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ESG INTEGRATION Case Book



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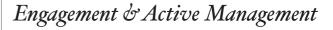
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the editor's word

The need for colour and clarity

Who hasn't yet heard the call for the necessity of ESG integration? In the Nordics at least, few people can say they haven't. Everyone knows by now what "ESG" stands for. But what about "integration"?

The asset management world is filled with brilliant statements like "ESG is integrated at the core of our investment process" or "ESG is embedded in our DNA". But what does it mean? Whatever their current level of sustainability, investors are thirsty for stories that can help them understand the actual mechanisms of ESG integration, as well as the concrete effects of these actions on the world that surrounds us.

In our first "case book", we have collected some of these stories. While you consider real-life situations, you will also discover practical steps to change your investor-view on the world and understand why it is crucial to adapt fast.

We found out how active ownership has helped shape a more sustainable salmon farming industry in Norway, while the investor benefitted from the sector's performance on the stock market.

A bond investor explains a recent trade in the transportation sector. We find out about the appeal of renewable energy and diesel and how managers can influence even a giant fossil fuel player such as BP plc through proper engagement.

With the current pandemic generating so much uncertainty, we found a great example of how ESG can be applied in real-time.

A Swedish and a Finnish asset owner explained different strategies to integrate ESG in their real asset portfolio and to commit to making a meaningful difference in their real estate properties.

Last but not least, an active manager illustrates the challenges of ESG integration and provides key questions investors should ask.



Aline Reichenberg Gustafsson, CFA

Editor-in-Chief NordSIP



Photo by StockSnap on Pixabay

Case #1

Active Management

Integration in practice and key questions for asset owners

with Per Künow and Vishal Hindocha



Per Künow Head of Nordic Institutional **Business Development** MFS Investment Management



Vishal Hindocha **Director**, Investment Solutions Group MFS Investment Management

For active managers, ESG integration can be a logical and seamless progression - deep company analysis and strong dialogue with each investment target are fundamental to their thorough research process. But with asset owners now putting a stronger weight on ESG criteria in their selection process, how can they ensure that active managers are truly integrating ESG and putting their investments where their mouth is?

MFS Investment Management, one of the oldest asset management firms, still manages the very first mutual fund in the world. With a history dating back to 1924, the firm has nearly a century of active management experience and so, the firm is well posi-

Key questions for asset owners

For Per Künow, client alignment is at the heart of ESG integration. "It's about understanding whether your manager is aligned with your views as well as understanding how sustainability is factored in their investment process," he says.

- How do you approach sustainability is it part of your investment process or is it a separate product?
- How do you identify whether an issue is material or not?
- Do you exclude any companies or industries based on sustainability concerns?
- Which members of your investment team have

Setting the stage The role of active management in sustainable investing

For Per Künow, robust research has always been essential to active managers. "Today, however, they have to look beyond a company's balance sheet and consider non-financial drivers of business success to truly understand whether it's worth investing longterm," he starts.

"Knowing a company's business is essential to understanding its sustainability over the long term. In our view, active managers have a better ability to look into businesses and industry operations as well as management. They can use all available information, including non-financial information, to determine what will have a material impact on those businesses. If you do not know the business well enough, you can't tell the difference between one that is sustainable and one that isn't."

"Sustainable investing isn't something new nor is it treated as a distinct practice at MFS," Vishal Hindocha adds. "Rather, it is embedded within every part

tioned to show how the transition from traditional portfolio management to ESG integration has taken place. Per Künow and Vishal Hindocha discuss the firm's approach and suggest a simple but effective checklist for asset owners.

- responsibility for looking at ESG factors?
- Do you engage with companies to understand how they view ESG risks and opportunities?
- Do you vote proxies in-house or outsource proxy voting responsibility?
- "There are also questions for asset owners to ask themselves," Vishal Hindocha adds.
- How often do you reassess your managers' approach to ESG?
- Are you keeping up with screens and the methodology behind them?
- Are you overweight technology, like so many ESG funds tend to be?

of our investment process. As an active manager, our approach has been one of integration with a focus on financial materiality. We are convinced that sustainable investing through ESG integration, proxy voting and engagement improves our ability to identify those investment opportunities that we believe offer sustainable, long-term competitive advantages."

"If we look at the bigger picture and the transition towards a more sustainable society, active managers can be a part of the transition mechanism between capital markets and the real economy by helping to deploy capital with sustainability in mind. Thinking about the value chain of consumers, companies, asset owners, governments, etc. we believe active managers have an important role to play as stewards of capital. Asset managers are an important catalyst in improving the adoption of sustainability in a number of areas, including: education, disclosure, stewardship and collaboration."

Stewardship and engagement The difference between passive and active management approaches

For Hindocha, stewardship has recently become a hot topic and rightfully so, demonstrating that the benefits of thoughtful engagement and proxy voting is more important than ever.

"I believe that some of the easy wins in sustainability have already happened," he continues. "Given the trend we are seeing for more sophisticated and divergent sustainability goals and objectives, an active approach might be better at analysing issues, understanding their materiality and having the ability to look-through the issues, for example, at the knock-on effect on supply chains."

"Both passive and active managers have an important role to play in realising the potential value that thoughtful engagement and proxy voting can add. While large passive managers have the size to influence voting on broad issues, their scale could hinder their ability to effect nuanced engagements with companies."

"Conversely, active management is more fragmented. Active investors with deep research capabilities are able to perform "materiality discovery", similar to price discovery, and proactively engage with investee companies to instigate change."

Künow also believes that sustainable investing through ESG integration, proxy voting and engagement improves the firm's ability to achieve its clients' objectives and meet their fiduciary responsibility. "We are in no way convinced that offering our clients products with ESG screens or overlays can do the same. Asset owners are making an active choice by going passive and adopting the index provider's beliefs."

"This is because active managers generally have higher coverage ratios of analysts per company, allowing our analysts to truly understand the businesses. Plus, while passive managers do get a seat at the table, their inability to divest leaves them with less bargaining power. Passive managers have tended to be less active in collective engagements, only recently have they stepped up their game."

"In our experience, investors are looking for a longerterm, sustained improvement in material ESG areas that are relevant to a specific company. Whilst we understand why transparency and measurement is important, we caution against an over-reliance on narrow or blunt measurement tools, which cannot be expected to capture the nuance and range of ESG risks and opportunities faced by companies."

A practical example of engagement: Aligning Incentives within a US Healthcare Provider

"Several members of our investment and proxy voting teams met with the chair of the compensation committee at a US health care provider, along with representatives from the issuer's legal and investor relations teams to discuss our upcoming proxy vote at the company's 2019 annual general meeting," Hindocha remembers. "We had voted against members of the board in the past due to compensation and governance oversight concerns. While we continued to advocate for certain improvements to the governance structure, we were encouraged by changes to the

composition of the board that were reflective of past engagement discussions."

"We also note that the company continues to evolve executive compensation design to better align with its strategy as well as by simplifying the long-term incentive plan and increasing the amount of performance-based pay. Ultimately, we voted FOR on executive compensation as an acknowledgement of forward progress, but we will carefully continue to monitor compensation design, as well as oversight practices."

Investment decisions in practice When attractive valuation and outlook meet poor ESG factors

"On a day-to-day basis, members of our investment team consider all relevant factors that could affect investment outcomes," Künow explains. "Their activities include analysing both financial and non-financial information to identify anything that could materially impact the long-term value of specific companies. With an eye toward creating long-term value, we focus our research and investment process on understanding valuations."

"When an ESG-related risk is highly material to a particular investment thesis, we will weigh it heavily in our decision-making process. Any risk or opportu-

Next steps

A decade of challenges awaits

"The next ten years will be crucial to reach the challenging goals set out in the Paris accord, so it's going to be a fascinating time for sustainability," says Hindocha. "The effects of climate change are becoming more financially apparent, so the idea of planetary boundaries will become part of regular conversations and investment theses."

"Active ownership will become a necessity and the norm for all managers, both active and passive. There is a chance that that passive owners, not passive managers, will get punished if they do not use their voting

If you are interested in hearing more about the role of active management in sustainable investing, please contact Per Künow: pkunow@mfs.com.

"If we wish to move towards a more sustainable planet, investors will play a key role and we believe that active managers are set to be a crucial part of the transmission mechanism of where we are today and where we dream to be."

> nity that is not expected to have a significant impact will still be reviewed periodically to ensure that the issue has not grown in importance or potential impact."

> "In assessing the case where valuation is attractive but a sustainability factor is not, the investment team would seek to: understand if the poor ESG factor is material to their business; engage with the company prior to investing to understand the reasons for ESG deficiency; assess whether the company is making improvements, and; decide if the valuation/financials compensate for the ESG risk," adds Hindocha.

> power to build more sustainable practices at companies. Firms involved in "greenwashing" will become more obvious as data gets better and a standard set of metrics are developed."

> "If we wish to move towards a more sustainable planet, investors will play a key role and we believe that active managers are set to be a crucial part of the transmission mechanism of where we are today and where we dream to be," Künow concludes.

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Case #2

Pandemic Economics

The four dimensions of COVID-19 and ESG

by Carlo M. Funk

The COVID-19 pandemic is having devastating effects on almost all areas of our lives, highlighting how vulnerable and globally interconnected we are, especially in terms of commerce and trade. Where will this lead us when it comes to the value and adoption of ESG?

When looking at percentage growth rates, ESG investments are amongst the fastest growing areas in finance but in absolute terms they are still not mainstream. So, the question arises whether the current pandemic will lead to a further acceleration of this trend or slow it down.

Early results suggest that the effect on sentiment around ESG adoption will be positive with two thirds of participants in a recent study conducted by Responsible Investor saying that the coronavirus pandemic could prove a tipping point for ESG¹. This could be the boost that ESG investing needs to become truly mainstream.

This paper sheds light on four important dimensions on how the COVID-19 pandemic can influence ESG adoption, namely:

- The significance of ESG criteria
- Impact on climate initiatives
- ESG performance
- Stewardship and engagement

Dimension 1: The Significance of ESG Criteria

Although maybe not obvious at first sight, the crisis uncovers the importance of key ESG performance indicators for long-term value creation.

The social part has often been perceived as rather vague and deemed insignificant by critics. This crisis proves this is mistaken. Social aspects are important

^{1.} 'RI Survey: Pandemic could be tipping point for ESG' (2020).



Carlo M. Funk EMEA Head ESG Investment Strategy State Street Global Advisors

in the equity space and also in fixed income, where "S" has started to manifest in the creation of various kinds of "social bonds" to combat the effects of the pandemic.

A company's resilience and contingency planning, especially in times of crisis, are crucial for its longterm performance. Hence, investors will have a heightened focus on these governance ("G") areas.

When considering the framework of the Sustainability Accounting Standards Board (SASB), the following material issues specific to COVID-19 can be identified:

"Access & Affordability" addresses a company's ability to ensure broad access to its products and services, specifically relating to underserved markets and/or population groups. It includes the management of issues related to universal needs, including accessibility and affordability of health care, financial services, utilities, education, and telecommunications.

"Labour Practices" considers the company's ability to uphold commonly accepted labour standards in the workplace, including minimum wage policies and provision of benefits, flexible working hours, working from home, and shift work.

"Employee Health & Safety" focuses on a company's ability to create and maintain a safe and healthy workplace environment, free of injuries, fatalities, and illness (both chronic and acute). It is traditionally accomplished through implementing safety management plans, developing training requirements for employees and contractors, and conducting regular audits of their practices and those of their subcontractors. It also includes how companies ensure the physical and mental health of workforce through technology, training, corporate culture, regulatory compliance, monitoring and testing, and personal protective equipment.

"Supply Chain Management" addresses management of ESG risks within a company's supply chain, including environmental and social externalities created by suppliers through their operational activities, environmental responsibility, human rights, labour practices, and ethics and corruption. Management may involve screening, selection, monitoring, and engagement with suppliers on their environmental and social impacts.

"Competitive Behaviour" covers social issues associated with monopolies, which may include excessive prices, poor quality of service, and inefficiencies. It addresses a company's management of legal and social expectation around monopolistic and anticompetitive practices, including issues related to bargaining power, collusion, price fixing or manipulation, and protection of patents and intellectual property.

"Critical Incident Management" highlights the company's use of management systems and scenario planning to identify, understand, and prevent or minimise the occurrence of low-probability, highimpact accidents and emergencies with significant potential environmental and social externalities. It relates to the culture of safety at a company, its relevant safety management systems and technological controls, the potential human, environmental, and social implications and the potential long-term effects to an organisation, its workers, and society should these events occur.

This shows the significance of financially material ESG issues for a company's success. Hence, the added value of integrating this data in portfolio structures and investment decision making becomes evident.

To address these material issues, State Street Global Advisors developed R-FactorTM, an ESG scoring system. It leverages the SASB materiality map and measures the performance of a company's business operations and governance regarding financially material ESG issues facing the company's industry. We now incorporate this information in investment solutions and reporting, and our stewardship programme.

Dimension 2: Impact on Climate Initiatives

If the COVID-19 pandemic is not an environmental crisis where does this leave us? Will the ESG focus shift from climate change?

With the postponement of the 2020 United Nations Climate Change Conference in Glasgow (COP26) and other such initiatives due to the pandemic, the amendment of timelines from industry associations will likely lead to a postponement of critical decisions to fight climate change.

But will this also be reflected in a de-prioritisation in the allocation of private and public funds to the projects and R&D spending needed for the transition to a low-carbon economy? While the USA plans to spend US\$2 trillion in COVID-19 stimulus that fiscal stimulus pales in comparison to the US\$2.4 trillion per year need globally over the next decade to keep temperatures within 1.5°C above pre-industrial levels.

Climate change can be described as a slow-moving, or rather, "slow-burning" pandemic. The long-term impact of climate change could ultimately be even higher than that of the current pandemic.

Despite the delays, awareness of the significance of climate change should increase, which could then lend more support and funding to tackle climate change in the medium and long-term.

Dimension 3: ESG Performance

Many investors view the incorporation of ESG data, especially in the "best-in-class" space (where companies with better ESG ratings are systematically overweighted), as having a negative effect on portfolio risk return profiles. Some investors still view the integration of ESG parameters as a constraint with negative effects.

A recent study by Morningstar² concludes that there is "no evidence that investors need to sacrifice returns when they invest in good ESG companies globally compared with bad ESG stocks."

Several studies have identified a positive link between ESG integration and various measures of corporate performance. In a well-known meta-study³ of over 2,000 academic studies, 90% showed a non-negative relationship between incorporation of ESG criteria and corporate financial performance, and 63% identified a positive link.

Harvard University4 has found that firms with good performance on SASB-defined material sustainability issues significantly outperformed laggards.

But how do ESG funds perform compared to traditional funds during market sell-offs? There have been few opportunities to test this given that ESG investing has mainly occurred during relatively

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benign conditions. ESG integration should help shareholders, regulators and the broader community, reduce portfolio risk by investing in higher-quality which will differ by company, industry, and region. issuers with stronger balance sheets, governance and Engagement practices must be mindful of these risk management practices and labour standards. developments. Does the data on the current downturn support this?

HSBC⁵ measured the performance of shares in 613 public companies globally valued at more than \$500 million, where climate solutions generate at least 10% of revenues. HSBC also looked at the 140 shares with the highest ESG scores and values above the global average. The study ran from 10 December 2019 to 23 March 2020, and from 24 February 2020 to 23 March 2020, the latter period being when market volatility spiked. The climate-focused stocks outperformed others by 7.6% from December and by 3% from February. The high ESG-scoring shares beat others by about 7% for both periods.

In another study, Morningstar⁶ found that sustainable and ESG equity indices outperformed conventional indices in the Global, Europe and US Large-Cap categories in the month to 20 March 2020. These studies suggest that portfolios with ESG integration provide good downside protection when markets are struggling.

In the fixed income space, specifically in emerging market debt, the ESG equivalents of the broad market indices outperformed during March 20207.

Additionally, the flows of ESG funds that provide broad market exposure are much more robust vis à vis conventional counterparts.

However, it's important to emphasise that we are still in the early stages of the COVID-19 pandemic and given the limited data these findings should be treated with caution.

Dimension 4: Stewardship and Engagement

In a crisis, engagement with companies will shift to more immediate issues such as employee health, serving and protecting customers, ensuring the overall safety of supply chains and short-term financial resiliency. Many companies are considering reducing their capital spending, share buybacks, dividend payments and expenses.

Companies will need to balance the (sometimes competing) needs of employees, customers,

⁵ESG stocks did best in COVID-19 slump', Ashim Paun (2020). ⁶How ESG ETFs Have Performed in the Sell-Off', Briegel Leitao (2020). ⁷State Street Global Advisors, Bloomberg (2020).

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With this in mind, shareholders should encourage companies to:

- Refrain from undertaking undue risks that are beneficial in the short-term but harm longerterm financial stability and the sustainability of the business model.
- Communicate to investors COVID-19's shortand medium-term potential impact to the business, overall operations and supply chains, including management preparedness and scenario-planning and analysis.
- Articulate how COVID-19 might impact or influence their approach to material ESG issues as part of their long-term business strategy.

As the pandemic hinders companies' ability to hold in-person annual general shareholder meetings (AGMs) companies will have to shift to a virtual model that preserves all the rights and opportunities of shareholders.

Shareholders should also be able to have active and robust interactions with management and the board at appropriate times. Finally, the focus on financially material ESG issues, and how these issues can be adopted in engagement activities should increase.

Conclusion

Although some climate-related initiatives will likely be postponed due to COVID-19, the short-term lack of progress will be more than counteracted by the realisation that climate change is comparable to a slow-moving pandemic with equal, if not worse, effects in the medium and long-term.

The crisis could well heighten interest and adoption in ESG investing. There is growing evidence of the positive performance effects of ESG integration during market sell-offs. Prudent engagement and stewardship practices are particularly crucial in these challenging times. The focus on material ESG issues as part of company engagement strategies should not be forgotten.

Visit our website to discover more on our approach to ESG Investing.

Exp. Date: 04/30/2021

²⁶Better Minus Worse: Evaluating ESG Effects on Risk and Return', Patrick Wang and Madison Sargis (2020).

³'ESG and financial performance: aggregated evidence from more than 2000 empirical studies', Gunnar Friede, Timo Busch &

Alexander Bassen (2015). 4'Corporate Sustainability: First Evidence on Materiality', Mozaffar Khan, George Serafeim, and Aaron Yoon, Harvard University (2015).

"In our experience, the most successful examples of ESG integration have arisen through a combination of industry and ESG expertise to identify material risks that may escape traditional financial analysis."





Case #3

Salmon Farming

Active management & engagement, the Norwegian way

by Ann Kristin Brautaset and Annie Bersagel

Folketrygdfondet is the manager of the Government Pension Fund Norway, and the largest financial investor on the Oslo Stock Exchange. As a result, we are constrained from commenting on the investment case for a specific company, but have nonetheless chosen an industry case to demonstrate how we apply a financial approach to ESG investing.

Photo by cynoclub © Adobe Stock

Norway: a Goldilocks environment for salmon

Constrained by geography and climate, the salmon farming industry flourishes in only a select few regions across the globe. Unless and until largescale land-based farming is a reality, only a few fjord-rich countries account for the majority of global supply.

Norway is by far the largest producing country, owing to the unique combination of water temperatures and currents suitable for commercial salmon farming. At the risk of oversimplifying: too cold, and the salmon struggle to grow, too warm, and some combination of lice, sickness and/or algal blooms threaten to wipe out production, not to mention the consequences for the local environment or for fish welfare.

As a result, salmon farmers face significant operational risk related to fish biological development. The financial impact of companies' handling of environmental issues is readily apparent, as survival rates directly affect the bottom line. Moreover, as buyers pay a premium for the largest salmon, operational



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Annie Bersagel Portfolio Manager ESG Folketrygdfondet

measures that negatively affect salmon growth, such as the stress from harsh lice treatments, have a corresponding negative impact on company earnings.

The emergence of ESG concerns

In the early 2010's the salmon farming industry formed only a small fraction of the total market cap on the Oslo Stock Exchange - less than 2% of the OSEBX benchmark. Folketrygdfondet was itself only a few years into its formal integration of ESG in the investment process, but recognized that environmental concerns posed a material risk to the growing industry.

In 2011, Folketrygdfondet engaged with management in the salmon farming companies in which we were invested on the following issues: salmon lice, escapes, sustainable feed, and the industry's reputation.

Our approach was more proactive than prescriptive, leaving responsibility with the companies to determine how best to address the risk.

As described in that year's ownership report:

"It is not our role to tell companies how they ought to address various challenges, but rather, to make them aware of the financial risk we observe and encourage them to manage these issues responsibly in order to avoid negative consequences for the company's longterm value creation."

In general, the companies' response to Folketrygdfondet's engagement reflected that they were not accustomed to fielding questions on lice, escapes and feed from investors. The majority of the companies acknowledged the financial risks, however, and explained the operational and strategic measures undertaken to address these challenges.

Reputational risk management

In the early 2010's, the companies were primarily concerned about the threat to the industry's reputation from frequent NGO-organized campaigns. The industry gradually recognised the need for a more constructive approach to stakeholders- both to encourage legitimate criticism and to address misinformation.

The Global Salmon Initiative was founded in 2013 as a partnership between salmon-farming companies, to mitigate environmental impacts and move towards a more sustainable industry far more quickly than would be possible through individual initiatives.

Time to pile up

In 2013, Folketrygdfondet spent much of the year building a major overweight position in the salmon farming industry. The industry had been cyclical for years due to significant supply growth without corresponding demand growth, resulting in volatile, but low prices. The change in 2013 was that government-regulated quotas designed to limit the industry's impact on the wild salmon population finally began to constrain supply.

Given advances in production methods, salmon farmers were now able to produce more than the regulations would allow, leading to increased salmon prices as the steady growth in demand outstripped supply. Salmon farmers capable of handling the biological challenges faced a unique competitive position due to supply constraints.

Seeing is believing

Internally, portfolio managers point to this investment decision as a turning point in Folketrygdfondet's approach to ESG, as a clear example of the link between ESG and financial risk. The 2014 annual report notes that Folketrygdfondet achieved 50 basis points of excess returns from this bet alone, as the Oslo Stock Exchange-listed salmon firms achieved an industry return of 64 percent.

Keeping the pressure on

Throughout the decade, the environmental challenges related to salmon remained a key focus area for Folketrygdfondets's engagement activities. As then-CEO, Olaug Svarva explained at a 2014 seminar:

"Folketrygdfondet has clear expectations for the fish farming industry. We believe in the industry and contribute with capital, but there are challenges that have to be solved. We are impatient. Because the stock market tends to focus on the short term in its evaluations and choices, Folketrygdfondet believes that it is an advantage for the fish farming industry to have large, active and long-term owners. In the short term, lower growth can be necessary to secure long-term value creation."

Folketrygdfondet also raised concerns about the incentive structure in existing regulations. In a comment letter to the Department of Trade and Fisheries in 2015, Folketrygdfondet advocated for a licensing regime with capacity constraints linked directly to the development of environmental parameters.

Stricter environmental limits led to a significant increase in costs, as the companies were not sufficiently prepared to cope with the regulatory changes. Concerned about the companies' handling of sea lice challenges, Folketrygdfondet sent letters to the Boards of Directors of all of the salmon farming companies in the portfolio, calling on the Boards to ensure the companies implemented measures to secure sustainable value creation over the long term.

Time to harvest again

In 2015, Folketrygdfondet again built an overweight position in the salmon industry, which was further increased further following a severe algal bloom in Chile in 2016 that eliminated a major share of that country's salmon production. Although the industry was aware that the Chilean sector faced substantial operational risk, owing to a looser environmental regulatory regime, the proximate cause of the algal bloom was El Niño-related change to the marine habitat.

In Folketrygdfondet's estimation, the market underweighted the potential price effect for the Norweturning point in Folketrygdfondet's approach to ESG, as a clear example

gian salmon farmers of this external shock to supply. a decade coincided with several examples of concrete Folketrygdfondet reaped the benefit of this investimprovements from individual companies. This case ment decision in 2016, as higher salmon prices and a is also indicative of our active ownership work in that weak Norwegian krone led the sector to a return of it can take time to reach solutions in accordance with 43.4 percent for the year. The excess return to Folketour principles. It is not unusual for engagement prorygdfondet's portfolio for 2016 from this sector alone cesses to extend over several years, involving multiple amounted to 70 basis points. challenges and dilemmas along the way.

A new sustainable consumer trend

Throughout this period, farmed salmon's reputation among consumers as a protein source improved. Although not without controversy today, the industry faced significant reputational challenges at the start of the 2010's owing to the environmental issues identified.

The industry experienced a steady positive developan isolated ESG analysis or scoring methodology. ment over the decade, as more research on the health In our experience, the most successful examples of benefits of farmed salmon emerged. The environmental profile of salmon compared to other protein ESG integration have arisen through a combination sources also received a boost from increasing focus of industry and ESG expertise to identify material risks that may escape traditional financial analysis. on climate-friendly food choices, as the emissions profile of farmed salmon compares favorably to other animal protein sources, at roughly 2.9 kilograms of CO2 per kilogram of edible meat, compared to 30 kilograms of CO2 per kilogram for beef production.

Recommendations from the UN Food and Agriculture Organization (FAO) and various health authorities worldwide to include Atlantic salmon in a healthy diet as a protein source rich in essential fatty acids also contributed to build consumer demand.

Staying vigilant

Folketrygdfondet's engagement with the salmon farming industry continues. Over roughly the past decade, the industry's share of the Oslo Stock Exchange grew from two to fourteen percent. We intend with this case to illustrate first what we view as the mutually reinforcing roles of active management and active ownership. Our goal for active ownership is for us to know the companies and for them to know us.

Although we are not able to comment publicly on specific cases, Folketrygdfondet's engagement with the salmon farming industry over the better part of

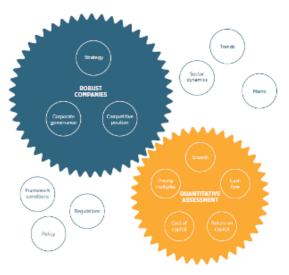
"Internally, portfolio managers point to this investment decision as a of the link between ESG and financial risk."

ESG integration: the Folketrygdfondet way

With this case, we offer an example of how we integrate ESG into the investment process. Folketrygdfondet is an active manager with a Nordic investment universe and a team-based investment philosophy.

Given that we view ESG factors in conjunction with our broader investment analysis, we do not engage in

Figure 1. Folketrygdfondet's investment philosophy involves both qualitative and quantitative assessments, including material ESG-related factors.





"BP still has some way to go to catch up with European peers such as Repsol, Shell, and Total, all of which have begun to accept some responsibility for the way in which their products are used."

Photo by Monica Hovland from Pixabay

Case #4

BP plc Demonstrating the power of engagement

by Sora Utzinger

As climate change rises up the political agenda throughout the West and beyond, shareholders have an important role to play in limiting global fossil fuel consumption by pressuring oil companies to amend their strategies, argues Sora Utzinger. At the oil company's recent annual general meeting on May 21, BP shareholders voted overwhelmingly in favour of a motion that will push it to set out a business strategy aligned to the Paris Agreement's goal to combat global warming.

Although BP is boosting investment in its renewable-energy business, it is also planning on expanding oil and gas production. The resolution, which Aviva Investors co-sponsored with Hermes and L&G, requires the company to evaluate whether each new fossil fuel project is consistent with the Paris Agreement. It aims to keep the rise in global temperature this century well below two degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

The BP resolution was driven by a concern the company was disclosing insufficient information to



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enable investors to appraise whether its strategy – particularly those planned investments in fossil fuel reserves – was consistent with the Paris goals being met. That was in turn making it difficult to weigh up the long-term investment case.

While this resolution is a step in the right direction, BP still has some way to go to catch up with European peers such as Repsol, Shell, and Total, all of which have begun to accept some responsibility for the way in which their products are used.

These three companies are aiming to reduce the amount of greenhouse gases they and the end-users of their products emit, both by boosting investment in renewable sources of energy and by shifting fossil-fuel production away from dirtier forms of energy such as tar sands and coal – which emit more carbon dioxide per unit of energy produced – towards natural gas. "The outcome of the BP annual meeting highlights a major benefit of institutional investors engaging with the companies in which they own stakes."

Out of scope?

Although it will try to improve the energy efficiency of its operations by reducing flaring and decreasing methane emissions, BP has so far shied away from committing to cut these so-called Scope 3 emissions.

It is certainly true the company has in recent years been orientating its upstream strategy towards gas and liquefied natural gas (LNG) and away from oil. Although BP is more reliant on oil than most of its competitors - it currently accounts for more than 60 per cent of its production mix - the company intends gas to make up at least half its output by the middle of the next decade. However, while BP has said it will start to estimate the carbon intensity resulting from the use of its products, this is of limited benefit when it comes to addressing the issue of rising temperatures since this metric is framed as net emissions per unit of energy produced. The bottom line is that without an absolute limit, there is nothing to stop a company such as BP continuing to grow its hydrocarbon operations.

And while the company has also committed to spending US\$500 million per year on low-carbon activities – around three per cent of total annual capital expenditure – and to invest US\$100 million in projects that can help reduce emissions caused by its upstream oil and gas operations, these numbers pale in comparison to competitor activity.

For instance, Shell has committed to doubling its new-energy division's annual budget to \$4 billion from 2020. Its focus on acquiring clean-energy assets seems to signal its management's acknowledgment of the long-term risks to global oil demand posed by policymakers and the accelerating electrification of the transport industry.

Helping hand

Companies such as BP cannot solve the climate crisis on their own. Other economic actors such as car manufacturers, aircraft makers and end consumers need to play their part. And most important of all, governments around the world need to set the right legislative framework with the necessary incentives and penalties.

Nonetheless, both capital markets and companies currently underestimate the speed and scale at which regulations could come into force to deliver the goals of the Paris Agreement. For companies like BP to remain relevant and generate long-term value, their strategy needs to change. Opening new oil and gas reserves is a multi-year commitment, both financially and strategically, and oil groups need to clearly set out their strategy in view of the long-term trend towards low-carbon energy and renewables.

While this does not mean oil companies should necessarily stop investing in fossil fuel reserves altogether, they need to recognise doing so exposes them to stranded asset risks since there is an upper limit on the number of new projects that can go ahead. As Shell chief executive Ben van Beurden put it in 2017: "This means only proceeding with those investments that are climate-competitive."

Ultimately, they need to adopt one of two approaches. They could choose a 'managed decline', focusing on maximising returns from their existing portfolio while refraining from sanctioning new projects that

1. Royal Dutch Shell, 2017 Management Day webcast transcript

failed to fit into a given carbon budget. As a result, upstream production would gradually diminish, with excess cash being returned to investors. A second option would be to use free cash flow to diversify into other sectors, especially renewables, while adopting the same climate-constrained approach to the hydrocarbon business.

Oil companies often have a competitive advantage in establishing a renewables business. Shell for instance has plenty of experience from its Gulf of Mexico oil and gas business dealing with US offshore environmental and drilling regulations.

Arguably the most aggressive shift in strategy saw Denmark's Dong Energy divesting its entire upstream oil and gas business in 2017 and changing its name to Orsted to focus on renewables, including offshore wind, solar and biomass. Orsted in November 2018 agreed to provide 500MW of wind and solar power to ExxonMobil for the latter's operations in the Permian Basin in Texas and New Mexico.

The value of engagement

The activities of the fossil fuel industry threaten to undermine progress towards achieving the Paris goals. If carbon emissions are not curtailed, global temperatures could rise by six degrees by the end of the century. According to an EIU estimate, the associated damage could wipe US\$43 trillion, in current prices, off the value of financial markets.

Worryingly, whereas many European oil and gas companies are taking steps to articulate a climate strategy, major Asian and American peers have fallen behind. Data disclosure remains a key issue for many stateowned Asian oil and gas companies, such as Petrochina, which does not yet disclose any emissions data. Similarly, Exxon has no overall corporate emissions reduction targets and recently denied shareholders a chance to vote at its annual meeting on a proposal that it should set targets for cutting emissions. In fact, the company's upstream emissions intensity has increased since 2013, according to research by CDP, an environmental charity. By not setting climate-related remuneration criteria, it lags European peers

Important information

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With the stakes so high, institutional shareholders have an important role to play in getting these companies to change their behaviour. After all, overinvestment in the oil and gas industry presents a considerable risk to investors, regardless of whether the world as a whole is taking decisive steps to mitigate climate change. Eventually, either oil and gas assets will be stranded as fossil fuel demand declines, or excessive carbon emissions will lead to huge financial costs that are expected to result from climate change. By investing in companies that are less exposed to the risk of stranding and taking strategic steps now to benefit from the transition to a low-carbon economy, asset managers have a role to play in safeguarding shareholder value for their clients.

As for the laggards, while divesting is sometimes viewed as a more convenient option, once investors sell their stake they effectively lose their ability to put pressure on company boards, both in terms of face-to-face engagement and voting powers. There is a risk these shares are bought by less conscientious shareholders who are not interested in holding their investee companies to account on non-financial issues, such as climate change or human rights. This is why rushing to divest could be counterproductive in the long term and unnecessarily perpetuate the status quo.

The outcome of the BP annual meeting highlights a major benefit of institutional investors engaging with the companies in which they own stakes. It shows we can push oil companies towards more sustainable low-carbon energy sources. However, the passing of this resolution merely marks the start of this process of engagement and we will be following the company closely over the next few months to see how it puts the resolution into action.

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"In our experience, the most successful examples of ESG integration have arisen through a combination of industry and ESG expertise to identify material risks that may escape traditional financial analysis."

> Saida Eggerstedt Head of Sustainable Credit Schroders



Case #5

Leaseplan

A credit-fuelled transition to carbon neutrality

by Filipe Albuquerque in conversation with Saida Eggerstedt

According to Saida Eggerstedt, Head of Sustainable Credit at Schroders, green bonds allow investors to improve the behaviour of companies and drive change in a transformative manner. "In the long term, green bonds are credit positive. The issuance of a green bond offers a unique opportunity for investors to deep dive in the company's overall sustainability priorities and business ethics," she explains.

"The transparent use of funds requires the participation of the company's senior management in the supervision of green bond projects, which nudges their culture towards more sustainable practices. Green bonds increase accountability due to improved disclosures, impact reporting, auditing and second party opinions from external agencies."

Eggerstedt's choice of case study - the latest green bond from Dutch automobile leasing company LeasePlan – showcases the ability of fixed-income investors to drive decarbonisation, while leveraging her experience as a sustainable fund manager as well as a financial analyst.



Meet the Team

The Schroders Sustainable Credit Europe fund, headed by Eggerstedt, invests in fixed income corporate debt mostly across Europe. "I invest in green bonds because I want to encourage this transition to carbon reduction. My approach is to ask what needs to improve from a sustainable credit perspective," she says.

Eggerstedt has worked in fund management for a long time and managing sustainable credit funds for the last nine years. "While ESG integration is well underway at Schroders globally- they wanted to recruit someone passionate and experienced to lead sustainable investments in credit markets rather than a traditional fund manager becomes a sustainable credit manager.

Schroders recruited me because they wanted someone that could conduct sustainable investments in credit markets rather than having to train a traditional fund manager to become a sustainable credit manager," she adds.

"We also have a central sustainability investment team that does topical engagement. The team has experience tackling controversial issuers such as Car-

Photo by Andrew Roberts on Unsplash

nival Cruisers on such topics as modern-day slavery while the credit analysts engage with debut green bond issuers like waste manager Servicios Medio Ambientales . Such committed resources have been useful in engaging with Leasplan," Eggerstedt explains.

An Obvious Sector Choice

The transportation sector is a prominent sector to greener transition for a sustainable credit investor, according to Eggerstedt. "It is one of the largest carbon-emitting industries, responsible for 20% of CO2 emissions in 2014. Electric vehicles (EVs) are very promising, but as with any type of product that has lower carbon emissions, management commitment and Research and development are key. For car manufacturers, be it Daimler or Ford , the initial investment costs are very high."

"On the other hand, transportation -encompassing infrastructures like airports, transportation authorities municipalities financing charging stations- was responsible for approximately 40% of all green bonds issued in 2018 the USA according to the Climate Bonds Initiative (CBI)," Eggerstedt continues. "If investments are well-timed, investors can join a company's journey as it starts shifting from a traditional fossil fuel-based vehicle to EVs."

The car financings ability to access ECB liquidity is also comforting from a credit perspective. "Following the subprime financial crisis, companies like Leasplan set up banks of their own to access ECB liquidity should a crisis occur," she adds. "One of the lessons of the 2008 financial crisis is that companies with ongoing short-term financing needs could face a crunch when liquidity dries up. Without access to diverse sources of funding like central bank liquidity, deposits car companies would face the double threat of a recession combined with the inability to refinance themselves."

An Exclusions-Fuelled Counter-Cyclical Investment

"Our Sustainable Credit fund practices a strict exclusions policy. We focus on core sustainable investors that want to make a change. Among other restrictions, we are not allowed to invest in companies that violated the UN Global Compact," Eggerstedt says. "As a result, we are unable to invest in Volkswagen, the largest bond issuer in the automotive sector, following their 2015 Diesel scandal when it was revealed that they violated environmental standards and human rights."

Environmental exclusions - shaping the future

Excluded sectors	issuer excl. criteria1	criteria	Bond Issuers Examples
Thermal Coal Production	max. revenue	<5%	Anglo American, Glencore
Tar sands	max. revenue	<5%	
Uranium extraction	max. revenue	<5%	BHP Billiton, Rio Tinto, Anglogold
Nuclear energy	max. revenue	<5%	EDF, EnBW, Engine, Fortum, Iberdrola, RWE, Vatenfall
Unconventional oil and gas production	max. revenue	<5%	CNOOC, CONOCOPHILIPS, EP, Equinor
Gas powered ener- gy generation	max. revenue	<50%	CK Power, Tokyo Electric, Duke Energy
Oil powered energy generation	max. revenue	<30%	Origin Energy, Abu Dhabi Energy company
Thermal coal ener- gy generation	max. revenue	<10%	Enel Spa, NISOURCE, Engie Chile, AES, NTPC, RWE

By blocking its access to the leading issuer in the Euro credit market, Schroders' exclusions policy has revealed opportunities that might otherwise have gone unnoticed. "LeasePlan makes a very compelling investment case," says Eggerstedt. "It is not as cyclical as one might anticipate and is well diversified with sound regulatory capital. When corporates lack the funds to buy new cars, such as is the case with all the lockdowns at the moment, companies will instead extend their existing leasing and fleet servicing programmes, which is cash-generating for them."

Social & Human	Right exclusions	- shaping th	e future

Excluded sectors	issuer excl. criteria	criteria	Bond Issuer Examples
Alcohol production	max. revenue	<5%	Anheuser-Busch, Carlsberg, Diageo, Heineken, LVMH
Tobacco production	max. revenue	<5%	Philip Morris, BAT, Imperial Brands
Gambling	max. revenue	<5%	Boyd, Codere, Ladbrokes, Wynn
Adult entertain- ment	max. revenue	<5%	
Conventional weapons	max. revenue	<5%	Babcock, Thales, MTU, Rolls Royce, Mitsubishi
Civilian Firearms	max. revenue	<5%	Heckler & Coch, Tauros
Nuclear weapons	max. revenue	0%	Airbus, Bershire, Fluro, GE, Honeywell, UTX
Biological and Chemical weapons	max. revenue	0%	
Uranium weapons	Any tie	not per- mitted	General Dynamics, Northrop Gruman
Landmines and cluster munitions	any tie	0%	
UNGC	UNGC	viola- tion	Volkswagen, Bayer, Wal-Mart, Shell, Vale, Permex

Moreover, Leaseplan offers leases and related services to large companies as well as SMEs. "I'm always interested in working with companies that serve SMEs because they employ a lot of people which makes them socially important. If someone can lease or sell environmental products such as EVs to an SME, they are also educating those people but busy," she continues.

Asides from increasingly being a promoter of sustainable transport systems, LeasePlan also has risk advantages over car manufacturers. "Because LeasePlan leases cars to corporations, they don't incur the direct costs and risks faced by car manufacturers during the energy transition. Despite a likely fall in the residual value of leased cars, the business model is not quite as risky, which is essential in fixed income, where the risk is on the downside.

An Attractive Green Bond Amid Market Stress

The specific investment opportunity that Eggerstedt refers to is Leaseplan's second green bond worth €500 million, issued on April 3rd, 2020. The security matures on April 9th, 2025, and pays a 3.5% coupon. This transaction was priced at a 99.964 discount to offer 375bps over mid-swaps. The bond was issued under LeasePlan's 2020 Green Finance Framework, which was reviewed by Sustainalytics. The framework states that eligible projects will focus on battery electric vehicles (BEVs). According to Sustainalytics's second-party opinion, the framework is "credible and impactful and aligns with the four core components of the Green Bond Principles 2018". While initially she had mixed feelings about this new green bond, Eggerstedt eventually came around and bought the bond in her fund. "I was concerned when they announced the new bond at the start of April. We had a massive sell-off in credit markets in March because of COVID19. LeasePlan has enough liquidity, and they confirmed that they have access to diverse sources of funding including securitisation and an internet savings bank.. Still, given the high illiquidity in the markets, secondary bond market spreads widened after they announced their new bond."

"On the other hand, companies are most eager to engage on the eve of coming to the market. Together with our dedicated financial analyst, I had a conference call with LeasePlan, and we could see they had made quite a bit of progress since issuing their first green bond. From a sustainability point of view, the very fact that they are issuing a second green bond is a positive sign. It means the transition of their clients to the EVs from Diesel and take-up of solutions like charging infrastructure was meaningful and increasing, . They told us that 10% of the new cars ordered 4Q 2019 were EVs, with a target of 100% by 2030."

Valuation remains a key factor in any investment decision, of course. "From a credit market perspective, the new bond was also appealing because it paid a coupon about 200 basis points higher than its predecessor. Even though bund yields have dropped, spreads have widened a lot. The new bond offered a better entry point," Eggerstedt continues.

Engaging with the UN SDGs

"One thing that is particularly relevant to Schroders' approach to sustainability is the fact that the green bond framework targets four of the seventeen UN Sustainable Development Goals (SDGs). It can be difficult to show how SDGs are integrated into the investment process. From a sustainable credit perspective, whenever we meet an issuer, we ask them whether they are taking any SDGs into account, and if so, how they measure that," adds Eggerstedt.

"LeasePlan's choice of SDGs reveals an environmental concern, as well as a sensitivity to social and demographics factors," she says. At a time of increased concerns about respiratory problems, Leaseplan's focus on SDG 3 - Good Health and Wellbeing through low emission mobility and safety- was pertinent. "LeasePlan has also decided to prioritize Industry, Innovation and Infrastructure - SDG9. The EV related services are a clear endorsement of innovation and industry. However, Leaseplan also notes that although the public charging infrastructure has expanded rapidly, the clients also need advice and guidance for all aspect of adoption to greener driving experience. Transitioning to EVs allows the company to promote the technology and drive the expansion of its underlying infrastructure."

"SDG11, Sustainable Cities and Communities is also on Leaseplan's target list as they promote sharing and recycling of used autos rather than owning- as well as customized EV solution to clients with diverse needs. Finally, they are also targeting SDG13, Climate Action, and aim to achieve net-zero carbon emissions from its total fleet by 2030 on top of conserving energy at its own operations ."

Addressing Financial and Sustainability Concerns

Having participated in Leaseplan's inaugural green bond transaction in March 2019, while Head of Corporates, Financials, at Deka Investment, Eggerstedt was familiar with the company, and vice-versa. "I bought their second green bond at Schroders afterparticipating in their first green bond at Deka. We got the first conference call with LeasePlan because they knew we are long-term investors. They had met me before and knew I had very strict questions.."

Based on her expertise, Eggerstedt pursued a twopronged strategy when she engaged with LeasePlan back in 2019. "Financially, as a BBB-rated company, we thought they could decrease their leverage. Too much leverage is not sustainable in the long run. We took this opportunity to advocate that they retain more of their earnings rather than paying dividends to their shareholders, which would be credit positive in the long term."

"From a sustainability point of view, I was an early advocate of green bond issuance combined with a commitment to impact reporting and transition to EVs. Together, these measures would enable the company to simultaneously deal with the governance concerns raised by private ownership while addressing climate change." Eggerstedt is satisfied with the journey so far. "Ideally, I would have pushed them harder to go faster in EV financing and leasing, but their holistic approach to greener transportation options is effective. The results of their sustainability strategy are consistent with their commitments to zero tail emissions by 2030."

Raising the Bar and Galvanising Laggards

Considering the path ahead, Eggerstedt has a wish list. "I would like all green bond issuers to hold regular webinars rather than exclusively focus on written reports. I want many companies to issue either green or social bonds, and explain how they are becoming more sustainable from a bottom-up as well as from a top-down perspective."

Eggerstedt also wishes for UN Global Compact violators, like Volkswagen, to work harder and sincerely to come off the list imminently . "As they intend to shift to EVs, it would benefit everyone if they could interact especially with sustainable investors and we could tell them and learn how they credibly improve their governance and also finance their rollout of zero-emission vehicles for the future," she concludes.



Case #6

Renewable Diesel

A Eureka moment

by Filipe Albuquerque in conversation with Guillaume Mascotto

Talking to us from New York, Guillaume Mascotto, Head of ESG and Investment Stewardship at American Century Investments (ACI), describes his ESG integration case study as a revelation. "We had a Eureka moment. It is rare to find a company that can reinvent itself, but we found a European refiner that was bridging the gap from fossil fuel-based diesel to renewable diesel, moving us closer to a circular economy. At the time, in late 2017, people were mainly interested in the risk component of ESG analysis,

most particularly risks facing upstream majors such as Exxon Mobil. But ESG also offers opportunities, and so when we heard about this company's downstream opportunity proposition, it piqued our curiosity."

Identifying this opportunity, assessing its investment suitability and finally making the investment decision was the result of a well-established multi-layered process that informs American Century's asset management, Mascotto explains.

Materiality and Fiduciary Duty: Towards Core Integration

"At ACI, we believe that an investment-led and materiality-focused ESG integration process is most optimal for investors, as it offers increased portfolio diversification and maximizes the integration of both ESG quality and alpha-related inputs." Mascotto dubs this "core integration."

American Century's ESG integration framework was designed to align with the firm's fundamental research process and fiduciary duty. "Our goal here is not to substitute fundamental analysis but rather to augment it," says Mascotto. He extrapolates from this a general rule his group follows: "To achieve core integration, the ESG and financial verticals of analysis must always talk to each other."

"That is why our ESG views are considered in the context of fundamental research, with a focus on investment implications," Mascotto explains.

The financial materiality of the ESG analysis is supported by proprietary research. "We consider

"To achieve core integration, the ESG and financial verticals of analysis must always talk to each other."



Guillaume Mascotto Vice President, Head of ESG and Investment Stewardship American Century Investments

third-party ESG ratings and understand the drivers underpinning these opinions, similarly to how investors are aware of credit rating agencies' views. But as an active manager, our clients come to us for our in-house expertise and variant ESG views."

ACI's ESG team has developed a proprietary scoring methodology which generates scores based on material sector-specific ESG indicators reported by issuers - "We don't use estimates. We need to be able to defend the data when elevating ESG views to PMs," Mascotto explains. The system also captures whether the issuers' practices are improving or worsening over time.

"Our framework generates ESG assessments that are not static in time," Mascotto says. Rather, the ESG views elevated to portfolio managers are both "riskbased and forward-looking" in order to assess what Mascotto calls "downside ESG risk propensity" and to capture "ESG upside potential."

A Solutions-Driven ESG Platform

In addition to being focused on materiality and fundamental analysis, core integration must also be flexible and adaptable to evolving client-specific values and guidelines. ACI's ESG platform is solutions-driven and flexible in the options it offers its clients, Mascotto explains. "Some in the market take an evolutionary view of ESG as a journey that starts with negative screening and ultimately leads to impact investments. We disagree," he says, as, for him, there is no one-size-fits-all ESG approach. "In our experience, clients expect a core ESG integration process from which they can pick, choose and potentially combine different ESG approaches, be it negative screening, positive/best in class, thematic investing, impact investing."

According to Mascotto, there will continue to be strong demand for various ESG approaches, most notably impact investing and best-in-class solutions. With that said, Mascotto advances that as "ESG gains more market experience and the investor learning curve continues to improve, we foresee an increased demand for contrarian-like ESG solutions." This involves, Mascotto explains, identifying "disconnects" between an issuer's ESG fundamentals relative to consensus. This is when the exercise of "opening the issuer's black box" comes into play, he continues. Such an investment solution requires a research-heavy, security-per-security evaluation that takes full account of ESG macro conditions (i.e., sustainability megatrends), but at the same time, scrutinizes issuers fundamentally to find subtleties not captured by the ESG ratings agencies.

The Cornerstones of American Century's Global Non-US Discipline

The case of the European renewable diesel refiner that Mascotto chose to highlight as an example of successful ESG integration falls into the ACI's international growth equity strategy within its global non-U.S. equity discipline. "The investment philosophy in this strategy is based on an alpha generation engine comprised of four cornerstones dubbed ISGV":

I for Inflection: Company is at an inflection point in its growth cycle;

S for Sustainability: High conviction that both the growth inflection and the company itself are sustainable

G for Gap: Indication of an exploitable gap in earnings expectations relative to consensus estimates;

V for Valuation: Attractive relative valuation.

ESG factors are integrated as part of the sustainability cornerstone, Mascotto says. "This is where our fundamental analysts work closely with the ESG team to ensure that any ESG risks identified by our ESG integration process are not financially material to the investment thesis." Although ESG is often characterised as a risk input, Mascotto adds that "the ISGV engine also allows, where relevant, our ESG analysts to include ESG opportunity assessments".

Renewable Diesel:

Advancing Towards a Circular Economy

"The theme we were interested in was climate change. Refiners are fundamental to our overall energy systems. We wanted to see how companies in the energy value chain can react to the paradigm shift from crude to renewable refining."

The company Mascotto's team identified was able to develop a system using 100% waste and residues to generate renewable diesel, a type of biofuel. The raw materials of renewable diesel include animal fat from the food industry, waste fat from fish processing, residues and waste from vegetable oil, technical corn oil and used cooking oil.

"From these materials, the business can extract triglycerides, which correspond to propane in fossil fuels. These are resources that come from the ecosystem and can allow societies to generate energy in a circular-economical way," Mascotto comments.

The company holds a privileged position in the context of the broader climate change megatrend, which is reinforced by the fact that it is in sync with the regulatory demands of the EU and the increasing environmental concerns of European consumers. "The company focuses on different types of industries in the value chain that have traditionally been left out of the climate debate, including polymers, petrochemicals and the aviation sector," Mascotto says.

"The business is working with some of the most significant airlines to facilitate the transition to sustainable aviation fuel, as renewable diesel can reduce carbon emissions by as much as 80% in aviation compared to fossil fuels. That is a reduction over and above the 50% decrease recommendation by the European Commission. The renewable diesel can also be used in shipping, where its lower sulphur content can contribute to a decrease in water pollution."

The investment can also help reduce the amount of plastic waste by recycling it into raw material for new plastics. "The company has also started to target projects that use liquefied waste plastic as a raw material into fossil refinery. We can only create a circular economy by finding ways to create value in a close-looped system," Mascotto explains.

"With almost 30 million tons of plastic waste generated in Europe annually, one of the inflection points is that European regulators are likely to increase their requirements to recycle and reuse plastic packaging. We consider the company to be well-placed to navigate new recycling targets for plastic in Europe by 2025, even as the target rate of plastic recycling is expected to increase to 55% by 2030."

Considering these facts together, Mascotto's team concluded that there was an underestimated investment opportunity. "When we put the pieces together, we had a Eureka moment. Our analyst's projection of the company's renewable diesel segment was growing faster than its conventional refining segment.

Additionally, Europe's toughening environmental regulation and shift in consumer preferences toward lower carbon products would serve as a catalyst for growth in renewable energy. In the case of renewable diesel, the growth was not yet captured by the 'ESG street' given the focus on upstream oil and gas extraction relative to downstream."

Adjusting KPIs for materiality

Beyond the company's alignment with climate change regulatory and consumer trends, the assessment of the sustainability of the company's growth and governance prospects also considered several key performance indicators (KPIs). "Our model is sector specific for environmental and social factors, but it is sector agnostic when it comes to governance," Mascotto explains.

"Although a company's environmental and social exposure will vary across sectors, our governance indicators are always relevant, regardless of what a company does."

The companies are different because they have unique sustainability attributes that ACI considers would yield "positive social and environmental dividends." That being said, all investments within the same strategy follow the same ESG assessment process.

"In terms of sustainable growth for the energy sector, our material KPIs include the efficiency of the business's inputs and outputs, measured as energy, water and carbon emissions intensities relative to sales or unit of production. We also look at R&D expenditure on research into renewable energy or raw materials as well as negative-emissions technologies. On the social front, we are mindful of human capital strategic planning, employee safety rates, longterm injury rates and fatalities, because workers in refineries handle and manipulate dangerous substances," explains Mascotto.

"Our model incorporates various KPIs for the governance dimension," Mascotto says. Among these, the team considers board independence, especially the independence of the audit and compensation committees, board entrenchment, negative votes against directors, accounting irregularities as well as severe ethical controversies such as fraud or corruption.

"These KPIs have to be contextualised over time and place. Performance is often subject to the idiosyncrasies of the country where a company is operating. It is necessary to compare a company's performance with its domestic and global peers separately as well as to consider their performance over the last three to five years to assess the path that the company is on."

According to Mascotto, the final ACI proprietary ESG score of the company is a relative percentage rank assessment of the company across these indicators, but also the corresponding trends. "In all instances, we were impressed with the performance of the European renewable diesel refiner," he explains.

The Benefits of Hindsight

"This stock has done very well for us. It outperformed the local market index and our benchmark year-todate (demonstrating resilience amid the current COVID-19 crisis) and by approximately over a three-year period. We feel that our investor thesis that combined ESG and financial strength helped us succeed and get a strong risk-adjusted return," Mascotto says. "Of course, there is always room for improvement.

Looking back, we could have been more mindful of the potential clustering risk of this ESG trade. Once the trade becomes public, its success attracts other investors, eventually leading to concentration and overpricing risk for the client. We could have looked for a similar refiner to try to find one that was at an earlier stage of its energy transition or on the verge of improvement following a business misconduct controversy," Mascotto concludes.

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> Jenny Gustafsson Head of Responsible Investments AMF Insurance





AMF is a Swedish mutual occupational pension fund for private company employees, with the aim to provide the best quality returns at the lowest cost with high regard to sustainable investment practices across all activities. The fund currently manages about SEK 670 billion (€61.4 billion) and the portfolio includes a mix of shares, bonds, real estate and other alternative investments, with high weight on domestic investments. As a result, AMF is one of the largest owners of the companies listed on the Stockholm stock exchange and commercial properties in Sweden.

The benefits of a long-term mindset

Jenny Gustafsson explains how being a longterm investor offers opportunities to invest

Case #7

Real Assets

Forestry, renewable energy & science based targets

by Kim Hansson in conversation with Jenny Gustafsson

Photo by Geran de Klerk on Unsplash

directly in real assets, something that can help build a more sustainable future from both an environmental and a societal perspective. "We have a long-term mindset and we are well-capitalised, hence we have the opportunity to make direct investments in infrastructure, for example, when it provides an attractive risk-adjusted return for our customers," she starts. "We are well-positioned to take advantage of the shift that will take place in the economy towards a more sustainable society. We face attractive investment opportunities while contributing to global solutions, all at once."

Bergvik Skog Öst

AMF primarily invests directly in infrastructure (such as wind power) and forestry assets. "We remain humble about the work ahead of us, but see the transition towards a sustainable and profitable business environment as a great opportunity."

"Today, we are one of Sweden's largest forest owners through our ownership stake in Bergvik Skog Öst," Gustafsson explains. The pension fund acquired 89.9% of the shares in the forestry company from the Swedish paper and pulp company Billerud Korsnäs in August 2019, which came with more than 317,000 hectares of forests in central Sweden (almost 17 times as large as the entire Stockholm area). Having retained a minority ownership, Billerud Korsnäs continues to manage the forests, while AMF supports the company at a strategic level.

"Forestry is a great fit into our portfolio, as we are aiming to increase the share of alternative investments in our asset allocation. Together with other investments, we have made in wind power and other types of infrastructure, forests can provide a stable return at low risk for a long period of time. This type of uncorrelated asset complements well the traditional investments in equities and bonds, especially given the current low-interest rate environment," Gustafsson continues.

Swedish forestry is an interesting long-term example of an investment that will benefit from the transition to a more sustainable society. "Firstly, the forest itself acts as a carbon sink, that is to say, it absorbs carbon dioxide from the atmosphere, as it grows," Gustafsson explains. "Second, sustainable and active forest management also allows for products based on renewable raw materials to replace fossil fuels or other finite resources, which also drives society to lower its carbon footprint," says Gustafsson.

Stena Renewable

The pension fund also invests directly in wind power, primarily through Stena Renewable and acquired a 35% stake in the company. The company's powerplants account for about 4% of Sweden's total wind power production. "Despite the difficult economic climate triggered by the ongoing pandemic, Stena recently made a record investment in a new wind park for SEK 2.2 billion (€200 million), which reflects the long-term nature of these projects," Gustafsson comments.

Exeger & Northvolt

AMF has had the opportunity to invest in and co-own other types of unlisted companies. "These ventures give us the opportunity to make long-term investments or to facilitate future IPOs," adds Gustafsson. "We find that it is a great way to invest in the solutions that will enable the world to change as well as providing attractive investment opportunities. This is particularly important in areas such as new technologies that enable the transition to a more climate-smart society, where time horizons are often long."

Examples of such investments include photovoltaic company Exeger, a Swedish innovative venture that develops and produces flexible photovoltaic cells that can be integrated into computers or tablets, for instance. AMF also agreed to invest up to SEK 700 million (€64 million), the equivalent to a 5% stake, in the battery producer Northvolt. "The investment round aims to finance the construction of Europe's first large-scale production plant for sustainable batteries in Skellefteå, a municipality in the North of Sweden," Gustafsson explains.

Science Based Targets & the role of financial institutions

Driving Systemic Transformation

To decarbonize the global economy ousinesses need to reduce their direct nough to stay within the carbon budg ets established by climate science.

These emissions don't occur in a vacuum. They are part of a broader economic and regulatory system that creates a complex web of incentives and disinto reduce emissions. Every actor in a giv of other actors and therefore shares responsibility for reducing them.

ue-chain responsibility between actors explicit by requiring companies to set targets not only for their direct emis

The private sector is stepping up to em brace this shared responsibility. Over 90% of the 339 companies with approved science-based targets have set ambitious scope 3 targets, setting off positive ripple effect across a wide circle

The Vital Link

porting Standards.

change we need. By lending and invest-

Science-based targets in portfolio companies

Meanwhile, the real estate arm is dominated by AMF Fastigheter, a wholly-owned subsidiary of AMF that constitutes about 14% of the traditional pension insurance portfolio. Sustainability is naturally a strong focus for the business and environmental issues are a major part of the work, as real estate properties affect the environment throughout their life cycle: from construction to management and operation, to conversion and finally to demolition.

In 2019, AMF Fastigheter joined the Science Based Targets Initiative (SBTi), a global initiative that allows companies to set climate targets required for the achievement of the Paris Agreement. SBTi is a cooperation between the Carbon Disclosure Project (CDP), the United Nations Global Compact (UNGC), the World Resource Initiative (WRI) and the World Wildlife Fund (WWF).

"In the past, we already had targets to reduce our energy consumption, but now we are going a step further in our climate-re-

and Value Chain Accounting and Re-

sions, known as scope 1, and emissions ing, they have the power to redirect cap porate emissions accounting through the finance they provide, financial ir the use of the GHG Protocol Corporate stitutions can influence companies to reduce their greenhouse gas emissions even without direct control over those

> The Science Based Targets initiative's framework for the finance sector work to enable financial institutions to a portfolios with the level of ambition required by science. This approach lev influence and responsibility to provide the capital needed to finance the net-ze ro transition

> > Source: the Science Based Targets initiative

lated work," explains Michael Eskils, Head of Sustainability at AMF Fastigheter, in the pension's annual report. "We want to set science-based targets to reduce our climate impact throughout the value chain. We have chosen to join the SBTi in order to seek help in developing a relevant and ambitious climate target. We have committed ourselves to set the objective and the road map within two years. SBTi experts will then validate the targets we have set."

Today, Eskils explains, AMF has already started work on mapping the climate impact of the real estate portfolio, in the business as well as in the supply chain. "Building materials play a major role in new buildings and transformations required to meet our tenants' needs," Eskils comments. "We remain humble about the work ahead of us, but see the transition towards a sustainable and profitable business environment as a great opportunity. In the long term, I believe that it will be difficult to conduct a profitable business without being fundamentally sustainable."



Photo by Luigi Giordano © Shutterstock

Case #8

Renewable Energy

Catching the trillion dollar energy windfall

by Kingsmill Bond and Carlo M. Funk



Globally, we calculate society stands to reap a massive \$1 trillion windfall from the energy transition, and potentially much more once all positive externalities are included. We believe that this shift offers incredible opportunities for investors who are positioned correctly.

Encouragingly, we see growing investor awareness of the importance of factoring in climate change scenarios into their portfolios. In a recent SSGA survey of over 300 institutional investors and world-leading institutions, among the most significant factors driving adoption of ESG principles were risk mitigation and meeting or getting ahead of regulation. Climate

What is driving the shift and what are the implications?

Today's renewables are cheaper than ever before. Currently, solar panel costs are falling and new tech-This has transformed the renewable energy industry nologies are increasing yields. Technological adfrom one subsidised by governments to one driven by vancements are also creating cheaper batteries that will allow solar and wind energy to be dispatched on economic gain. demand according to market needs. Technological The pace of change has been remarkable. Only five advancements in the form of taller wind turbines, years ago, variable renewable energy (solar and wind standardised installation costs and improvements in power) were the most expensive source of new elecmaterial efficiency will likely result in falling costs, tricity in 99% of the world. In 2019, they are the driving further growth.

cheapest in two-thirds of the world, and by the early 2020s, we believe they will be the cheapest source in all major markets.

Growing fears around the threat of man-made climate change combined with the increasing attractiveness of renewable energy have led to a paradigm shift that is driving a steady transition towards renewables.





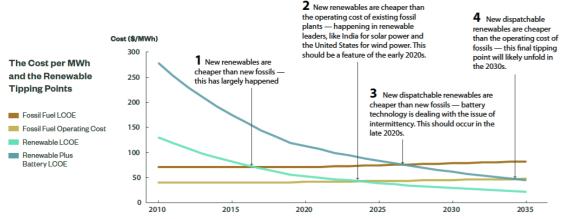


Kingsmill Bond New Energy Strategist Carbon Tracker

change is the central ESG issue that is driving these results, as long-term investors understand that the systemic risks associated with climate change - and the policy response to it — can no longer be ignored.

Renewable energy will play an increasingly important role in tackling climate change as technological developments result in ever cheaper, more efficient and flexible renewables solutions that will drive down demand for fossil fuels. While investors will face climate-related risks in the coming years, there will also be opportunities for those who can mitigate risks and adapt their portfolios for the coming energy transition.

The 4 Tipping Points for Renewable Energy



Source: Carbon Tracker. LCOE is the levelised cost of energy, which allows comparison of different methods of electricity generation on a consistent basis. The above forecast is based upon estimates and reflect subjective judgments and assumptions. There can be no assurance that developments will transpire as forecasted and that the estimates are accurate

Other drivers of renewables adoption

Aside from the favourable economics of renewable energy adoption, we believe other drivers will accelerate the energy transition.

Paris Agreement

The world is heading for 3°C warming above pre-industrial levels by the end of the century, far above the targets set in the Paris agreement. Policymakers can help meet the Paris targets by increasing the deployment of renewables in the electricity sector.

Air Pollution

Ambient air pollution kills four million people a year and is a major public health issue in the emerging markets. It will only worsen if fossil fuel use continues.

Geopolitical Advantage

80% of people live in countries that import fossil fuels. With growth, energy dependency will only increase. Renewables are a local and continuous energy source and will reduce import dependency, increasing countries' geopolitical influence.

Industrial Advantage

The new environment allows countries an opportunity to seize dominance in the new energy technology sectors, as China has done in electric vehicles.

Votes

Renewable energy is very popular across the world as shown in a 2017 survey of 28,000 people across 13 countries conducted by Orsted, a Danish renewable energy company. Over 80% want to move to a world powered by renewable energy and over 80% want to phase out coal.

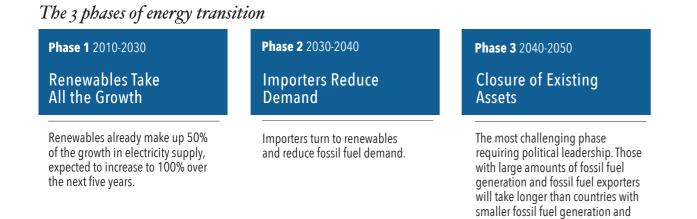
Jobs

The fossil fuel sector employs 30 million people and according to the International Renewable Energy Association, a shift to renewable energy would require an extra 17 million jobs by 2030.

Iustice

A world powered by renewables would create abundant energy for the billion people lacking energy in emerging markets and the energy poor in rich countries.

importers.



We can categorise countries and markets along two lines - exporter or importer of coal and gas, and high-income versus the rest. High income is a proxy for weak demand growth and lower pollution problems (both indicative of greater resistance to renewables adoption).

Through this categorisation, four groups of markets emerge. The group that will be least resistant to the energy transition live in low-income importers of coal and gas and account for 65% of the world's population (including China and India). The smallest group, just 7% of the world population (including Australia, the US and Poland) is the most intractable group the high-income exporters.

At State Street Global Advisors, we use our influence What's at Stake? as a large global asset manager to encourage corpo-The falling costs of renewables combined with the rate boards and management teams to proactively rising penetration of renewables in the energy mix address climate-based issues that could impact on promises a huge energy windfall, which we refer to as long-term performance. Our investment capabilities a 'Gigafall'. We can estimate the value of the Gigafall include climate-specific reporting so that clients can over the next decade with some simple calculations align their portfolios with the evolving science, reguon the size of the opportunity, the value of each new latory landscape and investment risks and opportuni-MWh and a capitalisation factor. ties related to climate change.

Over the course of the next decade, solar and wind can add 6,000 TWh to the global energy mix without running up against the intermittency ceiling. The cost advantage of renewables technology over the cheapest fossil fuels will vary by country and location but a conservative estimate of the average annual cost advantage is \$10 per MWh.

Combining the size of the opportunity (6,000 TWh) and the benefit (\$10) we get an annual windfall of \$60 billion. However, this also needs to be capitalised be-

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cause the benefits accrue every year. If we take a 5% discount rate that implies a capitalisation factor of 20, which gives a total opportunity of \$1.2 trillion.

If we include avoiding the costs of global warming and ambient air pollution from fossil fuels (at least \$50 per MWh), the Gigafall would reach \$6 trillion. The vast rewards of renewable energy will be reaped by society as a whole. Critically, these vast rewards will be reaped by society as a whole. This is in contrast to the beneficiaries of fossil fuel discovery and exploitation, who are the owners of resources and governments

Catching the Gigafall

The Gigafall is one large-scale example of the many climate-related opportunities that investors can already begin positioning their portfolios for.

Our research is helping us develop breakthrough climate investment products that can transform your portfolio's carbon profile while maintaining the returns you need. For more information and to try our interactive carbon profile tools, please visit our website.

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Hanna Kaskela Director for Responsible investments Varma



Johanna Haikala Investment Manager Real Estate Varma

"Upcoming energy-saving measures in our apartment buildings are a natural step towards being emission-free and consistent with our climate targets."

Case #9

Fossil-free Heating

ESG-driven decision making in practice

by Filipe Albuquerque *in conversation with* Hanna Kaskela, Matti Lindfors and Johanna Haikala



Transition to fossil-free real estate heating

As the popularity of environmental initiatives continues to increase alongside society's concern over the sustainability of our economic systems, some asset owners have decided to lead by example. Varma, a Finnish pension company, is a reference in the Nordics.

District heating currently accounts for a significant proportion of the carbon dioxide emissions from Varma's residential properties. In February 2020, Varma announced it would replace the heating system in 36 of the apartment buildings in its housing stock during 2020 and 2021. The decision is expected to lead to an estimated 48% reduction in CO2 emissions from Varma's residential properties by 2023.

As one of Finland's largest real estate investors, Varma owns 61 apartment buildings, including approximately 4,000 flats. At the end of 2018, the value of Varma's real estate portfolio was €3.8 billion. NordSIP reached out to Hanna Kaskela, Director for Respon-

Photo by Chris Barbalis on Unsplash

sible investments, Matti Lindfors, Real Estate Manager, and Johanna Haikala, Investment Manager Real Estate at Varma, to find out more about the energy transition in the context of real estate ownership.

The new climate targets

"Our goal is to reduce the carbon dioxide emissions of our direct real estate investments by switching to fossil-free heating and electricity by 2030 and 2025 respectively," Lindfors starts. "Upcoming energy-saving measures in our apartment buildings are a natural step towards being emission-free and consistent with our climate targets."

"Varma took this decision in the context of the renewed climate policy targets we announced in November 2019," Kaskela adds.

The resulting emission reductions will correspond to the annual use of more than 1,700 petrol-fuelled cars or 7,600 return flights from Helsinki to Spain, according to Varma. "The carbon footprint of Var-

"It is a pleasure to carry out investments like this since their returns clearly exceed the typical rate of return in real estate investment. Achieved cost savings have a significant effect on the value of properties."

ma's real estate includes carbon dioxide emissions from the buildings' consumption of heat, electricity, cooling and water. Our aim is to include the carbon dioxide emissions caused by waste in the carbon footprint by 2021," the trio explains. "In some apartment buildings, geothermal heating will entirely replace district heating. Measures have already started in 13 of the buildings. 2020 will witness the transition from district heating to geothermal heating in eight apartment buildings."

"In buildings, energy consumption arising from electricity and heating is the main source of carbon dioxide emissions. Improving the energy efficiency of the buildings is one of the most viable paths to decreasing this consumption and the associated carbon emission," says Haikala. "Carbon dioxide emissions, are easily reduced by using renewable energy either through own production or buying green energy."

"This is a natural step toward being emission-free, and it is consistent with our climate targets. The biggest contributor to greenhouse gas emissions in residential buildings is heating. Our objective is not just to meet the minimum requirements in the industry, but to enable the development of new energy solutions and a more climate-friendly construction sector. Solar panels and geothermal heating that utilises solar energy stored in the ground support our goals also in terms of enabling us to increase the use of renewable forms of energy in buildings," said Lindfors, on the occasion of the announcement.

Assessing progress

"ESG aspects definitely had a big impact on our decision which was done by taking both ESG-factors and financial aspect into consideration," Kaskela explains, highlighting the importance of materiality, before noting the goals and key performance indicators (KPIs) Varma focuses on. "In this project, the KPIs include economic variables, carbon emission reduction and energy consumption reduction targets. From 2020 to 2035, we will develop our portfolio towards carbon neutrality, and no stone will be left unturned."

"We have targets for waste, water consumption, fossil-free heating and carbon emission reduction in our real estate investments. We are also targeting to have our most important office buildings to be certified according to the BREEAM¹ environmental rating system. In addition, we hope to have circular economy KPIs in the near future," adds Haikala.

Building on an existing partnership

LeaseGreen, a cleantech service company, has been tasked with planning and implementing the energy overhaul, which will replace the buildings' district heating with geothermal heat pumps, solar panels and property-specific heat pumps that recover heat from exhaust air.

"Varma's previous partnership with LeaseGreen also focused on other energy overhaul projects," Lindfors says. Varma and LeaseGreen previously collaborated on the energy refurbishment of the headquarters of Elisa Oyi, a Finnish Telecom company. The headquarters building is owned by Varma and the partnership focused on reducing the building's energy consumption and carbon footprint by around 40%.

The Elisa energy refurbishment, announced in May 2019, targets yearly savings of around 250 tonnes of CO2, equivalent to the yearly output of more than 1,000 solar panels. According to Varman, the savings can also be used to offset the emissions of more than 2,000 return flights between Helsinki and Stockholm.

According to Varma, the waste heat from the data centres is transferred to the building's heating and air conditioning system. The energy provided will reduce the consumption of district heating and the need for cooling energy. At the same time, costs will be reduced for both the owner and user of the property.

"It is a pleasure to carry out investments like this since their returns clearly exceed the typical rate of return in real estate investment. Achieved cost savings have a significant effect on the value of properties," said Varma's Real Estate Investment Director Ilkka Tomperi, at the time. "Responsible companies are promptly carrying out economically viable investments in energy efficiency. In recent years, the profitability of energy refurbishments has improved clearly due to fast technological development. Varma has tightened its own energy efficiency goals because the company achieved them ahead of time," he added.



Matti Lindfors Investment Manager Real Estate, Varma

Implementing the energy transition

"We will substantially reduce the carbon footprint of Varma's residential properties through energy-efficient and digital solutions. Varma's inspiring example proves that we can reduce emissions while at the same time increasing financial well-being," LeaseGreen's CEO, Thomas Luther, commented on the new plans.

"The results will be apparent already within a year or two. The technical level of the buildings will also improve. A full-scope examination of a large mass of properties offers a quicker and more efficient path to reducing emissions than the modernisation of individual buildings," he added.

"This comprehensive solution also includes new automation, solar panels and modern lightning in addition to ground thermal heat pumps and heat recovery systems. A heat recovery system provides fresh filtered air into habitable rooms while retaining heat that would usually be wasted. We are also closely following how the traditional district heating is developed to become more climate-friendly.

According to Varma, digital monitoring will be used to optimise the settings for the building services technology according to the weather conditions, and to assist in the monitoring of progress and energy efficiency improvements.

A Good Plan for Varma

"Economically, this is also a good investment for Varma. With these kinds of energy solutions, we are looking to mitigate climate change as well as achieve good returns. Energy investments are one of the most efficient ways of improving the profitability and value of real estate investments as well as making them more responsible," Kaskela explains.

"From a real estate investor's perspective in general, making allowances for sustainability does not conflict with return expectations. For us, sustainability is a means of securing long-term returns," adds Lindfors.

"So far, everything has gone according to our plan, but we strive to learn more during the project. We always look for new solutions to develop our approach as responsible owners. During this project, we have already learned more about different solutions in renewable energy production," the trio concludes.

The Building Research Establishment Environmental Assessment Method (BREEAM) is the world's longest established method of assessing, rating and certifying the sustainability of buildings. It was launched by the Building Research Establishment (BRE) in 1990.

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Our commitment to responsible investment is fundamental to our goal of delivering the specific and meaningful outcomes that matter most to today's investor. To do so, we focus on investment integration, active stewardship and market reform.

You can trust that for us sustainability isn't just a fad. It's something we've been doing for decades. As far back as the 1970s we were holding companies to account by voting at their annual meetings.

For us, responsible investment is a way to get the best possible return for you in the long term. We've always believed that companies that conduct their business in a responsible and sustainable way are more likely to succeed over time, benefiting both you and society. Bad practices don't just hit the headlines, they hit the bottom line as well.

*as at 31 December 2019.



ESG INTEGRATION CASE BOOK SERIES APRIL 2020



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computer screen, print individual pages on paper and store such pages in electronic form on disc.

5. If it is brought to the Editor's attention that the reader has sold, published, distributed, re-transmitted or otherwise provided access to Content to anyone against this general terms and conditions without the Editor's express prior written permission, the Editor will invoice the reader for copyright abuse damages per article/data unless the reader can show that he has not infringed any copyright, which will be payable immediately on receipt of the invoice. Such payment shall be without prejudice to any other rights and remedies which the Editor may have under these Terms or applicable laws.

MISCELLANEOUS

1. These conditions do not impair the statutory rights granted to the readers of the Content at all times as a consumer in the respective country of the reader and that cannot be altered or modified on a contractual basis.

2. All legal relations of the parties shall be subject to Swedish law, under the exclusion of the UN Convention of Contracts for the international sale of goods and the rules of conflicts of laws of international private law. Stockholm is hereby agreed as the place of performance and the exclusive court of jurisdiction, insofar as there is no compulsory court of jurisdiction.

3. Insofar as any individual provisions of these General Terms and Conditions contradict mandatory, statutory regulations or are invalid, the remaining provisions shall remain valid. Such provisions shall be replaced by valid and enforceable provisions that achieve the intended purpose as closely as possible. This shall also apply in the event of any loopholes.