

# Shropshire County Council

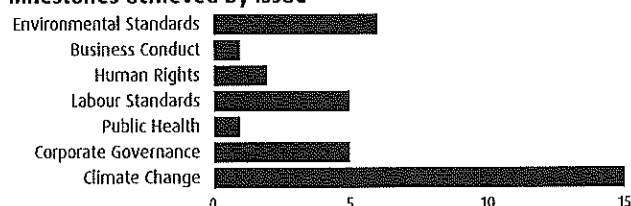
Q3 2018

The purpose of the **reo**<sup>®</sup> (responsible engagement overlay)\* service is to engage with companies held in portfolios with a view to promoting the adoption of better environmental, social and governance (ESG) practices. The **reo**<sup>®</sup> approach focuses on enhancing long-term investment performance by making companies more commercially successful through safer, cleaner, and more accountable operations that are better positioned to deal with ESG risks and opportunities. Through a combination of constructive dialogue and active share voting, **reo**<sup>®</sup> works to drive behavioural change with companies, and records successful outcomes as 'milestones' – changes in corporate policies or behaviour following intervention.

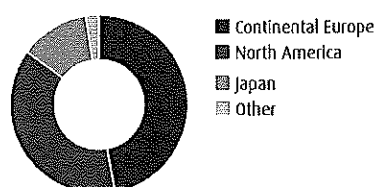
## Companies engaged this quarter

Companies engaged	87
Milestones achieved	35
Countries covered	12

## Milestones achieved by issue



## Companies engaged by country



## Companies engaged by issue \*\*\*





# ESG Viewpoint

June 2018



**Yo Takatsuki**  
Director, Governance and Sustainable  
Investment

## Breaking Bad: Business ethics in the pharmaceutical sector

- **Sector:** Pharmaceuticals
- **Issue:** Business conduct
- **Engagement since:** 2008
- **Goal:** Comprehensive overhauling of policies and management systems to mitigate risk of employee misconduct and regulatory breaches as well as reforming corporate culture

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- Regulatory violations resulting from corrupt employee conduct has emerged as a key concern in the pharmaceutical industry alongside product quality and safety
- Ever increasing fines and settlements, alongside the cost of remedial actions, undermine profitability and harms companies' societal license to operate
- BMO has engaged extensively on this issue and seen improvements in management programmes and systems; but true reform of corporate culture is only just starting



### Key risks

The value of investments and any income derived from them can go down as well as up as a result of market or currency movements and investors may not get back the original amount invested.

Screening out sectors or companies may result in less diversification and hence more volatility in investment values.

Business ethics breaches have emerged as the most material ESG concern for investors in the pharmaceutical and broader healthcare sector, and has been the key focus of our engagement with the sector in recent years. The industry has been repeatedly become embroiled in allegations with regards to marketing and sales related fraud and other lapses in compliance. Companies have been hampered by substantial risks and mounting costs associated with the prosecution by authorities. We estimate that \$50 billion have been paid out by leading pharmaceutical companies in the past decade in conduct related regulatory, settlements fines and costs.



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The US Department of Justice (DoJ) has led the charge against the sector and they have become particularly emboldened post the 2008 global financial crisis to pursue ever larger settlements. Alongside the increased financial penalties, we have been concerned by the reputational damage and operational impact arising from stricter scrutiny of companies and enforcement of regulation in the US, UK and Europe. Key trends we see are “extraterritorial” legislation, meaning that companies may be prosecuted in countries other than their home jurisdiction, as well as strong enforcement actions on companies that fail to prevent corrupt practices through adequate measures<sup>1</sup>. Issues leading to regulatory action include:

- Minimising side-effects
- Off-label promotion
- Price manipulation
- Bribery, kick-backs and other inducements
- Anti-competitive behaviour
- Healthcare system fraud such as false claims

Many of the leading global pharmaceutical companies have fallen foul of these violations. These include **GlaxoSmithKline (GSK)**, **Johnson & Johnson**, **Pfizer** and **Novartis** amongst others. Neither have these breaches been confined to the major developed markets. We have seen a rapid shift in regulatory intolerance to corrupt practices in emerging markets where there had been a perception that rule of law was weak and paying bribes was a cost of doing business. This has been most notable in China, as

President Xi Jinping has overseen a widescale crackdown on graft. GSK was fined \$490 million after it was found guilty of bribery in 2014<sup>2</sup>.

### Materiality assessment

The focus on the financial impact has largely been on the immediate cost of dealing with the violations – namely the headline amount of the regulatory settlement. However, we consider this amount to be only a portion of the overall commercial harm that a company suffers when its employees are caught ‘breaking bad’. We have identified the following areas which on their own may not be significant but in total can be material to the company’s performance. Much of this is also relevant to the financial industry which has struggled with similar issues.

- **Regulatory fine or settlement:** this is often the headline figure that receives the most publicity in the public domain. However, this only amounts to a portion of the total cost incurred over time to resolve breaches. The size of these settlements has become larger – into the billions of dollars and euros – in recent years.
- **Litigation costs and legal provisions:** aside from the legal costs of dealing with specific violations, companies set aside reserves to deal with other regulatory penalties or litigation or damages that are expected to be paid out in the future for similar violations in other jurisdictions.
- **Independent compliance monitor:** the DoJ instructs an independent compliance monitor to be established as part of any deal following a regulatory action. This can be an integral part of any deferred prosecution agreement that has been agreed between DoJ and the company. This involves the DoJ selecting and placing a senior regulatory expert within the company to assess whether the company is living up to commitments it has made. They are free to hire what resources they need to do their job including additional compliance experts and external consultants – this can amount to hundreds of people in the case of large violations. All of this must be paid for by the company during the duration of the monitor. The resulting cost can run to tens, if not hundreds, of millions of dollars per year.
- **Strengthening compliance, internal controls, and audit programmes:** the most obvious increase in ongoing cost is in this area and it has been a major area of new recruitment for companies.
- **Board and senior management effort:** ensuring a successful navigation of the period of the deferred prosecution agreement and meeting the monitor’s expectation of reform takes board and senior management time. This is an opportunity cost as management’s effort and

<sup>1</sup> For example the US Foreign Corrupt Practices Act and the UK Bribery Act

<sup>2</sup> Full analysis of the GSK’s China incident is available in ESG Viewpoint “Bribery in China: Lessons from GSK” February 2014

time could otherwise be spent delivering on the strategy and growing the business.

- **Longer-term damage to commercial model:** this is the cost to the business arising from damage to reputation, brand and societal license to operate. Major controversies can undermine products and commercial models which may have been reliant on business practices which are regulated out of use.

### Engagement action

Sales practices in the pharmaceutical sector have been an area of long-term concern to us and we have been conducting engagement on this issue for more than a decade, both one-on-one and collaboratively in the US with investor groups led by the United Auto Workers. Our engagement intensified as the regulatory fines and settlements mounted and the poor business conduct within the industry became increasingly material to investors. A key turning point was GSK incurring in quick succession a US\$3 billion settlement in the US in 2012 for bribing doctors, and the China incident in 2013/14.

Since the start of 2014, we have engaged more than 70 global healthcare companies on this issue including many of the world's leading research and generic pharmaceutical companies. We have travelled to the US, Europe, Japan and China to meet companies and the key recommendations we have been making to businesses are:

- **Clear oversight and accountability from senior executives and the board:** a strong tone from the top that there is zero tolerance of corrupt business practices is essential. There should be clear lines of authority at the board level with regular reporting via the Chief Compliance Officer, and consideration of establishing a board-level committee dedicated to compliance and business ethics risks.
- **Corporate culture reform:** as well as the top-level messaging on cultural reform, we recommend that companies track whether this is translating into change. We have been asking companies to measure and track culture change, and to disclose the results to assure investors, employees and other stakeholders that culture is reforming. Metrics can include more granular whistleblowing usage data (with geographic and business division breakdowns), and aggregated results of staff surveys/training on regulatory compliance.
- **Robust policies and sufficiently resourced management systems:** revising Codes of Conduct, establishing responsible sales and marketing policies, improving risk assessment processes, and strengthening internal controls should be a matter of course. Companies should clarify whether they are backing a single global standard or are taking a market-by-market approach. The former option is more ambitious but more challenging to implement, while the latter is more susceptible to "regulatory arbitrage" by companies which exploit the weak or non-existent rules in many countries.

- **Linking business conduct and regulatory breaches with pay:** targets driven purely by an individual's sales record can incentivise employees to break rules to meet targets and get a larger pay-out. Companies such as GSK have phased these out, replacing them with a wider range of metrics including qualitative ones such as customer satisfaction. Companies should also have a clawback policy – which allows for recovery of bonus and other incentive compensation paid to executives and employees found to be involved in misconduct causing financial or reputational harm to the company (see 'Accountability in pay').



Since the start of 2014, we have engaged more than 70 global healthcare companies.

### Risk assessment

Over the years, we have occasionally encountered somewhat cynical views that ethics issues are purely a cost of doing business. We do not subscribe to this view. Our analysis has been that there are some companies which have repeatedly attracted litigations, regulatory investigations and settlements, while there are others – with robust practices – which have not attracted any. For example, according to research in the 2016 Access to Medicine Index, only **Gilead** and **Novo Nordisk** (of 20 major global pharmaceutical companies in the rankings) avoided settlements for breaches of criminal or civil laws or regulations relating to corruption or unethical marketing between 2013-2016 (inclusive).

So, how can investors identify companies which are at higher or lower risk of potential violations? Our engagement has allowed us to narrow down to three risk factors.

1. **Countries of operation:** does the company operate in markets which are likely to result in high penalties for regulatory breaches (the US) or in markets where the regulatory quality and rule of law are weak?
2. **How staff are paid:** does the company rely on revenue growth from aggressively growing sales and/or are sales teams incentivised with big bonuses for hitting ambitious (but unrealistic) sales targets? Is the key performance measure for sales teams solely revenue based or does it include other factors such as quality of sales, customer satisfaction and regulatory knowledge?
3. **Drugs portfolio strength:** does this company have a drugs portfolio in a strong competitive position? Would sales staff possibly need to induce doctors in other ways than just the efficacy of the drugs themselves?

### Accountability in pay

Clawback is defined as the provision by which companies can recover bonuses (and other variable pay) after they have vested and have been paid out. These provisions have become increasingly commonplace in certain industries such as banks and pharmaceuticals, and in markets such as the US, UK, Switzerland and France. They traditionally cover material financial restatements but there are now increasing moves for clawbacks to also cover instances where employees are held accountable for a broad range of misconduct. We consider clawbacks as an essential and effective way for employers to both incentivize certain behaviours and to hold employees accountable for their actions.

Given the severe financial penalties which can result from staff misconduct, there is growing recognition that effective compensation policies can deter unethical behaviour. In light of this, a working group comprised of **Amgen, Bristol-Myers Squibb Company, Eli Lilly, Johnson & Johnson, Merck & Co., Pfizer**, and thirteen institutional investors (including BMO Global Asset Management), endorsed a set of principles called the 'Principal Elements of a Leading Recoupment Policy' (April 2013) aimed at deterring ethical breaches<sup>3</sup>.

In 2016, we conducted an engagement project in which we urged 30 leading pharmaceutical companies to establish:

1. **A compensation clawback policy** – which would allow for recovery of bonus and other incentive compensation paid to executives and any employee who is involved in misconduct causing financial or reputational harm to the company. We provided a suggested model clawback policy<sup>4</sup>.
2. **Clear disclosures and regular reporting of clawback policy implementation** which would allow investors and other interested stakeholders to assess whether the clawback policy has been put to use. This should include details of whether the clawback was used in the reporting period, the nature of the incident which prompted it and that monetary value was clawed back.

While many companies were willing to implement a Clawback policy covering misconduct, very few were willing to commit to ongoing annual disclosures of whether clawbacks were used in the reporting period. **Shire** was one of the few to do so. We also conducted engagement on the same issue with major financial companies. It is worth noting that **JPMorgan Chase** have now agreed to do so, and clawback reporting is available in its annual proxy statement.

### Verdict

Over the past five years, we have seen a widespread recognition from the pharmaceutical industry that conduct of employees poses a serious risk to commercial performance. We have seen efforts by the companies to improve senior executive and board-level oversight and accountability on this issue, and to; revise and strengthen management systems to assess, identify and monitor potential conduct-related regulatory breaches. Many of the companies are open and willing to discuss the issue and the challenge of reform in an honest fashion. We have had good access to senior executives and board members for in-depth discussions. This has provided signal of how seriously companies are taking reform.



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What we are still not seeing sufficiently is companies clearly linking these issues to pay outcomes in a transparent fashion, nor are we seeing meaningful performance reporting in this area. On the latter point, US companies in particular have been reluctant to disclose how they are performing in this area.

Finally, despite the fact that companies are taking the issue seriously, we need to be realistic in recognising that genuine culture change takes time, particularly for the large multinational firms. Top-level messages being heard and followed by employees in distant markets is one of the key hurdles in implementing long-term change, with the loyalty of employees in many markets often likely to be with their line manager than a Chief Executive in another continent. The time in the industry is for companies not to just say that culture reform is taking place but to show investors the hard evidence that it really is happening.


<sup>3</sup> [http://www.uawtrust.org/AdminCenter/Library.Files/Media/501/In%20the%20News/UAW%20RMBT%20-%20Recoupment%20Press%20Release%20-April%204%202013%20830%20AM%20\\_FINAL.pdf](http://www.uawtrust.org/AdminCenter/Library.Files/Media/501/In%20the%20News/UAW%20RMBT%20-%20Recoupment%20Press%20Release%20-April%204%202013%20830%20AM%20_FINAL.pdf)

<sup>4</sup> For clients of the *rea* engagement overlay service this is provided as a confidential appendix to this ESG Viewpoint

### How BMO Global Asset Management can help you

BMO Global Asset Management incorporates material ESG issues into its investment processes across asset classes. We also offer our Responsible Funds range, which invests in companies operating sustainably and excludes those not meeting our ethical and ESG criteria, and our **reo**® engagement service, through which we provide engagement and voting services covering global equities and credit.

Contact us to find out more.

 [bmogam.com/responsible-investing](http://bmogam.com/responsible-investing)

### Sustainable Investment Awards

**INVESTMENT**  
WEEK

**SUSTAINABLE INVESTMENT  
AWARDS 2016**

**WINNER**

Best Ethical Investment  
Fund Management Group

Best Ethical Investment  
Fund Management  
Group 2016

**INVESTMENT**  
WEEK

**SUSTAINABLE INVESTMENT  
AWARDS 2016**

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Best Sustainable Investment  
Fund Management  
Group 2016

Past performance should not be seen as an indication of future performance.

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# Advancing SDGs through engagement

August 2018



**Vicki Bakhshi**  
Director, GSI



**Emma Lupton**  
Associate,  
Analyst, GSI

❖ **Why:** The Sustainable Development Goals (SDGs) provide a universally-recognised framework for assessing and accelerating progress towards a more sustainable world.

❖ **What:** As shareholders we discuss important environmental and social issues with the companies we, and our clients, invest in to create positive behavioural change.

❖ **How:** We are engaging with companies on SDG targets where we can have the most impact and influence.

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### Key risk

Capital is at risk and investors may not get back the original amount invested.

## What are the Sustainable Development Goals?

The Sustainable Development Goals (SDGs) set out a roadmap for a more sustainable global economy and society by 2030. Developed by the United Nations, they were endorsed in 2015 by all 193 member states. They build on the Millennium Development Goals (MDGs), but are broader in scope, and have a critical difference – whilst the MDGs focused on government actions, the SDGs look to all stakeholders, including the financial sector and business, to support implementation.



(Figure 1)

The SDGs are structured around 17 Goals (Figure 1). Each Goal has a set of targets setting out specific objectives to achieve the Goal, with a total of 169 targets across the 17 Goals.

Since the SDGs came into force in January 2016, they have been increasingly widely adopted as a common and consistent way to articulate sustainability; a survey of 470 corporate sustainability reports by PwC<sup>1</sup> found that 62% referenced the SDGs. Amongst policymakers, the SDGs are one of the key foundations of the European Commission's Action Plan on Sustainable Finance, as well as the G7 Summit which took place this year in Canada.

### What is the role of investors?

Finance has a critical role to play in achieving the SDGs, by channelling capital towards solutions. We believe that the financial sector cannot be a passive bystander to sustainability challenges, and should work actively alongside corporates and governments within their privileged and trusted position as stewards of capital.

“

“Our clients, rightly, have high expectations when entrusting their money to us. In my view, fulfilling those expectations is not just about the quarterly financial returns we deliver to them. It is also, I believe, about being a responsible member of the investor community, and supporting the development of a sustainable global economy – which, ultimately, will underpin our own and our clients’ long-term prosperity and security.”

– Richard Wilson, CEO & CIO, BMO Global Asset Management

We also believe that utilising the SDGs can have advantages from a fiduciary duty standpoint<sup>2</sup>, by providing a macroeconomic view of the key trends in sustainability that can help to shape investor thinking about future opportunities.

Ultimately, achieving the vision of the 2030 Agenda, of a stable environment and society, is essential for laying the foundations to long-term global prosperity and investment performance.

Recognising these points, a growing number of investors are already working to embed the SDGs in their processes. Examples of actions include:

- ✦ Selecting one or more SDG to frame the social and environmental objectives of a pension fund
- ✦ Mapping existing investments to the SDGs, across portfolios or asset classes
- ✦ Setting targets for a proportion of future investments to align with SDGs
- ✦ Using SDGs in company engagement
- ✦ Referencing SDGs in reporting on responsible investment activities

Goal 17 (Partnership for the Goals) strongly promotes a collaborative approach, and investors are joining together to share information about their approach to the SDGs, given the importance of the Goals. One example is the PRI-led ‘SDGs in Active Ownership Working Group’, which we are an active member of. This group is looking at SDG application from a listed equity and corporate fixed income perspective.

### A roadmap for SDG engagement

The link between the SDGs and engagement, in our view, is one of the most direct ways that investors can see real sustainability impact from the actions they take.

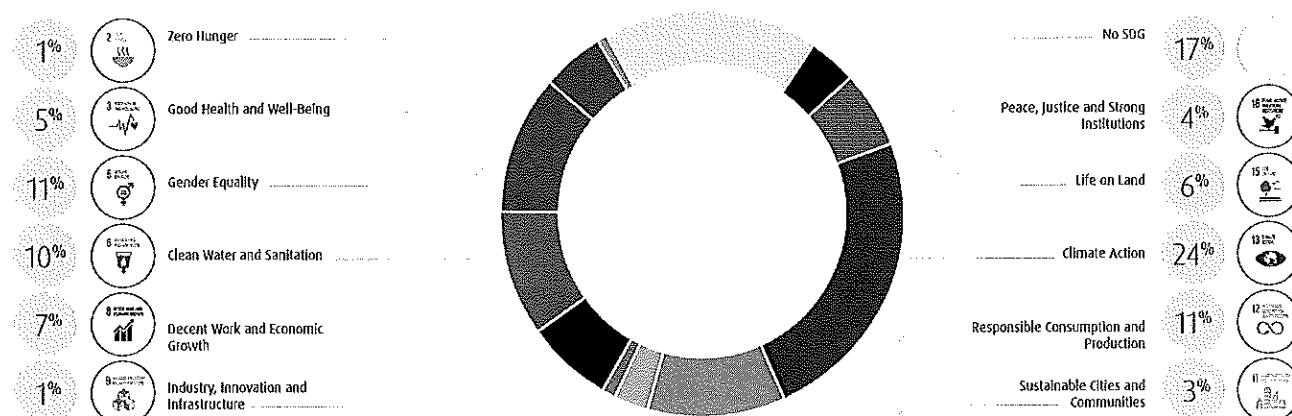
The principle of using investor engagement to promote positive financial impact, through working with companies to address material ESG risks, is well-established. What is so far less discussed is how we can articulate the positive societal and environmental impacts of engagement. We believe the SDGs provide an ideal framework to analyse this wider impact, by providing a comprehensive taxonomy for describing sustainability objectives which is commonly understood by investors, corporates and governments.

At BMO Global Asset Management our starting point was to establish a baseline by analysing the links between our existing engagement activities and the SDGs. This process started in 2016, when our approach was based on mapping our seven high-level engagement topics<sup>3</sup> to the 17 SDGs.

<sup>1</sup> Global SDG Reporting Challenge, PwC, 2017

<sup>2</sup> The SDG Investment case, UN PRI, 2017

<sup>3</sup> At the time these were: Environmental Standards, Business Ethics, Human Rights, Labour Standards, Public Health, Corporate Governance and Social and Environmental Governance



2017 engagement data, excluding post-AGM letters

(Figure 2)

In 2017, we took our analysis further by matching our 43 more granular engagement sub-themes to the 17 Goals. (Figure 2)<sup>4</sup>.

The highest proportion of SDG-linked engagement related to Goal 13 (Climate Action). Other engagement activities linked strongly to Goal 12 (Responsible Production and Consumption), Goal 5 (Gender Equality) and Goal 6 (Clean Water and Sanitation).

17% of our engagement activities didn't directly support a specific SDG; these were instances where we engaged on corporate governance issues alone. In our mapping work, we concluded that corporate governance engagement does not have a link to any single Goal. Rather, we see good governance and board-level oversight as a foundation for the achievement of all 17 Goals, with well-governed companies better able to manage sustainability risks and opportunities. The main exception in this mapping is our engagement on board diversity, much of which covers gender diversity issues, which we see as supporting Goal 5 (Gender Equality).

We have continued to develop our methodology in 2018 on how to engage in relation to the SDGs and have now mapped the 169 SDG targets to our engagement sub-themes, and vice versa, enabling us to have a more granular approach.

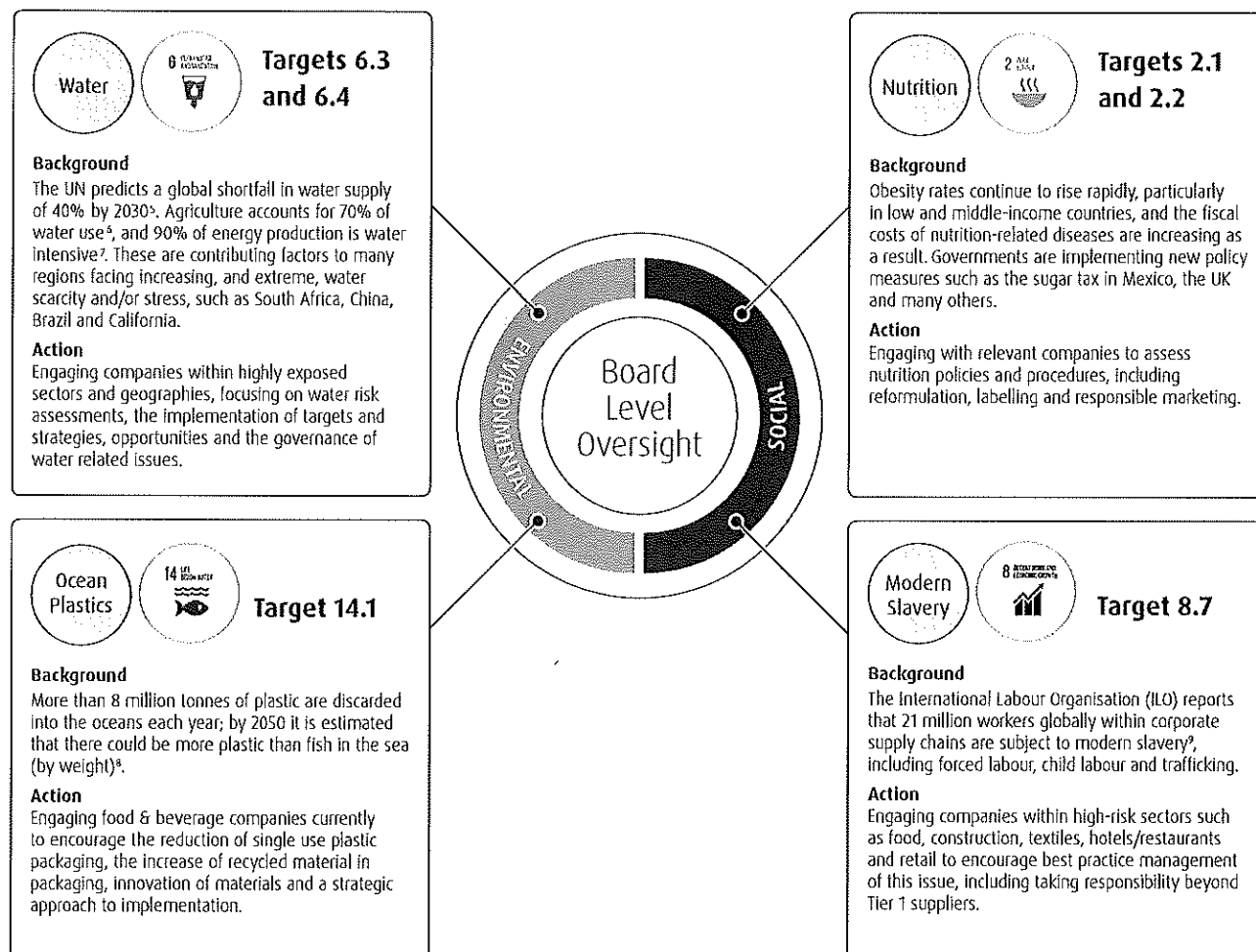
Not all 169 targets are directly applicable for investors and companies, as some are more effectively addressed by other stakeholders, such as policy makers. We have, therefore, identified 40-50 targets to initially focus on, where we believe our engagement can have the most impact to influence positive change.



The process of analysing the targets underpinning the SDGs has helped to strengthen our asks and recommendations to companies.

Mapping is a key step towards establishing a baseline and to be able to report effectively on how actions support the SDGs. But investors can go further by using the SDGs as a way to shape the engagement agenda itself. For us, the process of analysing the targets underpinning the SDGs has helped to strengthen our asks and recommendations to companies, and we are increasingly referencing specific SDG targets in our communication with companies; examples of which are set out in Figure 3.

<sup>4</sup> 2017 Responsible Investment Review, BMO, 2018



(Figure 3)

**Goal 2, Target 2.1:** By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

**Goal 2, Target 2.2:** By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

**Goal 6, Target 6.3:** By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

**Goal 6, Target 6.4:** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

**Goal 8, Target 8.7:** Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.

**Goal 14, Target 14.1:** By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

<sup>5</sup>UN, 2016, <sup>6</sup>FAO, 2016, <sup>7</sup>UNESCO, 2014, <sup>8</sup>UNEP, 2018, <sup>9</sup>OECD, 2016



"The 2030 Agenda is our roadmap and its goals and targets are tools to get there."

**UN Secretary-General António Guterres**

Our experience so far is that corporates welcome this development in engagement approach. With demands growing for sustainability reporting that is time intensive to produce, there is increasing pressure to prioritise and find ways to communicate on

sustainability effectively, to satisfy a wide range of stakeholders. By working with the common language of the SDGs, investors and corporates can build a more effective engagement relationship.

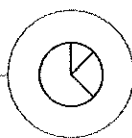
### A shift in perspective

We see the SDGs and their application as emblematic of a shift in perspective in the investment industry. There has already been progression within responsible investment from values to valuation, as investors came to realise that the ESG issues previously seen as purely ethical could be financially material, and then worked to integrate these into mainstream investment processes.

We believe a further shift is now taking place towards impact, as the financial sector takes greater responsibility for the consequences of its decisions on the wider economy and society; and the SDGs are at the heart of this. We believe this a positive trajectory for our industry and and we will continue to strive for leadership within this area.



Values



Valuation



Impact

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# ESG Viewpoint

September 2018



**David Sneyd**

Vice President, Analyst, GSI

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## Blockchain solutions to ESG problems

- Cryptocurrencies have been surrounded by hype and controversy – but the technology behind them, blockchain, is rapidly demonstrating its potential as a powerful sustainability solution.
- Blockchain offers advantages where information needs to be accurately stored and shared amongst multiple parties, with uses already identified in ESG related areas including supply chain management, renewable energy distribution and proxy voting.
- At the same time, this relatively new technology has several issues to overcome. These include high energy intensity, lack of regulations and industry standards, and data privacy laws.

With their dramatic rise, and subsequent fall, in value over the course of this year, cryptocurrencies like Bitcoin and Ethereum have sparked heated debate in 2018. Unlike conventional currencies that are reliant upon a central banking system, these virtual currencies use encryption tools to facilitate financial transactions directly between users in a decentralised manner over a network.

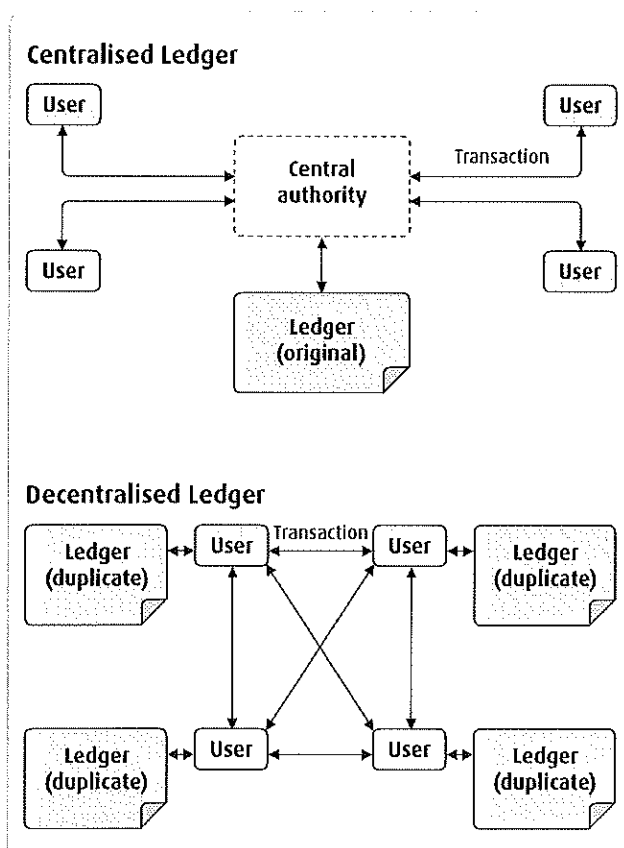
Although the broader investor community remains sceptical of the speculative nature of these new currencies, the architecture that underlies them, namely blockchain technology, has got much more traction. Estimates put spending on blockchain at US\$2.1 billion in 2018, double of that in 2017, with the potential to reach US\$9.2 billion by 2021<sup>1</sup>. As part of this, we have seen several blue-chip companies now heavily investing in the technology with a view to developing a far broader set of applications. This includes providing solutions to many of the environmental, social and governance (ESG) issues that companies face every day.

## What is blockchain technology?

Having been invented over 10 years ago as part of Bitcoin's development, blockchain technology is a method by which information is stored and shared between different parties.

In its simplest form it can be best described as a "distributed ledger" technology. A "ledger" is essentially a list that gathers in one place a collection of transactions or records of information. "Distributed" means that this ledger is shared between a network of peers rather than stored in a central location and administered by a single authority.

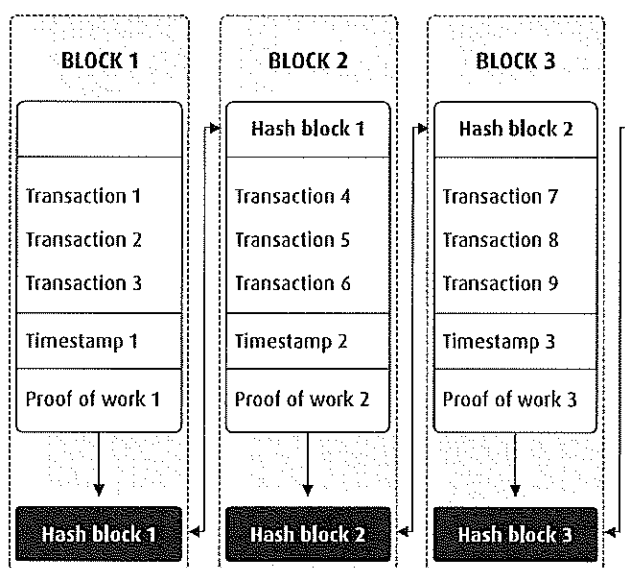
**Figure 1: Centralised vs decentralised distribution**



Blockchain technology achieves this by creating a continuously growing list of records, called blocks, which are linked together in a sequence to create the ledger. Each block is linked to the previous block using cryptography in a form that is virtually impossible to decode, and can contain information such as a location or other attribute. This means that inside every block is a complete history of everything that has ever happened in the chain before it. This information is packaged through "hashing", which is a cryptography technique that takes an input and turns it into a fixed-size alphanumeric string of characters.

Whenever someone on the network wishes to make an entry, or create a new block, the proposed transaction is broadcast to everyone on the network, which is then evaluated by network users running a complex algorithm ("proof-of-work"), or solving a mathematical puzzle, to check it is valid against a pre-set criteria that evolves as the ledger grows. This is needed because anyone on the network, whether they are known to be trustworthy or not, can attempt to add information into the blockchain, making it necessary for all new information to be reviewed and confirmed before being accepted. Consensus amongst users is then required and achieved by a majority of those on the network individually concluding that the proposed transaction is valid against some pre-set criteria. The block is then created, time-stamped and given a unique identifier. Finally, each user within the network is provided with an updated version of the ledger, complete with this latest transaction.

**Figure 2: Illustration of a blockchain**



There are two main types of network in which blockchain systems operate. Cryptocurrency networks are public in nature, meaning that anyone can join the network and read the ledger, or use it to send transactions. Public networks typically allow users (but not transactions) to remain anonymous. Those on the network who are willing contribute the processing power to build and verify blocks through the process previously described are rewarded through coins or tokens, such as Bitcoins, through an arrangement known as "mining".

By comparison, private blockchain networks allow control over who can conduct transactions or access the ledger, and do not reward the processing of transactions through mining, but instead take on the cost of processing themselves.

<sup>1</sup>Source: IDC Worldwide Semi-annual Blockchain Spending Guide, 2017





### What makes blockchain technology useful?

Blockchain offers a new method by which to record information in a manner that is more open, but also secure, and share it with multiple users. Whilst it was developed for cryptocurrencies, the potential applications go far beyond this, given that the accurate recording and distribution of information is central to a lot of how companies operate. The attributes that make it useful for other applications include:

- **More collaborative** – with no central authority needed to facilitate or control transactions, this means that two or more parties who do not know one another can work confidentially together without the need for middle-men, which can add inefficiencies and expense
- **More transparent** – the ledger provides an open and detailed list of every transaction or record of information, accessible by all in public networks, or a selected audience for private networks
- **More secure** – the ledger is not stored in one location, but rather duplicated across the entire network, meaning the ledger cannot be manipulated, stolen or corrupted from a single location
- **More accurate** – the blockchain is constructed by consensus of users in the network, with each new block automatically checked before it is added
- **More consistent** – users on the network have identical copies of the ledger as opposed to there being multiple individual copies that are stored locally and can become unsynchronised
- **More timely** – the blockchain updates at set intervals, with the ledger held by each individual user being updated near-instantly

### What ESG problems could it solve?

There are a number of areas that companies are trying to exploit this technology to the benefit of stakeholders:

#### • Supply chain traceability

It is commonplace for companies to have supply chains involving hundreds of suppliers, with individual products passing through multiple parties before reaching the end-consumer. This can lead to real challenges for companies who wish to ensure that their own expectations on conduct and quality, such as product safety, environmental or labour standards, are maintained throughout the supply chain.

Using blockchain technology, companies are able to record the journeys of their products more accurately and more cheaply. With all suppliers invited into the network, every time a product changes hands within the supply chain, its precise location and time-stamp is documented by creating a new block, with the ledger creating a permanent history of every product from its manufacture through to its sale.

Given the number of suppliers involved, a centralised process would be cumbersome and would need to involve intermediaries to liaise between parties. However, with a blockchain network each party is synchronised in the information it receives, with each transaction validated by other users on the network. Having an accurate record of where a product has come from and who has been involved can be invaluable for responding to product recalls or understanding the exposure from issues being found with a specific supplier.

Food giant **Walmart** recently described how adopting blockchain within its live food business reduced the time

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Using blockchain technology, companies are able to record the journeys of their products more accurately and more cheaply.

to track produce from six days to two seconds. Chinese e-commerce giant **JD.com** has also announced similar plans to use blockchain technology to monitor their meat supply chain against the use of illegal drugs by pig farmers, which is a real issue in the region.

#### • Renewable Energy Distribution

On an electricity grid, electrons generated from renewable sources are indistinguishable from those generated by fossil fuels, which is an issue for end-consumers who may have a preference for green energy. To keep track of how much clean energy is produced, a system based on tradable certificates works by renewable-power plants logging their output in a spreadsheet, which is then sent to a registry provider, where the data gets entered into a separate system and a certificate is created. A second set of intermediaries broker deals between buyers and sellers of these certificates, and yet another party verifies the certificates after they are purchased. This whole process increases inefficiencies in the system and reduces the attractiveness of investing in green power.

By comparison, blockchain technology offers the opportunity for smaller-scale energy producers to trade energy peer-to-peer with consumers in their local area, rather than submit their power into the grid. Such an initiative has been launched by the British energy company **Centrica**, within its local energy market programme.

An automated system could take data on the amount of energy produced from renewable sources, record this, broker a price and then send it out to homes on the local grid while recording incoming payments for energy purchased. Through the use of smart contracts, which execute automatically when pre-set conditions are met, transactions can be made and recorded on the blockchain without a central distributor. This simplifies what is an otherwise complicated multi-layer system, with power producers, transmission system operations, distribution system operators and suppliers all contributing to transaction costs.

#### • Anti-money laundering

For financial institutions the current “Know Your Customer” (KYC) process, which involves performing a thorough background check on clients in order to detect fraud or suspected money laundering, can take days or even weeks

to satisfy the increasingly stringent demands of regulators.

Using blockchain technology, the process of monitoring customer activity in real-time can be substantially improved by providing more timely information to all of those involved. Due to the shared nature of the ledger, a database of all client activity and background information would be available to those on the network, with any updates to a client’s status or fraudulent transaction could be communicated and updated in near real-time.

It also allows for better co-operation with different financial institutions, who can all join the same network, as cryptography can be used to ensure that only transaction information is shared without revealing confidential information on individual customers. To do so, financial institutions will need to think hard about how confidential information is shared, but with the right data governance and access controls, these concerns can be overcome. Ultimately, the risk of non-compliance due to delayed or inaccurate reporting would be greatly diminished.

#### • Cybersecurity

Protecting confidential data is more important for companies than ever before. By storing data across its network, the blockchain and its use of a distributed ledger eliminates the vulnerabilities that come with data being held centrally. Without a single point of entry, it is more difficult for hackers to either steal the data or corrupt it for ransom purposes.

The use of a distributed platform also adds resilience to a company’s operations against a Distributed Denial of Service (DDoS), being one of the most common types of attacks. DDoS attacks attempt to make online services unavailable by overwhelming servers with traffic from multiple sources, causing the infrastructure to become overloaded. As the infrastructure behind the blockchain is distributed amongst many users, it does not have a single point of failure, so if one user goes down then the integrity of the network is maintained, as long as at least one of the users remains connected.

#### • Proxy voting

Shareholders’ ability to exercise their voting rights is an important tool in fulfilling their stewardship responsibilities and holding companies to account. However, the current proxy voting system can be cumbersome and inefficient, with vote instructions being transmitted through a series of disconnected intermediaries. The currently proxy systems do not easily allow for auditing or reconciliation of votes at shareholder meetings, as many of those within the instruction chain, such as sub-custodians, custodians and company registrars, have separate record-keeping systems.

The 2018 voting season saw blockchain used at a shareholder meeting for the first time, with proxy distributor **Broadridge Financial Solutions** providing just such a service at **Banco Santander’s** 2018 AGM. By using blockchain technology

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Without a single point of entry, it is more difficult for hackers to either steal the data or corrupt it for ransom purposes.

a company can create a distributed ledger for each shareholder meeting, with all shareholders eligible to vote at the meeting added as members into the network. Each time a vote instruction is made, an additional block is added to the blockchain containing the specific instructions. The main advantage would be that is it tamper-proof and since there is only one record-keeping system, it removes the need to reconcile different databases. Overall this can give more confidence in the integrity of the vote results from that meeting.

### Risks of blockchain technology

Despite the potential benefits that can come from implementing blockchain technology to address business issues, as an emerging technology there are still many risks connected to its deployment that need to be resolved before the full potential of blockchain can be realised:

- **High energy use** – with each user on the network required to individually process cryptographic calculations and the requirement for mining to power its operation, the processing power (and therefore electrical power) needed to implement a blockchain network is substantial. By means of illustration, one estimate suggests that the bitcoin network used just over 32 terawatt hours last year, which is more than the nation of Denmark over the same period.
- **Unregulated landscape** – as the technology is still relatively new there is still a time lag on regulation being introduced, which makes investment riskier as there could be substantial compliance costs on the horizon if today's architecture designs are not compliant with tomorrow's laws. This is particularly relevant given that blockchain is being rapidly integrated within finance services, which is a heavily regulated industry.
- **No internationally recognised standard** – although the overall concept of what constitutes a blockchain network is relatively fixed, the exact mechanics of how it works can vary widely. This can result in different blockchain networks becoming siloed and unable to

cross-communicate, limiting their usefulness at scale. It also increases the cost of investment as development is more difficult, with an equivalent situation being having to build an operating system, such as Android or iOS, every time you wish to develop an app.

**Relatively slow** – applications that use blockchain technology need to process the entire history of that blockchain every time a change is made, meaning that transactions can be slow compared to normal computer processing. For example, Bitcoin handles seven transactions a second and Ethereum around 13, whereas payments company **MasterCard** is capable of handling more than 44,000 per second.

- **Compliance with data laws** – the 'Right to be Forgotten', which has most recently been enshrined in the EU's General Data Protection Regulation (GDPR), poses a challenge to a technology that guarantees that nothing will be erased within a blockchain.

Unlike the cryptocurrencies that gave birth to its underlying architecture, more companies seem to be taking blockchain technology seriously and reflecting that in their investment. On the face of it this seems to be for good reason, with what is promised being a fundamental shift in how we store and share information. There are already a wide range of applications currently in development, including many that address traditional ESG problems, with the initial results on improving efficiency looking promising.

That being said, investors should be aware of the scale of the task at hand in trying to integrate relatively early stage technology into long-established processes and business ecosystems. The issues identified can and probably will be overcome with additional research, development and co-operation, but this process will be expensive, take time and, as industry standards emerge, ultimately result in there being winners and losers.

What is clear is that, given the current level of investment and its wide range of potential applications, blockchain technology is not going away. It might not grab the headlines in the way that its cryptocurrency cousins have done so before it, but in the background (or rather back-office) and behind-the-scenes it could provide exciting opportunities in helping companies tackle the sustainability issues that their businesses face.


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One estimate suggests that the bitcoin network used just over 32 terawatt hours last year, which is more than the nation of Denmark over the same period.

### How BMO Global Asset Management can help you

BMO Global Asset Management incorporates material ESG issues into its investment processes across asset classes. We also offer our Responsible Funds range, which invests in companies operating sustainably and excludes those not meeting our ethical and ESG criteria, and our **reo**® engagement service, through which we provide engagement and voting services covering global equities and credit.

Contact us to find out more.

 [bmogam.com/responsible-investing](https://bmogam.com/responsible-investing)

Capital is at risk and investors may not get back the original amount invested.

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**BMO**  **Global Asset Management**

# Priority Companies and Your Fund

The table below highlights the companies on BMO's annual priority engagement list with which we have engaged on your behalf in the past quarter and which you currently hold within your portfolio. Priority companies are selected through a detailed analysis of client holdings, proprietary ESG risk scores, engagement history and the BMO Governance and Sustainable Investment team's judgement and expertise. Each priority company has defined engagement objectives set at the beginning of each year. Engagement activity levels for priority companies are more intensive than for companies where we engage more reactively. We provide reporting on our engagement with priority companies in the form of case studies which follows the table below. For full list of priority companies please refer to the Appendix at the end of this report. For full details of our engagements with companies please refer to the online *reo*® client portal.

Name	Sector	ESG Rating	Response to engagement	Themes engaged						
				Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
Amazon.com Inc	Consumer Discretionary	RED	Poor				●			
Associated British Foods PLC	Consumer Staples	GREEN	Adequate			●	●	●		
Bayer AG	Health Care	YELLOW	Adequate		●			●		
Becton Dickinson and Co	Health Care	GREEN			●			●		
BHP Billiton Ltd	Materials	YELLOW	Good	●					●	
CVS Health Corp	Health Care	YELLOW			●			●		
General Electric Co	Industrials	YELLOW	Poor	●		●	●			
GlaxoSmithKline PLC	Health Care	YELLOW	Good					●		
HSBC Holdings PLC	Financials	YELLOW	Good		●				●	
International Consolidated Airlines Group SA	Industrials	RED	Adequate				●	●	●	
Johnson & Johnson	Health Care	YELLOW	Adequate					●		
Kerry Group PLC	Consumer Staples	GREEN	Good	●		●	●		●	
Mettler-Toledo International Inc	Health Care	GREEN			●					
Nestle SA	Consumer Staples	GREEN	Good	●					●	
Novartis AG	Health Care	ORANGE	Good		●			●		
Roche Holding AG	Pharmaceuticals, Biotechnology	GREEN	Adequate					●		
Ryanair Holdings PLC	Industrials	YELLOW	Good				●		●	
VF Corp	Consumer Discretionary	GREEN	Poor			●	●			
Vistra Energy Corp	Utilities	RED								●
XPO Logistics Inc	Industrials	RED	Adequate	●			●		●	●

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**

# Engagements and Your Fund: Red rated

The table below highlights the companies with which we have engaged on your behalf in the past quarter and which you currently hold within your portfolio. The table is split by ESG risk rating. For full details of our engagements with companies please refer to the online *reo*® client portal.

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
Amazon.com Inc	United States	Consumer Discretionary	✓	RED				●			
Crown Holdings Inc	United States	Materials		RED	●						
Danske Bank A/S	Denmark	Financials		RED		●				●	
General Motors Co	United States	Consumer Discretionary		RED							●
International Consolidated Airlines Group SA	United Kingdom	Industrials	✓	RED				●	●	●	
Pfizer Inc	United States	Health Care		RED					●		
SMC Corp/Japan	Japan	Industrials		RED	●	●				●	
Vistra Energy Corp	United States	Utilities	✓	RED							●
XPO Logistics Inc	United States	Industrials	✓	RED	●			●		●	●
Yum! Brands Inc	United States	Consumer Discretionary		RED	●						

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: GREEN Second quartile: YELLOW Third quartile: ORANGE Bottom quartile: RED

# Engagements and Your Fund: Orange rated

The table below highlights the companies with which we have engaged on your behalf in the past quarter and which you currently hold within your portfolio. The table is split by ESG risk rating. For full details of our engagements with companies please refer to the online *reo*® client portal.

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
Ameren Corp	United States	Utilities		ORANGE	●					●	
CCL Industries Inc	Canada	Materials		ORANGE	●						
eBay Inc	United States	Information Technology		ORANGE			●	●			
FMC Corp	United States	Materials		ORANGE	●						
Lloyds Banking Group PLC	United Kingdom	Financials		ORANGE		●					
Novartis AG	Switzerland	Health Care	✓	ORANGE		●			●		
Sealed Air Corp	United States	Materials		ORANGE	●						
Toppan Printing Co Ltd	Japan	Industrials		ORANGE	●						

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**

# Engagements and Your Fund: Yellow rated

The table below highlights the companies with which we have engaged on your behalf in the past quarter and which you currently hold within your portfolio. The table is split by ESG risk rating. For full details of our engagements with companies please refer to the online *reo*® client portal.

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
Arkema SA	France	Materials		YELLOW	●				●		●
Bayer AG	Germany	Health Care	✓	YELLOW		●			●		
BHP Billiton Ltd	Australia	Materials	✓	YELLOW	●					●	
Coca-Cola Co/The	United States	Consumer Staples		YELLOW	●				●		
CVS Health Corp	United States	Health Care	✓	YELLOW		●			●		
Daiichi Sankyo Co Ltd	Japan	Health Care		YELLOW					●	●	
DNB ASA	Norway	Financials		YELLOW		●					
General Electric Co	United States	Industrials	✓	YELLOW	●		●	●			
GlaxoSmithKline PLC	United Kingdom	Health Care	✓	YELLOW					●		
HSBC Holdings PLC	United Kingdom	Financials	✓	YELLOW		●				●	
Johnson & Johnson	United States	Health Care	✓	YELLOW					●		
Mitsui Chemicals Inc	Japan	Materials		YELLOW	●				●		●
Mondelez International Inc	United States	Consumer Staples		YELLOW	●						
Obayashi Corp	Japan	Industrials		YELLOW		●		●			
Remy Cointreau SA	France	Consumer Staples		YELLOW	●				●		
Royal Mail PLC	United Kingdom	Industrials		YELLOW				●		●	●
Ryanair Holdings PLC	Ireland	Industrials	✓	YELLOW				●		●	
Showa Denko KK	Japan	Materials		YELLOW	●				●		●
Starbucks Corp	United States	Consumer Discretionary		YELLOW	●						
Tesco PLC	United Kingdom	Consumer Staples		YELLOW		●					

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**



# Engagements and Your Fund: Green rated

The table below highlights the companies with which we have engaged on your behalf in the past quarter and which you currently hold within your portfolio. The table is split by ESG risk rating. For full details of our engagements with companies please refer to the online **reo®** client portal.

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
AbbVie Inc	United States	Health Care		GREEN							
Acuity Brands Inc	United States	Industrials		GREEN							
Agnico Eagle Mines Ltd	Canada	Materials		GREEN							
Alphabet Inc	United States	Information Technology		GREEN							
Apple Inc	United States	Information Technology		GREEN							
Ashtead Group PLC	United Kingdom	Industrials		GREEN							
Associated British Foods PLC	United Kingdom	Consumer Staples	✓	GREEN							
Astellas Pharma Inc	Japan	Health Care		GREEN							
AstraZeneca PLC	United Kingdom	Health Care		GREEN							
Becton Dickinson and Co	United States	Health Care	✓	GREEN							
Brenntag AG	Germany	Industrials		GREEN							
Bristol-Myers Squibb Co	United States	Health Care		GREEN							
Burberry Group PLC	United Kingdom	Consumer Discretionary		GREEN							
Cie Financiere Richemont SA	Switzerland	Consumer Discretionary		GREEN							
Coca-Cola European Partners PLC	United Kingdom	Consumer Staples		GREEN							
Coca-Cola HBC AG	Switzerland	Consumer Staples		GREEN							
Croda International PLC	United Kingdom	Materials		GREEN							
CSL Ltd	Australia	Health Care		GREEN							
Diageo PLC	United Kingdom	Consumer Staples		GREEN							
easyJet PLC	United Kingdom	Industrials		GREEN							
Eisai Co Ltd	Japan	Health Care		GREEN							
Eli Lilly & Co	United States	Health Care		GREEN							
Gilead Sciences Inc	United States	Health Care		GREEN							
ISS A/S	Denmark	Industrials		GREEN							
J Sainsbury PLC	United Kingdom	Consumer Staples		GREEN							
Julius Baer Group Ltd	Switzerland	Financials		GREEN							
Kansai Paint Co Ltd	Japan	Materials		GREEN							
Kerry Group PLC	Ireland	Consumer Staples	✓	GREEN							
Marine Harvest ASA	Norway	Consumer Staples		GREEN							
Merck & Co Inc	United States	Health Care		GREEN							
Merck KGaA	Germany	Health Care		GREEN							
Mettler-Toledo International Inc	United States	Health Care	✓	GREEN							
Microsoft Corp	United States	Information Technology		GREEN							
Mondi PLC	United Kingdom	Materials		GREEN							

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**

# Engagements and Your Fund: Green rated

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
MTU Aero Engines AG	Germany	Industrials		GREEN		●		●			
National Grid PLC	United Kingdom	Utilities		GREEN		●					
Nestle SA	Switzerland	Consumer Staples	✓	GREEN	●					●	
Next PLC	United Kingdom	Consumer Discretionary		GREEN			●	●			
Novo Nordisk A/S	Denmark	Health Care		GREEN		●					
Prudential Financial Inc	United States	Financials		GREEN					●	●	
Roche Holding AG	Switzerland	Pharmaceuticals, Biotechnology	✓	GREEN					●		
Royal Bank of Canada	Canada	Financials		GREEN						●	
Sanofi	France	Health Care		GREEN					●		
Shimizu Corp	Japan	Industrials		GREEN		●		●			
Smiths Group PLC	United Kingdom	Industrials		GREEN				●			
Smurfit Kappa Group PLC	Ireland	Materials		GREEN	●						
Takeda Pharmaceutical Co Ltd	Japan	Health Care		GREEN		●			●		
VF Corp	United States	Consumer Discretionary	✓	GREEN			●	●			
Wolters Kluwer NV	Netherlands	Industrials		GREEN		●					

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**

# Milestones and Your Fund

The table below highlights the companies with which we have recorded milestones on your behalf in the past quarter and which you currently hold within your portfolio. Milestones are engagement outcomes which we have identified and is rated on the extent to which it protects investor value. For full details of our engagements which led to these milestones please refer to the online **reo®** client portal.

Name	Country	Sector	Priority company	ESG Rating	Themes engaged						
					Environmental standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance	Climate Change
<div>☆☆☆</div>											
Danske Bank A/S	Denmark	Financials		RED		●					
Royal Mail PLC	United Kingdom	Industrials		YELLOW						●	
Ryanair Holdings PLC	Ireland	Industrials	✓	YELLOW				●			
<div>☆☆</div>											
Akzo Nobel NV	Netherlands	Materials		GREEN							●
Banco Bilbao Vizcaya Argentaria SA	Spain	Financials		GREEN							●
Barrick Gold Corp	Canada	Materials		ORANGE							●
BHP Billiton Ltd	Australia	Materials	✓	YELLOW	●						●
BP PLC	United Kingdom	Energy	✓	YELLOW							●
Exxon Mobil Corp	United States	Energy		YELLOW							●
Freeport-McMoRan Inc	United States	Materials		RED			●				
Gap Inc/The	United States	Consumer Discretionary		GREEN				●			
HSBC Holdings PLC	United Kingdom	Financials	✓	YELLOW							●
J Sainsbury PLC	United Kingdom	Consumer Staples		GREEN	●			●			
Kerry Group PLC	Ireland	Consumer Staples	✓	GREEN	●						
Marks & Spencer Group PLC	United Kingdom	Consumer Discretionary		GREEN	●			●			
McKesson Corp	United States	Health Care		RED						●	
Mondi PLC	United Kingdom	Materials		GREEN							●
NetApp Inc	United States	Information Technology		RED						●	
Novartis AG	Switzerland	Health Care	✓	ORANGE					●		
Royal Dutch Shell PLC	Netherlands	Energy	✓	YELLOW							●
Standard Chartered PLC	United Kingdom	Financials		GREEN							●
Unicharm Corp	Japan	Consumer Staples		ORANGE							●
Wm Morrison Supermarkets PLC	United Kingdom	Consumer Staples		GREEN				●			
Yaskawa Electric Corp	Japan	Information Technology		GREEN						●	
Yum! Brands Inc	United States	Consumer Discretionary		RED	●						
<div>☆</div>											
Aeon Co Ltd	Japan	Consumer Staples		GREEN							●
Anthem Inc	United States	Health Care		RED							●
Applied Materials Inc	United States	Information Technology		GREEN							●
Barrick Gold Corp	Canada	Materials		ORANGE			●				
Burberry Group PLC	United Kingdom	Consumer Discretionary		GREEN	●						

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile:  GREEN Second quartile:  YELLOW Third quartile:  ORANGE Bottom quartile:  RED

# Milestones and Your Fund

Name	Country	Sector	Priority company	ESG Rating	Themes engaged					
					Environmental Standards	Business Ethics	Human Rights	Labour Standards	Public Health	Corporate Governance
Cisco Systems Inc	United States	Information Technology		GREEN						
CRH PLC	Ireland	Materials		GREEN						
US Bancorp	United States	Financials	✓	ORANGE						

**ESG Risk Rating:** Rating of a company's ESG risk exposure and risk management compared to industry peers. Source: MSCI ESG Research Inc.

Top quartile: **GREEN** Second quartile: **YELLOW** Third quartile: **ORANGE** Bottom quartile: **RED**