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Rights and Responsibility

Our Global Responsible Investment Approach

Annual Review 2018

For today's investor

AVIVA INVESTORS

Contents

A foreword from Euan Munro

I recently received a letter from an institutional client who wanted to know how we were engaging with the companies we invest in. Among other things, they wanted to know whether we had quizzed the companies about climate change and encouraged disclosure around the climate risks they face.

Just a few years ago, a request like this would have been highly unusual. However, over the past few years we have continued to see rising interest from clients around the world in what we do to integrate environmental, social and governance factors into our investments and how we act as a responsible steward of their capital.

Whether investing in equities, bonds, real estate or infrastructure, integrating ESG into investment decisions and being responsible stewards of clients' assets is non-negotiable for us. ESG factors can have a material risk on an investment and understanding these issues, and how they shape our economy and society, allows us to spot investment risks as well as opportunities.

This is why we have continued to strengthen our capabilities in 2018 by investing further in our Global Responsible Investment Team and adopting a globally consistent and firm-wide Responsible Investment Philosophy. We were also pleased to grow our sustainable fund range to meet the needs of clients who want to allocate capital to achieve specific sustainable outcomes. For example, we on-boarded management of the UK's first ethical fund range which was previously outsourced. We also obtained the French SRI label, sponsored by the French Treasury, for several of our French funds.

More broadly, global capital markets have improved significantly in recent years, with targeted regulation, better board governance, increased investor accountability, and a greater appreciation of the dangers of excessive risk taking and short termism. We were particularly pleased to support the launch of the World Benchmarking Alliance which will create progressive improvements and ideally, progressive competitiveness, as we hold companies to account for how they are delivering the Sustainable Development Goals. We also welcomed the opportunity to work with Accounting for Sustainability to convene over fifty global finance leaders at St James's Palace to produce a report that set out what actions all the actors in the entire system can take to make the financial system more sustainable.

But a great deal more must be done. Governments, businesses and my own industry need to create sustainable capital markets that can genuinely deliver the right outcomes for both individual investors and society. If we are to deal with unprecedented political, social and technological change and disruption and deliver on the Sustainable Development Goals we need bold ambitions and, more importantly, bold actions. Change will require a fresh perspective on governance and risk management, board leadership, corporate culture and stakeholder engagement. It will also require capital being steered towards sustainable outcomes, building a future that our clients want to retire into. Few parts of the finance sector will be insulated from this coming change. People are increasingly realising that their investments can make a real difference. It is our responsibility, as investors of their capital, to make sure that it does.

An occasional letter from an institutional client goes a long way, but fund managers need to hear much more from their clients. For that to happen our industry needs to make it easier for people to see where their money is going so that they can be empowered to decide how they want their capital to be invested. Vocal demand for a more sustainable approach to investment is absolutely central to ensuring that the industry continues to change.

Euan Munro

Euan Munro
Chief Executive Officer

About Aviva Investors

We are a global asset manager with expertise across all major asset classes.

Our parent company is Aviva plc; listed on the London Stock Exchange and a member of the FTSE 100 Index, it is the largest insurance company in the UK.

AVIVA

320 years in business
33m customers

Life insurance General insurance Health insurance **Asset management**

Asset Class	£m
Credit	111,135
Equities	35,706
Multi-asset and Macro	79,730
Real Assets	44,340
Solutions	66,767
Total	**337,678**

14 countries

1500+ people

AVIVA INVESTORS

Source : Aviva Investors, as at 31st December 2018

2018 responsible investment highlights

Voted on **54,335** resolutions at **4,713** shareholders meetings

Global Responsible Investment team grew to **19 ESG specialists**

Engaged **1,954** companies as part of our **stewardship responsibilities**

Voted against **27 %** of management resolutions including **49 %** of pay proposals

More than doubled investments in Green and Social Bonds to **£1,715m**

Published multiple reports including our **views on GDP** and **environmental sustainability** and on **the future of energy**

Founding member of the **World Benchmarking Alliance**

Aviva received the **United Nations Foundation Leadership Award** in recognition of our work to support the United Nations Sustainable Development Goals

Source : Aviva Investors, as at 31st December 2018

Our contribution to a changing world

"Last year was the first in which all our new institutional investment clients asked us ESG-related questions."

Steve Waygood
Chief Responsible Investment Officer

By Steve Waygood

2018 was a big year for Sustainable Finance. The United Nations, the European Commission, the Financial Stability Board Taskforce on Climate-Related Financial Disclosure (TCFD) and the UK Government all launched major new initiatives.

It was also a busy year for us. In addition to playing a role in these initiatives, we worked alongside Accounting for Sustainability to convene over fifty global finance leaders at St James's Palace to produce a report setting out what actions all the actors could take to make the financial system more sustainable.[1] And as part of our continued efforts in market reform, we helped launch the World Benchmarking Alliance, following a global consultation with over 10,000 respondents. The initiative secured two awards in the first six weeks of being announced.

As responsible investing makes its way firmly into the mainstream, so come the demands on resource. Last year was the first in which all our new institutional investment clients asked us ESG-related questions during the tendering process. We also on-boarded £2.3 billion into the UK's first ethically screened retail funds and accredited €2.7 billion of funds to the French SRI label. In order to help meet this demand, our Global Responsible Investment team grew from 11 at the start of the year, to 21 at the end.

Can ESG help improve investment returns?

This is still the top question on the lips of our clients. Academic studies are increasingly recognising that it does. Drawing on an ever-expanding universe of data from corporate sustainability reports, researchers are now able to properly analyse the relationship between a company's ESG performance and its financial performance. Academics at the University of Hamburg found a positive relationship between ESG ratings and corporate performance in close to half of the 1,816 academic studies published since 1970. In contrast, they found a negative correlation just 10 per cent of the time.[2]

There are logical explanations as to why. Firstly, assets underpinned by high ESG ratings are likely to be less risky. In the short term, firms may be able to get away with exploiting their customers or workforce, or the environment. Eventually, however, they will be damaged by such behaviour. Secondly, there is evidence to suggest highly-rated firms have a lower cost of capital. Several studies have found good environmental performance correlates with a lower cost of debt and stronger credit ratings. One study found the same for good employee relations.

Incorporating ESG criteria into the investment process can also improve returns in other ways. Since the evidence suggests companies can create value by improving their ESG scores, it makes sense to engage with them to help improve their approach. While investors should be wary of overpaying for assets based on ESG criteria alone, there is every reason to believe investing responsibly will pay off.

How can ESG make the world a better place?

Making money matters to our clients and, as a result, is our primary focus. However, we also believe the capital markets are failing in ways that will affect long-term returns. Correcting these market failures is in all our interests.

We see three key – and related – ways in which capital markets are failing. They are failing to take account of personal ethics. They are failing the companies they exist to fund by forcing them to focus on short-term profits at the expense of long-term growth. And they are failing to properly consider the health of our planet and the people who depend on it – i.e. all of us.

By some estimates, half of the world's coral has been lost since the 1980s. Around 40 per cent of the world's agricultural land is now seriously degraded. Over 80 per cent of the world's fisheries are fully exploited. And we are on track for a rise of almost four degrees by 2100, threatening drought and weather conditions that humanity has never experienced.

We also live in a grossly unequal world. Globally, one person in nine does not have enough to eat. Two billion people live on less than US$3 per day and over 70 million people are unable to find work. Yet, the world's richest one per cent now own more wealth than all the other 99 per cent put together, with just the eight richest people in the world owning the same as 50 per cent of the world's population.

However, none of this is inevitable. We do not lack the capital required to deliver the UN Sustainable Development Goals. What we lack is imagination, compassion, and equality of opportunity. If we are to create capital markets that factor in people and planet, as well as profit, this all needs to change.

In what follows you will read how Aviva Investors is addressing the changes of today's world. You can explore more about our Global Responsible Investment team with its multiple capabilities committed to taking on these societal challenges and meeting our clients' needs. You can learn more about how we are working to address the Sustainable Development Goals and have taken steps to build global, publicly available benchmarks that measure the impact companies have on our planet. And you can read more about our active stewardship activities including stories of how we have advocated for change and had an impact on the investments we make around the world.

1. Financing The Future: Actions to Scale Up and Accelerate the Pace of Change Towards a More Sustainable Financial System: https//www.aviva.com/content/dam/aviva-corporate/documents/socialpurpose/pdfs/financing-our-future-report.pdf
2. Friede G, Busch T & Bassen A (2015): ESG and financial performance: aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment.

What's going on in the world today?

The world is facing a number of dramatic societal challenges that will impact on economies and society, and ultimately investments, if left unresolved.

An unfair planet

- 783 million people live below the international poverty line of US$1.90 a day.
- Globally, one in nine people in the world today (815 million) are undernourished.
- Poor nutrition causes nearly half (45 per cent) of deaths in children under five – 3.1 million children each year.

Communities under pressure

- The speed and scale of urbanisation is unprecedented causing challenges in cities and rural areas across countries.[3]
- In some parts of the world peace and stability remain under threat – and for some it's getting worse.[4]
- Artificial Intelligence and the Internet of Things (IoT) brings risks to fundamental rights like free speech and privacy.
- Antibiotic resistance currently kills 700,000 people every year. According to the World Health Organisation it could kill 10 million people by 2050, making it the world's biggest killer.

A planet that's running out of resources

- 2.6 billion people depend directly on agriculture, but 52 per cent of the land used for agriculture is moderately or severely affected by soil degradation.
- Land degradation, declining soil fertility, unsustainable water use, overfishing and marine environment degradation are all lessening the ability of the natural resource base to supply food.
- Subsidies for fishing are contributing to the rapid depletion of many fish species and are preventing efforts to save and restore global fisheries and related jobs, causing ocean fisheries to generate US$50 billion less per year than they could.
- The UN Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) reports that "human actions threaten more species with global extinction now than ever before. An average of around 25 per cent of species in assessed animal and plant groups are threatened, suggesting that around 1 million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. Without such action there will be a further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million."

A planet suffering significant losses due to climate change

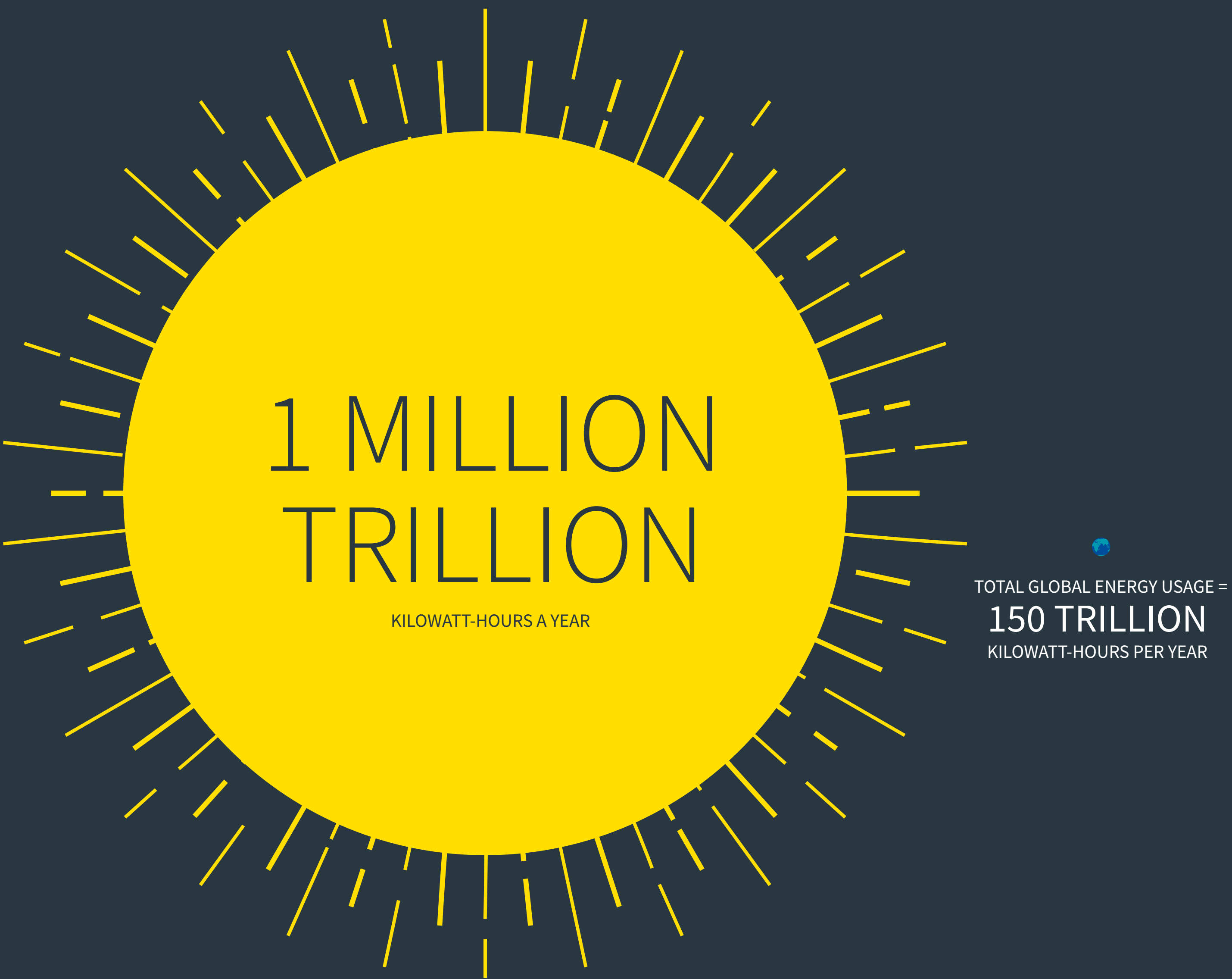
- The World Meteorological Organisation (WMO) annual Statement on the State of the Global Climate shows that 2015-18 have been the four warmest years on record, at around 1°C above the pre-industrial baseline.
- The concentration of GHGs in the atmosphere and ocean heat content reached a new high in 2018 – warmer seas increase the risk of hurricanes – and sea levels continue to rise at an accelerating rate, with a 3.7mm rise in 2018.
- The International Energy Agency (IEA) Global Energy & CO^2 Status Report states that global energy demand grew 2.3 per cent in 2018, with 70 per cent of this being met by fossil fuels, mainly gas, though coal still increased. Consequently, CO^2 emissions still grew 1.7 per cent. On the positive side, electricity demand grew at 4 per cent, with nearly half of this coming from renewables, and solar growing 31 per cent.
- In 2017, economic losses due to disasters, including three major hurricanes in the USA and the Caribbean, were estimated at over $300 billion.
- Due to drought and desertification, 12 million hectares are lost each year (23 hectares per minute). Within one year, 20 million tonnes of grain could have been grown.
- Oceans have warmed, amounts of snow and ice have diminished and the sea level has risen. From 1901 to 2010, the global average sea level rose by 19 cm as oceans expanded due to warming and ice melted. The Arctic's sea ice extent has shrunk in every successive decade since 1979, with 1.07 million km^2 of ice loss every decade.

3. Tracking progress towards inclusive, safe, resilient and sustainable cities and human settlements – SDG 11 synthesis report (2018) The UN.
4. Global Peace Index 2018: Measuring peace in a complex world (2018) Institute for Economics & Peace.

What's going on in the world today? continued

Sustainable energy

Do we suffer from a lack of imagination?

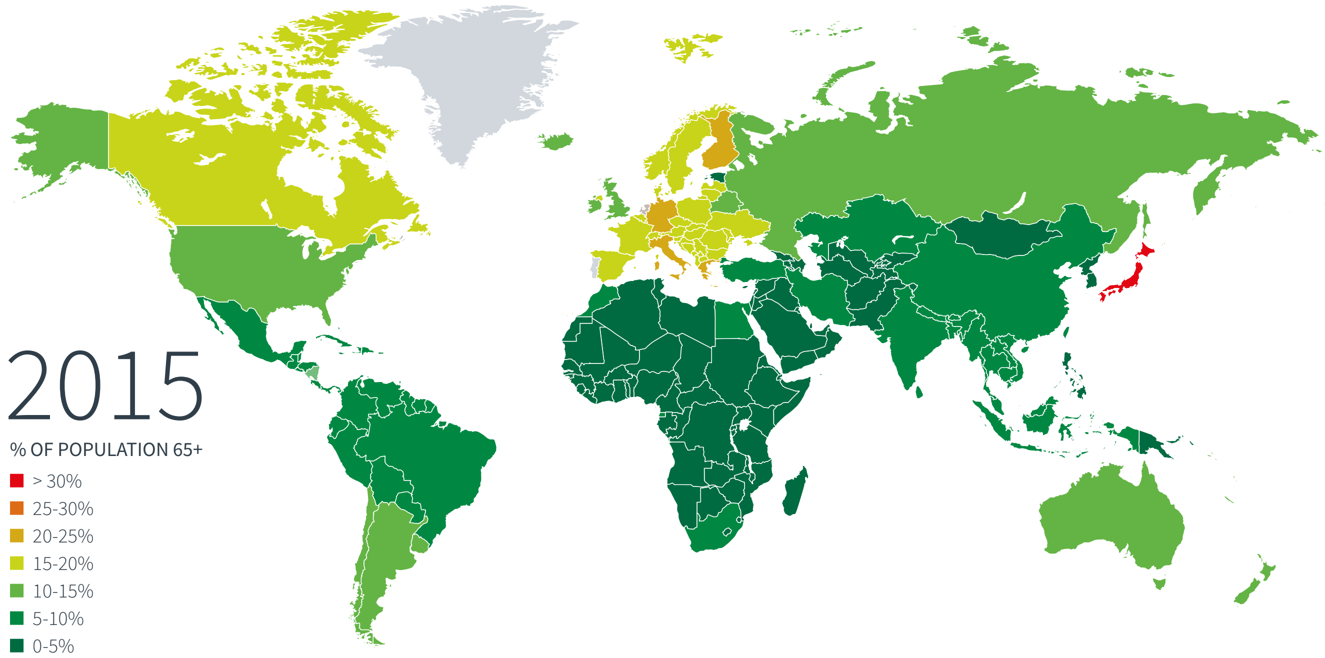


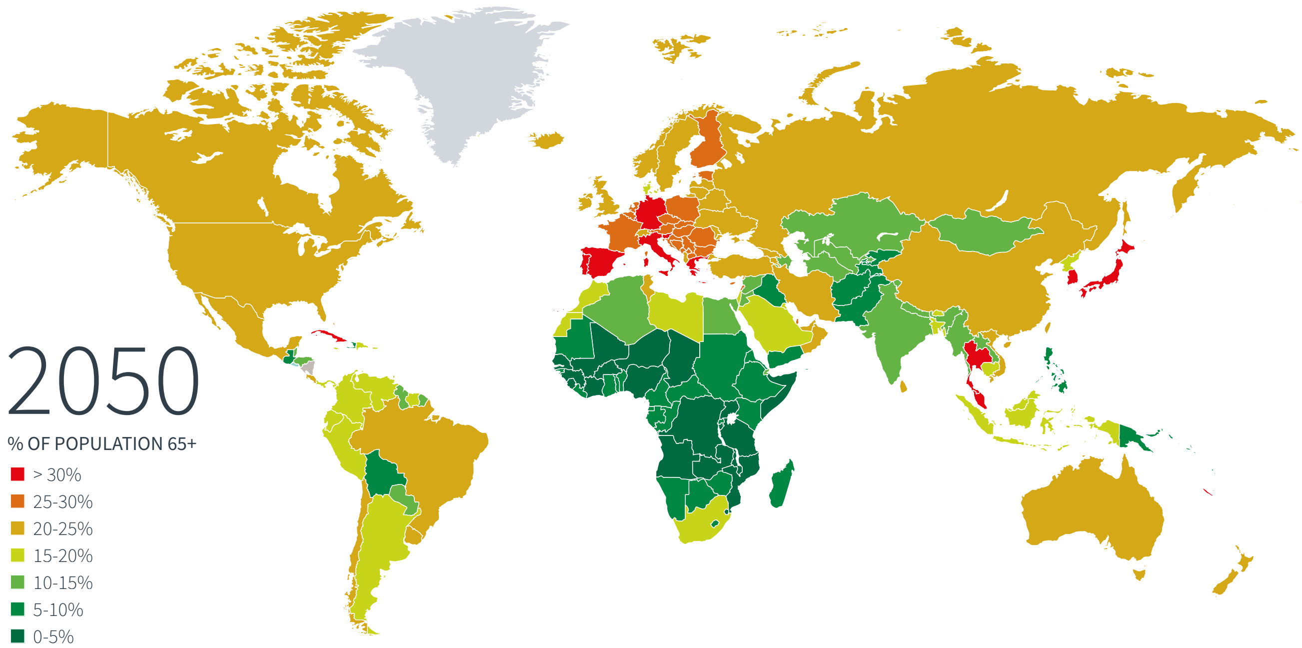
In 1931, not long before his death, inventor and father of electricity Thomas Edison told his friend Henry Ford: "I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that."

This visual challenges our collective imagination. It shows clearly the disparity between the total amount of energy delivered to the earth by the sun and the amount of energy we use each year.

Source: The Little Book of Data, Aviva Investors Global Services Limited (AIGSL) as at December 2018.

Ageing populations





Source: The Little Book of Data, Aviva Investors Global Services Limited (AIGSL) as at December 2018.

What's going on in the world today? continued

Migration

Perceptions are not reality

WHAT PERCENTAGE OF THE POPULATION DO YOU THINK ARE IMMIGRANTS (I.E. NOT BORN IN THE COUNTRY)?

% POINT DIFFERENCE	TOO LOW / TOO HIGH	AVG. GUESS	ACTUAL
ARGENTINA	+25	30	5
BRAZIL	+25	25	0.3
SOUTH AFRICA	+24	29	5
MEXICO	+21	22	1
PERU	+21	21	0.3
INDIA	+21	21	0.4
RUSSIA	+19	27	8
UNITED STATES	+19	33	14
CANADA	+18	39	21
CHILE	+17	19	2
COLOMBIA	+17	17	0.3
ITALY	+17	26	9
SERBIA	+16	22	6
FRANCE	+14	26	12
GERMANY	+14	26	12
BELGIUM	+14	24	10
NETHERLANDS	+13	25	12
GREAT BRITAIN	+12	25	13
NEW ZEALAND	+12	37	25
CHINA	+11	11	0.1
AUSTRALIA	+10	38	28
HUNGARY	+10	15	5
SWEDEN	+9	25	16
SOUTH KOREA	+8	11	3
SPAIN	+8	22	14
JAPAN	+8	10	2
MONTENEGRO	+8	16	8
POLAND	+7	9	2
IRELAND	+7	23	16
NORWAY	+2	16	14
ISRAEL	-3	24	27
SAUDI ARABIA	-7	24	31

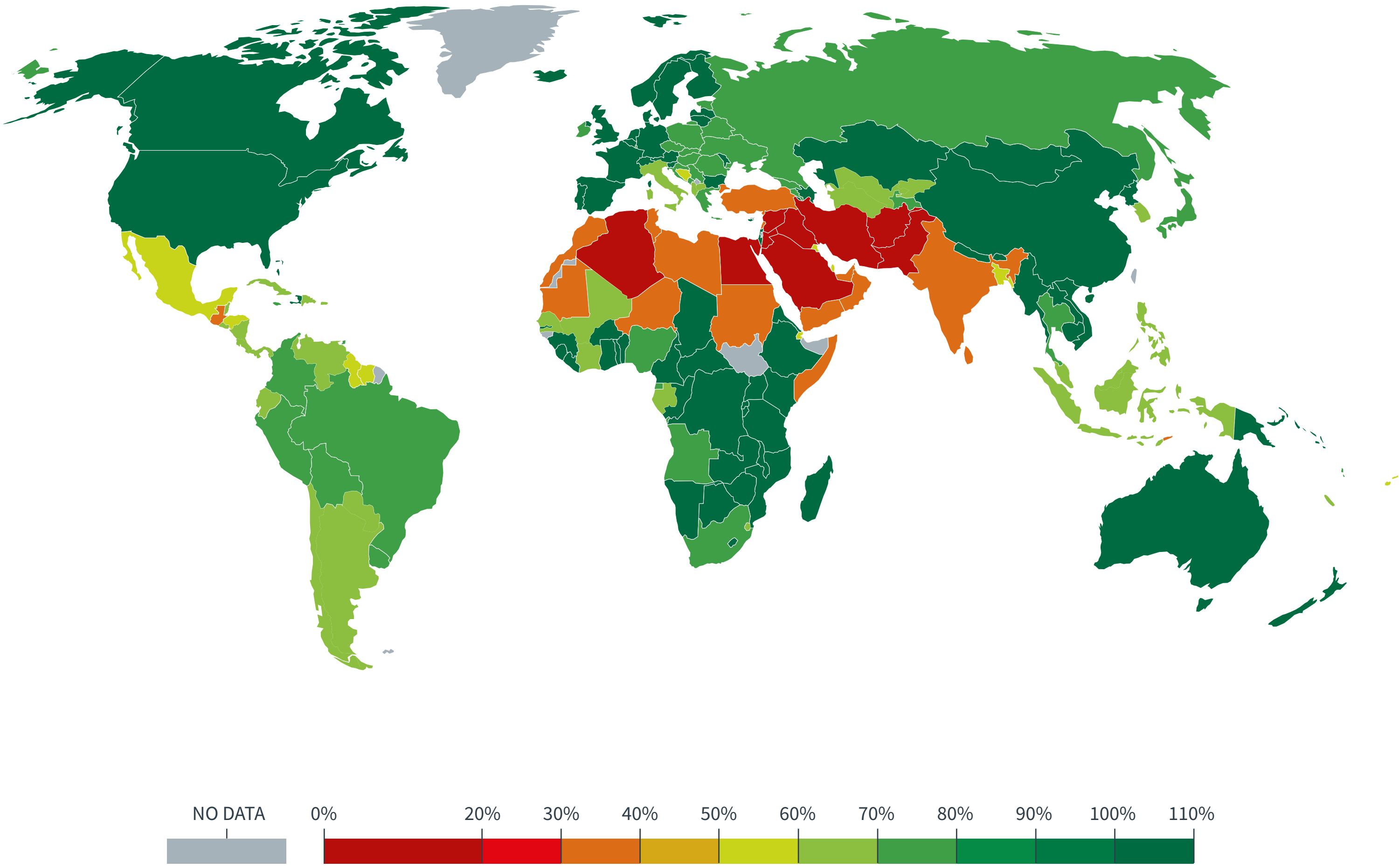
The Ipsos Perils of Perception survey highlights how worried the online public across 32 countries are about key global issues and features of the population in their country. On many subjects – murder rates, immigration, teenage pregnancy, etc. – things are not as they seem.

Results show the majority of online respondents hugely overestimate the immigration percentage, with 22 of the 32 countries missing the actual number by a difference of more than 10 percentage points. Apart from Israel and Saudi Arabia, where the online public underestimated the percentage of immigrants, all countries inflated this number, highlighting the trend that migration issues are being overly exaggerated around the world. This is especially true in Latin America.

Source: The Little Book of Data, Aviva Investors Global Services Limited (AIGSL) as at December 2018.

Women in the labour market

Ratio of female to male labour force participation rates, 2015



With the benefits of diversity all but indisputable now, the focus on gender equality is rightly taking centre stage. After all, why would you ignore 50 per cent of the potential working population?

Although crude and not representative of any gender pay gaps that exist, the map adjacent clearly highlights how much progress has been made to overall labour force participation and where the laggard countries reside. Books like Saadia Zahidi's Fifty Million Rising are timely critiques of areas for improvement.

Source: The Little Book of Data, Aviva Investors Global Services Limited (AIGSL) as at December 2018.

A regulatory push for sustainable investment

We have long argued that capital markets are too short-term and need fixing. To us, being a responsible investor means recognising that sometimes it's not enough to just engage with a company. We operate in a market that's imperfect and full of failures and all too often the true cost of running a business, such as emitting carbon, is not something the company has to pay for themselves. Unfortunately, that makes it easier for investors and companies to make short-term decisions that can harm investment returns and our society in the long run. However, policy makers and regulators can play a critical role in defining the framework within which companies and investors operate. We're proud to have led and worked on several reforms and initiatives at a local, national and international level that are now contributing to create sustainable financial markets – including many of those listed here.

World Wide

2018: The UN General Secretary General released a four-year strategy for financing the 2030 Agenda for Sustainable Development.

2018: The International Organization of Securities Commission's (IOSCO) Growth and Emerging Markets Committee in 2018 established a Task Force on Sustainable Finance – 11 recommendations were proposed.

2018: Many companies across the world supported the first full year of disclosures against the recommendations of the Financial Stability Board Task Force for Climate-related Financial Disclosures (TCFD).

2018: Central banks and supervisors have established a Network of Central Banks and Supervisors for Greening the Financial System (NGFS); membership includes 30 Members and five Observers, representing five continents.

European Union

2018: European Commission publishes its "Action Plan: Financing Sustainable Growth", 10 key actions to reorient capital towards sustainable investment, manage sustainability risks in financial services, and foster transparency and long-termism. More detail is provided in the Market Reform section.

2019: A new Disclosure Regulation for sustainability in financial services, a key pillar of the Action Plan, will require firms to disclose how they consider sustainability risk, and the impacts of the firm and their products on the environment and society.

2018 – 2019: Plans for clearer methodology for low-carbon and carbon reduction benchmarks as part of the first package of legislative reforms from the Action Plan. All benchmarks (other than currency) will have to disclose their degree of alignment to the Paris Agreement from 2021 (e.g. FTSE 100 currently on a 3.9° pathway).

2018 – 2020: One of the actions in the Action Plan is to clarify the role of ESG in investor duties. European Commission to propose amendments to MiFID, UCITS, AIFMD, Solvency II and IDD to require sustainability risk to be integrated into investment process and risk management.

2020: European Insurance and Occupational Pensions Authority (EIOPA) set to include climate change and sustainability risk in its 2020 stress tests for insurers.

Australia

2019: Insurers, banks and other large financial institutions convene the "Australian Sustainable Finance Initiative" to plan for climate change and other social and environmental issues in a similar format to the EU High-Level Expert Group.

Canada

2018: The Canadian Presidency of the 2018 G7 and leading global investors launched an investor initiative in June 2018 including measures on climate, gender and sustainable infrastructure.

2018: Creation of Expert Panel on Sustainable Finance to investigate global trends in sustainable finance and recommend actions to the Canadian government.

China

2016: China established "Guidelines for Establishing a Green Financial System", which set out a broad set of national measures, including reforms to insurance, banks and markets. In 2018, the country continued to build on these guidelines.

France

2016: Law passed on Energy Transition for Green Growth for institutional investors and asset managers that have to report on ESG integration in investment policy and climate risk assessment.

Netherlands

2019: DNB is the first central bank to sign the Principles for Responsible Investment.

Norway

2018: Finance Norway, the country's association of financial institutions comprising banks, insurers, investment firms and pension providers, set out in 2018 recommendations for a "profitable and sustainable" Norwegian financial sector by 2030 in its "Roadmap for Green Competitiveness in the Norwegian Financial Sector".

United Kingdom

2018: The Financial Conduct Authority (FCA) proposed measures that would force financial services firms to publicly disclose how they manage climate risk, as the regulator took steps to limit the sector's contribution to the "disruptive and potentially irreversible threat to the planet" of climate change. The FCA has consulted on making the TCFD regime "comply or explain" as opposed to its current voluntary status, and also on clarifying requirements of securities issuers as regards transparency and reporting of climate-related risks to their business.

2018: DWP announced new regulation requiring pension schemes to have a policy on financially material environmental, social and governance factors including climate change.

2018: The British Standards Institute (BSI) and International Organisation for Standardisation (ISO) agreed to develop Publicly Available Standards (PASs) or "kitemarks" for responsible investment.

2018: Green Finance Taskforce – more details are in the Market Reform section.

2019: Bank of England to include the impact of climate change in its UK bank stress tests.

2019: The FCA sets out an increased focus on stewardship in asset ownership and asset management as part of the implementation of changes to the Shareholder Rights Directive.

2019: PRA supervisory statement SS3/19 for banks and insurers sets out expectation that firms manage and report upon financial risks from climate change, and allocate board-level responsibility for identifying and managing such risks.

THE SUSTAINABLE DEVELOPMENT GOALS

Building the future our clients wish to retire into

We believe businesses like ours have a key role in helping achieve the vision of the Sustainable Development Goals (SDGs). Therefore, we have put these goals at the heart of our Responsible Investment approach.

What are the SDGs and what are we doing about them?

On 25 September 2015, world leaders from 197 countries adopted the Sustainable Development Goals to end poverty, protect the planet, and ensure prosperity for all. These 17 goals and their corresponding targets are a call to action for a sustainable and more inclusive future where no one is left behind – and are the milestones marking the path to the future we want.

For the goals to be successfully reached by 2030, everyone needs to play their part – governments, the private sector, civil society and each and every one of us. Because the scale of investments required is significant. The UN estimates the gap in financing to achieve the Sustainable Development Goals (SDGs) to be $2.5 trillion per year in developing countries alone.[5]

While governments and the public sector will continue to play a key financing role, particularly in the delivery of essential public services, there is greater scope for the private sector to deliver the solutions and investments in many areas of the SDGs to help close the gap.

The good news is that global financial assets are sufficient to meet the financing needs of the 2030 Development Agenda, but the challenge is how to channel them into SDG sectors, enhance the risk-return profiles of new and sometimes vulnerable investments, and generate sustained impact on the ground. Much more needs to be done to encourage and enable business to deliver innovative solutions at the scale and pace needed to realise long-term impact.

In early 2017, we worked with the Business & Sustainable Development Commission (BSDC) which recognised that the private sector can help unlock the US$5-7 trillion in annual investment needed to deliver the SDGs. It also highlighted that the SDGs could unlock more than US$12 trillion a year in business savings and revenues and have the potential to create up to 380 million new jobs by 2030.

With our expertise we can channel capital to help build a more sustainable future with our clients. We have never been afraid to tackle the big issues. With current challenges such as ageing populations and climate change, our ambition needs to be bigger than at any time in our history. The Sustainable Development Goals should guide us, our customers, and society towards a brighter, sustainable future – and we are committed supporters of the goals and doing our bit to deliver them.

Delivering them requires more than words and platitudes. Over the past decades we have taken action by working with others – with clients and competitors, policy-makers and regulators – to create lasting change around us by building institutions that today are driving change around the world.

With our parent company, Aviva, we are a founding partner of Project Everyone. This initiative, backed by the UN and the Gates Foundation, aims to make everyone aware of the Sustainable Development Goals so they have the best chance of being met. It reached an estimated three billion people through the launch alone.

5. UNCTAD 2014

CASE STUDY

The World Benchmarking Alliance

The UN Sustainable Development Goals (SDGs), agreed in 2015, are the milestones marking the path towards the future we want. These goals cannot be achieved without the firm commitment of the private sector to work with government and civil society to deliver the solutions and investments needed to achieve the SDGs. Many of the world's leading companies are already aligning their business models with the SDGs. However, information and analysis of corporate sustainability performance remains hard to access or compare, making it difficult to credit leaders or hold laggards to account.

A powerful and potentially transformative way to address this challenge is the production of international league tables measuring and comparing corporate performance on the SDGs. The global need for such league tables is widely acknowledged, from the Business and Sustainable Development Commission (BSDC) to the EU High-Level Expert Group on Sustainable Finance. These league tables require sophisticated benchmarks that can provide financial institutions, companies, governments, and civil society with information they can use to allocate capital, increase transparency, track and compare corporate sustainability performance, and ultimately catalyse action and accelerate SDG delivery.

This is why we have worked with the UN Foundation, BSDC, and the Index Initiative to create the World Benchmarking Alliance (WBA) which was launched on 24 September 2018 in New York on the eve of the General Debate of the 73rd session of the United Nations General Assembly. The WBA's mission is to provide everyone with access to information that indicates how companies are contributing to the SDGs. It will do so by developing free and publicly available corporate sustainability benchmarks that rank companies on their sustainability performance and contribution to achieving the SDGs.

The WBA's launch followed a year of international consultations, expert meetings, and online surveys, with more than 10,000 stakeholders representing business, civil society, government and consumers themselves. Through this collaboration, the WBA defined its vision, institutional structure, and priorities in terms of focus industries and SDGs.

The WBA will develop a range of corporate benchmarks by 2023 to comprehensively assess the progress of 2,000 companies across major areas of transformation required to achieve the SDGs. The first set of benchmarks will be published in 2020 and will address food and agriculture, climate and energy, digital inclusion and gender equality and empowerment. The benchmarks will be developed in close collaboration with WBA Allies, with methodologies published throughout 2019. The WBA is also expected to play a role in helping to leverage and harmonise the incoming wave of SDG-related monitoring initiatives that are currently being developed.

The WBA is funded by Aviva and the governments of The Netherlands, United Kingdom and Denmark.

World Benchmarking Alliance

China's green mission
Insight

China's recent emphasis on environmental issues may be a welcome relief to Trump's climate change denials, but is there a disconnect between state rhetoric and the practices of its companies?

Against a backdrop of a US withdrawal from the 2015 Paris agreement and Donald Trump's promise to bring back coal[6] China is emerging as an unlikely champion of the environment. But as the planet's largest polluter – responsible for about 30 per cent of global greenhouse gas emissions – its critics would say it is about time China took a more prominent role to tackle the climate challenge.

It would be fair to say China's motives serve its own interest, as well as the rest of the world. First, poor air quality may have been responsible for about a million premature deaths per year,[7] or a quarter of the total worldwide, so addressing the nation's environmental health hazards is a political necessity. Second, energy security is among the administration's top priorities and a push towards renewables will help diversify its energy sources. Third, China is heavily investing to transition away from an 'old' export-driven economy that relies on cheap manufacturing to a higher-income model, powered by innovation and technology in sectors such as renewables, electric cars and batteries.

Unsurprisingly, China's corporate environmental credentials have risen faster than its overall social or governance scores since 2015 (see chart). At a time when shares listed in the mainland account for an increasing portion of key equity benchmarks, this is good news. But how sustainable are these improvements for investors looking to benefit from the greening of China?

The government has done a lot to move environmental issues up the agenda, with a heavier emphasis on air quality but also water pollution. China plans to invest $360 billion in renewable energy and pledged to increase the share of renewables to 15 per cent of the total energy mix by 2020. Meanwhile, it is reducing the number of new coal plants while capping energy consumption from coal during the same period.[8]

Specific targets to reduce pollution are enforced at local and regional levels. Highly polluting plants may risk shutdown, tougher penalties and stricter lending conditions. To change consumer behaviours, subsidies such as those supportive of electric cars were made available since vehicle emissions are a major cause of pollution in China. To reduce pollution from disposing recycled materials, China abruptly announced a severe reduction in the amount of waste it was accepting from other regions, including Europe.

Global knock-on effects

China is the world's second largest economy and the biggest contributor to greenhouse gas emissions, so any efforts to mitigate global climate change will require major shifts in the environmental practices of Chinese companies. For investors, stocks in companies listed in mainland China will become a larger component of global portfolios. Chinese A-Shares were added to major MSCI emerging market benchmarks for the first time in 2018 and will also be included in key FTSE Russell emerging market indices from June.

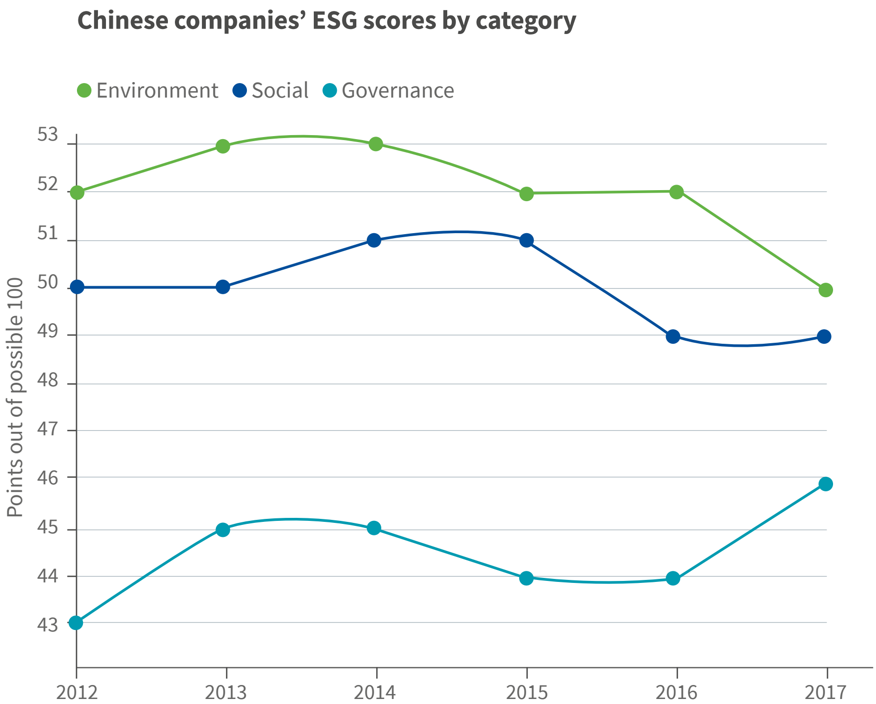
The government's environmental reforms are no doubt a necessity for China to meet its goals under the Paris Agreement,[9] and for investors, they also present investment opportunities. However, China's global environmental impact is not always positive. One of the biggest changes in policy occurred in December 2017, when China abruptly halted a large amount of recycled waste foreign countries send to its shores for disposal.

Up until that point, container ships would take products from China to the US and Europe, and when they come back, they would come back with recycled waste. China had been the absolute centre for global recycling, so this very specific change in policy has completely disrupted that system. China's much stricter requirements for external waste resulted in millions of metric tonnes of displaced recycled plastic and paper with nowhere to go.

There's a clear knock-on effect globally. The margins for processing recyclable waste have increased significantly, and investments are being made in recyclers worldwide to adapt. More and more of the recycling is now going to other countries mostly in Asia, such as Indonesia.

As countries like China become wealthier, standards of living improve, and the economic benefit of a cleaner environment increases. If a company is having a materially bad effect on its surrounding environment versus its competitors, then it will need to do much more to catch up with market and regulatory trends. Under those circumstances, operational costs will increase with time. That needs to be built into the way we assess companies.

Specific targets to reduce pollution are enforced at local and regional levels. **Highly polluting plants may risk shutdown**, tougher penalties and stricter lending conditions.



Source: Sustainalytics ESG Research & Rating

6. Donald Trump said his administration is putting "an end the war on coal" in 2017. https://www.whitehouse.gov/briefings-statements/remarks-president-trump-signing-executive-order-create-energy-independence/
7. 'State of Global Air/2018,' Health Effects Institute, Institute for Health Metrics and Evaluation's Global Burden of Disease Project. Estimates are based on 2016 data. https://www.stateofglobalair.org/sites/default/files/soga-2018-report.pdf
8. China's National Energy Administration announced its five-year plan for energy development on 5 January 2017: http://www.nea.gov.cn/2017-01/05/c_135956835.htm.
9. The 2015 Paris Agreement aims to limit the increase in global average temperatures to well below two degrees Celsius above pre-industrial levels. https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement

Plastic (not so) fantastic
Insight

The working life of a plastic bag is around 12 to 15 minutes.[10] Five trillion of them will be used around the world this year – equivalent to 160,000 a second.[11] Most are used just once and cast aside. Then the process of breaking down gets underway. This can take more than 1,000 years1 if left to follow its own course.

In the stomachs of camels

Concern about the impact of discarded plastics on the environment is growing. They can be found on the floors of the world's deepest ocean trench,[12] in the stomachs of camels,[13] guts of seabirds,[14] and in human food, as well as bottled and tap water.[15]

Reducing plastics use is likely to depend on:

- Encouraging re-use rather than single use of packaging.
- Substituting plastics with more sustainable alternatives.
- Improving recycling infrastructure and creating demand for recycled plastics.

But a lot of waste plastics collected are never recycled due to contamination and poor sorting.

China, which once took a large proportion of the advanced economies' plastic waste, has closed its doors to non-domestically produced waste. It's being diverted to other countries, but developed nations are likely to see more waste heading to landfill or seeping into the environment.

Are bioplastics the answer?

Companies are seeking to address the problem with ambitious re-use targets. Coca-Cola hopes one of its plastic bottles sold in the UK could be used, cleaned, recycled, re-filled and back on the shelf within six weeks.[16]

New forms of plastics could also help. Bioplastics, developed from renewable sources such as sugar cane, break down after use. But they don't biodegrade in the sea so do nothing for marine pollution. And greater use of bio-based materials could exacerbate deforestation, as more land is given over to the cultivation of crops used in bioplastic production. Even so, some experts believe bioplastics might eventually take a substantial market share.

With over **50 per cent of consumer packaging worldwide made of plastic**, but diminishing consumer appetite for it, there is little doubt the future will be different.

The future of plastics

It seems inevitable demand for traditional plastics will fall. How quickly partly depends on regulation. Some countries have already introduced bans or financial penalties to discourage single-use plastics.

The price of oil, a key ingredient in plastics production, will also have a big influence. If the price stays low, the transition will likely take longer. Bioplastics can cost as much as three times more than traditional plastics, although their price should fall as production increases.

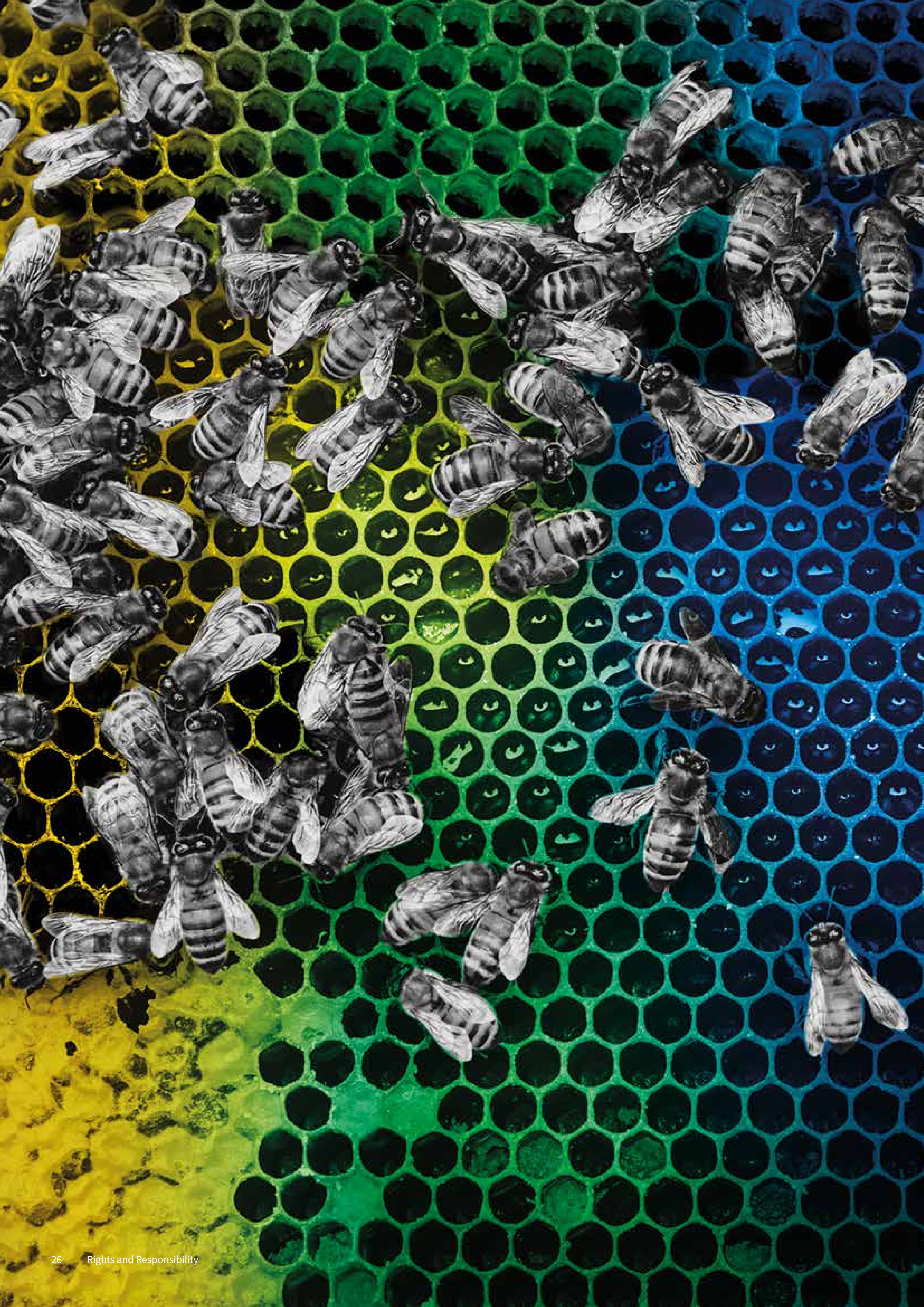
With over 50 per cent of consumer packaging worldwide made of plastic, but diminishing consumer appetite for it, there is little doubt the future will be different.

What might that mean for thousands of companies worldwide?

Certainly, leaner times for some. But opportunities for others. In the bio field, look out for companies aiming to utilise waste products as part of the transition to a circular economy. Companies designing for product re-use rather than single use will proliferate. Investment in greener packaging might be easier through companies producing sustainably certified or recycled wood-based products like corrugated paper. These products are easier to recycle than some plastics.

So, there are likely to be opportunities for investors, who will sleep soundly knowing they're doing their bit in the battle against the scourge of plastic.

10. United Nations Development Programme. 20 ways to plastic proof your routine https://medium.com/@UNDP/20-ways-to-plastic-proof-your-routine-cb923546f0e7
11. The world counts http://www.theworldcounts.com/counters/waste_pollution_facts/plastic_bags_used_per_yearSingle-use plastic has reached the world's deepest ocean trench, UN environment, 18 April 2018 https://www.unep-wcmc.org/news/single-use-plastic-has-reached-the-worlds-deepest-ocean-trench
12. Camels continue to die of plastic in the desert https://www.plasticsoupfoundation.org/en/2018/01/camels-continue-to-die-of-plastic-in-the-dessert/
13. People apparently eat and drink micro plastics - effects unknown, Bloomberg, 2 November 2018 https://www.bloomberg.com/opinion/articles/2018-11-02/people-apparently-eat-and-drink-microplastics-effects-unknown
14. Planet or Plastic? National Geographic, June 2018 https://www.nationalgeographic.com/magazine/2018/06/plastic-planet-animals-wildlife-impact-waste-pollution/
15. Our plan to recover and recycle every single can and bottle the Coca-Cola System sell https://www.coca-cola.co.uk/blog/our-plan-to-recover-and-recycle-every-single-can-and-bottle-we-sell
16. Our plan to recover and recycle every single can and bottle the Coca-Cola System sell https://www.coca-cola.co.uk/blog/our-plan-to-recover-and-recycle-every-single-can-and-bottle-we-sellrecycle-every-single-can-and-bottle-we-sell



How is Aviva Investors addressing these changes?

As far back as the 1970s, we were holding companies to account by voting at their annual meetings.

Our commitment to responsible investment is fundamental to our goal of delivering the specific and meaningful outcomes that matter most to today's investor.

We recognise and embrace our duty to act as responsible long-term stewards of our clients' assets and our commitment to responsible investment is fundamental to delivering this goal. We maintain a deep conviction that environmental, social and governance (ESG) factors can have a material impact on investment returns and client outcomes. We believe that being a responsible financial actor means our investment approach must support, and not undermine, the long-term sustainability of capital markets, economies and society.

We focus on integration, active ownership and solutions to deliver positive outcomes from our responsible investment approach.

> *"Integrating ESG factors into our investment process isn't a nice-to-have, it is a must- have. Clients recognise that looking at financial data alone doesn't give a full and complete picture of the strength of a company – that only comes when sustainability factors like climate change, diversity or board governance are also included in the analysis. In many instances, those factors are the preeminent driver of the performance of that company in both the short and the long term, so ignoring this vital information would lead to sub optimal outcomes."*
>
> **Colin Purdie**
> CIO Credit

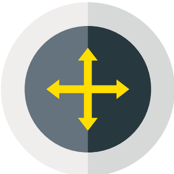
Our approach

Integration of environmental, social and governance (ESG) considerations into investment decisions

We are integrating ESG into the investment analysis and decision-making process across all asset classes. We work together with fund managers and analysts, customising ESG integration within our investment process, to deliver improved investment outcomes for clients.

The Global Responsible Investment (GRI) Team generates macro, thematic, industry, security and asset-specific qualitative ESG insights to enhance investment processes. We also maintain proprietary ESG data models synthesising internal and external data to give investment teams quantitative assessments of ESG risks at a security and portfolio level.

To champion the delivery we maintain a Responsible Investment Officer (RIO) Network with representatives from different asset classes and regions. Comprising more than 40 members, the RIO network meets formally on a quarterly basis and works collaboratively with the GRI team in developing and implementing bespoke ESG integration strategies across different asset classes and regions. Remuneration plays a role in incentivising a focus on sustainability: support for ESG integration is among the criteria considered as part of our investment teams' annual evaluation and compensation framework.



Active ownership through engagement, voting and market reform

We use our influence to promote good practice among those companies and projects in which we invest, and to gain insight and reduce investment risk on ESG issues for our clients. We focus on generating outcomes that benefit our clients and in many cases society, the environment and the broader economy as well.

Moreover, ultimately the assets we invest in operate in a world of market failures. We believe our role as investors is to advocate policy measures that support longer-term, more sustainable capital markets. Through our market reform work we aim to correct market failures such as a lack of corporate disclosure on ESG risks and climate change — at a national, EU and international level — to improve long-term policy outcomes.

Designing sustainable investment solutions that meet client needs

We recognise that institutions and individuals have specific sustainability concerns they want to have considered as part of their investment strategy. For example, some clients want the ability to exclude certain ethically controversial areas such as tobacco or fossil fuels. Clients increasingly also have specific sustainable outcomes they want to support. For example, they may want to positively steer their investments towards investments in solutions to environmental and social challenges we face as a society, such as climate change or diversity – and to try to measure the impact their investments are having.

We therefore offer several Sustainable and Responsible Investment (SRI) funds that are designed to meet client needs for negative exclusions, and active ownership and impact measurement on sustainability issues. We also have an ESG Solutions unit that works with clients to provide ESG advice and help them design ESG investment strategies that meet their ESG investment preferences, be it through pooled funds or bespoke segregated mandates.

ESG integration across asset classes

As a long-term investor, we are convinced our investments will be more successful if we understand how the companies and projects we invest in perform on issues like board diversity, governance, climate change and labour relations.

Our insight into environmental, social and governance (ESG) issues and trends helps us understand the risks that could impact our investments and identify investment opportunities.

Supported by the Global Responsible Investment team, our analysts and portfolio managers across all asset classes are integrating these insights into the investment analysis and decision-making process. Aviva Investors was one of the first large mainstream asset managers to make the integration of environmental, social and governance (ESG) factors into investment decisions part of the pay criteria of its main investment desk heads. Through our Global Reward Framework, all investment employees are expected to support responsible investment and integrate ESG issues into their investment processes. We have a network of Responsible Investment Officers (RIOs) that play an active role in embedding ESG data and analysis fully into each desk's investment process. This network including fund managers, analysts and support functions is the first point of contact for ESG integration within each investment desk and region. Responsible Investment objectives are incorporated into the compensation framework, with a modest part of fund manager and analyst annual compensation linked to ESG issues.

"As an investor we need to consider all relevant, material risks and opportunities that might impact the investments we make. Our belief is that environmental issues like climate change, governance issues like corruption or social issues such as greater automation will transform economies around the world, creating leaders and laggards. This is why we embed ESG insights across our investment process, making sure our investments are on the right side of that change."

Peter Fitzgerald

CIO Multi-asset & Macro

Shaping the macro view

Aviva Investors has developed an intra-departmental approach towards forming forward-looking positions on key political, economic and social trends and expected outcomes. Quarterly meetings of representatives from across the business culminate in the publication of Aviva Investors' House View, which cascades back through the organisation and helps guide medium to long-term investment positions as well as asset allocation for multi-asset strategies. The GRI Team is a key component in this process and ensures that material ESG factors are considered when determining the firm-wide macro outlook. As a result, themes such as the implications of global climate negotiations, populism and nationalism, and governance and social reform across key markets have helped form the base case outlook.

Shaping the sovereign view

Our Sovereign Debt Team has developed a robust analytical model to evaluate the forward-looking prospects of sovereign debt issuers. The model is based on an assessment against six key data themes including growth, the monetary and fiscal environment, the current account, and political conditions. The GRI Team has been instrumental in identifying factors and data inputs to support the assessment of a country's political condition. Factors that have been fully integrated into the sovereign rating model include measures of corruption control, rule of law, freedom of press, and accountability of government. The Sovereign Debt Team also reviews specific ESG data and analysis on sovereign issuers which are embedded in the risk and valuation framework for government debt securities.

Shaping the sector view

Aviva Investors provides both equity and debt finance to support companies across global markets. Consequently, we have fostered an integrated research philosophy and platform to assist in the evaluation of sector-specific risks and opportunities. Dedicated research specialists built around six key sectors meet on a quarterly basis to update the industry outlook and share conclusions with fund managers and evaluate portfolio positions.

The GRI Team formally contributes to the sector assessments by leveraging ESG insights from internal and external research, proxy voting records and experience from company engagements. During 2018 we introduced bi-monthly workshops, run in partnership with the credit and equity teams. Each workshop takes a deep dive into individual sectors by looking at how and why ESG factors are relevant to financial performance. The sector analysts evaluate the key ESG risks and opportunities to be factored into their analysis and present specific company case studies. Sessions to date have included industrials, financial services, technology, media and telecoms and the auto sector.

Shaping the company view

Our ESG Analysts provide analysis of corporate sectors, industries, and issuers. This analysis is performed at the corporate level, independent of the capital structure sleeve applicable to a specific investment strategy. Our ESG Heatmap is a core part of this integration. The dashboard aggregates the ratings of the different types of ESG risks of each counterparty in the investment universe. We use the ESG data from MSCI ESG Research, as well as information about the quality of corporate governance and the voting history of our team to form a final ESG score, the Aviva Heatmap Algorithm (AHA) score. The restated data is made available to the managers via the Bloomberg platform. Some raw ESG data and the AHA score are also included in our Aladdin front-to-back tool. Similarly, we have data on carbon intensity to assess the carbon trajectory of the company over time.

The ESG Heat map is supplemented by additional fund manager and analyst briefings, provided before company meetings, votes or investment decisions. These briefings draw on our Heat map and more detailed independent ESG data and research. We leverage the expertise of the GRI Team, bespoke research commissioned from brokers and research organisations, and additional information from less conventional sources such as NGOs and civil society to build a rich picture of ESG impacts and risks.

The GRI Team meets with equity and fixed income teams in formal weekly, monthly and quarterly meetings to exchange perspectives and insights on individual companies and emerging issues.

Related content is communicated through mediums including, but not limited to, notes and reports published on the Aviva Investors Internal Research Hub (IRH, which is housed on Bloomberg) and participation in various investment forums.

Deep Dive: Real Assets

Overview

We understand that alternative asset classes have unique investment considerations and we have made significant progress in developing bespoke ESG strategies from real estate and infrastructure to structured finance and private corporate debt. Aviva Investors Real Assets has £41bn Assets Under Management (as at 31 December 2018). In this area, we manage strategies that make direct and indirect investments in Real Estate Debt and Equity, Infrastructure Debt and Equity, Private Corporate Debt, Structured Finance and multi-asset strategies that invest across all or some of these discrete capabilities.

Real Assets investments are distinct compared to liquid market strategies. In particular, investments are usually held over a longer time horizon with limited flexibility to respond to evolving market, regulatory and stakeholder concerns. In addition, direct investments in real assets can, to a larger extent than indirect investments, be managed to mitigate risk and increase positive impact from a Responsible Investment perspective. Consequently, we have identified certain sectors and business activities which we believe represent a higher risk in terms of Responsible Investment considerations, which could in turn negatively impact clients' interests because of the reduced liquidity of the asset class. As an engaged, active manager, identification of such risks does not in itself preclude investment or continued holding of an asset. Our potential ability to mitigate these risks through active management will be taken into account also.

Our ESG approach – ESG opinion escalation

In 2018, we saw a concerted expansion of our ESG integration approach into the Real Assets space. We established a dedicated ESG Working Group which is responsible for coordinating ESG actions, framework and policies across all investment desks within Real Assets. This also provides a dynamic forum for us to engage with emerging ESG considerations and to ensure implementation of ESG factors is conducted at various stages throughout the investment process depending on the type of investment being considered. As part of our ESG integration approach, all projects that are being considered for either debt or equity funding are subject to an ESG due diligence process. This covers a broad spectrum of considerations including biodiversity impacts, climate strategy, labour rights and safety, stakeholder relations and political lobbying. We also prioritise investment selection decisions which have a positive contribution to society and aim to validate the sustainable value of transactions through the selection process.

When it comes to Real Assets, because of the nature of transactions and the underlying assets, the investment and broader ESG risks are so specific that the analysis must be done on a case-by-case basis. Accordingly, we have established an ESG risk review and escalation process for each investment desk at origination and investment selection stage. When considering a new investment proposal, we check whether the subject of the investment is exposed to higher risk sectors or business practices which may be unsustainable from an ESG perspective. When this is the case, the opportunity will be referred to the GRI Team for enhanced due diligence and ESG Opinion. This process allows us to provide a tailored and bespoke ESG assessment of transactions on an individual basis to reflect the unique nature of each transaction. This includes:

1. **Adding enhanced value to the investment process.**
   The GRI team provides an ESG opinion to investment desks where the transaction is deemed to be related to higher risk activities. The referral process to the GRI team for an ESG opinion ensures we integrate a holistic ESG assessment which is embedded into the final recommendation to the investment committee.
2. **Ensuring we act as a responsible investor.**
   The GRI team supports ESG integration across all investment desks to ensure we steer investments towards projects that contribute to sustainability by validating the social developmental outcomes of the project. This also ensures any ESG impacts on stakeholders are made more visible to the Investment Committee.

Deep Dive: Real Assets continued

The ESG Opinion provide an assessment of the ESG risk and identifies potential social developmental impacts. Here are a few examples of this across our investment desks.

In Structured Finance:

- We reviewed a transaction where loans would be provided for policy-based institutional reforms in a high-risk emerging market in Eastern Europe. The transaction was to provide a loan to a high-risk and volatile government which had many ESG issues, particularly in relation to corruption. Although the policy-based guarantee was linked to implementation of various reforms (e.g. anti-corruption and governance), the underlying loan was to a high-ESG-risk sovereign where there was still political and regulatory uncertainty. The country was particularly reliant on assistance and funding from multilateral entities and was keen to ensure that this support was maintained. However, as the funds would directly go into the government's budget restricted to policy-based institutional reforms only, we were not comfortable that the proceeds had sufficient defences against nefarious uses. We provided an ESG opinion on the transaction with an assessment of the social development impact of the transaction. The views were taken into consideration and the investment origination team decided not to go ahead.
- We reviewed a transaction where risks were mitigated through alignment to internationally recognised standards for a high-ESG-risk emerging market project in the Central Asia Region. The transaction involved supporting an initiative of the European Commission for a natural gas supply route to Europe which would provide a diversification of the source of energy supply for emerging economies. Although our assessment highlighted environmental and political concerns, we gained assurance from the development banks that the project had suitably robust environmental policies, management systems and monitoring. Although we assessed the project to be high ESG risk, we were able to gain assurances that it was being aligned to internationally recognised standards including the Equator Principles and IFC Sustainability Framework.

In Infrastructure Debt:

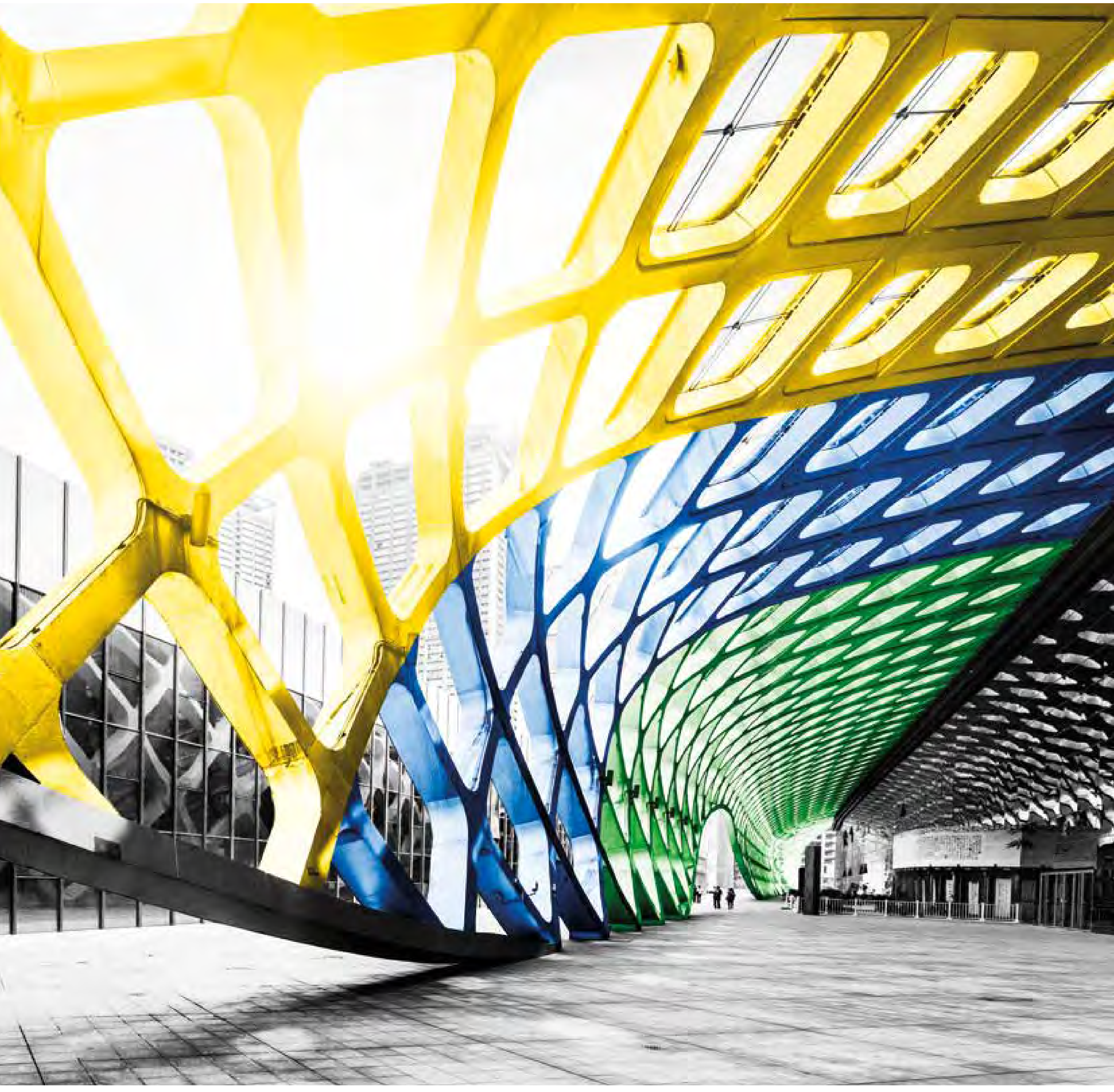
- An additional ESG enhanced due diligence was applied to an investment opportunity in a new series of rail trains that met high environmental emissions standards and would provide considerable social improvements. Guidance from the GRI team was sought for an ESG view of the project. A review of ESG factors was provided giving a balanced consideration of the various risks involved – while risks remained on the environmental side, it was determined that the investment also provided positive social enhancements. Through the team's analysis, both the material ESG risks as well as the wider societal impact of the project were highlighted for the client, ensuring that all relevant factors and impacts were considered for the final review. The advice provided ensured the client was happy that the ESG challenges for the project were addressed. Several new train deals including Wales and Welsh Border Trains, Moorgate, Greater Anglia and South Western were shown to be more efficient and have reduced emissions from existing rolling stock.

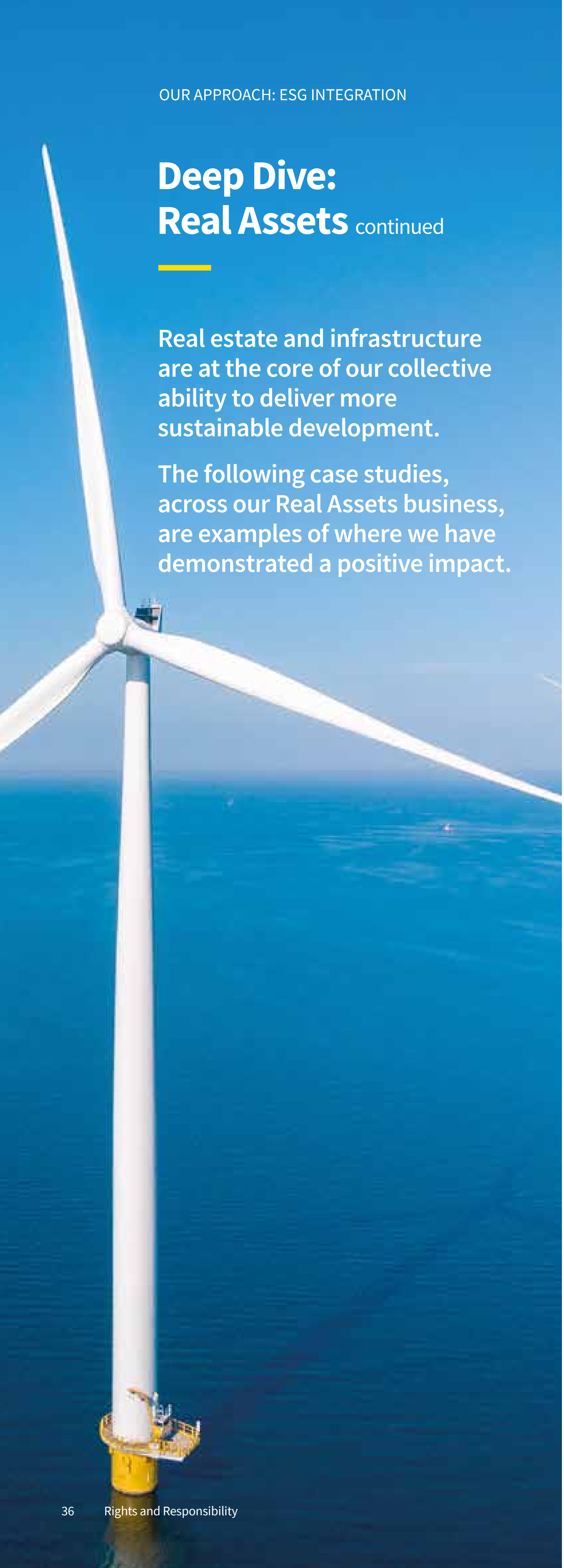
In Private Corporate Debt:

- We made an investment into a family-owned logistics company that had no considerations for ESG risks in place. Following our discussions and challenges with management, the company now has a Group Sustainable Development Director, with ESG being of greater importance to them. We maintain regular dialogue with them on their ESG performance and how to improve it.

In Direct Real Estate:

- We reviewed our potential investment into a collection of abattoirs and based on the ESG Opinion analysis conducted by our Responsible Investment team, we ultimately decided not to invest in this area. While the assets weren't immediately known to have issues, specific research into these assets identified historic issues in their operations not meeting with our ESG standards. Having developed our expertise within the liquids space, with our aforementioned rating model for Equity and Credit, we have begun rolling out bespoke data sets and tools specific for each asset class within Real Assets. This includes primary-sourced data through surveys, such as GRESB Infrastructure on our Infrastructure Equity desk. It also includes a bespoke online ESG tool that has been built into our Private Corporate Debt desk. Where applicable, our knowledge in the liquid markets means we also have the capability to employ our proprietary ESG Heatmap to identify risks at the tenant level.





Deep Dive: Real Assets continued

Real estate and infrastructure are at the core of our collective ability to deliver more sustainable development.

The following case studies, across our Real Assets business, are examples of where we have demonstrated a positive impact.

Infrastructure Integration

Sustainable Infrastructure

As long-term investors, we recognise climate change as a critical investment issue. As we transition to a lower carbon economy, we see the investment opportunities as well as the risks. Aviva Investors has a strong track record of investing in renewable energy installations and projects that support energy efficiency.

Infrastructure Equity

All of our direct infrastructure equity investments are in the low-carbon, energy efficiency and social and economic infrastructure spaces. In addition, we have worked with an independent consultant to develop a ‘carbon calculator’ tool to enable us to measure the carbon equivalent savings associated with our portfolio infrastructure equity portfolio.

Enhancing value by investing in a 25MW wind onshore farm

In addition to saving 10,000 tonnes of carbon (the equivalent of approximately 16,000 households’ consumption), the wind farm in Scotland was developed with great care over its local impact. A Habitat Management Plan was put in place to provide wetland habitat for wildlife and a community fund established to support charitable community projects. Households living near the site have also been able to benefit financially through a discount scheme on their electricity bills.

This approach enhances the positive impact of the investment on the local community, beyond direct environmental benefit.

Other initiatives

All our solar assets provide free electricity to the householders; c 10 per cent (2000) of them are social housing – and so help alleviate fuel poverty.

All our Energy Centres provide cheaper energy to hospitals / use less input energy (CHP engines) / deliver CO^2 savings.

NUPPP – provision of high-quality education, medical and municipal buildings, provision of community services – supply chain management following Carillion collapse.

Infrastructure Debt
Integration

Typically, the assets we invest in are renewable energy assets, improve transport efficiency, or deliver social services.

CASE STUDY

Hornsea Offshore Wind Investment

Yorkshire

We provided a £400 million investment to help fund the construction of what will be the world's largest offshore wind farm, Hornsea 1. Located in the North Sea, approximately 101km off the North East coast of the UK, the wind farm will have an installed capacity of 1,218MW, almost double that of the current largest offshore wind farm, Walney Extension offshore wind farm, in which Aviva Investors invested £165 million in November last year. Hornsea 1 is expected to be fully commissioned by 2020 and has the potential to create over 2,300 jobs, increase supply chain development and generate enough electricity to supply over one million UK homes. As part of the current deal, Orsted Wind Power sold 50 per cent of Hornsea 1 to Global Infrastructure Partners; which was funded via one of the largest project finance packages ever assembled in the renewable energy sector. Aviva Investors' infrastructure debt and structured finance teams invested £400 million in fixed-rate and inflation-linked bonds.

Hornsea 1 is expected to be fully commissioned by 2020 and has the potential to **create over 2,300 jobs.**

CASE STUDY

The Thames Water Tunnel Project

London

This has green bond status, with a Green Evaluation from Standard & Poor's confirming the transaction is aligned with the Green Bond Principles 2017. The Thames Tideway Tunnel is a transformational asset and will significantly reduce pollution in the River Thames.

Sustainable Real Estate Integration

We believe that integrating ESG considerations can deliver real value in terms of cost savings, enhanced returns and reduced regulatory and obsolescence risk within our real estate assets. Consequently, we consider ESG issues in our investment decision-making and due diligence processes for new investments, as well as existing direct and indirect investments. Our environmental policy, implementation and performance is overseen by our Responsible Property Investment Committee (RPIC) which includes representatives from across the real estate and responsible investment teams. In addition to the quarterly RPIC meeting, we also host a regular meeting with environmental consultants, property managers and suppliers to discuss emerging sustainability themes and to share best practice.

CASE STUDY

Global Real Estate Sustainability Benchmark

(GRESB)

Within our real estate portfolio, we use the Global Real Estate Sustainability Benchmark (GRESB) to understand the climate resilience and broader sustainability of individual properties and funds. In 2018, we submitted 18 funds from our direct real estate business for benchmarking assessment. GRESB assessed the sustainability performance of our real estate funds. We were delighted that 9 of our funds received GRESB "Green Stars" in recognition of their sustainability credentials. We were founding members of the GRESB, the industry-driven organisation assessing the ESG performance of real assets globally, and have maintained a seat on the GRESB Advisory Board since its launch in 2010.

CASE STUDY

Purple Tuesday disability awareness in direct real estate

Around half of UK households have some connection to disabilities or impairments. In November 2018, six of our retail sites participated in Purple Tuesday, which was designed to promote awareness around the opportunities and challenges facing people with disabilities. The sites participated by engaging with the retailers within the buildings (i.e. our occupier customers) about issues relating to people with disabilities in the retail environment. We helped increase training for site staff so as to improve overall understanding of how to create environments that are sensitive to the specific needs of those with disabilities. As a result, several sites identified issues with accessibility and put in programmes of improvement. Many impairments are not outwardly visible, and the staff training was therefore particularly important for understanding how the sites could be optimised and provide support. For example, after consultation, one site removed mall music as it was causing stress and discomfort for those suffering from auditory disabilities. These kinds of informed discussions are moving beyond our retail centres and into offices and industrial parks, so that our buildings can become accessible to all.

Several sites identified improvements to accessibility and put in programmes of improvement.

It has saved over a million kilowatts of electricity, equating to **310 tonnes of carbon emissions.**

CASE STUDY

Collaborative smartbuilding programme

At multiple large offices and shopping centres across our Real Estate portfolio, we have been conducting an in-depth and ongoing analysis of the building management systems in order to identify the core energy uses on site. The programme specifically focused on establishing the main energy consuming plant and identifying any areas of energy waste. The result included optimisation of buildings' technology and was achieved through collaboration with managing agents, site operations, facilities management, and engineering contractors. Information from a Data Acquisition Device, site audits and collaboration with various teams, resulted in a pragmatic list of agreed changes to achieve energy and cost savings, while improving the customer experience of the building. This specific programme was particularly effective at The Corn Exchange in Manchester, where it has saved over a million kilowatts of electricity, equating to 310 tonnes of carbon emissions and £120,000 of cost savings. Following a large-scale refurbishment at 11 Portland Place in London, the same programme resulted in improved commissioning of the building, reducing energy by 25 per cent. Likewise, at Colemore Gate in Birmingham, 26 per cent of energy has been reduced, saving 200 tonnes of carbon emissions.

Sustainable Lending Integration

Our growing private lending business provides our clients with access to enhanced income, capital preservation, diversification and cash flow matching. This includes commercial real estate debt, structured finance (mortgage-backed securities, government-guaranteed loans, trade and credit financing), and private corporate debt. Higher premiums are achieved in exchange for less liquidity and transparency. This places additional responsibilities on us to apply greater rigour during the due diligence process to assess ESG risks. For example, in Structured Finance, transactions often involve investment into existing or new infrastructure to support economic and social development, which is particularly important for emerging and frontier markets.

However, few investors have appetite to invest in such markets directly due to poor ESG ratings relating to concerns over transparency or corruption.

By setting up dedicated transaction structures and working alongside a multilateral organisation with deep public sector knowledge and strong governance, we were able to support emerging market infrastructure projects that have positive social development impacts.

"As responsible, long-term investors, all asset decisions within our real assets business integrate strict environmental, social and governance factors enabling our clients to participate in the growth of the UK and continental European economies in a manner designed to foster social, environmental and economic benefits."

Mark Versey
CIO Real Assets

CASE STUDY

Economic development & infrastructure in emerging market

Republic of Benin – Africa

The transaction involved providing a long-term debt to refinance more expensive debt funding transport and power projects in an African country. Although the ESG risks of the country were deemed to be high, the structure ensured that the disbursements achieved their intended aim and generated significant benefits for the country in terms of improving its sovereign debt profile and injecting liquidity into its domestic banking sector. Our assessment provided greater clarity of the ESG risks in the country and the use of proceeds which will directly benefit the country. This provided greater assurance for the investment origination team, allowing them to go ahead with the transaction.

Although the ESG risks for the country were determined to be high due to corruption issues, **we found positive momentum** given the country's improvements in governance and anti-corruption.

CASE STUDY

Improvements in critical infrastructure for emerging market

Ivory Coast – Africa

The transaction is to provide a loan to a frontier market's major state-owned company where the proceeds are to be used to refinance high interest debt and the gains used to help fund investment in improving an oil refinery. Although the ESG risks for the country were determined to be high due to corruption issues, we found positive momentum given the country's improvements in governance and anti-corruption.

The funds will be used to repay more expensive existing debt, with the savings thereafter enabling the borrower to optimise the refinery which will lead to significant reductions in pollution. In terms of impact to the local economy, this refinance is part of the country's National Development Plan as the refinery is a key asset for the country. If all goes well, this will assist its economic aim of becoming a middle-income country. After weighing up the ESG risks and the ESG impact, we were able to determine that there will be significant positive social development improvements for the country through this transaction.

Active ownership

At its simplest, stewardship means taking responsibility for something entrusted into your care. In our case, it involves the effort and activities undertaken by asset managers to monitor, engage and, where appropriate, intervene on matters that may affect the long-term value of companies and the capital invested in them. This can encompass issues such as strategy, performance, corporate governance, and environmental and social challenges that may materially affect the future sustainability of companies and shareholder returns.

We consider active ownership to be a fundamental responsibility of investors.

Engagement

While stewardship is most commonly associated with equity investments, we consider engagement to be an important part of our investment process across a range of asset classes.

One of the key aims of our engagement is to identify and reduce ESG risks in our portfolios. Where we consider a company's approach to governance or the management of its sustainability impacts fall short of our expectations, we will engage with the board to improve performance over time.

Our approach to engagement, including how we escalate concerns, is set out in our Stewardship Statement. Engagement routinely takes the form of meetings or calls with the board or senior sustainability executives. We set out clear objectives for engagement and follow-up where it is appropriate. Engagement outcomes are registered in our database, reflected in our voting and feed into our proprietary ESG Heat Map. For active holdings, engagement is undertaken in close co-operation with the investment teams and key conclusions from company engagements are fed back to fund managers through weekly meetings.

Effective engagement is resource intensive and prioritisation of efforts is key. We use our ESG Heat Map to help identify areas of greatest concern and overlay considerations, such as the size of our holding, thematic priorities, AGM-related priorities and event-triggered engagement. We draw up engagement plans annually, with progress reviewed and assessed on a quarterly basis.

In 2018 we undertook 2,938 company engagements with 1,954 individual companies. Engagement intensity ranges from a single letter to multiple meetings.

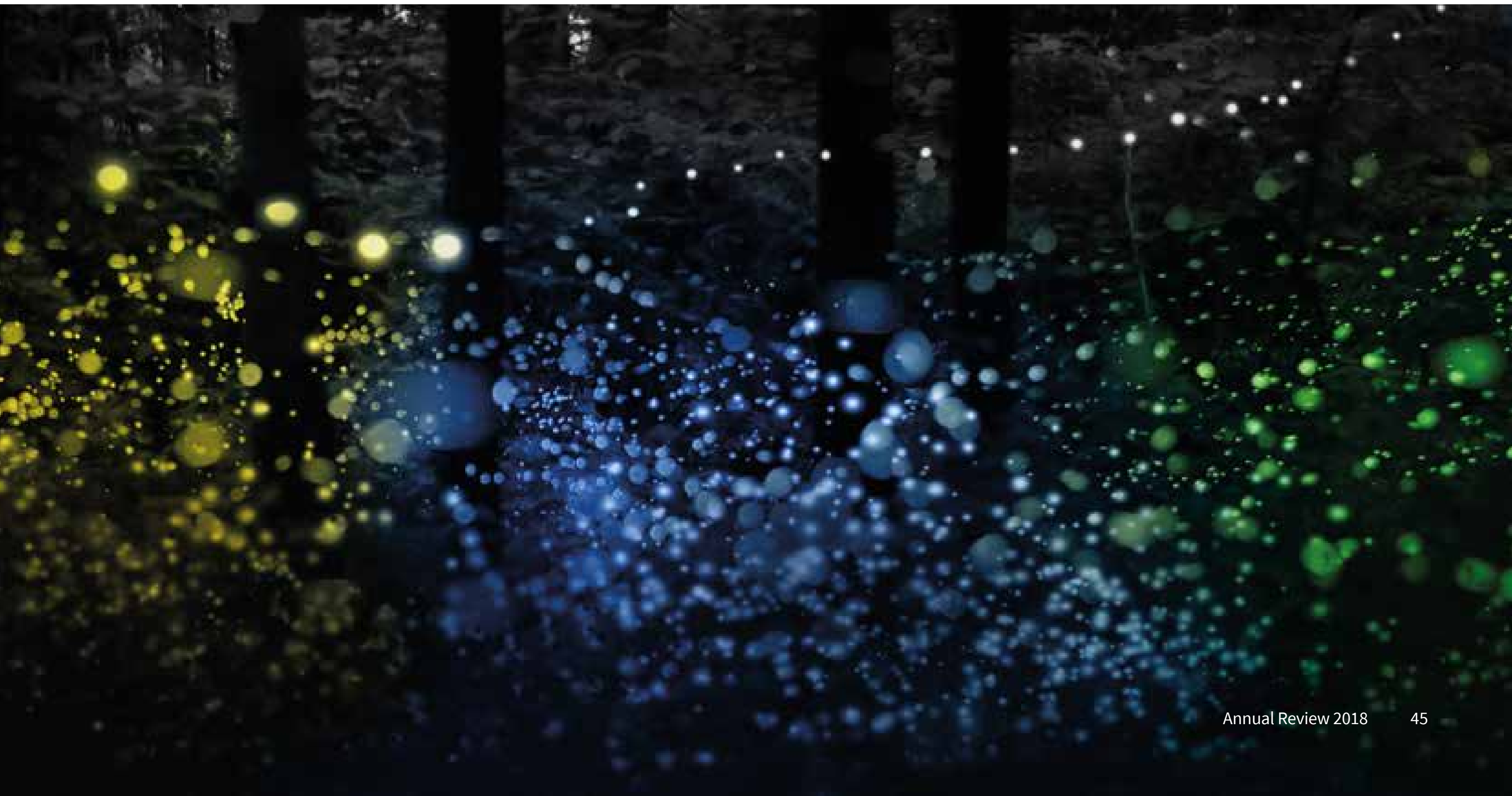
Above and beyond the engagements highlighted above, we also participated in a further 1,960 collaborative letter-based engagements, addressing topics such as climate disclosure and human rights. Active engagement and collaboration with other investors is an important, if not essential, requirement for being able to exercise appropriate influence at companies when this is required. By sharing information or areas of concern regarding companies, not just in times of stress but also in normal times, it is possible to identify potential issues or risks. We therefore meet regularly with other investors to discuss developing concerns about the way companies are run and to discuss how investors can collectively work to persuade companies to improve practices. For us, this is equally as important as the collaboration that takes place during a period of crisis. This is why we are founding members and active participants in a number of UK and international investor networks, including the UN Principles of Responsible Investment. These networks facilitate discussion and sharing of information and individual institutions may decide to work collaboratively when appropriate.

The power of collaborative engagement

Our investment teams engage with companies on environmental, social and governance issues. When that's not enough, we work with other investors to bring about real change together.

- 2020 Stewardship Working Party
- 30 per cent Club
- Access to Medicines Index
- Access to Medicines AMR Benchmark
- Access to Nutrition Index, collaborative initiative on the responsible marketing of breastmilk substitutes (BMS)
- Asia Research and Engagement (ARE)
- Asian Corporate Governance Association
- Association for Sustainable and Responsible Investment in Asia
- Business Benchmark for Farm Animal Welfare
- Business Sustainable Development Commission (BSDC)
- Carbon Disclosure Project (CDP)
- Climate Change, Forests and Water
- Climate Action 100+
- Climate Disclosure Standards Board (CDSB) TCFD Commitment
- The ClimateWise Principles
- Corporate Human Rights Benchmark (CHRB)
- Council of Institutional Investors
- European Sustainable Investment Forum (Eurosif) and UKSIF
- EU High-Level Expert Group (HLEG) on Sustainable Finance
- Extractive Industries Transparency Initiative (EITI)
- FAIRR's initiatives on sustainable protein, antimicrobial resistance (AMR) and the CERES FAIRR initiative on fast food supply chains
- Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosures (TCFD)
- Global Investors Governance Network (GIGN)

- Global Real Estate Sustainability Benchmark (GRESB)
- Investment Association (IA) and The Investor Forum
- Institutional Investors Group on Climate Change (IIGCC)
- Interfaith Center on Corporate Responsibility (ICCR)
- International Corporate Governance Network (ICGN)
- International Integrated Reporting Council (IIRC)
- Investor Network on Climate Risk (INCR)/CERES
- Investor Mining & Tailings Safety Initiative
- Investor Working Group on Tailings & Accounting Provisions
- Investing in a Just Transition
- Pensions and Lifetime Savings Association
- Plastic Solutions Investor Alliance
- Shareholder Voting Working Group
- Sustainable Accounting Standards Board
- Sustainable Stock Exchange (SSE) Initiative
- Transition Pathways Initiative (TPI)
- UN PRI
- United Nations Environmental Program Finance Initiative (UNEP FI)
- United Nations Global Compact
- University of Cambridge Institute for Sustainability Leadership
- The UK Green Finance Taskforce
- The UK Social Impact Implementation Task Force
- US Sustainable Investment Forum
- Workforce Disclosure Initiative (WDI)
- World Business Council for Sustainable Development
- World Benchmarking Alliance (WBA)
- Zoological Society of London's Sustainability Policy Transparency Toolkit (SPOTT)



Voice and exit: using engagement as a force for change

Investors often come under pressure to divest from companies. But engagement can be a more effective way to bring about positive change, argues Steve Waygood.

The economist Albert Hirschman once argued people have two different ways of responding to disappointment: they either stay put and complain or vote with their feet. Hirschman called these options “voice” and “exit”. An oppressed citizen may start a protest or emigrate to another country. Unhappy customers may return their goods for a refund or simply start shopping elsewhere.

This dilemma also applies to ethically-minded investors. If shareholders in a company discover it is polluting the environment or mistreating its staff, should they voice their concerns or simply exit the investment?

Divesting from companies that break ethical rules is often the more convenient option and may even bring a useful reputational boost.

But once investors sell out they are no longer able to apply pressure to company boards. They may be replaced by less conscientious shareholders who are more than happy to look the other way so long as the profits keep rolling in. As Hirschman observed, while exiting may be convenient and conscience-soothing, it tends to entrench the status quo.

Steve Waygood, chief responsible investment officer at Aviva Investors, argues investors should use their voices before heading to the exit door. In this Q&A, he explains how shareholders can engage with companies to improve their practices; sets out what investors can do to ensure their asset managers are applying the necessary pressure; and highlights examples of engagements that have delivered positive change.

Why is engagement a better approach than divestment?

Engagement is more than a buzzword; it can be traced back to the origins of company law, which positioned shareholders as the primary regulators of corporate behaviour. Modern investors should approach their responsibilities in this spirit. They have a moral duty to act where they have the power to enforce generally accepted standards. Often this means staying put to establish a dialogue and exerting pressure where necessary. It can also help to protect long-term shareholder value.

Divestment may be a simpler solution in many cases. Selling out can ease an investor’s conscience and earn praise from divestment campaigners. But the real question is what is more likely to bring about change? Imagine you are an executive at a mining company where lax safety standards are leading to fatalities among staff. You are coming under heavy criticism from the company’s investors and could be voted off the board at the next annual general meeting. Would your life become easier or harder if those concerned investors walked away? I would say it becomes considerably easier.

How can investors make sure they are listened to?

Equity investors have a variety of tools at their disposal. They have the power to fire a company’s leadership at AGMs, and can use this to vote against strategies they disagree with. They can also vote against auditors if they are concerned the company’s report and accounts are not being properly scrutinised or do not truthfully represent the financial and reputational risks it faces due to unethical practices.

Shareholders can work in tandem to bolster their influence. Collaborative engagement can be particularly important when it comes to addressing the behaviour of powerful fossil fuel companies that are used to resisting pressure from environmental campaigns.

> “Shareholders can work in tandem to bolster their influence.”

Some argue that divestment from fossil fuels is necessary because the business model itself is the issue, rather than isolated cases of malpractice. How would you respond to this?

It is true that the activity of fossil fuel companies threatens the future of the whole planet. But we would argue this makes engagement even more important because the stakes are so high.

If carbon emissions are not curtailed, it is possible global temperatures could rise by six degrees by 2100. In current prices, the associated damage could wipe US$43 trillion off the value of financial markets. Such a catastrophe is difficult to contemplate. But without government engagement from large and powerful investors, policymakers may not come under enough pressure to correct the market failure. And without company engagement, energy utilities could simply continue burning fossil fuels, using their own lobbying activities to ensure policymakers let them do so.

By collaborating to put pressure on executives, investors can push these companies towards more sustainable energy sources. Such a transition is in the interests of everyone, including the companies themselves, as at a certain point the remaining hydrocarbon reserves will become uneconomic to extract.

“Investors can push companies towards more sustainable energy sources.”

What should investors do if they fail to see the changes they are pushing for?

Not every investor has the clout to make a company alter its behaviour, and sometimes firms will refuse to improve their business practices no matter how powerfully investors protest. Engagement can fail, and there will come a time when the only option is to walk away.

Where persistent and concerted engagement has failed, then it’s time to use the exit. For example, in 2017 Aviva Investors divested its own money from a Japanese coal company called J Power because, despite our best efforts, we saw no progress on a series of key issues. But we strongly believe investors should use their voices to bring about change before they head for the exit. It helps to accelerate corporate action.

Engagement by Region

Africa	1%
Asia	20%
Australasia	5%
Europe (ex UK)	18%
North America	23%
South America	2%
UK	31%

Engagement by Category

Climate change	37%
Environmental (Other)	10%
Social	12%
Governance	25%
Strategy	16%

ESG in practice – Environmental

CASE STUDY

Future proofing strategy

EDF (France)

EDF (Electricité de France) is a French utility company and one of the world's largest producers of electricity. Over the course of 2018, we engaged with EDF to identify the extent to which the company's strategy is positioned to benefit from the government's energy policy. While there is no doubt that the state exerts significant influence on the board and EDF's strategy through its shareholding which exceeds 83 per cent of the outstanding capital, we were particularly interested to understand EDF's future positioning regarding the evolving policy on energy mix, as well as where the key risks stand from both a subsidy perspective and technological advancements.

EDF's Solar Power Plan, which commits to develop and build solar plants of a 30gigawatt (GW) capacity in France by 2035, is aligned to the French government's current rebalancing of the energy mix. The aim is for EDF to create the entire industrial value chain in order to support the project. On a long-term basis, we believe EDF will benefit from this plan and gain a significant competitive advantage in terms of renewables positioning. This significant investment is also coupled with EDF's efforts in technology, where they have built several research partnerships. On the other hand, however, the ongoing nuclear decommissioning undertaken by the French government to reduce the country's reliance on nuclear power will potentially result in costly restructuring of the company's generation assets.

While we are comfortable with the company's position in relation to the government's new energy mix policy, we continue to review the company's strategy in light of the rapidly changing political environment, economics of energy and climate change.

CASE STUDY

An improving approach to sustainability

Enel Group (Italy)

Enel Group is a multinational energy company and leading integrated electricity and gas operator. We have had a long-standing dialogue with the company over its significant exposure to thermal coal. Encouragingly, the company has recently been undertaking a dramatic transformation to refocus the business on renewables. Enel now manages 43GW of renewable capacity and is adding an additional 3GW per annum. Most significantly, the company has now made a soft commitment to exit from coal by 2025 and to become carbon neutral by 2050, with its targets being validated by the Science-Based Targets Initiative as compatible with limiting warming below 2°C.

Another indication of Enel's progressive approach to sustainability was reflected in the chief executive utilising their capital markets day to announce its industrial strategy alongside new social objectives linked to the SDGs. It is one of the first European companies to do so.

We continue to monitor the execution of coal divestments and we retain some concerns with Enel's relatively high exposure of thermal assets located in water-scarce regions. We also note the significant influence exerted by the Italian state and the potential impact this may have on future capital allocation and targets for its energy mix. Nevertheless, the company is considered among the best-in-class for the utilities sector, particularly with respect to its climate ambitions and demonstrable progress.

CASE STUDY

A transition to reach the Paris Agreement

Glencore (United Kingdom/Switzerland)

Glencore plc is a British–Swiss multinational commodity trading and mining company. We have engaged directly with them for several years. In 2018, we met with their Chairman as well as their Head of Sustainable Development to address their approach to long-term risk management and exposure to coal.

We also raised the issues of gender diversity in their workforce. In response to investor pressure, Glencore pledged to align itself with the goals set out in the Paris Agreement, capping production of thermal and coking coal at about 150m tonnes per annum, close to its planned output level in 2019. Additionally, capital preference is expected to be given to commodities, such as copper, nickel, and cobalt, where demand is projected to grow with the rise of electric vehicles and the electrification of the global economy.

We are supportive of these developments and will maintain our engagement with the company in order to share best practice as well as to support them along this transition. However, for now, it remains to be seen how the company intends to exercise capital discipline and what subsequent disclosures will provide in terms of evidence.

Glencore pledged to align itself with the goals set out in the Paris Agreement, **capping production of thermal and coking coal at about 150m tonnes per annum**, close to its planned output level in 2019.

ESG in practice – Environmental continued

CASE STUDY

Constructive dialogue on palm oil financing

Maybank (Malaysia)

Maybank is a Malaysian universal bank and, as part of our target country ESG engagement approach, we engaged with Maybank on their financing of palm oil companies.

We met with various members of their sustainability and investor relations team to discuss palm oil issues as well as wider governance and climate change issues. The direct engagement allowed us to better understand their rationale around not implementing a specific palm oil policy and to ensure we maintain pressure on the company to review their strategy. Maybank told us that they needed to assess how such a policy may impact their clients before implementing one – as it may have unintended consequences on their businesses.

While any major shifts in sustainability policy may require time, there is also a high degree of urgency required to solve this issue. We have therefore actively followed-up with questions on palm oil. And in order to encourage positive improvements, we shared best-practice and guidance on integrating an effective palm oil policy into the business – we also shared Aviva Investors/ZSL palm oil guide for investors.

As an outcome of our constructive dialogue, Maybank have incorporated ESG risk assessment criteria as part of their evaluation for financing palm oil clients and have indicated their intention to disclose more on palm oil risk assessments in the future. They have also indicated that they are in the process of developing a policy around palm oil. We are pleased to hear about their intentions but remain cautious on the speed of action.

CASE STUDY

Hon Hai collaborative engagement on environmental issues

Climate Action 100+ initiative

As part of the Climate Action 100+ initiative, we have been an active collaborative investor with Hon Hai Precision Industry, which makes components for Apple.

Identified as one of the world's largest corporate greenhouse gas emitters, we engaged them on a range of climate change issues. These included the curbing of emissions across the value chain, the strengthening of climate-related financial disclosures and the improvement of climate-related risk governance.

Through this global initiative, we have been able to express our concerns about climate change as a strategic risk to the business. This is both in terms of the transitional risks as we move towards a low-carbon economy, as well as current physical risks capable of disrupting business-as-usual and damaging value. We voiced our concerns over the strength of board leadership in climate governance, and stressed the importance of having board accountability and oversight of climate change risks and opportunities. As part of Climate Action 100+ initiative, we have engaged with the head of sustainability with regards to the monitoring levels of their extended supply chain which may be particularly susceptible to climate risk.

Through the year's engagement, the company has increased the disclosure of environmental information as well as increasing their CSP score from D- to a C. In addition, they have made progress on climate change-related oversight in their supply chain. For example, gathering information from key suppliers in order to understand their energy mix and energy saving efforts. We remain active in this engagement, and are pushing for stronger implementation of a governance framework to report on carbon emissions.

In Autumn 2018, we completed a Polish engagement project aimed at **encouraging a faster transition towards a lower carbon economy**.

CASE STUDY

Collaborative engagement on coal

Poland

Poland's reliance on coal has been on our radar for several years. Aviva Poland, in its role as a responsible insurer, has launched numerous initiatives to address Poland's deteriorating air quality. This includes the sponsorship of air quality sensors across the country and commission of a dedicated smog survey.

On the investment side, in Autumn 2018, we completed a Polish engagement project aimed at encouraging a faster transition towards a lower carbon economy. We have called on other investors to join us in Poland to collectively engage with local power companies*. We were joined by a number of international and local investors collaborating on what we believe was the first investor trip to Poland on climate change. We have engaged with the largest Polish utility companies and thus some of the largest emitters in the EU on climate change. We spoke to a total of seven companies in the energy sector: PGE, Tauron, Enea, Energa, Famur, JSW and PGNiG. While we were aware of the challenging context, the companies were receptive and found our approach uniquely constructive. The majority have committed to raise the discussed issues with their respective boards. We are hoping the collective influence will contribute to improved disclosure and action on climate change. We continue to monitor these companies closely.

Later in the year, we also had a strong presence at the December 2018 United Nations Climate Change Conference (Conference of the Parties – COP24), where we launched a stocktake of Aviva's 2015 climate change strategy and spoke at multiple events, including ones hosted by WWF, the OECD and the UK Government.

*Aviva and Aviva Investors have engaged where they have discretion to do so. Aviva PTE in Poland is under a strict regulatory regime. Specifically, the pension investments must comply with a specific mandate, stipulated by the Polish pension law.

ESG in practice – Social

CASE STUDY

Multi-company engagement on child labour work

In 2018 we approached ten companies facing allegations of child labour use across industries from tobacco and palm oil, to cocoa and automobile.

All companies we spoke with had policies in place prohibiting suppliers from using children in their workforce. However, monitoring and enforceability of labour rights policies down the supply chain to indirect suppliers remains an industry-agnostic challenge. Our engagements have identified best practice in eliminating child labour: namely, engaging with local communities using locally appointed leaders as a liaison (often company employees), with Nestlé and Mondelez having successfully deployed this approach.

Out of the companies we spoke with, Indofood was the most challenging engagement. IndoAgri's CEO was dismissive of NGO allegations of child labour incidences and refused to acknowledge labour rights abuses on their Indonesian plantations, insisting they comply with Indonesian law despite contrary evidence from NGOs which have local teams on the ground. We followed up with the Rainforest Action Network (RAN) which had written the initial investigative report alleging labour abuses. RAN also filed a complaint with RSPO. RSPO has recently concluded an audit and its complaints panel is meeting to decide on actions to take. One possible outcome is a suspension of Indofood's RSPO membership.

In contrast, Phillip Morris was exceptionally transparent, highlighted by its publicly available third-party assessment reports and correspondence with NGOs. We also identified companies that caused concern and we shared our discussions with other investors through the PRI's working group on Palm Oil. In addition, they shared selective insights with relevant NGOs, hoping collective pressure will yield meaningful reforms.

Child labour is a complex and deeply cultural issue. We found that where companies had engaged with local communities using locally elected leaders as a liaison (often these are workers themselves) they tended to be more successful in eliminating the use of child labour.

Oversight of direct operations at some companies relied heavily on self-reporting by farmers/suppliers and more could be done, for example by having regular third-party inspections. However, the biggest challenge for most companies was in ensuring similar standards were upheld at their indirect suppliers, down the supply chain. Often it was at the indirect suppliers where the data provider MSCI had found incidences of child labour.

CASE STUDY

Corporate Human Rights Benchmark

Aviva Investors is a founding member of, and a major contributor to, the Corporate Human Rights Benchmark (CHRB). The CHRB is a first of its kind project that assesses and ranks listed companies on their human rights performance. It aims to drive better corporate human rights performance by harnessing the competitive nature of the market through public benchmarking of corporations and is chaired by Steve Waygood, chief responsible investment officer at Aviva Investors.

During 2018, we began using the CHRB rankings and scores within our ESG integration and company engagement activities, as well as incorporating the results into voting decisions. We engaged with the 101 assessed companies in collaboration with other investor partners (including Nordea and APG) and hosted the 2018 results launch at our head offices in London, attended by many investors, companies and civil society members. The CHRB was also widely reported in the press and received coverage by major international news organisations, including the Financial Times and Forbes.

We were also particularly pleased that the CHRB was recognised by the Chartered Financial Analyst (CFA) Society Sweden, who awarded CHRB the ESG award "for raising awareness of the importance of ESG issues in the investment process" in March 2018.

CASE STUDY

Multiyear positive engagement

Merlin Entertainments (UK)

Merlin Entertainments plc is UK FTSE 350 company that operates numerous attractions around the world, including Alton Towers, Legoland and Sea Life. Since 2015, when we acquired a large stake, we have discussed a variety of issues with the company such as: the Alton Towers rollercoaster crash; gender diversity; and the welfare of the performing beluga whales in one of their Shanghai Sea Life centres.

Many improvements have been made, including the appointment of three female directors to the board. More recently, the Sea Life business had a breakthrough as the company announced it will create the world's first open-water sanctuary for beluga whales in a ground-breaking marine welfare project in Iceland. Sea Life's competitor, SeaWorld, which struggled for years after the 2013 release of the "Blackfish" documentary that alleged cruelty in its handling of orcas provide a clear rationale as to why this issue is so important. Simply put, the reputational risk associated with having poor animal welfare can have serious financial implications for a company.

Merlin Entertainments and Sea Life have made clear many times that they do not believe whales and dolphins are suitable for captivity and have never pro-actively acquired or sought to include cetaceans in their attractions. Sea Life has also done a lot of good work for marine conservation and, under pressure over the park in Shanghai which it has owned since 2012, it has done a lot of work in finding a better solution for the care of the belugas. As a short BBC documentary shows, it has not been a straightforward process but something we welcome is nearing a conclusion.

During 2018, we began using the Corporate Human Rights Benchmark rankings and scores within our ESG integration and company engagement activities, as well as **incorporating the results into voting decisions.**

CASE STUDY

Employee rights

Ryanair

We engaged with Ryanair on three occasions in 2018, including over labour rights, as well as strategy and shareholder rights.

Fierce competition and low margins are characteristic of the airline industry, which has come to favour low-cost carriers. However, our aim is to ensure that this is not to the detriment of employee working conditions, which could have serious reputational and financial consequences for such companies. Following Ryanair's announcement in 2017 to recognise trade unions for pilots and cabin crew, progress has stalled which raises questions over the morale of Ryanair's employees and how employee disputes are being handled.

Consequently, we attended a group meeting in 2018 that included members of Ryanair's cabin crew, unions and other investors. This helped us get a better understanding of the materiality of issues. We engaged with Ryanair on three occasions in 2018, including over labour rights, as well as strategy (and how this may be impacted by Brexit) and shareholder rights. We also continue to hold management to account by voting against numerous resolutions at the AGM including non-independent directors and remuneration arrangements.

We will continue to engage with Ryanair in 2019 and this is a company where we expect to see certain improvements in the company ESG practices.

ESG in practice – Governance

CASE STUDY

Board dynamics

Danone (France)

Danone is a France-based multinational that operates in the food processing industry. We have long been supporters of Danone's approach to sustainability and believe their ESG ambition is a competitive advantage.

We have had regular conversations with Danone in the past few years with regard to their positioning to benefit from healthy consumer trends; the Whitewave acquisition fits well within this strategy. Danone's ambition is to be among the first food multinational companies to obtain a global B-lab certification, which would give them the legal mandate to serve the interests of not only shareholders, but also society at large through a clearly defined purpose. Around ten subsidiaries have already been certified.

An area of focus in our 2018 engagements with Danone was governance. In December 2017, the board of directors decided to re-combine the CEO and chair roles for Emmanuel Faber. We prefer these roles to be separated as the Chairman's role on a board is to evaluate and review the performance of management. In the case where the Chairman is also the CEO, we consider this oversight function to be compromised. However, we have confidence there are strong mitigating measures in place at Danone. For example, Danone has appointed a strong lead independent director whose mandate includes shareholders' dialogue. The board's independence level, diversity of skills, experience and the committee's composition guarantee an efficient and dynamic oversight capacity of Danone's business and sustainability issues.

In our view, a board needs to be strong and agile to adapt to the changing environment, and Danone seems to have found a good balance.

CASE STUDY

Successful opposition to restructuring

Unilever (UK/Dutch)

Unilever is a British-Dutch transnational consumer goods company. Its products include food and beverages, cleaning agents, beauty products, and personal care products.

As large, long-term shareholders of Unilever, we engaged extensively with the group following its announcement to simplify from two legal entities, N.V. and plc, into a single legal entity incorporated in The Netherlands. The company's reason was that the shares in N.V. account for approximately 55 per cent of the group's combined ordinary share capital, and trade with greater liquidity than plc shares. As Unilever's sustainable business model including its proactive engagement with stakeholders is one of the factors for our overweight position, we expressed our disappointment that Unilever would disappear from the FTSE 100 Index. That would make it impossible for some funds, notably UK tracker funds and those with strict UK investment mandates, to own the shares. We and other investors feared we would also be forced to sell our holdings at depressed prices. As such, we asked if the company could pursue as many options as possible to stay in FTSE Index.

As escalation of our engagement, we worked with the Investor Forum (a UK organisation that facilitates collective investor engagement to protect and enhance long-term value). We had decided to start collective engagement on this issue which had similar concerns, including a need for the company to lay out more clearly the merits of the proposals to plc shareholders. The general meetings for shareholders to vote on the proposals were scheduled for 25/26th October 2018. In making the case for change, the burden of proof for the company was high given the requirement for 75 per cent of the votes cast to be in favour in order for the proposal to be passed, complex questions with regard to the fiduciary duty of plc shareholders, and the precedent set by a number of multinational companies over the years to retain a FTSE All Share inclusion when unifying share classes.

On 5 October 2018 the Unilever Board announced its decision to withdraw the proposal to simplify Unilever's dual-headed legal structure. We consider this as a significant win for us and other plc shareholders as we are now able to continue investing in what has been has strong company over a number of years, and a company notorious for its leading approach to sustainability, being one of the factors for our overweight position.

ESG in practice – Governance continued

CASE STUDY

Constructive dialogue on governance following the Malaysian scandal

Goldman Sachs (USA)

Goldman Sachs is an American multinational investment bank and financial services company. In 2018, Goldman Sachs became embroiled in the 1MDB scandal in Malaysia where the bank has been accused of assisting with the laundering of billions of dollars. Two former employees have been indicted by the Department of Justice and the US$600 million fee earned by the company in helping to finance the fund has come under heavy scrutiny. We met with representatives of the bank to better understand what happened and remedial action undertaken since.

The bank was unable to comment on the specifics of the case due to the ongoing investigation. However, the company did outline the establishment of a new reputation risk committee composed of senior partners, head of compliance, head of legal and chief of staff. The role of the committee is to review all transactions in collaboration with client suitability assessments already undertaken by the business standards committee. While this is a positive development, the focus has been primarily on governance structures rather than culture. We also note that the bank has appointed a company "lifer" as its new CEO which raises questions over the likelihood of an independent comprehensive review of bank conduct.

Culture is of equal or, arguably, greater importance than governance processes in shaping employee behaviour. We therefore made recommendations related to cultural changes that have proved effective at other banks; this includes an overhaul of incentive arrangements, and we will monitor progress within the bank over time.

CASE STUDY

Constructive dialogue on changes to pay

Sanne Group (UK)

Sanne Group is an international provider of outsourced corporate and fund administration, reporting, and fiduciary services. As large shareholders in Sanne, we were consulted on the remuneration committee's proposed changes to executive pay, including significant increases in variable pay opportunity. While we did not disagree with the company's rationale for the changes, we did, however, question the decision to increase long-term incentive plan (LTIP) awards from 100 per cent to 200 per cent which we regard as very generous. We clearly communicated that LTIP increases should be staggered – i.e. 150 per cent for FY2019, and then to assess whether larger amounts should be granted in subsequent years. We also suggested that increased awards should be subject to more stretching performance targets.

On bonuses, we would encourage better levels of disclosure of payments under the non-financial elements – i.e. for FY2017, the company disclosed objectives for each director but did not discuss how the directors performed against these objectives.

Having considered all shareholder views the company agreed to limit LTIP grants to 150 per cent of salary in 2019 and to 200 per cent from 2020 onwards (subject to company and individual performance). The company confirmed that it will also set stretching targets for all awards in future, as it has done in the past. Finally, the company confirmed that there will be full disclosure of the bonus targets that were set, performance against them and the resultant pay-out.

We are now comfortable in supporting the proposed changes to pay.

CASE STUDY

30 per cent Club – board diversity: multi-channel engagement

Tullow Oil

The Oil and Gas industry has made particularly slow progress on board diversity. The industry is missing out on an important talent pool at a time when it needs fresh thinking. One of the companies we have raised this with on a number of occasions is Tullow Oil. After raising it at the company's AGM in 2017, we have since voted against the company given our ongoing concerns.

We have also co-signed a letter to the board as part of the 30 per cent Club initiative requesting for a collective engagement. In November 2018, together with other investors, we further engaged with Tullow to discuss their culture and diversity, board composition and succession, recruitment practices for board members as well as their gender pay gap. The company was receptive to the engagement and has indicated the business understands the value of diversity and is aiming for a long-term improvement rather than a short-lived campaign.

In early 2019 Tullow announced it has appointed two more women to the board, increasing the overall board diversity to 30 per cent.

The industry is missing out on an important talent pool at a time **when it needs fresh thinking.**

CASE STUDY

BHP Billiton

Aviva Investors has discussed the board skills and experience needed in a **more technology - focused future for mining companies.**

In its engagements with BHP's Chairman, Senior Independent Director (SID) and Governance team, Aviva Investors has been supportive – yet challenging – in putting forward its clear views on a range of points. Its comments have focused on material issues – ones that relate to the risks and opportunities facing a resources company and hence the long-term value of its investment.

For example, over the past two years, Aviva Investors has discussed the board skills and experience needed in a more technology-focused future for mining companies (with the SID); portfolio composition and capital allocation issues (with the Chairman); and climate change, water stewardship and safety (with BHP subject matter experts). These discussions have been fed back to the full board of BHP, and have assisted the company in formulating its approach to these, and other, important issues.

ESG in practice – Governance continued

CASE STUDY

What's going on in Malaysia?

A targeted country ESG engagement approach

Background: Malaysia

In 2018 we targeted country-specific engagement through company-specific assessment of government initiatives.

Three successful ESG outcomes were achieved as a result of engagement activities with Inari Amertron, Hartalega Holdings and Padini. We travelled to Malaysia to engage with Malaysian companies we were invested in. From this trip we learnt which companies were embracing strong ESG practices, and which preferred to adopt baseline sustainability approaches. Given ESG disclosures are generally weak and fragmented, our engagements allowed us to identify fresh investment insights, while proactively recommending tailored ESG improvements in companies. This approach is particularly important in Malaysia, where a new government has pledged to systematically reform poor corporate governance.

What did we do?

By targeting smaller markets, we felt we could have a tangible impact on companies, while at the same time gaining deeper insight into ESG issues. In markets where publicly available data is poor and standards of ESG are low, this is particularly important. In the case of Malaysia, we see a relatively robust governance framework driven by the Malaysian Stock Exchange and Securities Commission. Despite this, Malaysia is generally weaker around implementation at the company level.

What did we learn?

Increasingly, regional markets in Asia are improving their corporate governance frameworks. However, there is a widening gap between companies willing to embrace a new governance culture, and those stuck in the past. An opportunity exists, and investors who most-effectively communicate and support companies along the transformation towards greater sustainability should reap the benefits in the long term. We found that most small-mid cap companies are keen to learn and integrate sustainability into their business strategy. However, they often don't understand the best way to do so.

Malaysian companies implement ESG in a variety of different ways. Larger companies tend to have sustainability reports that lack material substance, in-effect amounting to "green-washing". And while they generally have the resources to produce a comprehensive report with wide-ranging sustainable commitments, they lack specific targets. On the other hand, smaller companies tend to have minimal public sustainable strategies and view such considerations primarily through a compliance lens, hence opting for baseline adherence to local environmental regulations.

What was our impact?

The level of interest and engagement within companies ranged depending on function. Senior management often did not appreciate the materiality of ESG integration, while investor relations functions tended to view investor engagement as way of pushing their own sustainability agenda. In contrast, CEOs and chairmen could more clearly see the commercial benefit of promoting sustainability within their business. Overall, companies were receptive to ESG engagement and viewed these as opportunities to gauge areas to improve upon. These improvements are mutually beneficial and will drive business value as well as improve investor confidence.

What are the next steps?

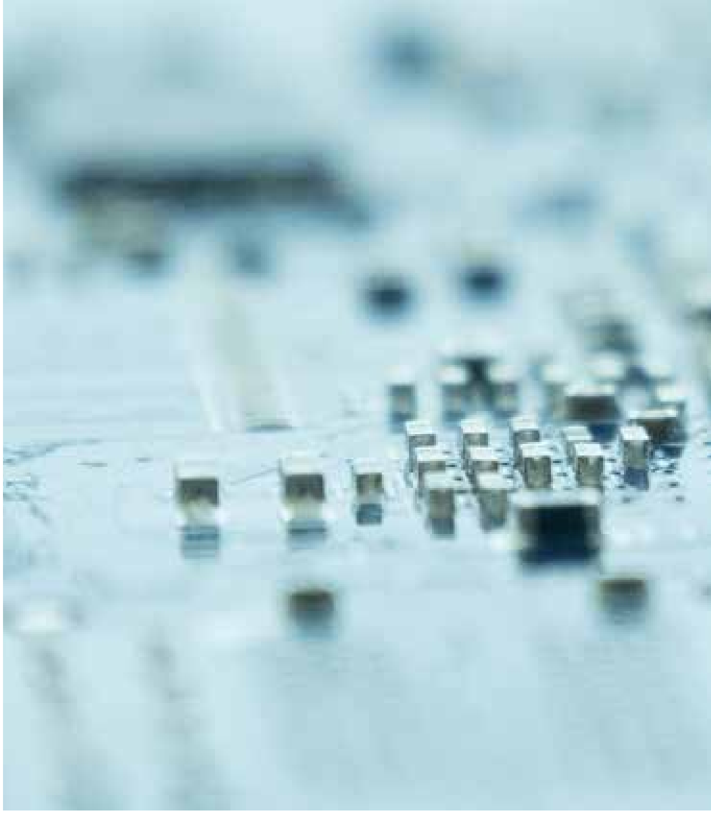
In Malaysia, we see a wave of positive governance changes. Corporate scandals stir public anger and, sometimes, bring about broader remedies to redress unfair or illegal business practices. The 2002 Sarbanes-Oxley Act created in the aftermath of the Enron scandal in the US, and the 2014-2015 landmark introductions of Japan's stewardship and governance codes following the Olympus accounting fraud are cases in point.

Malaysia could be heading in a similar direction. Between 2009 and 2015, as much as US$4.5 billion (£3.5 billion) was allegedly diverted from 1 Malaysia Development Berhad (1MDB), a government investment vehicle, according to the US Department of Justice (DOJ). Riding on the backlash of the money laundering controversy surrounding 1MBD that implicated former prime minister Najib Razak, Mahathir Mohamad won a shock election victory as prime minister in 2018 with a clear mandate to enact reforms. That the 93-year-old Mahathir, who served as prime minister from 1981 to 2003, returned to power promising corporate governance initiatives may be surprising to some observers. During his previous term, Mahathir frequently faced accusations of facilitating crony capitalism.

There is a resulting temptation for international investors to dismiss Malaysia's overhaul attempts, but this could be short-sighted. Although it is too early to gauge what impact Mahathir's reforms will have, Malaysian companies now have more market incentives to improve their ESG credentials. Furthermore, those who do may be in a more resilient position to weather volatile conditions.

While they are starting from a low base, many Malaysian companies are beginning to understand how ESG factors link to their business values. Proactive engagement can help companies realise that, if they improve in ESG, foreign investors will reward them and they can command a higher premium. As they venture internationally, a focus on ESG could therefore offer a competitive advantage.

Impactful engagement
A company view



Inari Amertron is one of the companies we have engaged with. They are a leading Outsourced Semiconductor Assembly and Test (OSAT) provider to multinational (eg. Broadcom, OSRAM) and local electronics product manufacturers. In this Q&A, Inari Amertron shares their views on ESG and the role investors play in engaging with companies such as theirs.

How do you approach investor dialogue on sustainability, and how do you see the role of investors like Aviva Investors?

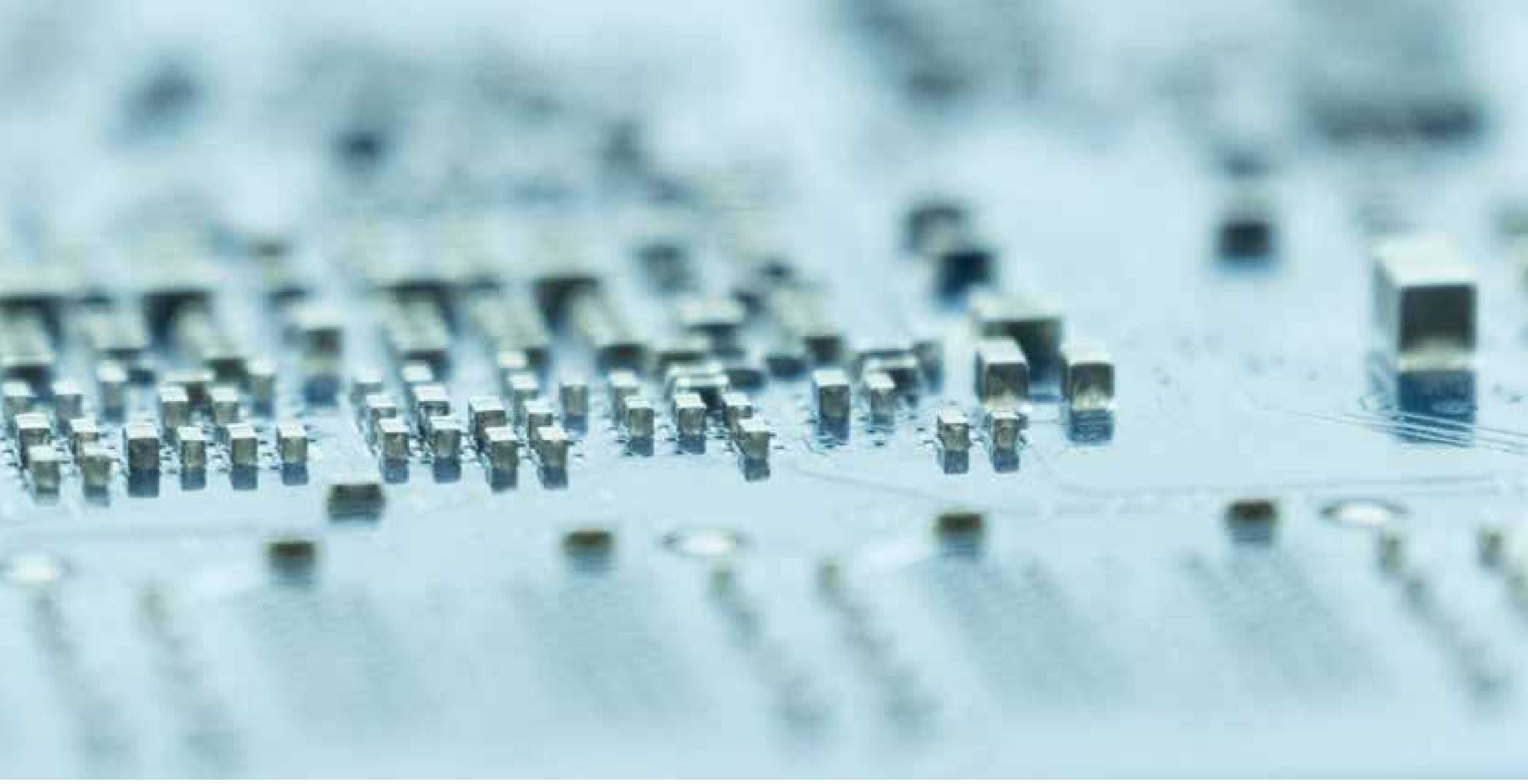
We recognise the importance of stakeholder engagement in identifying, understanding and responding to their concerns. Inari is committed and will continuously engage our stakeholders in a timely, effective and transparent manner. Our Investor Relations and Stakeholder Engagement Programme ensures that accurate and quality information about the group's developments, operations and financial performance reach a broad range of interest groups. Members of the Sustainability Working Committee conducted the Stakeholder Engagement Programme to identify key stakeholders for the group which evaluates the level of influence and dependence, whether direct or indirect and their influence towards the group. We have identified customers, employees, shareholders/investors, media, suppliers, government & regulators and local communities as our key stakeholders. Upon this process of identification, we have conducted a stakeholder prioritisation through the materiality assessment exercise as mentioned earlier.

Can you explain how your experience of engaging with Aviva Investors has fed into your recent commitments? Can you also give more details about the changes since our dialogue?

Aviva Investors' comments are welcome, and they will assist us in continuously improving our sustainability awareness and development. Our management has developed and set up an ESG reporting framework, including identifying key ESG elements and measurement targets alongside periodic reporting and review by the management team.

What are the challenges ahead for Inari Amertron and how do you think Aviva Investors could help you in the future?

We are committed to driving Inari Amertron forward by challenging ourselves to gain entry into the FTSE4Good Bursa Malaysia Index. In addition to their international ESG standards & protocols, there are many more key activities and measurements that we should pursue. This will allow Inari to be more transparent both in our practice and in our public announcements, aligning ourselves more closely with the international system and regulations.



ISSUE

- ESG disclosure across Malaysia is generally weak but new government has pledged systematic reforms
- Inari Amertron Berhad has significant environmental impacts (e.g. water intensity, carbon footprint)
- The company had base line environmental regulation adherence but a strong commitment to improve

ACTION

- Aviva Investors met with the chief executive to discuss sustainability management and reporting
- The company sought advice from Aviva Investors on best practice in the sector and other markets
- We shared a series of recommendations related to sustainability strategy, climate change and energy, water usage, and labour management

OUTCOME

- Conducted first sustainability materiality risk assessment and integrated sustainability performance metrics to financial results
- First water and energy consumption reduction target (5 per cent p.a.) and implementation of first carbon footprint assessment
- Established a Group Board-approved sustainability roadmap to improve policy developments, implementation and strategy

Voting

We consider voting to be a crucial part of the investment process and have had a formal and considered voting policy since 1994. We have explicitly incorporated corporate responsibility disclosure and performance into our voting since 2001; being one of the first asset managers to do so globally. Our Corporate Governance and Corporate Responsibility Voting Policy is reviewed annually and signed off by the Aviva Investors and Aviva Group Board.

Throughout 2018 we voted at 4,713 shareholder meetings representing 96 per cent of meetings where we had a legal right to do so. Unvoted meetings were primarily due to additional costs associated with the vote which we felt were not beneficial to clients.

We vote against items where we consider that the specific proposals are not in the best interests of our clients; where we have wider concerns with individual directors, strategy, oversight and reporting; or to reflect disappointing outcomes from prior engagements. In 2018, we voted against (or abstained to vote at) 1,4178 management proposals (27 per cent) and supported 729 shareholder resolutions (64 per cent).

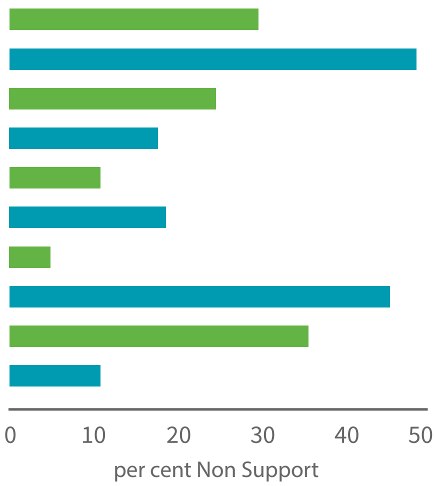
“We continuously engage with company management on ESG issues, and through engagement seek to promote a positive corporate ESG culture in key areas such as environmental impact, labour practices, and diversity. We also analyse the risks companies, and consequently investors, face if companies fail to pursue ESG best practice. We are serious about making an impact and will not hesitate to use our leverage as active managers to vote down resolutions or directors or exit our holdings if we believe the company is not operating to responsible ESG polices.”

David Cumming

CIO Equities

2018 voting activity by issue

Resolution category	Total number of Resolutions	Number of Against/ Abstentions	per cent Non Support
Directors	25550	7728	30%
Remuneration	6062	2979	49%
Auditors	3993	982	25%
Share Issues/Capital Related	6645	1212	18%
Report & Accounts	2720	293	11%
Related Party Transactions	1040	193	19%
Takeover/Merger/Reorganisation	583	28	5%
Anti-takeover Measures	92	42	46%
Shareholder Resolution	1139	410	36%
Other	6511	721	11%



2018 voting activity by region

Region	per cent
Africa	2%
Asia	39%
Australasia	3%
Europe	20%
North America	15%
South America	2%
UK	19%

Pay-Related Resolutions - Global

Remuneration Proposal	# of Resolutions	Against/ Abstentions
2018	6062	49%
2017	5796	44%
2016	4857	49%
2015	4766	41%
2014	5046	41%

Voting
Case Studies

CASE STUDY

ESG disclosure

Uniper (Germany)

Uniper SE is a Germany-based energy generation and energy trading company that was spun off from E.ON SE in 2016. Given the fact that coal and natural gas production account for most of its power generation portfolio, we expect better disclosure around risks associated with health and safety, climate change and its environmental impact such as gas emissions, waste and water usage. While Uniper disclosed their Scope 1 CO^2 emissions from fuel combustion in 2016 and 2017, they have not submitted carbon data to the CDP. We also consider Uniper lags behind peers in terms of setting carbon emissions targets given their carbon intensive activities.

In the absence of a comprehensive disclosure of Uniper's environmental performance, we abstained on the discharge of the management as well as the supervisory board at the 2018 AGM given that we hold all directors collectively responsible.

We expect better disclosure around risks associated with health and safety.

CASE STUDY

Voting environment

Tokyo Electric Power Company (TEPCO) (Japan)

TEPCO is a Japanese electric utility holding company and the plant operator of the Fukushima Daiichi nuclear plant. In the 2018 AGM, we were not supportive of specific shareholder proposals on anti-nuclear resolutions due to them being overly prescriptive. However, we acknowledged in principle the importance of engaging the company in this area as well as ensuring they improve on their ESG credentials.

We directly engaged with various members of their investor relations team. In particular, we expressed concern over their decision to re-start nuclear ambitions as we were looking for greater clarity on what lessons they have learned. Alongside environmental concerns, we also raised social issues relating to their local community engagement programme.

However, our engagement goes broader. We engaged them on climate change and encouraged them to consider science-based targets including TCFD disclosures. On governance, we engaged on their lack of a fully independent audit committee. Not only does this provide greater financial integrity but, given their movement into renewables, increasing investments into start-ups, and soaring decommissioning costs, this was a particularly key area for full independence. They have taken this feedback on board and will raise it in the newly established ESG committee which will be chaired by the CEO.

On governance, we engaged on their **lack of a fully independent audit committee.**

CASE STUDY

Health and safety

Royal Dutch Shell (Netherlands)

Royal Dutch Shell Plc operates in oil and natural gas production worldwide. In June 2017, Shell Pakistan Limited, a subsidiary in which the company holds a 76 per cent stake, was involved in a mass casualty incident. A fuel tanker operated by a contractor overturned in the state of Punjab. While local villages began collecting spilled fuel, the tanker ignited tragically killing more than 200 people. The company did not accept liability but agreed compensation payments with the local state government.

Shell stated that the incident fell outside the scope of its safety protocols and there was no further reporting of the causalities or impact on internal KPIs or pay outcomes. We considered this a grave oversight given the magnitude of the incident. After expressing our concerns with the company, we voted against the chairman of the CSR committee and also the remuneration report as no downward adjustments were made to take account of the accident.

We continued the dialogue with the chairman of the remuneration committee who acknowledged that reporting did not adequately capture what the company stated was extensive deliberations over the incident. We will review disclosures in the coming year and evaluate the extent to which appropriate remedial actions have been undertaken.

We considered this a grave oversight **given the magnitude of the incident.**

Voting
Case Studies continued

CASE STUDY

Gender pay gap

Walmart Inc. (USA)

Walmart is an American multinational retail corporation that operates a chain of hypermarkets, discount department stores, and grocery stores. It is also the world's largest private employer with over 1.5 million employees in the US alone. The company's employment and supply chain practices have understandably come under close scrutiny for decades. The company has gradually improved its practices over time, including increasing hourly wages, introducing sick leave and expanding parental rights – all in the past 12 months.

The company has also made significant improvements in supplier policies, auditing and reporting. However, given the size of Walmart's operations, the company continues to be the subject of unwelcome labour-related headlines including allegations of sexual abuse of female workers in supplier factories across Asia. At the 2018 AGM we voted against several board-level directors for failing to take a leadership approach on labour rights and for failing to invest enough resources in the oversight of global suppliers. This risk of mismanagement of labour is likely to increase as the company expands its global footprint, particularly its recent investments in India.

We also supported a shareholder proposal calling on the company to publish pay gaps within its workforce, both on gender and ethnicity. While the company has made positive strides in launching diversity-based initiatives and improved reporting, they do not currently assess and address pay differentials. We noted that Amazon has taken proactive steps in this area and encouraged the company to follow suit.

CASE STUDY

Remuneration

Safestore (UK)

Safestore is a self-storage company based in the UK. At their AGM in March 2018 Safestore sought approval of their remuneration report. We had voted against the arrangements in 2017 as we were concerned with the high level of quantum the executive directors could receive. Over 40 per cent of investors voted against the proposal, however no changes were made to the arrangements for 2018. We therefore voted against the remuneration report and the re-election of the chairman of the remuneration committee.

In addition, due to the lack of response to shareholder concerns we also voted against the chairman of the board. 48 per cent of investors voted against the remuneration report and 45 per cent voted against the re-election of the chair of the remuneration committee. This high vote against the chairman of the remuneration committee represents a shift in investor views and how investors are becoming more willing to hold individual directors accountable.

Over 40 per cent of investors voted against the proposal.

CASE STUDY

Governance

Macquarie (Korea)

At the requisitioned EGM of Macquarie Korea Infrastructure Fund (MKIF), we voted in favour of the shareholder resolution to replace Macquarie Korea Asset Management (MKAM) as current corporate director/fund manager with KORAMCO Asset Management Co., Ltd. This meeting was convened by Platform Partners Asset Management, whose holdings in MKIF represent more than 3 per cent of its issued share capital.

Ahead of the meeting we engaged with both the dissident and the company itself. Although the dissident's campaign left several open questions, including the uncertainty of a change of manager, it made a very strong case concerning the structure in compensation quantum of the fees versus costs and effort required to manage MKIF's portfolio. We noted that there had also been recent reductions of fees and internalisations of fund management at other Macquarie listed infrastructure funds around the world.

These considerations, together with some other governance concerns (such as one of the two non-executive directors not being considered independent), led us to support the resolution. Our view was that others could manage the portfolio just as effectively but for a lower cost and that a fresh perspective and strengthening of the MKIF board could also be beneficial to shareholders.

While the resolution was defeated (31.1 per cent of the total outstanding shares supported the resolution), we welcomed that a few months later MKAM decided to revise the compensation arrangement with MKIF by lowering the base fee to a flat 85bps (~25 per cent reduction) and removing the performance fee component. This is a significant win for shareholders and should be attributed to the campaign and strong support for the resolution. As we have an active and relatively large shareholding in MKIF, this change is seen as a positive financial outcome. The other benefit is the continuity of an asset manager with a proven track record and strong governance – and one that clearly responds well to shareholder criticism.

ESG Investment Solutions

The responsible investment market is maturing fast. We're seeing a growing number of clients wanting to make sure that their asset manager is factoring in ESG issues in their investment processes, actively using their voice to engage with companies as well as allocating capital towards strategies that are more focused on sustainable outcomes such as climate change. What's clear is that investors often want different sustainable outcomes – some want to make sure they're not invested in sectors like tobacco or fossil fuels, some want to make sure their capital is actively going towards parts of our economy such as renewable energy and some just want to make sure that their money is being used to engage with companies to drive change.

We offer a range of solutions to meet our clients' ESG requirements.

Sustainable and responsible investment funds

We run a range of funds available to clients who want to make sure they're meeting a particular sustainable outcome – be it avoiding certain sectors or companies or increasing exposure to the solutions that will create a more sustainable future.

Taking on management of the UK's first ethical fund range

In April 2018, Aviva Investors took on management of the UK's first ethical fund range. The philosophy behind the fund range recognises that the contribution companies make to a sustainable society depends on both the products and services they provide and on the way they provide them.

The aims of the funds are to:

1. Exclude companies that do not meet certain ethical standards, or harm either society or the environment.
2. Support companies that make a positive contribution to society.
3. Encourage better business practices through shared ownership and dialogue.

A team of three SRI analysts work on the fund range. The analysts coordinate the extensive research into the social, ethical and environmental screens, engaging with companies on a wide range of these issues. Together with the fund managers, they ensure the Stewardship Philosophy is fully reflected across the funds. Since we took on management of the funds, the responsible investing team has reviewed and strengthened the negative screening criteria, as well as reviewed the holdings to ensure they remain suitable. As a result, a number of divestments have been made.

Engagement is a critical part of the Stewardship Philosophy. The fund managers and the SRI analysts benefit from an integrated process, which encourages regular dialogue about businesses. The team benefits from our long history of engaging with businesses, extensive resources and strong track record in this area.

Examples of company engagement:

Standard Chartered

Following our engagement with UK bank Standard Chartered the company announced that it is to stop financing new coal-fired power plants.

B&M Value Retail

The discount retail chain has added two women to its board following discussions with the Stewardship team, bringing the overall proportion of women on the board to 38 per cent. This meets the 33 per cent target set by the UK Government's Hampton Alexander Review.

Burberry

In early 2018 we wrote to Burberry encouraging the company to cease using fur in their products. In June we met in person with the company and discussed the issue. They explained their approach and that this was under review. In September we were pleased to hear Burberry announced they would begin phasing out the use of real fur products across all its ranges.

Focus on the French SRI funds

Aviva Investors France is developing a range of SRI funds.

The French SRI Label was created in 2016 with the support of the Ministry of the Economy and Finance. It aims to offer savers better visibility on their investments by ensuring the transparency of the investment processes of labelled funds and how ESG criteria is integrated.

The management companies of the labelled funds must:

- Have set up a methodology and sufficient means of analysis
- Take into account the analysis when constructing the portfolio
- Define objectives for the environment, social and governance of the companies financed and illustrate the achievement of these objectives by calculating impact indicators.

After obtaining the SRI Label in July 2017 for two funds, five equity funds were certified in November 2018. At the end of 2018, SRI-labelled assets under management amounted to €2.7 billion. Our ambition is to become a leader in the SRI offering in France and reach €14 billion SRI-labelled AUMs by the end of 2019.

Bespoke solutions

Our ESG Investment Solutions unit is responsible for working with clients to help them design new ESG investment strategies that meet their own investment preferences, be it through pooled funds or bespoke segregated mandates. The ESG Investment Solutions unit provides customised ESG advice and embeds ESG as part of the investment solution design, drawing on the wider expertise of the Global Responsible Investment Team in full. The work we are doing for our insurance parent company Aviva is one example.

With more than 180 years of experience, Aviva France is a general insurer serving three million customers in France. The company provides motor, household, healthcare, agricultural, and construction insurance services. Additionally, it offers savings, pensions, and investment products. It has recently embarked on an ambitious programme to embed sustainability into its offering, with the aim to become France’s top “responsible” insurer. Aviva Investors France manages the assets of Aviva France, and has created a strong bond with its client in order to accompany this transformation.

Arthur Chabrol

Deputy Chief Executive Officer, Aviva France SA

What are the recent developments in the life insurance market in France?

In a context of deep transformations in retirement savings and opportunities under the Loi Pacte (Business Growth and Transformation Plan) adopted in March 2019, savers are looking for simple, responsible and well-performing solutions both from their savings and in their overall retirement preparation.

There is strong, structural interest from our clients and their intermediaries for responsible investment solutions on three key SRI themes: climate, employment and ethics.

What investment solutions do you propose in response?

Being a committed player in terms of sustainable investing, we have taken a new step this year. We now offer our clients the most comprehensive range of life insurance solutions in the industry. Offering access to 25 funds that meet sustainable requirements and most of them the SRI label requirements, the only fully sustainable discretionary management currently available and the first thematic solidarity fund, Aviva Life Sustainable Solutions (Aviva Vie Solutions Durables), allows our clients to give meaning to their savings. Around 1,000 of our intermediaries have been involved in this to make this new offer successful and to set a new market standard anticipating the further impact of the French regulations on the market.

Can you tell us more about the SRI funds and sustainable discretionary management?

For the SRI-labelled funds, since mid-April 2019, Aviva's customers have access to a broad selection of funds incorporating environmental, social and governance criteria: 25 sustainable Aviva funds, ten of which are managed by Aviva Investors France, are available in life insurance contracts, representing a total of EUR four billion (as at 30 April). This range of funds will be supplemented by new thematic funds.

The ambition of Aviva and Aviva Investors France is to become a leader in life insurance and, specifically, SRI-labelled assets under management. Aviva Investors France plans to be in the top three in terms of SRI assets under management in France by the end of 2019.

The discretionary management is a management solution suitable for savers wishing to benefit from active management, without having the time, or sufficient financial knowledge. With Aviva Investors Sustainable Solutions discretionary management, Aviva Investors France builds a responsible and sustainable asset allocation for three investment profiles: prudent, balanced and dynamic. AIF then determines the proportion of each required to support each investor profile, utilising the 25 funds mentioned above, and modifying regularly to account for shifting market dynamics.

This wide selection of funds covers all SRI asset classes and a range of geographical areas, both in developed and emerging markets. By investing with us, our clients could therefore have 100 per cent responsible asset allocation.

How have you collaborated with Aviva Investors?

Drawing on more than 25 years of Responsible Investment experience, Aviva Investors specialists have been fully committed to our SRI approach. Our local team and Aviva Investors team dedicated to ESG have collaborated effectively with Aviva France to develop the Aviva Vie Sustainable Solutions range. This range of responsible products is one of our key pillars of action toward sustainable investment.

What are your goals for 2019?

Aviva and Aviva Investors will continue working throughout 2019 to complete the Aviva Life Sustainable Solutions (Aviva Vie Solutions Durables) offering and make it a differentiated and innovative offering on the market. We want our clients to be able to find SRI in all the investment compartments of their insurance policy.

In addition to our wide range of SRI-labelled funds, our thematic funds and our 100 per cent SRI-oriented discretionary management, Aviva wishes to continue its work with an SRI real estate fund, a new green with-profit fund and a structured product with SRI index. Our goal is to achieve this by the end of 2019. We will complement this effort with the launch of a new thematic fund focused on climate transition.

Philippe Taffin

Aviva France CIO

What is your view on environmental, social and governance (ESG) criteria?

The integration of the ESG and climate dimensions represents a major place in our management of insurance mandates. Historically, Aviva has had portfolios managed on ESG criteria, complying with the UN Global Compact and integrating an ESG analysis of issuers. Since then, thanks to the extensive work done by Aviva Investors teams, we have further strengthened the integration of these criteria into the portfolio management process and are now able to track portfolio quality across ESG metrics. At all times, the portfolio manager has a clear description of the ESG quality of his or her portfolio and can thus define strategies on a number of areas for improvement.

How is Aviva positioned when it comes to SRI funds?

In addition to the integration of ESG criteria into the management of mandates, SRI funds are also managed by Aviva Investors France in our unit-linked range, using a best-in-class approach. As far as our mutual funds are concerned, five have obtained the French SRI label. We aim to expand our SRI range on unit-linked products for individual clients, as well as a number of our mandates.

To achieve this goal, we are targeting all possible assets, be they monetary, bond or equity. On direct portfolio management, our goal is to improve the ESG metrics over time. This does not necessarily mean holding on to a theoretical ESG score of 7 or 8 out of 10, but does require influencing and engaging with the companies in which we invest.

How are these ESG commitments reflected in your management, especially for controversial sectors such as coal?

As an asset owner we ask Aviva Investors to manage portfolios to improve quality and ESG scores. A strategic area of improvement will be set through fund managers to strengthen the portfolio's ESG approach for example through greater allocations into green assets, infrastructure, debt or equity. In 2015 during the Paris Conferences of the Parties 21, at which the Paris Agreement was signed, Aviva made a commitment to invest 500 million euros at the Aviva Group level and 100 million euros at Aviva France level. We are proud to say that we have now exceeded these targets. On controversial sectors, Aviva France has decided to divest from the tobacco sector and reduce its already low exposure to coal, particularly through fossil fuel producers.

Market reform and public policy: shaping sustainable markets

Policy makers and regulators play a vital role in defining the framework within which companies and investors operate. Many market failures, where the true cost of an activity such as emitting carbon, are often not adequately priced. Furthermore, the way the capital markets are currently structured undermines the development of a sustainable economy. Crucially, for us and our clients, this erodes the long-term potential for sustainable companies to create value.

We advocate policy measures and market corrections to tackle failures with the aim of improving long-term outcomes for our investments, our clients and the world around us. These corrections should be coordinated at domestic, regional and global levels through inspirational and harmonised policy frameworks with the objective of transforming the entire financial system.

We have led and worked on multiple measures over the past year to encourage the global transition to sustainable financial markets. Some key examples are covered below.

The EU - The European Commission Sustainable Finance Action Plan

In December 2016, Steve Waygood was invited to become a member of the European Union High-Level Expert Group on Sustainable Finance (HLEG). The HLEG published an interim report in July 2017 and delivered its final report in January 2018.[17] Many key recommendations – including those relating to investor duties, climate-related disclosure and prudential regulation – feature in an Action Plan on Sustainable Finance published by the European Commission in March 2018.[18]

The Commission is in the process of delivering the first set of changes set out in its Action Plan through a series of legislative proposals. These include:

- A proposal to establish a framework, or "taxonomy" to facilitate sustainable investment
- A new regulation requiring all financial market participants to: make new disclosures about how they integrate sustainability risk into their investment decision-making; how their firm impacts the environment and society; and to make increased disclosures for products that have sustainability characteristics – including how investors can judge if those aims are being met
- New rules for benchmarks, including harmonised technical standards for benchmarks that have low-carbon or positive-carbon impacts, and a requirement from 2021 that all benchmarks disclose their degree of alignment to the targets set by the Paris Climate Agreement
- Changes to the "suitability" test for financial advisers and distributors of investment-backed insurance products to ensure that investors are asked about their preferences for environmental, social and governance ("ESG") outcomes in their investments and that the products or investments recommended align with those preferences.

The European Commission also asked the European Supervisory Authorities – ESMA and EIOPA – to provide them with technical advice on how to amend investor duties in key pieces of market regulation to require the integration of ESG considerations into their investment, risk, and organisational processes.

We have engaged with European decision makers, peers, and industry associations in response to and with the view to shaping these legislative proposals. We will continue to do so as we push to embed sustainability throughout the EU financial system. The EU work has inspired a number of similar initiatives, including in Norway, Canada and New Zealand, and we are encouraging more countries to follow suit.

17. All reports and further information at https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en#high-level-expert-group-on-sustainable-finance
18. https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en#commission-action-plan-on-sustainable-finance

Market reform and public policy: shaping sustainable markets continued

The UK

We have been involved in a range of initiatives in the UK to foster sustainable capital markets. These include:

The Green Finance Taskforce

Steve Waygood was a member of the UK Government's Green Finance Taskforce. The Taskforce was established to advise the government to: help deliver the investment needed to meet the UK's Clean Growth Strategy; consolidate the UK's leadership in financing clean investment; and maximise the opportunities to be had for UK businesses in green finance.

Aviva Plc led the institutional investment and Task Force on Climate-related Financial Disclosure (TCFD) workstreams as well as contributing to the overall report. The Taskforce published its final report in April 2018,[19] including recommendations to:

- Establish a Green Finance Institute
- Implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- Clarify investor roles and responsibilities
- Build a green and resilient infrastructure pipeline
- Issue a sovereign green bond
- Integrate resilience into the green finance agenda
- Address barriers to sustainable investment

We have since been engaging the UK Government to encourage them to adopt the recommendations in full in their forthcoming green finance strategy.

British Standards Institute (BSI) Responsible Investment Standards

We have been working with the BSI to develop a new suite of standards intending to raise the bar in responsible investment. The standards will include a sustainable finance framework standard to establish common principles and an industry-level standard to ensure that asset managers meet baseline criteria on sustainable investment such as through their stewardship and voting policies. The standards are expected to be launched in late 2019 with a further product level standard due for 2020. This is work is complemented by further work at the International Organisation for Standardisation (ISO) to develop comparable global standards.

Investor duties

We have encouraged the Department for Work and Pensions to introduce new regulations requiring pensions schemes to publish their policy on ESG investment and stewardship. These regulations have now been laid in Parliament and are due to come into force in October 2019.

Pushing for further global reform

Throughout 2018 we continued to push for substantive global reform to capital markets. This has included significant work with the UN system along with other multilateral international institutions.

In conjunction with the Prince of Wales' A4S initiative we developed "Financing our Future",[20] a comprehensive guide for the financial sector for scaling-up change towards a more sustainable financial system and helped shape a senior-level event to discuss the report and its findings.

We have also taken part in many of the global forums, such as the UN High Level Political Forum, UN Climate Summit and UN General Assembly (UNGA) week to promote responsible engagement and advocate for systems reform in capital markets. For UNGA week we published a report "Global Sustainable Finance in 2018 – An Aviva guide for policymakers and regulators"[21] which presents our latest thinking on sustainable finance.

We worked with the World Bank to develop and participate in a G20 investor summit in Buenos Aires that looked at sustainable investment, drawing on the findings of the "Financing our Future" document.

We also played a prominent role in helping to establish the Sustainable Stock Exchanges (SSE) Initiative[22] in 2009. The SSE initiative is a peer-to-peer learning platform. It explores how exchanges, in collaboration with investors, regulators, and companies, can enhance corporate transparency – and ultimately performance – on ESG issues. We also helped support the publication of the 2018 SSE report on progress.[23]

United Nations Principles of Responsible Investment

AUM	Module Name	Your Score	Medium Score
	01. Strategy & Governance	A+	A
Indirect – Manager Sel. App & Mon			
<10%	02. Listed Equity	B	B
<10%	03. Property	C	B
Direct & Active Ownership Modules			
10-50%	10. Listed Equity – Incorporation	A+	B
10-50%	11. Listed Equity – Active Ownership	A	B
<10%	12. Fixed Income – SSA	A	B
10-50%	13. Fixed Income – Corporate Financial	A	B
10-50%	14. Fixed Income – Corporate Non Financial	A	B
<10%	17. Property	B	B
<10%	18. Infrastructure	A+	A

19. https://www.gov.uk/government/publications/accelerating-green-finance-green-finance-taskforce-report
20. https://www.accountingforsustainability.org/content/dam/a4s/corporate/home/KnowledgeHub/Guide-pdf/Financing per cent20our per cent20Future.pdf.downloadasset.pdf
21. https://www.aviva.com/content/dam/aviva-corporate/documents/socialpurpose/pdfs/aviva-2018-sf-policy-guide.pdf
22. http://www.sseinitiative.org/
23. http://www.sseinitiative.org/wp-content/uploads/2018/10/SSE_On_Progress_Report_FINAL.pdf

A dedicated Global Responsible Investment team with multiple capabilities

ESG integration

All of Aviva Investors funds benefit from our core approach to ESG Integration and active ownership, which is co-led by Mirza Baig and Paul Lacoursiere. This core approach to ESG Integration pervades our business and looks for ESG investment ideas across all asset classes and geographies. This unit helps our fund managers exploit ESG market inefficiencies wherever we find them in order to enhance investment returns. It also delivers our ambitions to be active and responsible stewards of capital across all asset classes and funds, ensuring that we use our voting and engagement influence effectively. Put simply, this unit focusses on making a positive difference to fund performance and investment outcomes.

SRI funds

We also recognise that institutions and individuals have specific ethical issues that they want to have considered as part of their investment strategy. For example, some clients want the ability to exclude certain ethically controversial areas such as tobacco, cluster munitions and land mines. Clients increasingly also have specific positive more sustainable outcomes that they want to support. For example, they may want to positively steer their investments towards investments in solutions to environmental and social challenges we face as a society, such as climate change or diversity - and to try to measure the impact their investments are having.

We therefore offer several Sustainable and Responsible Investment (SRI) funds that are designed to meet client needs for negative exclusions, and active ownership and impact measurement on sustainability issues. This includes the UK's first ethical fund range and a series of funds in our French office that meet the French SRI kite mark (SRI Label). We also specialize in allocating investments to support the Paris Agreement on Climate Change and the United Nations Sustainable Development Goals. The SRI unit is led by Abigail Herron and, put simply, focuses on integrating clients' ethics into investment and maximizing the positive impact we can have on sustainable development issues.

ESG solutions

We also recognise that Responsible Investing is a complex area. Considerable and unnecessary confusion exists in the market due to a lack of consistent standards and clear definitions. To help our clients navigate this area, we have established an ESG Solutions unit within our Global Responsible Investment team. This unit is led by Marte Borhaug and is responsible for working with clients to help them design new ESG investment strategies that meet their own investment preferences, be it through pooled funds or bespoke segregated mandates. The ESG Solutions unit provides customised ESG advice and embeds ESG as part of the investment solution design, drawing on the wider expertise of the Global Responsible Investment Team in full.

Together, these three interdependent units of ESG Integration, SRI and ESG Solutions - made up of 19 responsible investment professionals – aim to be a world class Global Responsible Investment Team – pioneering new ways of helping our clients shape the future they wish to retire into.

Steve Waygood

Chief Responsible Investment Officer

Mirza Baig

Global Head of Governance

Abigail Herron

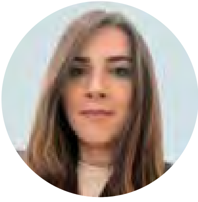
Global Head of Responsible Investment

Marte Borhaug

Global Head of ESG Investment Solutions

Paul Lacoursiere

Global Head of ESG Research



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Closing Thought

By Steve Waygood

The signs are all there. Swedish climate campaigner Greta Thunberg has inspired children around the world to make their voices heard and the rising tide of Extinction Rebellion shows that people clearly care. People are starting to realise that we are part of the problem; how we vote, spend, save and invest have far-reaching consequences.

For all the progress during 2018, it is worth noting that the financial system is still not on a sustainable footing. We are not, as the Brundtland definition would have it, meeting the needs of the present without harming the ability of future generations to meet their own needs.

There are a range of reasons for this, but the short-termism inherent within market valuation techniques stands out. Discounted Cash Flow (DCF) underpins fundamental analysis. But DCF ignores social capital as it is external to the corporate profit and loss statement. DCF essentially ignores future generations with its discount rates and assumes away the need to preserve natural capital by assuming all investments can grow infinitely.

The result is thousands of professional investors, managing trillions of assets on behalf of others, who all largely ignore the one planet boundary condition. It is primarily the role of governments to correct market failures – for example, by ensuring natural and social capital is properly priced and that corporations pay the full price for the goods and services they consume. Fiscal measures such as carbon taxes, market mechanisms like emissions trading schemes, and standards and regulations are vital to sustainable development. They help ensure that the market price reflects the full social and environmental costs, which in turn drives corporate valuation.

Our financial services system has a responsibility to serve society and the real economy. But complexity clouds matters. Very few policy makers, politicians or civil society representatives understand how the many different financial services institutions work together to finance the world we live in today and will retire into tomorrow. In the absence of appropriate oversight, society and the real economy often serve financial interests, rather than the other way around.

As investors, we need to be strategically clear about where our own spheres of responsibility begin and end. While we have a fiduciary duty to exploit market inefficiencies to generate alpha in our investment decisions, we also have a duty to behave as good owners – or stewards – of the businesses we own. With the scale of the challenges that society is now confronting, we believe that our stewardship now needs to extend to reforming the system itself.

And while we cannot be expected to correct market failures on our own, we know that we can make a difference and understand the power of creating change from within. This is why we spend so much of our time on market reform. In the presence of market failure, integration of ESG into investment analysis motivates the wrong behaviours, and engagement with companies is doomed to fail as one is essentially asking the company to go against the market incentives and lose money.

If the economy is to be moved onto a truly sustainable basis, then we would expect to see governments acting to correct the many distortions in the pricing systems on fisheries, freshwater, climate change and natural resource depletion. This is how sustainability issues become relevant to corporate valuations, and this is how capital can be put to work in the right places. Setting standards, creating fiscal measures such as carbon taxes, or setting up market mechanisms such as carbon trading schemes that price the externalities are a good start, but far more is required.

So when will capitalism become sustainable? It will be when institutional investors and big business realise that their long-term survival is threatened by unsustainable business practices and stand up to challenge governments to correct these market failures. If we can move toward achieving that in 2019, then we will have really made a difference.

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