

FOSSIL FUEL STRANDED ASSETS: DIVEST, ENGAGE OR HEDGE



TRUCOST BRIEFING NOTE

Asset owners and managers are coming under increasing scrutiny from members, stakeholders and campaigners to better understand and communicate their potential exposure to currently unaccounted for costs from increasing carbon legislation and the possibility of stranded assets from exposure to fossil fuel reserves. Trucost pioneered the use of carbon audits of investment funds as a tool to meet these needs and we have recently expanded our service to include the embedded emissions from fossil fuels, sometimes referred to as potential “stranded assets”.

Stranded assets are those which suffer unanticipated or premature write-offs, downward valuations, or are converted to liabilities. Assets may become stranded by one-off transformational shifts in valuation, or over time, as a result of risks not being appropriately analysed and priced into the future anticipated value of the assets. In the case of fossil fuels – coal, oil and gas – the concept of asset stranding first came to light in 2011, when Carbon Tracker released its seminal *‘Unburnable Carbon’* report.¹ Following on from work by the Potsdam Institute for Climate Impact Research in 2009 concerning the idea of a carbon budget, the *Unburnable Carbon* report developed the investment thesis that, should we wish to give ourselves a reasonable chance of avoiding catastrophic climate change, and thus limit maximum global atmospheric temperature rise to two degrees Celsius, the majority of fossil fuel reserves listed on global stock markets would be rendered unburnable.

Momentum has been gathering since then, most noticeably in the form of both academic research and pressure group campaigns, sharpening the focus of this extant phenomenon on the response of investors. Fossil fuel extractives companies form a significant portion of global stock markets – particularly in the UK and Australia – and as a consequence feature ubiquitously throughout global investment portfolios. In addition, the supply chain reach of fossil fuels is inescapable in several other

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International Energy Agency (IEA)

economic sectors, including primary industry, energy and transport. This exacerbates the extent to which very many investment funds, and by distillation very many more investors, are exposed to the potential consequences of fossil fuel asset stranding.

CAN FOSSIL FUEL COMPANIES SUSTAIN THEIR VALUATIONS?

Climate change risk is not the only driver weighing on fossil fuel companies’ ability to sustain their valuations. Decreasing renewable energy technology costs and increasing environmental regulation globally continue to put pressure on the fossil industry’s desire to develop and extract fuel from new reserves. A 2014 report by the US Solar Energy Industries Association (SEIA) shows that the installed cost of solar power fell 45% between Q1 2012 and Q4 2013.² The International Energy Agency (IEA) has projected that renewables will eclipse gas and nuclear globally as early as 2016, due to their increasing cost-competitiveness with fossil fuels. China and India have

both set carbon intensity reduction targets for 2020 in an attempt to transition towards a lower carbon power generation mix. In the absence of commercially proven carbon capture and storage technology, achieving these targets will undeniably affect the demand for fossil fuels. The US Court of Appeal recently upheld regulation from the Environmental Protection Agency (EPA)

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which tightens limits on mercury and other air pollutants from power plants. In its ruling, it stated that the impacts of the regulation would be less than originally estimated, partly because companies are already shifting away from coal-fired plants which produce the greatest amount of air pollution.

Investors need to incorporate these distinct yet convergent risks into their existing analyses. Doing so, however, is no mean feat. As with many areas of ESG analysis, there is currently a lot of noise enveloping the subject of fossil fuel stranded assets, and it can be a task in itself to separate the objective analysis from the polemic.

DEVELOPING YOUR INVESTMENT STRATEGY

Investors essentially have two options when addressing the concept of fossil fuel reserve exposure: do nothing, or do something. Those wishing to anticipate and mitigate potential future risks then have three broad strategies against which to assess suitability for their portfolios. Firstly, divestment from some or all fossil fuel holdings within a portfolio enables investors to avoid any destruction of value of those holdings, should the convergent risks drive a decrease in demand for fossil fuels. Secondly, engagement with fossil fuel companies enables investors to understand their long-term strategies, and offers the opportunity to influence the course of action. Investors can analyze how each company is preparing for a transition to a low-carbon economy, how they plan to structure capital expenditure on new exploration projects, whether the reserves replacement ratio is still a good indicator of performance, and how transparently they are factoring carbon costs in to future operations. Thirdly, hedging

provides investors with opportunities to both reduce the carbon exposure of their portfolios and invest in the replacement technologies of the future.

All three of these active strategies require investors to first measure the potential future carbon risk of their portfolios.

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ADDRESSING RISK IN PRACTICE

Trucost has developed a methodology, using its extensive environmental impacts database, *The Trucost Environmental Register*, to assess and analyze the fossil fuel reserves of the world’s largest listed extractives companies. Using this proprietary data, it is possible to illustrate at company, portfolio or regional level the exposure to embedded carbon emissions within fossil fuel reserves, and to explore the implications of this exposure in an environment which is increasingly determined to transition to a lower carbon future. Trucost has already worked with several clients who are keen to quantify their investment exposure to potential asset stranding scenarios relative to benchmark indices, and have provided pragmatic approaches to managing stranded assets risks. This helps clients to establish a policy to address their position regarding the concept of fossil fuel asset stranding, whether that be to embark on a controlled divestment campaign, to engage with investee fossil fuel extractives companies, or to develop carbon hedging strategies to mitigate exposure risk.

Long-term investors such as pension funds can look to incorporate the concept of a global carbon budget into their long-term and strategic investment decisions for their investments across the board, not just in the energy sectors. There is an opportunity to benefit from the essential transition towards a lower carbon future, and a well-informed, forward-thinking investor will look to access the opportunities that will be provided during the growth phase of economies which will emerge to replace the fossil fuel extractives economy, and other carbon-intensive economies.

THE INVESTMENT OPPORTUNITY: CARBON HEDGES

Typically, current strategies to reduce investment exposure to higher carbon stocks will advise a proportion of divestment from carbon-intensive stocks, and a uniform increase in exposure to the remaining stocks within a portfolio, or benchmark. An alternative approach would be to reallocate some of the cash raised in reducing exposure to the more carbon-intensive investments into low-carbon technologies that will drive innovation and help to achieve scale all the more quickly. This strategy, termed carbon hedging, compounds the decision to avoid higher carbon assets by hastening the arrival of substitute technologies. In aggregate it reduces the demand for higher carbon investments, which should in turn reduce the future cash flows attributable to those economic sectors, whilst simultaneously increasing the capital stock within low-carbon investments, which should increase the rate of deployment and acceptance of those technologies.

Carbon hedges demonstrate the extent to which an investor actively seeks to manage and mitigate the risks of carbon exposure within an investment portfolio. By identifying the most carbon exposed areas in a portfolio through quantitative analysis of the carbon intensity of each constituent, an active investor is in a position to rebalance those constituent weights which are most heavily exposed, and hedge that carbon exposure with less carbon-intensive companies.

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MANAGING UNCERTAINTY: SCENARIO ANALYSIS

A 2011 Mercer, Carbon Trust and IFC report³ investigating the implications for strategic asset allocations from climate change scenarios concluded that traditional asset allocation approaches fail to take account of climate change risk. This is because to varying degrees, they optimize portfolio exposure based on assumptions about the risk, return and correlation between asset classes where diversification across assets is sought. Climate risk, however, cannot be managed in this way because it affects different asset classes at the same time. Moreover, climate risks differ considerably between investments within a single asset class, such as low-carbon and high-carbon listed equities. The probability of different scenarios materializing further affects the type of climate risk that needs to be considered, e.g. strong climate action and climate breakdown can cause losses on very different types of investments. Standard approaches to portfolio management also rely heavily on historical quantitative risk analysis, whilst much of the investment risk around climate change requires the addition of qualitative, forward-looking inputs. Given the unclear climate policy environment and

uncertainty around the full economic consequences of climate change, historic precedent is not an effective indicator of future performance. Scenario analyses have been widely used and have proved a powerful tool that can help incorporate this kind of uncertainty into decision-making. Rather than trying to predict the future precisely, scenario analysis attempts to delimit the range of possible futures. In doing so it can allow investors to increase the resilience of their investments by making them better prepared for inherently hard to predict events, through providing a framework for understanding the implications of a range of potential outcomes. By developing the capability to analyze both current and future carbon risks, Trucost helps investors to construct long-term and forward-looking portfolios which are shielded from severe carbon exposure, and able to capitalize on the opportunities presented by a transition to a low carbon future.

Trucost has established itself as the market leader for assessing the risks of carbon exposure within investment portfolios, and is able to provide pragmatic carbon risk mitigation strategies, appropriate for all types of investors.

REFERENCES

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3. Mercer, IFC and Carbon Trust, 2011. *Climate Change Scenarios – Implications for Strategic Asset Allocation* [online]

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