Schroders
Responsible Investment Report

Q4 2015

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Schroders

We believe well-run companies that act responsibly are not only good for society, they can be good for shareholders' pockets too. Research has demonstrated that companies with a robust environmental, social and governance (ESG) performance benefit from a lower cost of capital and are more likely to deliver superior returns over time[1]. That's why, at Schroders, ESG is an integral part of our investment process across asset classes.

We see engaging with companies and their management as a fundamental part of our duty as an active investor. As well as improving performance, we believe that it adds value by enhancing communication and understanding between companies and investors.

This report brings you the details of our ESG engagement this quarter, as well as some of the broad issues and themes our team has been considering. It demonstrates Schroders' responsible approach to managing clients' assets, and how we are integrating our ESG thinking into our investment processes.

[1]*Sustainable investing: Establishing Long-Term Value and Performance,* Fulton, June 2012 and *"Can investors do well while also doing good?",* Schroders *Investment Horizons*, issue 3, 2015.

Responsible investment at Schroders

"Schroders' credentials as one of the largest ESG managers in the world are vividly demonstrated by our engagement activities. Portfolio companies increasingly take notice of what we say. As long-term stewards of our clients' capital, we aim to engage constructively with companies on ESG issues, helping them manage their risks and, in turn, drive better performance for our clients."

Jessica Ground
Global Head of Stewardship, Schroders

Special topic
Oil & Gas: The carbon risk

We believe low-carbon portfolios should provide energy companies with better resilience to the shift of energy systems. Here we look at how investors can assess a company's overall exposure to carbon risk.

"In the current oil price environment, and given the potential development of carbon pricing mechanisms, carbon intensive assets could come under even more economic pressure."

Solange Le Jeune
ESG Analyst

Fossil resources in a carbon constrained world

As carbon regulations strengthen and economies shift to low carbon models, energy companies are likely to see a proportion of their fossil fuel assets remain in the ground. Research suggests that "a third of oil reserves, half of gas reserves and over 80% of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2ºC".

Regulatory and technology push for a new energy system

The focus on reducing carbon emissions has led to the introduction of carbon pricing mechanisms in some countries and regions. These mechanisms are likely to develop over time at local and national levels. Alongside environmental regulation, technological advances, such as electric vehicles, will have further impacts on fossil fuel demand.

Cost and carbon pressures – economically or environmentally stranded?

The oil and gas industry has been under cost pressures since the beginning of the oil price crash in 2014. In the current oil price environment, and given the potential development of carbon pricing mechanisms, carbon intensive assets could come under even more economic pressure.

Citi believes that 40% of the current investment in oil would be stranded at oil prices below $75 barrel. Goldman Sachs found that deepwater, heavy oil, oil sands and liquefied natural gas (LNG) projects were the most likely to be stranded in a low oil price environment because they are so costly to extract.

In this context, we think the industry needs to reconcile carbon and cost-optimal drilling strategies. Indeed, high carbon content in portfolios could become a competitive disadvantage to energy companies.

Low carbon resilience and the gas shift

The response from companies to the shift to a low carbon world has been to claim that natural gas – a lower carbon fuel – should address the climate change issue. However, we question how proactive companies are in shifting their reserves towards future gas production.

Beyond gas: a carbon intensity portfolio view gives a carbon risk factor

Analysis of the carbon content of a company's upstream production mix should enable a better assessment of their exposure to carbon risk.

We have developed a carbon indicator to measure this risk: we have used estimates of carbon emissions from the three main stages of fossil fuels' lifecycle – the extraction and refining stages plus the emissions from the burning of fossil fuels – to analyse our investee companies' portfolios. We can use this life cycle carbon factor as an overall indicator of energy companies' risk exposure to the carbon shift. We also suggest in our study that a carbon risk analysis should be run against a capital spending efficiency analysis – reviewing capex per barrel produced vs. carbon content per barrel provides a better understanding of a company's exposure to carbon risk.

The full report is available at www.schroders.com/responsibleinvestment

Special topic
Thermal coal: End of the road?

Of the major fossil fuels used to generate energy, coal emits the highest proportion of carbon dioxide when burned. The transition from coal-fired power to lower-carbon and renewable energy is already underway in developed economies.

Only a fraction of increased energy demand from large emerging economies will be met by thermal coal. Bolstered by the success of the Paris climate talks in December 2015, we believe these countries' transition to low-carbon sources of energy will arrive more quickly than markets have anticipated. With thermal coal already suffering at the bottom of the commodity cycle, it is unlikely to recover.

The 'stranded asset' debate has moved many analysts to think about the amount of potential 'unburnable' carbon in the ground, but little has been done on a company and mine level. Companies producing thermal coal will now have to move faster to reposition their portfolios and reconsider how they allocate capital to costly, long-term coal projects.

"Companies producing thermal coal will now have to move faster to reposition their portfolios and reconsider how they allocate capital to costly, long-term coal projects."

Shift in approach at the big miners

We have reviewed the top four global diversified mining companies, assessing the proportion of coal in their portfolios, production costs, changing demand for coal in the key markets they serve, and any portfolio adjustments. In a very tight commodity environment, we have analysed which mines operate at a cash cost above breakeven, and assessed the amount of reserves held in the most expensive-to-operate mines.

The four miners initially tackled the stranded assets debate quite cautiously. Now, their approach is more nuanced and solution-driven. Each has made some investment in cleaner coal and/or research into carbon capture, and most have been quietly exiting thermal coal.

Seema Suchak
ESG Analyst

Domestic coal players… Cleaner coal will win

It is important to also consider the key domestic markets and their key players. Their coal production is so directly linked to local demand, supply, and regulation that any small change – such as to carbon regulation – can have lasting effects.

India – a wild card: India still has big growth potential for coal. It is set to reduce thermal coal imports in the next 2-3 years, which will favour domestic players, but increased carbon regulation will eventually limit that growth. Capital expenditure on solar energy is set to overtake that spent on coal by 2019, and India has targeted for renewable energy to account for 40% of electricity generation capacity by 2040.

China – hunger for cleaner coal: Coal currently accounts for 66% of China's energy consumption. Demand will very soon be met by domestic companies, and that demand will start to fall as growth slows and climate change and anti-pollution drives become stricter. Domestic companies already investing in cleaner coal will benefit in the short to medium term.

US – diversify or export: The decline of the US coal market is broadly linked to the rise of cheaper shale, but new regulations on emissions from coal-fired power plants have been the nail in the coffin. Domestic coal companies are diversifying their portfolios or reaching for the export market.

The better positioned companies will have: progressive and realistic attitudes to coal in their portfolios; understanding of local and regional carbon regulation; investment in cleaner coal strategies; and strict energy efficiency measures. Investors should be questioning if the book value of coal assets is under threat – with debt levels high and coverage ratios trending down, some companies are in a poor position to weather further write-downs. Finally, investors should review and encourage longer-term incentives for management of mining companies – the average life of a coal mine is generally much longer than a CEO's tenure.

The full report is available at www.schroders.com/responsibleinvestment

Special topic
The electrical equipment sector: Delivering energy efficiency

Our latest research looks at the electrical equipment sector, and what we think are the main opportunities and risks for companies operating in this segment. Despite a difficult global growth environment, upgrades to infrastructure and an increase in construction activity are likely to bolster revenues of electrical equipment companies in the short to medium term. But energy efficiency, both in industry and buildings, also represents a major growth opportunity at a time of general industry stagnation.

"From a valuation perspective, we believe that product opportunity, business ethics risk and human capital management can justify adjustments to, respectively, growth estimates, discount rates and operating costs"

Sophie Rahm
ESG Analyst

The delivery of energy efficiency results in a range of macroeconomic benefits which include greenhouse gas emissions reductions, productivity gains, health improvements and energy security. Specifically, three main underlying forces will have a positive impact on electrical equipment firms, provided they can recognise and exploit the opportunity: 1) electrical efficiency can be seen as a source of energy; 2) technological and structural shifts will require more electrical equipment to deliver efficiencies; 3) the current regulatory trends around the globe favour energy efficiency gains.

However, the creation of value through energy efficiency improvements needs be supported by robust corporate practices. Corruption and poor business ethics can represent a risk for companies in the sector. A case in point is Alstom, which has recently been fined a record $772 million over international bribery charges by the US Department of Justice. In recent years, drastic cost savings plans at electrical equipment companies have included significant restructuring activities and sometimes layoff programmes. We argue here that such cost reduction strategies based on human capital are losing momentum and unlikely to ease pressures on margins going forward.

We have engaged with Schroders' top ten holdings in this sector and present the results, along with suggestions on how stock valuation can be adjusted to reflect the three material areas of product, business ethics and human capital. Our findings show that European companies are clearly positioning their products in light of their energy efficiency potential, something their US peers have not yet embraced. Overall, risk management regarding business practices and human capital tends to be less integrated in the value proposition. From a valuation perspective, we believe that product opportunity, business ethics risk and human capital management can justify adjustments to, respectively, growth estimates, discount rates and operating costs.

As part of the Investor Toolkit, we propose a series of questions and suggest some data points to look for in companies' disclosure which will help investors in gauging the extent to which a portfolio of products is geared towards energy efficiency and low carbon offerings. This section also highlights what is considered best practice regarding both business ethics and human capital management in a context of cost savings.

The full report is available at www.schroders.com/responsibleinvestment

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Special topic
Climate change talks reach successful conclusion

We welcome the degree of consensus behind the Paris Agreement and see it as an important step in the transition to a low carbon economy.

The international climate negotiations that took place in Paris in early December concluded successfully as 195 countries signed a legally binding agreement. The 'Paris Agreement' sent a clear signal to businesses and financial markets that there is more political will than ever to tackle the risks of climate change.

"We have likely passed a tipping point in the transition to a low carbon economy."

Solange Le Jeune
ESG Analyst

Common approach to reporting requirements and governance

The Paris Agreement places all countries for the first time on a level playing field in terms of reporting requirements and governance. The agreement also recognises differentiated responsibilities through financial mechanisms by which developing countries will receive support to adapt to and mitigate climate change.

The agreement seeks to ensure global greenhouse gas emissions peak as early as possible, with the aim of holding the increase in the global average temperature to well below 2ºC and pursue efforts to limit the temperature increase to 1.5ºC. It also includes a monitoring framework for countries' reduction pledges to be reviewed every five years, and for each successive emissions reduction objective to be progressive. A separate working group was established to look into the accounting of greenhouse gas emissions.

Degree of consensus is encouraging

We think this degree of consensus is an achievement in itself which shows the determination of all countries to address climate change and the risks it poses to societies and economies.

Although the final agreement has been criticised by some for not providing concrete policy measures to drive the energy transition and committing to clear emissions pathways, we do not believe the international policy and legal framework could have delivered on such an outcome in the first place. On the other hand, we think the aspirational and consensual nature of the agreement is an acknowledgement that markets are more efficient in delivering the transition to low carbon economies.

Strong contribution from civil society and corporates

Although a government led negotiation process, we welcomed the contribution of non-state actors of civil society and corporates to make it a meaningful milestone. Our research providers counted some 2,000 cities and 2,000 companies which made climate commitments. Investors should also benefit from the Financial Stability Board announcement of the creation of a task force to make climate related financial disclosure consistent across companies – this will help financial markets understand climate risks in their investments and make more efficient capital allocation decisions.

Overall, we see the conference as a success which has created further political momentum to address climate change, and a suitable governance framework to ensure that this is maintained. The shift away from fossil fuels is already well underway and is increasingly being driven by the economics of clean energy and electric vehicles rapidly becoming superior to fossil fuels. With global political momentum likely to increase policy support for these technologies further, we have likely passed a tipping point in the transition to a low carbon economy.

Engagement
Brazil dam failure: Implications for investors

Case study

In November, a tailings dam burst at mining company Samarco's iron ore operation in Minas Gerais, Brazil. Waste materials spilled into the valley below, with severe physical impacts on a nearby village and the Doce river, causing at least 17 fatalities.

All parties involved were shocked by this tragic event, including the management of BHP Billiton and Vale, the two mining companies that own Samarco via a 50:50 joint venture. The cause of the dam failure is still unknown. Federal and state legal proceedings have been launched against all three companies requesting a fund of BRL 20 billion (US$ 5.2 billion) over several years to cover the clean-up costs and damages.

As shareholders in both BHP Billiton and Vale and holders of debt in Samarco, we have been monitoring developments and continue to communicate with all three companies. Their response has been proactive, with public commitments to support Samarco and prioritisation of humanitarian and environmental efforts, including relocating those displaced, distribution of potable water and other supplies, and work to repair and reinforce the structure of the dams.

Our ESG discussions to date have centred on:

- **Environmental clean-up:** The incident has wide-reaching environmental consequences, such as the loss of aquatic life in the river and water turbidity. A complete clean-up will take time, and the current priority is to contain waste remaining within the burst dam. Based on independent studies, the companies state the tailings are non-toxic, despite reports to the contrary. The environmental situation, depending partly on the cause of dam failure, is likely to have lasting and costly impacts. And it is clear that future environmental permits will become harder to obtain.
- **Safety of tailings dams:** This incident has raised several questions about safety standards on tailings dams, and how these are checked and maintained. Samarco has an independent tailings committee that reviews data and construction plans four times per year, and latest reports did not appear to raise concerns. In the past month, the International Council of Metals and Minerals (ICMM), of which BHP Billiton is a member, announced a full review of global tailings management to consider standards, critical control strategies, governance and emergency preparedness. We have been discussing approaches to tailings management with other investee mining companies, to encourage consideration of potential gaps in their processes.
- **Governance:** Samarco, rather than the joint venture partners, operated its own mines. This unusual governance structure has been called into question, as it is unclear whose standards the mine should operate under. However, Samarco had a good ESG track record relative to its country peers and appeared to be well-regarded within the local community – an attribute which may speed up the mine's reopening given its economic importance in the region.

Samarco may not be able to cover the costs of this incident by itself. As clean-up efforts continue, this will potentially pose costs, liabilities and/or loss of income for BHP Billiton and Vale, whose share prices have both suffered since the incident. Doubts are also being cast over BHP's future dividends. There is a further risk for Vale that its other licences in Brazil may be revoked, frozen or put under review – not an issue for BHP as it does not have any other Brazilian operations.

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Engagement
UK company reporting: Encouraging quality over quantity

Case study

Following the Financial Conduct Authority's decision almost a year ago to remove the requirement for UK companies to publish interim management statements, it is notable that only 16 out of 350 companies have thus far completely ceased quarterly reporting. This quarter, we wrote to the chairmen of all of the UK companies in which we are invested (over 450 companies) to ask them to consider their approach to reporting.

Substance is more important than form

We believe there are misconceptions within UK companies on what is expected by investors. Schroders very much values good company reporting but, as with all aspects of governance, substance is more important than form. We feel that excessive amounts and managing of reported numbers can obstruct a long-term investment dialogue. We have encouraged executives and boards to focus their energy on setting and delivering their strategic objectives.

We agreed with the conclusion of Professor John Kay's review of UK equity markets and long-term decision making, that excessively frequent reporting and subsequent managing of financial performance increases the pressure to make short-term decisions. A literature review shows that there are costs associated with short-term guidance, in terms of attracting short-term investors and analyst herding. As a result we would prefer companies to shift towards twice-yearly reporting where feasible.

Confidence to focus on long-term objectives

By providing clarity on our view, we hope to encourage companies to have the confidence to cease quarterly reporting. We realise that there is not a one size fits all approach to reporting. Some highly cyclical companies or those that operate in a fast moving sector may still feel it is important to update the market on a more regular basis. However it may be appropriate to reduce the length of interim management statements, focusing just on the Key Performance Indicators. We hope that reducing the frequency or volume of reporting will have the added benefit of freeing up corporate resources to focus on more business critical activities.

We realise that there is no single answer to establishing the right long-term investment environment. We are keen not to be prescriptive and would not view companies negatively should they decide to maintain the status quo. However, putting the focus on longer-term focused dialogue rather than short-term guidance would be a positive step forward.

As the Stewardship Code – now widely replicated in other geographies – shows, the UK has a good track record on governance innovation. We hope that this latest innovation will foster better quality dialogue between companies and their investors, and that this public encouragement will help to achieve this. A number of companies have indicated to us that they are reviewing their approach at board level, and are looking at a minimum to reduce the amount reported.

[2]Study by KKS Advisors and Generation Foundation, 'Earnings Guidance: Part of the Future or the Past?', January 2014.

Company engagement

Our ESG team had 95 engagements this quarter with the 84 companies listed below, on a broad range of topics categorised under "environmental", "social" and "governance". They included one-to-one meetings, joint investor meetings, conferences, teleconferences, written correspondence and collaborative engagements.

For further details about the issues discussed and company responses, please contact your Client Director.

Company	E	S	G
Consumer Discretionary			
Carnival	✓	✓	✓
Burberry			✓
Debenhams			✓
Halfords		✓	
Home Retail			✓
McDonalds		✓	
Pearson			✓
Pets at Home			✓
Zee Entertainment Enterprises			✓
Consumer Staples			
Ambev			✓
Danone	✓		
Morrisons		✓	✓
Hormel Foods		✓	
General Mills		✓	
Tesco			✓
WhiteWave Foods		✓	

Company	E	S	G
Energy			
AMEC			✓
Anadarko Petroleum		✓	
Apache	✓	✓	✓
BP		✓	
Chevron		✓	
CNOOC	✓	✓	✓
ENI		✓	
EOG Resources	✓	✓	✓
ExxonMobil		✓	
Inpex		✓	
Lukoil		✓	
Petrochina		✓	
Premier Oil	✓		✓
Suncor Energy	✓		
Sinopec		✓	✓
Shell	✓		
Total		✓	

Key: E: Environment S: Social G: Governance

The stocks mentioned above are for illustrative purposes only and not a recommendation to buy or sell.

Company engagement

Continued...

Company	E	S	G
Financials			
Deutsche Bank		✓	✓
Gecina	✓	✓	✓
HSBC			✓
Intermediate Capital Group			✓
KBC		✓	✓
Lloyds Banking Group	✓	✓	✓
Medibank Private Health			✓
RBS			✓
Workspace Group			✓
Health Care			
Bayer	✓		
Industrials			
ABB	✓		✓
Alstom	✓	✓	✓
Berendsen			✓
Bodycote			✓
Experian		✓	
Legrand	✓	✓	✓
Noble Group		✓	✓
Qantas	✓		
Sensata Technologies		✓	✓
Rentokil Initial			✓
Rockwell Automation	✓	✓	✓
Rolls-Royce			✓
Schneider	✓		✓
Sensata Technologies	✓	✓	✓
Weir Group			✓
Zhuzhou CSR Times Electric	✓	✓	✓

Company	E	S	G
Information Technology			
Imagination Technologies		✓	
Qualcomm	✓	✓	✓
Materials			
Anglo American		✓	✓
Antofagasta	✓	✓	✓
Arcelor Mittal		✓	
Barrick Gold		✓	
BHP Billiton		✓	✓
First Quantum		✓	
Freeport-McMoRan		✓	
Glencore		✓	
Goldcorp	✓	✓	
Grupo Mexico		✓	
Incitec Pivot	✓		
Kumba Iron Ore	✓	✓	
Lucky Cement			✓
Newmont Mining		✓	
Posco		✓	
Rio Tinto	✓	✓	✓
Southern Copper		✓	
Vale	✓	✓	
Vedanta		✓	
Telecommunication Services			
BT	✓	✓	
Sistema			✓
Utilities			
Centrica			✓
Veolia	✓		

Key: E: Environment S: Social G: Governance

Source: Schroders as at 31 December 2015.

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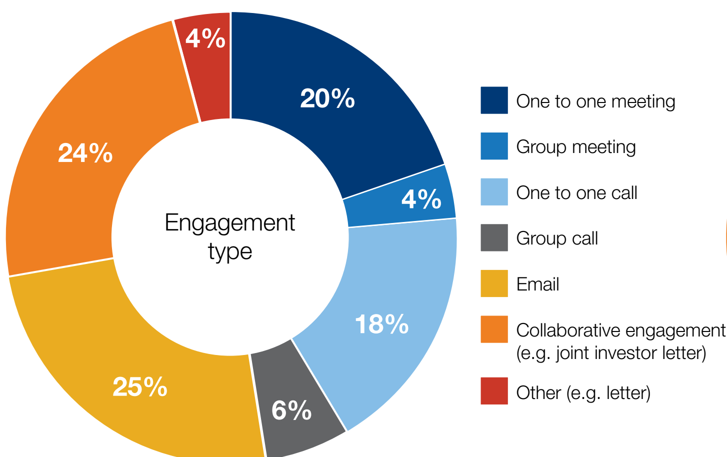
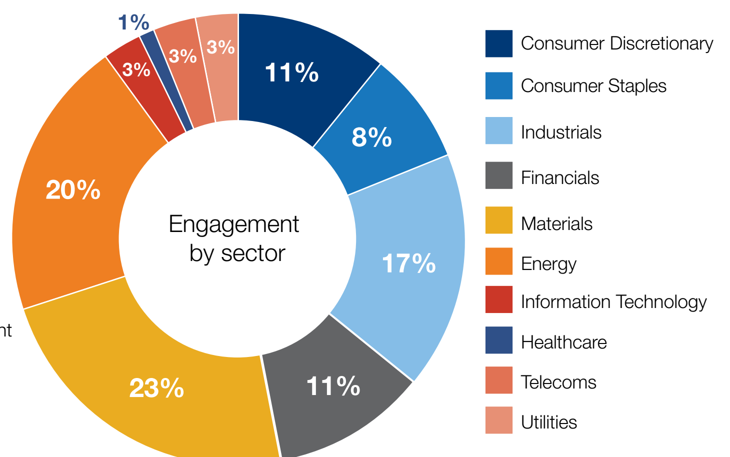
Engagement in numbers

Companies engaged by region

37 UK
13 Europe (ex-UK)
22 North America
01 Middle East and Africa
16 Asia Pacific
06 Latin America

Source: Schroders as at 31 December 2015.





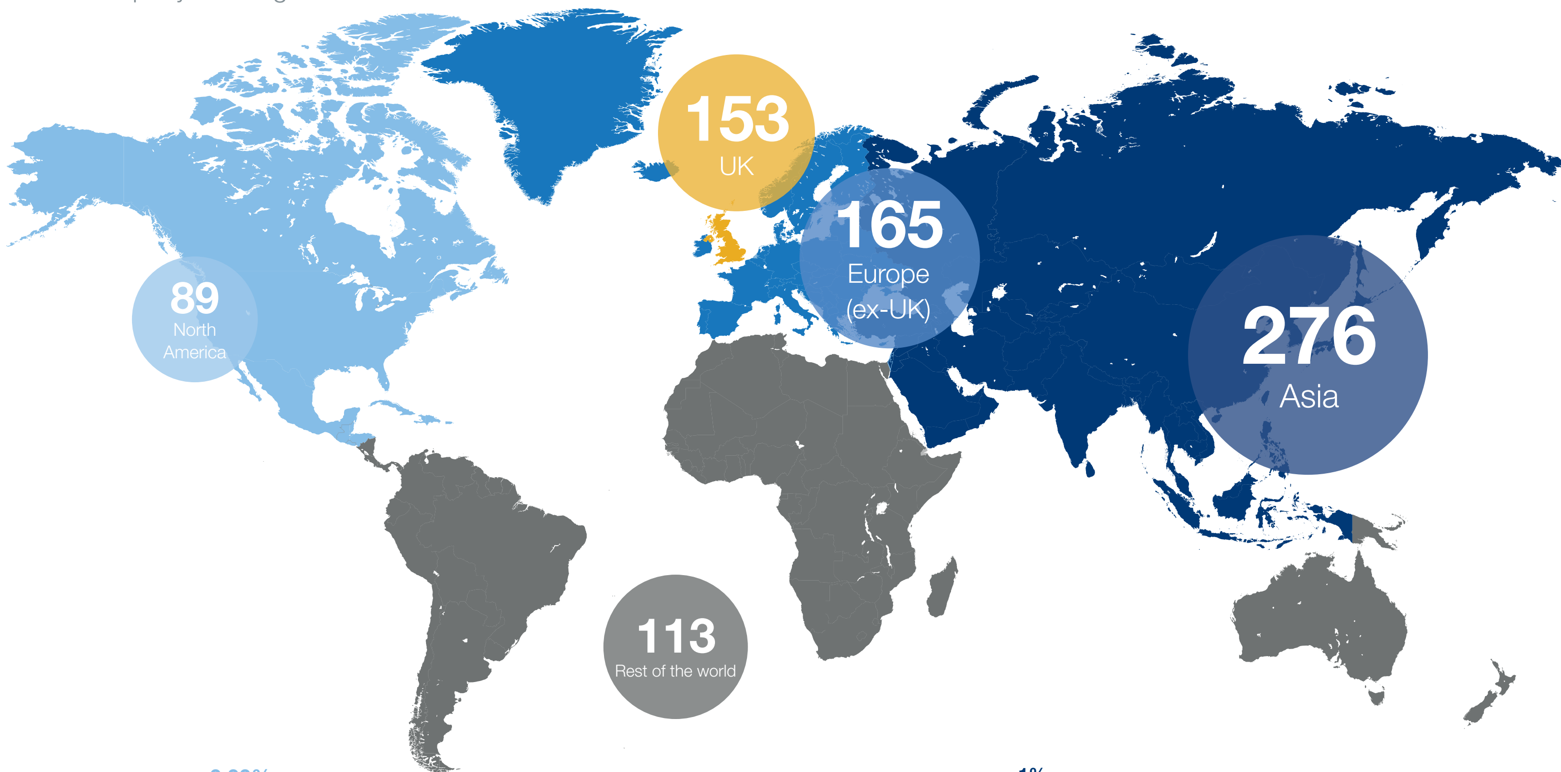
Shareholder voting

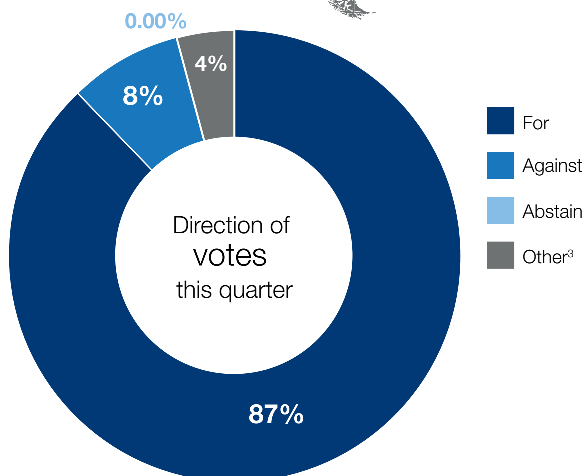
We believe we have a responsibility to exercise our voting rights. We therefore evaluate voting issues on our investments and vote them in line with our fiduciary responsibilities to clients. We vote on all resolutions unless we are restricted from doing so (e.g. as a result of shareblocking).

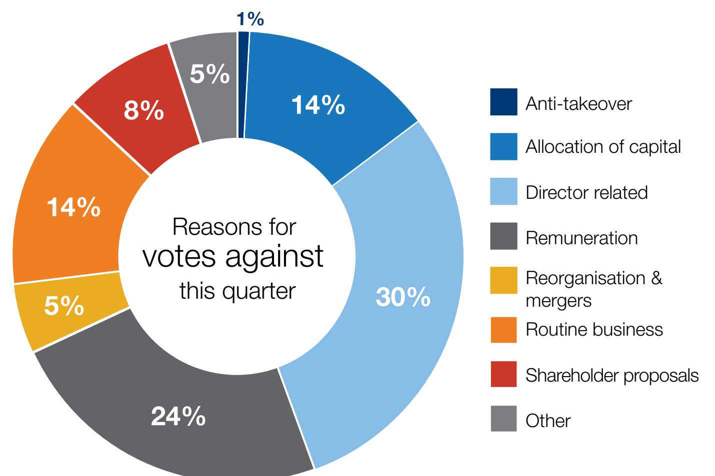
This quarter we voted **796 companies and approximately 95% of all our holdings**. We voted on four ESG-related shareholder resolutions, abstaining on one and voting against three.

The charts below provide a breakdown of our voting activity from this quarter.

Company meetings voted

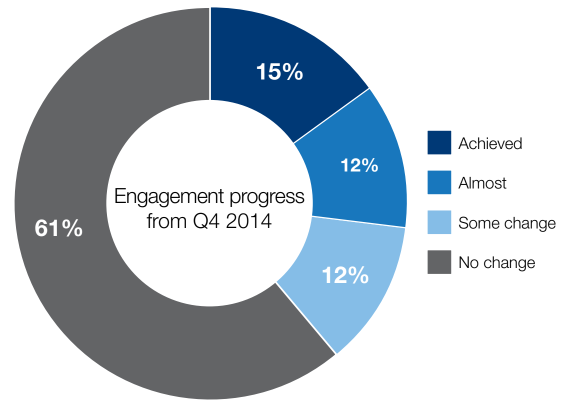






Source: Schroders as at 31 December 2015.
[3] Includes withheld or unvoteable resolutions, for example due to shareblocking.

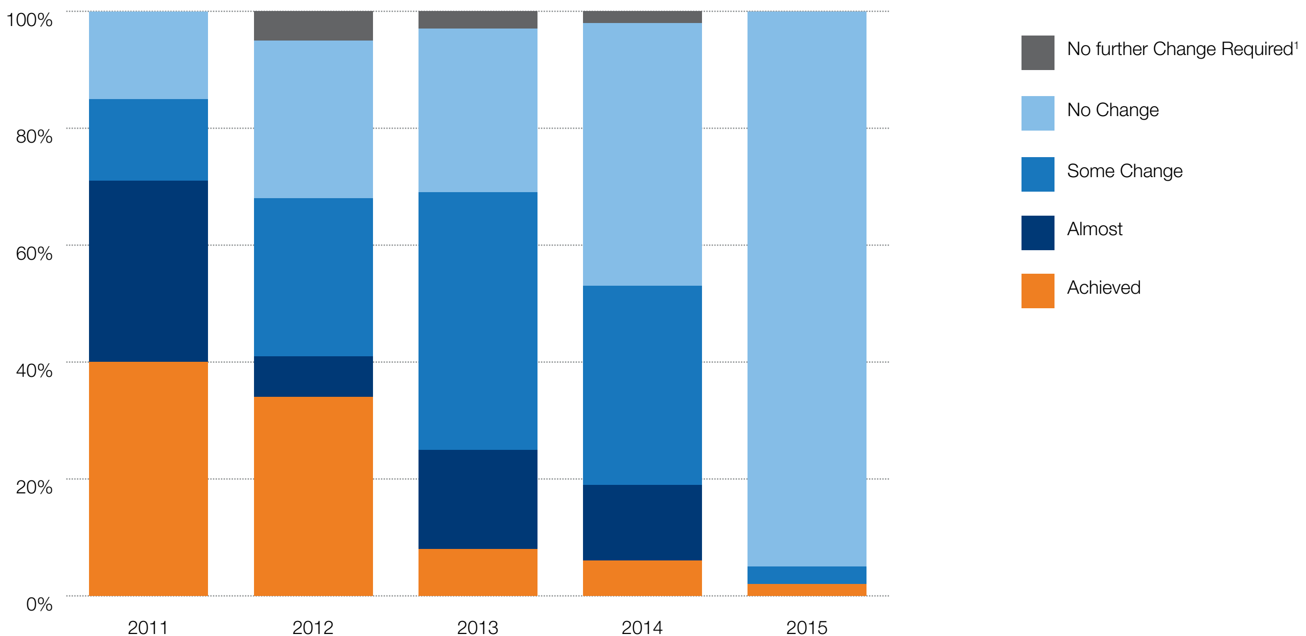
Engagement progress



This section reviews any progress on suggestions for change we made a year ago, in this case the fourth quarter of 2014. There are four possible results: "Achieved", "Almost", "Some Change" and "No Change". Of a total number of 33 "change facilitation" requests made, we recorded five as Achieved, four as Almost, four as Some Change and 20 as No Change.

The chart below shows the effectiveness of our engagement over a five-year period. We recognise that any changes we have requested will take time to be implemented into a company's business process. We therefore usually review requests for change 12 months after they have been made, and also review progress at a later date. This explains why there is a higher number of engagement successes from previous years.

Effectiveness of requests for change – 5 year period



Source: Schroders as at 31 December 2015.

[1] This refers to requests that are no longer valid, for example if a company has been acquired, or has changed its business activities.

Our Team profiles

Jessica Ground
Global Head of Stewardship
Head of the team

Joined Schroders 1997

Richard Stathers
Head of Responsible Investment
Utilities, Telecoms, Climate change

Joined Schroders 2000

Daniel Veazey
Corporate Governance Analyst
Corporate Governance

Joined Schroders 2004

Solange Le Jeune
ESG Analyst
Energy, Financials, Climate change

Joined Schroders 2011

Seema Suchak
ESG Analyst
Healthcare, Materials

Joined Schroders 2012

Sophie Rahm
ESG Analyst
Industrials, IT

Joined Schroders 2013

Elly Irving
ESG Analyst
Consumer goods and services

Joined Schroders 2014

RESPONSIBLE INVESTMENT REPORT Q4 2015

Schroders

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