballed. Equally, if engagement requires costly changes to company processes, then there are risks that those processes increasingly are conducted in less well scrutinised forms of ownership.

On the other hand, company level changes can sometimes lead to system changes. Through experimentation, companies may prove the concept of new clean technologies that become market standards; innovative project or financing structures can be copied by others. Improvements to a company's core operations which are not so costly as to induce a competitive response – for example reducing methane leakage in FF production – can have a genuine impact at the system level both through competitor imitation but also by facilitating a raising of industry-wide standards, including through regulation.

On the whole, company-level changes are (in the absence of regulation) more likely to evolve into system level changes if they go with the grain of long-term value creation in the company, rather than by attempting to force companies to self-internalise additional costs. If this is done in a way that is costly for the company, then this inevitably induces a competitive response that is likely, within the system, to offset any benefit at the company level. As described in Section 11, this influences the types of topics that investors may focus on at the company level. For example, in the FF sector it might result in a focus on methane leakage, clean fuels, high return of capital to investors through dividends or buybacks, or development of opportunities in renewables rather than cuts to FF production.

"Company-level changes are more likely to evolve into system level changes if they go with the grain of long-term value creation in the company, rather than by attempting to force companies to self-internalise significant costs."

It also indicates a role for investor action directly on the system itself. This can include policy advocacy directly with governments, but also work on ensuring transparency and alignment in lobbying practices by corporates and their industry associations. There is a clear risk that vested interests in the FF industry see it as in their interests to inhibit development of rational climate policy. While it is difficult for investors to direct companies to lobby in a particular direction, it is possible for them to ask for appropriate governance and transparency of lobbying activity, and for there to be alignment between the company's stated position and their lobbying activity.[22]

It should be noted that action on the system itself may extend beyond corporate and policy engagement as we have defined it here, although that is the focus of this paper. It could include engagement with stakeholders such as government agencies and development banks to help understand how to create structures (for example blended finance) to enable institutional investor participation in much needed, but hard to finance, decarbonisation projects, especially in emerging markets.[23] For further discussion see Marti et al (2023), who discuss the concept of "field building" and Gosling (2024), referenced in the Appendix.

"There is also a role for investor action directly on the system itself. This can include policy advocacy directly with governments, but also work on ensuring transparency and alignment in lobbying practices by corporates and their industry associations."

More broadly, effective investor action on system change requires a clear-eyed view on theory of change, which requires an asset owner to have views on several key questions:

- How does the science of climate change connect with expectations for economic growth and associated impacts on capital markets?
- What are the economic and industrial policies required to mitigate climate change given the deep industrial transformation required and what policies and interventions are required for adaptation?
- What are the triggers for, and barriers to, such policy adoption and what are realistic political pathways to their achievement? How can investors assess the likelihood and potential impact of these pathways?
- What role does voluntary corporate action play and what voluntary action from investors is most effective?

[22] See for example the Net Zero Asset Owner Alliance (NZAOA) lobbying guidelines at https://www.unepfi.org/industries/net-zero-asset-owner-alliance-outlines-four-key-principles-for-evaluating-asset-managers-climate-policy-engagement/

[23] Walkate, Harald and van Zwieten, Robert and Simus, Monty (2024), "What's needed to create more bankable projects in least developed countries', Illuminem, available at: https://illuminem.com/illuminemvoices/whats-needed-to-create-more-bankable-projects-in-leastdeveloped-countries

The theory of change itself links to the narrative adopted by the investing entity. Broadly speaking, climate narratives divide into a policy-led narrative, where governments set the incentives and guardrails to drive the transition, and a market-led narrative, where voluntary initiatives by the private sector drive the transition. Of course, reality is a mix of the two. Voluntary initiatives can create the opportunity for regulation to emerge and regulation enables the private sector to act as a force-multiplier for change. But some private sector commitments have come unstuck when they become detached from the reality of the trajectory of government policy on mitigating climate change.

These are not questions to which there is a single clear answer, and are generally beyond the scope of this paper, but investor action will be more durable and justifiable if grounded in robust answers to these questions, based on a very clear view articulated by the investor of their role in system change.

BORDER TO COAST VIEW

Investors cannot drive the transition to net zero independent from the action of governments. But at the same time, policy is not created in a vacuum, and we believe we have an important role to play both in creating the case for consistent long-term climate policy to spur investment and in assisting with the details of policy development.

As such, in 2022 we co-signed the Global Investor Statement to Governments on the climate crisis and in the same year we provided detailed and focussed input into the review commissioned by the UK Government into their net zero strategy, undertaken by The Right Honourable Chris Skidmore. We also contribute to relevant policy consultations from The Financial Conduct Authority, Principles for Responsible Investment (PRI), The Department for Energy Security and Net Zero and The Department for Levelling Up Housing and Communities.

We have supported and co-filed resolutions on systemic improvements such as improving climate risk disclosure and disclosure of lobbying practices where we consider these to be of institutional quality and consistent with our Climate Change Policy.

PART E: CONCLUSIONS

CONCLUSIONS AND IMPLICATIONS FOR BORDER TO COAST

In this paper we have reviewed arguments for and against divestment from FF companies, particularly in comparison with engagement.

The argument that FF companies inevitably face stranded assets and so should be divested from a risk perspective should instead be viewed as an investment thesis: that the market is underestimating the speed of the energy transition and its effect on FF demand. Given current valuations of FF equities, it is not clear that this is the case. Moreover, this is not a definitive argument for or against divestment but would suggest careful incorporation of transition risks into assessment of fair value of FF companies when making portfolio allocations. Different asset owners may reasonably form different views (both from each other and over time) on the financial merits of FF investment based on their views of likely trajectories of FF demand and regulation.

A review of the academic evidence suggests that the financial penalties and incentives created by FF divestment are not strong enough to bring about costly changes in company strategies and operations leading to emissions reductions, particularly when the divestment is based on factors that the FF companies cannot realistically change within their business model.

Some investors feel FF should be divested simply because they will never change and it is a waste of time engaging with them. It is certainly necessary to prioritise engagement efforts, and some investors may feel that the returns from engagement with oil and gas firms are too meagre to be worth it. This is a matter of opinion and may relate to the realism of the engagement asks in the first place. Even if not actively engaging, investors can provide useful follow-on support to those willing and able to engage, so the decision to reprioritise engagement efforts need not automatically lead to a decision to divest.

Probably the most persuasive argument relating to divestment is one of seeking to delegitimise the industry to reduce its political influence. To be successful this requires visible and vocal divestment with a clear moral motivation. It is also not clear how successful this can be and over what timeframe for an industry that is so embedded within our economy and which will be needed in some form for decades ahead.

Asset owners would need to have a clear articulation of why divestment is in beneficiaries' best interests, because (i) it is very difficult to link cause and effect and (ii) FF divestment may have costs for clients or beneficiaries. At the level of first principles, constraining the investment universe, by limiting options, has the potential to hamper an active manager's ability to optimise risk-adjusted returns. FF stocks provide diversification, particularly during inflationary periods for energy and could be argued to provide portfolios with an element of hedging in the event of less favourable climate outcomes in which demand for FF remains high. If FF stocks do suffer from an element of divestment selling pressure from elsewhere in the market, they may even offer modestly *higher* risk-adjusted expected returns than other sectors.

On the other hand, the financial risks should not be over-stated: FF companies form a relatively small portion (<5%) of global equity portfolios. While the last few years have been ones where owning FF stocks has had a noticeable impact on portfolio returns, other research suggests exclusion of a single small sector would mostly be manageable over the long-term (multiple decades) from a tracking error perspective. Concerns about risk and return impacts would of course grow in certain geographic markets where FF weighting is in excess of 10% (for example Canada and the UK) or if divestment spread to other high emitting sectors.

The academic evidence is much more supportive of the impact of engagement than divestment on corporate action, and majority academic opinion would in our view support "voice" over "exit". Multiple studies show engagement impacts and respectable success rates, especially in the case of collective engagements. However, overall the academic evidence suggests that we should be cautious about the extent of that impact and the incremental effect on emissions. In particular, there is no systematic evidence of investor engagement causing companies to take strong climate action that is against their long-term financial interests. Therefore, to succeed, investors' engagement asks must be realistic and aligned with long-term value creation pathways.

"The academic evidence is much more supportive of the impact of engagement than divestment on corporate action, and majority academic opinion would in our view support 'voice' over 'exit'."

Anecdotal evidence suggests that the engagement of European investors with European oil and gas companies has had some impact on the actions they have chosen to take and there is some academic evidence in support of the idea more generally that environmentally aware investors can lead companies to improve environmental performance. However, this case also reinforces the point just made. While European oil and gas boards sought to identify value creation strategies that aligned with their investors' environmental preferences, when it became clear that those strategies were not in fact value enhancing for them, some boards pivoted closer to the strategies of their North American counterparts.

Therefore, to be accepted, engagement asks made of oil and gas companies need to be realistic and go with the grain of long-term value creation, recognising that the boards of those companies may be basing their decisions on medium to long-term oil and gas demand profiles that are different from the profiles that climate-concerned investors would ideally like to see come about. Engagement asks relating to the environmental impact of production (especially methane leakage), transition to cleaner fuels where possible (including, where appropriate, renewables), and constructive lobbying activity are likely to be more successful than engagement asks relating to production cuts or major business strategy changes. Investors wanting to remain invested in oil and gas companies need to reconcile themselves to the likely modesty of these engagement gains.

So, in conclusion, investors who see it as part of their fiduciary duty to clients to contribute to decarbonisation through their investment and stewardship processes have two broad strategies open to them.

- The first is to divest from FF companies vocally and publicly, making the moral case for why they are doing so, in an attempt to delegitimise the industry with the hope of thereby contributing to a political environment in which policy action is possible. Engagement efforts

are then refocussed on major users of FF. Such investors would need to accept that there may be risk and return impediments for clients and beneficiaries from the decision to divest and consider what portfolio adjustments (for example factor or sector re-weightings) may be necessary to compensate. In truth, provided divestment is limited to direct FF producers, the risk-return implications will in many cases be manageable. At the same time, these investors would need to accept that they will forego any ongoing influence on the FF sector they have permanently divested, and indeed they may sell the assets to buyers who are less concerned about the climate impacts or lobbying activities of those companies. The environmental performance of those FF firms may therefore worsen. Finally, there needs to be an acknowledgement that divestment simply shifts the ownership of emissions: reducing portfolio emissions in this way does not result in real-world carbon emissions.

- The second is to remain invested in FF companies, thereby enabling clients to benefit from the additional diversification and risk and return benefits that they provide to the portfolio. Through engagement, these investors can help to ensure that fossil fuels are produced responsibly and with minimum environmental harm for the period we need them. However, investors taking this strategy need to be realistic about the impact of that engagement. They will not be able to force the FF companies to undertake actions, such as significant production cuts, that their boards view as being inconsistent with long-term value creation. Instead, the engagement asks would need to focus on aspects of responsible FF production, including issues such as methane leakage, transition from the most environmentally damaging fossil fuels, and adoption of responsible lobbying practices. While such investors may be able to help ensure that FF companies act more responsibly than they otherwise would, they will have to accept being invested in companies that may not be acting as responsibly as they wish.

"While investors remaining engaged may be able to help ensure that fossil fuel companies act more responsibly than they otherwise would, they will have to accept being invested in companies that may not be acting as responsibly as they wish."

It is not possible to say definitively which of the two strategies is the correct strategy. In part it will depend upon the circumstances of the investor, their mandate, and their clients' or beneficiaries' wishes. In part it will depend upon views about how best to influence system change, if the investor considers this part of their mandate, and indeed what type of system change is realistically needed and achievable. In part it will depend upon views about the risk and return costs of FF divestment, which will in turn depend on their views on the likely transition pathway and current valuations.

Different investors can reasonably take different views on these questions. What is important for asset owners, however, is to be clear in good faith about the reasons for the decision, whether it is to divest or not, and how this aligns with their trust obligations and the interests of clients and beneficiaries. Whichever path is taken can create difficult moments for the investor: either missing out on oil and gas returns of the last few years or remaining invested in oil and gas companies that many stakeholders will view as backtracking on decarbonisation commitments. A principles-based and well-considered approach will help investors hold the path through these difficult moments and will prevent the creation of unintended precedents.

BORDER TO COAST VIEW

Through the process of undertaking this review, Border to Coast seeks to serve the interests of our Partner Funds and make our best contribution to supporting the climate transition by remaining engaged with fossil fuel companies, rather than implementing blanket divestment policies. As a society, we continue to need fossil fuels and will for decades to come. Through remaining engaged we can help advocate for these fuels to be produced and consumed as responsibly as possible.

As the transition proceeds, we expect substitutability of fossil fuels by other energy sources to increase, particularly in developed markets. This may lead to technological, economic, or political tipping points towards accelerated phase out of the most carbon intensive or costly fossil fuels. In line with our approach to risk management we will continue to monitor the fossil fuel transition closely to factor such developments into our investment decision-making. This may result in, over time, extension of our current policies relating to thermal coal and oil sands to other segments of fossil fuels if risks or challenges to business sustainability undermine the investment case.

However, the review has caused us to consider our approach to engagement in two main respects.

First, we accept that there are limitations to what engagement can achieve and that this means that there will be times when, by remaining engaged, we are investing in companies that are not doing all that we would want them to do in order to support the energy transition. In part this may be because government policy is not developing fast enough to create the incentives for companies and investors to drive towards the goals of the Paris agreement. But in other cases it may be because companies themselves are not doing enough to win in a world that is progressively decarbonising. We have strengthened our escalation process over time, resulting in us voting against the chairs of 95% of our oil and gas holdings in 2023. However, we believe that our policy would benefit from greater clarity on the specific asks we make of oil and gas companies, how we will escalate our engagement activities, and how we will address situations where companies are, persistently, not aligning with the transition as we would wish but where this is not fundamentally impairing the financial investment case.

Second, it is becoming increasingly clear that there are severe limits to the ability of private sector to address climate change without appropriate policy guardrails. While we contribute to policy advocacy and consultations in a number of areas and have also engaged with corporates on their own policy advocacy, this is an area in which we believe we could have more impact. This could include both the nature of our general public policy advocacy, but also in how we engage with oil and gas companies on their own direct and indirect lobbying, which can act as a barrier to adoption of needed climate policy.

As part of the review of our Climate Change Policy during 2024, we will undertake further work on these two areas.

APPENDIX – ACADEMIC EVIDENCE

In this Appendix we set out the core academic references that we drew on to develop the views set out in this paper. This has been written for a practitioner rather than academic audience. We hope that the note provides a structured guide and set of references for practitioners who want to find their way into the extensive academic literature on the topic of the real-world impact of sustainable investing approaches.

Our starting point was to consider recently published academic review papers. We drew on several such papers, because different review authors have different perspectives and scopes. Moreover, while there was significant overlap in papers referenced by, and interpretations of the evidence expressed in, the four papers considered, this overlap was far from complete. In this way we sought to take the broadest possible view of the evidence. The papers are:

P Matos (2020), 'ESG and Responsible Institutional Investing Around the World: A Critical Review', CFA Institute Research Foundation Literature Reviews, May 2020, ISBN 978-1-944960-97-1, available at: https://ssrn.com/abstract=3668998 or http://dx.doi.org/10.2139/ssrn.3668998

J Kölbel, F Heeb, F Paetzold, and T Busch (2023), 'Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact' Organisation and Environment 33(4), 554, available at: https://doi.org/10.1177/1086026620919202

E Marti, M Fuchs, M R DesJardine, R Slager, and J-P Gond (2023), **'**The Impact of Sustainable Investing: A Multidisciplinary Review', Journal of Management Studies, available at: https://doi.org/10.1111/joms.12957

In addition, we drew on the review of responsible investing impact mechanisms contained in Section 5 (and the Appendix) of the working paper below:

T Gosling (2024), 'Universal Owners and Climate Change', working paper, available at: https://papers.ssrn.com/abstract=4713536

The focus of these four papers is covered briefly below.

Matos covers the role institutional investors have played in governance, including the role of blockholders and activist investors. The paper also reviews the evidence on whether ESG performance is beneficial for corporate performance and investment returns. Although Matos pays less attention to the core focus of this report – the role of investors in creating environmental and social impact – useful discussion of this topic is included, and the paper helpfully situates this in the broader discussion about the role of ESG. Matos' stance is perhaps best summarised in the paper's conclusion which describes the literature on ESG investing as having a "healthy dose of skepticism" with much more that remains to be explored. This includes evidence of the impact of ESG investing on positive societal outcomes such as the SDGs, where little evidence is found in top-ranked finance journals.

Kölbel *et al* focus very much on whether sustainable investing approaches have real-world impact, rather than on their impact on corporate performance and returns. They analyse the literature under engagement, capital allocation, and indirect impacts (which includes things like stigmatisation, benchmarking, and demonstration effects). They also set out a model of investor impact, positioning the company as the "intermediary" between investors and real-world impacts. Overall, we would describe their conclusion as one of cautious and limited optimism about the impact of sustainable investing approaches. Engagement is found to be better evidenced than capital allocation, with little evidence supporting indirect effects. The authors conclude that "our results suggest that the current practice of SI has only a modest investor impact and call for the development of investor impact metrics that reflect the contribution of SI to societal goals."

Marti *et al* provide a useful complement to the prior papers by explicitly broadening the frame of the review to include key elements of the social science literature outside finance. They organise their review under three headings of portfolio screening, shareholder engagement, and field building, which are very aligned with the three headings used by Kölbel *et al,* and under which they build a taxonomy of, in total, 15 potential impact mechanisms, which they use to organise the literature. They also develop the idea of 'field building', which involves investors influencing the system in which actors make decisions on sustainability. Field building includes activities like public advocacy, influencing the views of other investors, changing social norms, and developing voluntary standards. The tone of this review is overall more positive on the potential for sustainable investment to have impact than the other reviews. However, the evidence provided adds little additional support for this from the existing literature, and so the paper sets out a broad research agenda for the future. The authors postulate that sustainable investing is most likely to contribute to real-world improvements in environmental and social outcomes by acting as a distributed process in which direct and indirect impacts reinforce and recommend a research agenda accordingly.

Gosling provides an analysis of arguments relating to universal ownership theory rather than expressly providing a comprehensive literature review. However, his review of research on investor impact channels in Section 5 of the paper, plus the Appendix, provides a useful complement to the three academic review papers outlined above. He investigates the economic as well as the statistical significance of the findings of the papers underlying, in particular, the capital allocation and engagement headings. Overall, he finds that while there is evidence for impact of sustainable investing strategies, the evidence is mixed, the real-world impacts rather small, and their robustness to offsetting impacts from competitive or consumer responses uncertain. Moreover, even in relation to the best-evidenced channel – engagement – he finds that the successes identified in the literature often relate to items that are either low cost for companies to implement or win-win for companies and shareholders. He therefore questions the extent to which sustainable investing approaches are likely to bring about real-world change on anything like the scale required.

Where papers that we considered are referenced in the four review papers outlined above, we do not cite them separately in this paper, because for practitioners, at whom this work is directed, the literature is most readily accessed via those review papers in the first instance.

However, in addition to studying these review papers and the references contained therein, we also identified a number of papers, both published and unpublished, relevant to the issues we are considering in this report and which were not referenced in the review papers outlined above. In many cases these are recent working papers or are drawn from a broader literature relevant to questions discussed in this paper. Where we have relied on such papers we have referenced them in footnotes in the main text. The fact that we have separately referenced these papers purely reflects their absence from the review papers cited above and should not of itself be interpreted as us ascribing any greater or lesser importance to them.