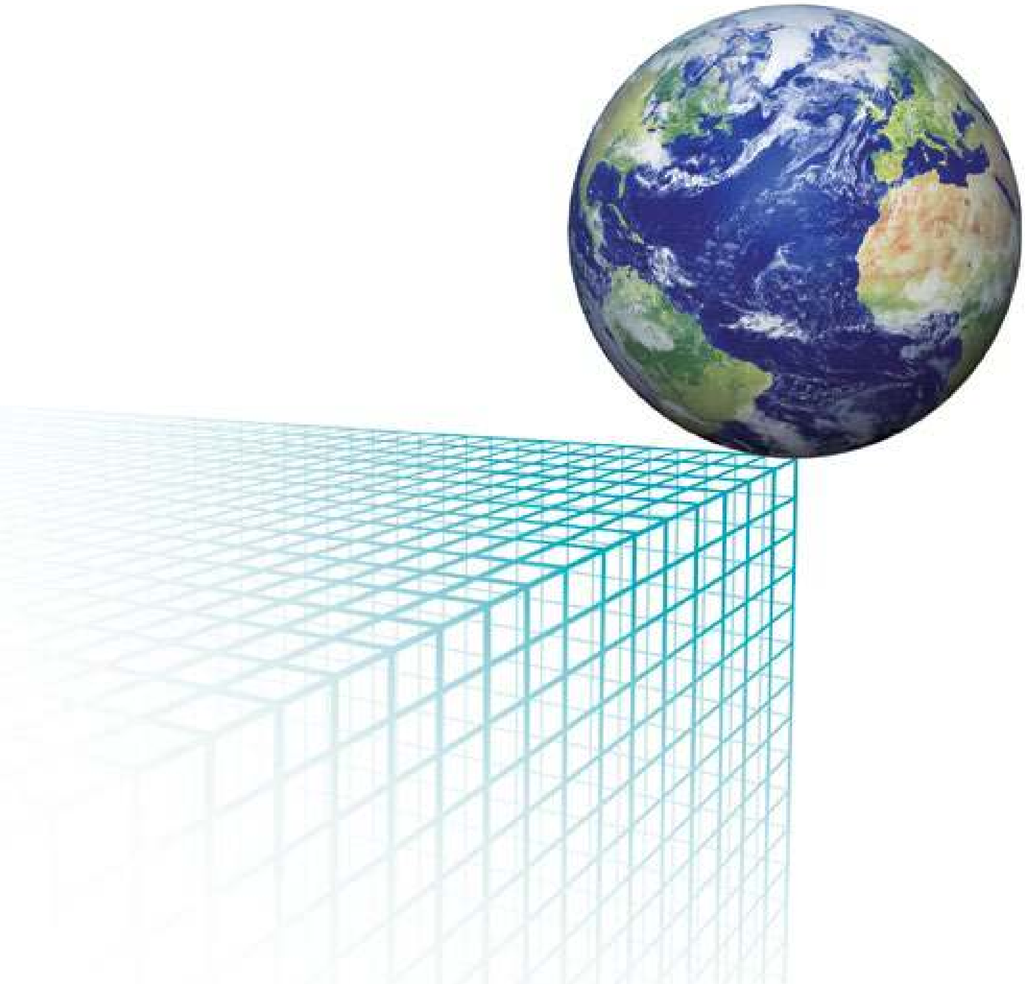
THE BIG BOOK OF SI

Sustainability investing – meeting the needs of the present generation without compromising those of generations to come



ROBECO
The Investment Engineers

For professional investors

July 2018

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Introduction

It is with great pleasure that we present to you our *Big Book of SI*. We firmly believe in sustainability investing, and think all the stars are aligned for this investment discipline. From a bottom-up perspective, sustainability is clearly changing markets. The environment in which companies operate is very different from 20 years ago. Climate change, resource scarcity, pollution and the working conditions in emerging countries are all trends that affect companies, as well as provide opportunities for new markets.

However, they also present risks as they are changing the regulatory landscape, altering consumer behavior and, in many cases, increasing costs. Moreover, clients are increasingly looking to create more sustainable portfolios to meet the demands of their sponsors, participants and regulators. And then there is the socioeconomic perspective and the many global challenges faced by our generation. While prioritizing growth above issues such as climate change risks may yield better returns in the short term, the long-term prospects for such a strategy may be less rosy.

Sustainability investing is of strategic importance at Robeco. We started adopting it in the mid-90s and it has been at the core of our business since the mid-2000s, when Robeco acquired Sustainable Asset Management (now RobecoSAM). The acquisition of SAM gave us the knowledge and insight we needed to integrate sustainability in all aspects of our business. Our current joint sustainability strategy is built on four key aspects:

1. A unique sustainability culture that has evolved over the last 20 years
2. Our extensive in-house expertise in research, analytics and investments
3. A truly integrated investment approach across the asset classes stemming from interaction between our SI researchers, financial analysts and engagement specialists
4. The ability to innovate quickly and offer clients bespoke solutions as sustainability investing evolves

Despite our clear vision on sustainability, we realize that there is no one size fits all, so we offer many different products and solutions for many different clients across the globe. At the time of writing, we manage EUR 100 billion of integrated sustainability assets in equity, fixed income and private equity. We believe that the investment industry will move from creating only wealth to creating wealth and well-being, and it is our intention to contribute to that shift. It is in the interests of both society and our industry, and when these two are aligned progress can be swift.

The topic of sustainability arises within minutes of talking with clients. I believe that we have reached an inflection point. It is already clear that taking a sustainable approach does not detract from performance. We believe that using financially material ESG information leads to better-informed investment decisions and benefits society. The Sustainable Development Goals are a very important development in this context that take sustainability to the next level by making it tangible and measurable. There has been a change in thinking in the asset management world, from avoiding companies that have a negative impact on the environment to investing in companies that have a positive one.

You can embark on sustainability investing in small steps. What we see at Robeco is that, as knowledge and experience in sustainability investing increase across the organization, so too does conviction. I hope that this *Big Book of SI* will help you find your way in the fascinating, multi-dimensional world of sustainability investing.

Gilbert Van Hassel,
CEO Robeco

1

Sustainability and the role of finance

A commonly accepted definition of sustainability is meeting the needs of the present generation without compromising the ability of future generations to meet theirs[1]. In this chapter we discuss the relationship between economic growth, sustainability and the financial industry.

The relationship between sustainability and economics

The term 'Tragedy of the Commons' was coined in an essay by 19th century British economist William Foster Lloyd to describe a hypothetical situation involving the overgrazing of common ('free') land in medieval Britain. It is a metaphor for the degradation and eventual depletion of shared resources. The dilemma at its heart relates to the link between self-interest and open access, where individuals choose not to act for the common good and well-being of future generations so that they can maximize their personal gain. And it is a classic example of coordination failure, which could be resolved by dividing the resources into individual parcels or through the introduction of a government-enforced quota system.

The tragedy of the commons is at the heart of many of the sustainability issues we encounter today. A recent example involves CO_2 emissions from the global shipping industry. Due to the principle of freedom of the open sea, shipping companies had until recently escaped regulations to reduce greenhouse gas emissions. According to The Economist, however, the industry releases more CO_2 every year than the whole of Germany and, until recently, its emissions looked set to rise rapidly.

However, in April 2018 the International Maritime Organization set binding targets to bring the industry in line with the ambitions of the Paris climate agreement. These include to cut greenhouse gas emissions by at least 50% by 2050 (compared with 2008). International collaboration has proven to be key in resolving this coordination problem.

Aviation, an industry not directly included in the UN climate agreement, also has a plan in place to reduce emissions. It has set out three goals for air transport: a global average fuel efficiency improvement of 2% per year up to 2050, carbon-neutral growth from 2020 onwards, and a 50% absolute reduction in carbon emissions by 2050 (compared with 2005 levels).

As an alternative to regulation, governments could choose to put a price on carbon to solve the coordination problem – for instance, via a cap and permit system or by means of a simple levy. While this is already happening to a limited extent, at present an estimated 85% of global emissions are not covered by such measures.

1. Report of the World Commission on Environment and Development: Our Common Future, Gro Harlem Brundtland, Oslo, 20 March 1987

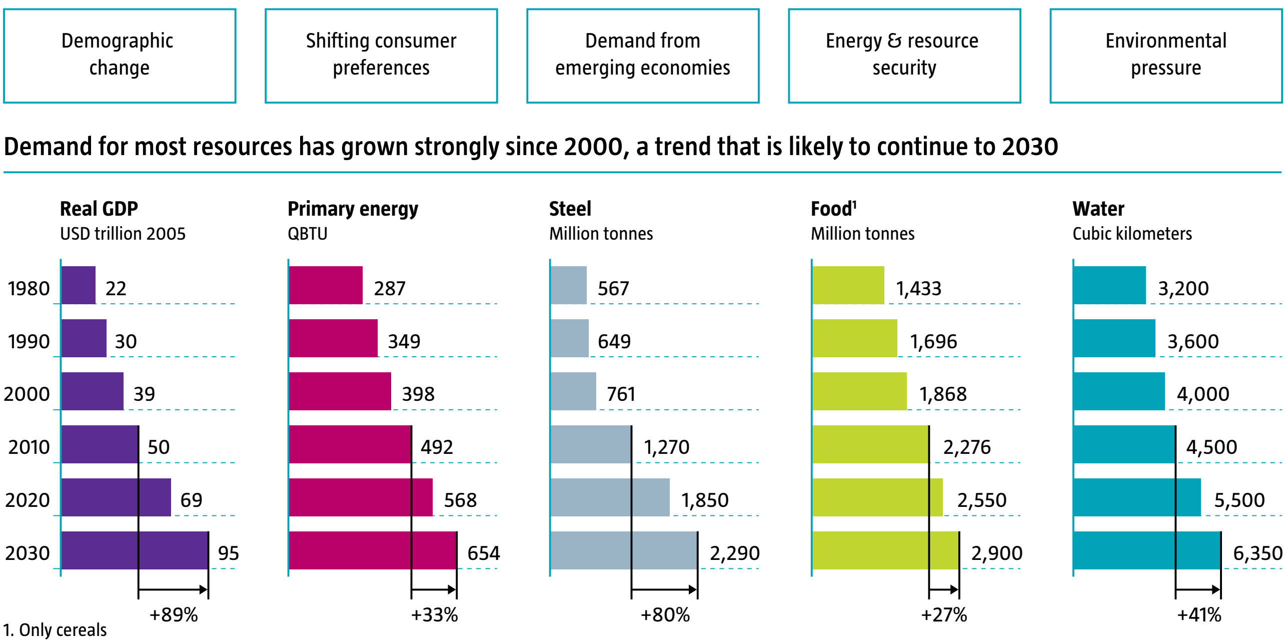
Resource scarcity and the need for a more circular economy

Related to the issue of the tragedy of the commons is the fact that the world's population is growing rapidly, and is expected to approach 10 billion by 2050. Despite ongoing innovation and productivity increases, future generations will face increasing resource scarcity and challenges linked to climate change (not just environmental consequences, but also social effects such as climate migration). Our planet's finite nature will become ever-more visible.

The price of progress

As humanity advances, each generation brings its own achievements and breakthroughs that enrich and contribute to improved living standards, health and well-being, economic development as well as a better understanding of the natural world and our place in it. But progress comes at a price. As populations grow, economies develop, wealth expands, and new technologies proliferate, resources are stretched. A trend that will only exacerbate as time and progress propel us forward. Figure 1 demonstrates the trajectory of trends in resource consumption through 2030.

Figure 1: The world's resources are stretched



Source: Global Insight; IEA: UN Environmental Program (UNEP) FAO: World Steel Association; McKinsey analysis

These developments strongly indicate the need for a more circular economy*, based on much lower rates of natural resource extraction and use, in contrast to today's largely traditional linear economy*. According to the OECD (2015), the amount of materials extracted from natural resources and consumed worldwide has doubled since 1980 and is ten times higher than in 1900. The rapid industrialization of emerging economies and continued high levels of consumption in developed countries are responsible for this

* *A **circular economy** is a regenerative system in which resource input and waste, emission, and energy leakage are minimized by a 'produce, use, re-use/recycle' model of production. This is the more sustainable alternative to the **linear economy** which is a 'take, make, dispose' model of production.*

trend. Such intensive use of materials has many environmental, economic and social consequences that extend beyond borders and will affect future generations.

Therefore, the challenge for businesses and economies is to grow in a way that can be facilitated by the earth's natural resources in the long term without depleting them. Circularity can play a key role in countering the negative effects of the current overconsumption crisis.

The doughnut economy

However, sustainability is not only about the planet's finite resources. Adapting the Brundtland definition of sustainable development to the 21st century means not only meeting the needs of the present generation without compromising those of generations to come, but also meeting the needs of all with the resources available to us on the planet.[2] The notion of the doughnut economy combines the planetary boundaries with the social foundation that is at the core of any sustainable economic system. It introduces the idea that economic growth is not a simple straight line only going upwards, but rather a much more complex matter that concerns the balance between economic growth, planetary boundaries and the social foundation. This is also reflected in the 17 UN Sustainable Development Goals, a set of global targets to ensure not only planetary stability but also social protection. And the business community and financial sector are asked specifically to contribute to global sustainable development.

Finance can play a key role

So while direct government intervention can certainly help ensure that economic prosperity is long-lasting, targeted investment can be instrumental in the redeployment of capital to sustainable activities. A key role of financial markets is the efficient allocation of resources to the most financially viable companies not just in the present but, even more critically in the future. Financial viability assessments are dependent on a myriad of factors across the competitive landscape of companies and industries.

Financial materiality is the critical link at the intersection of sustainability and business performance. More specifically, investors should focus on identifying the most important intangible factors (sustainability factors) that relate to companies' ability to create long-term value. For instance, lowering energy consumption in manufacturing processes results in significant cost-saving opportunities and has a direct impact on a company's bottom line. Going a bit deeper, financial materiality is defined as any intangible factor that can have an impact on a company's core business values. These are the critical competencies that produce growth, profitability, capital efficiency and risk exposure. In addition, financial materiality includes other economic, social and environmental factors such as a company's ability to innovate, attract and retain talent, or anticipate regulatory changes.

These matter to investors because they can have significant impacts on a company's competitive position and long-term financial performance.

2. https://www.kateraworth.com/doughnut/

2 Three megatrends shaping the world

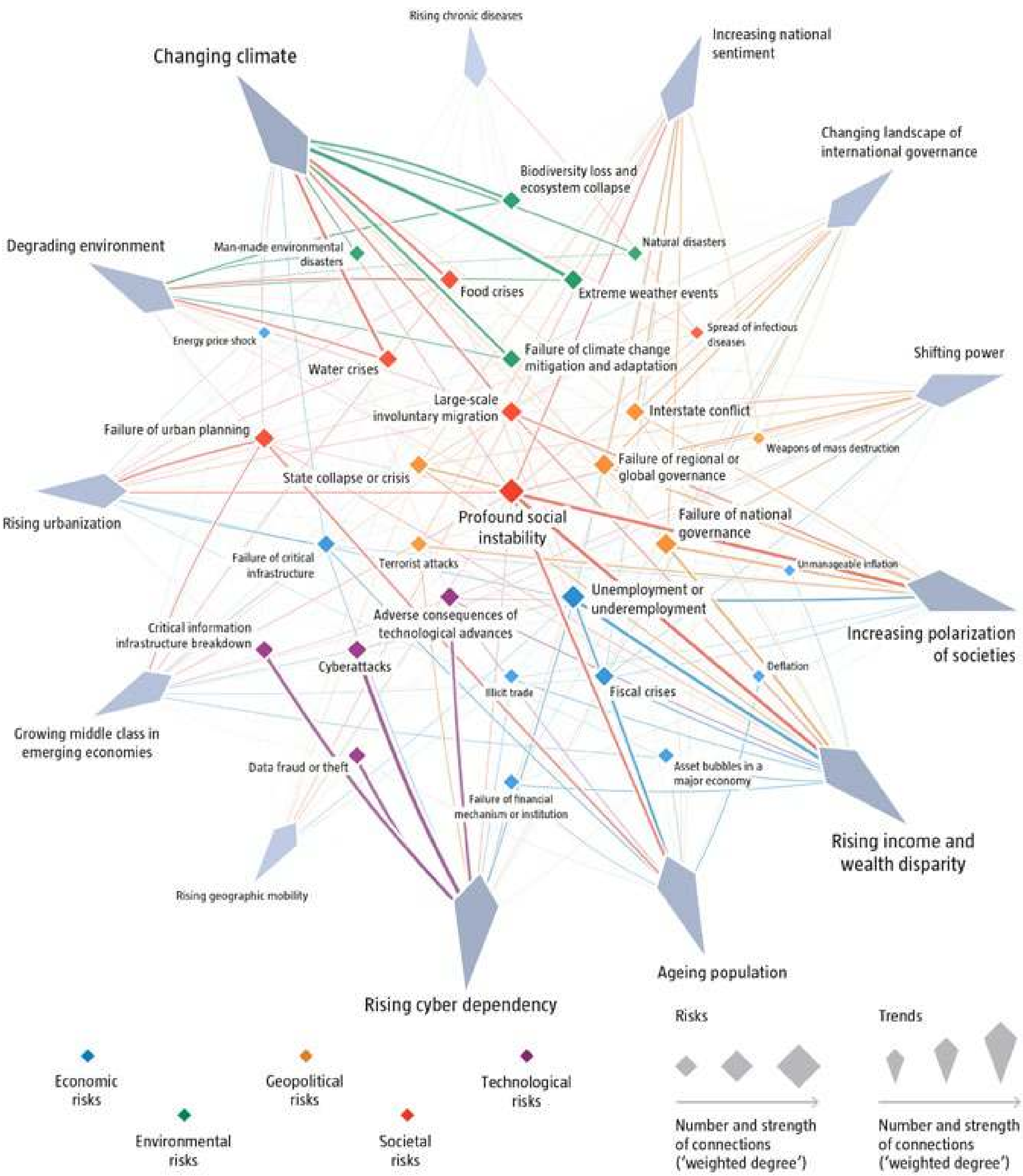
Sustainability is a broad phenomenon with many different angles. One of the sustainability themes currently receiving widespread attention is climate change – and rightly so. It is an important issue that needs to be addressed by regulators, companies and investors. And yet sustainability is about much more than just global warming.

Every sector has its own challenges, be they sustainable supply chains and the social risks of sugar consumption in the food industry, sensible pricing models and business ethics in healthcare, or risk culture and product stewardship in the financial sector. There are also sustainability issues to consider from a country perspective: the strength of institutions, investment in education and access to natural resources to name but a few.

In this chapter we discuss three important themes that specialists across the globe believe to be among the most important ecological, social and governance matters of our times[3]. We explain how they can affect investors from a strategic perspective (climate change), a bottom-up perspective (cybersecurity) and a country perspective (inequality).

3. World Economic Forum, Global Risk Report 2018

Figure 2: Megatrends as defined by the World Economic Forum



Source: World Economic Forum, Global Risk Report 2018

MEGATREND 1: CLIMATE CHANGE

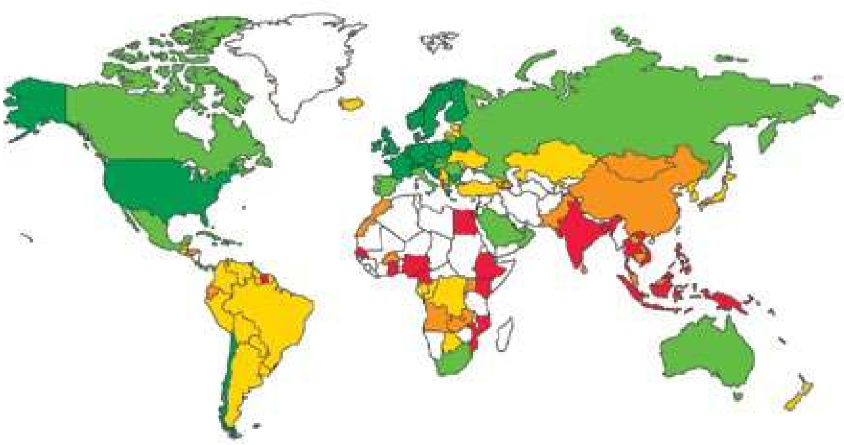
Fact: 97% of climate experts agree humans are causing global warming

The scientific consensus is that global warming will get worse before it – hopefully – gets better. And global warming could also lead to 'global weirding' – in other words, a greater number of extreme weather events. This means not just drought but also, for example – somewhat paradoxically – more severe winters in Europe caused by a seasonal change in the path of the Gulf Stream, which is currently responsible for the mild climate in northwest Europe. Global weirding will be an increasing drag on the world economy. One reason for optimism, however, is how the concerns surrounding it resulted in the Paris Agreement – an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) dealing with greenhouse gas emissions mitigation (even without the present support of President Trump).

To assess how global warming could affect expected investment returns, we first need to consider the ambitions formulated in the Paris climate agreement – the central aim of which is to keep the rise in global temperature 'well below' 2°C above pre-industrial levels and attempt to limit its rise to no more than 1.5°C. An increase in temperature of 2°C above pre-industrial levels is considered by the Intergovernmental Panel on Climate Change (IPCC) to be a maximum, above which major environmental harm can be expected. But several prominent scientists believe the danger level to be lower, and are advocating a maximum rise of 1.5°C.

Nevertheless, studies suggest that the terms of the Paris Agreement will not be enough to keep the temperature rise below 2°C. Taking into account the promised reduction in greenhouse gas emissions, we are still currently on schedule for a mean surface temperature increase of well over 2°C according to the IPCC's Fifth Assessment Report (2014).

Figure 3: Potential vulnerability to climate change



Very vulnerable	Vulnerable	Intermediate
Less vulnerable	Least vulnerable	Unrated sovereigns

Source: Standard & Poor's 2014

What does it mean for investors?

It is important for investors to assess the impact of climate change on asset class return expectations. The most significant physical impacts of climate change will be seen in the second half of this century, but the consequences for forward-looking asset markets may become apparent much sooner. When expectations for climate change are adjusted, the markets and asset prices will reflect these developments, possibly sooner than the physical changes of global warming make themselves felt.

Macroeconomic and market impact: three scenarios

The macroeconomic impact of climate change will be heavily influenced by environmental policies. It is impossible to calculate this impact with any degree of certainty, but we can sketch some very rough, highly stylized scenarios. These are based on a report by the University of Cambridge Institute for Sustainability Leadership[4]. The most benign scenario consists of a rapid shift from a fossil-fueled world economy to a low-carbon economy, which would require tremendous investment in new infrastructure, research and development, and new business models. The shift would be costly and produce a short period of high volatility and slow growth. According to HSBC[5], nearly half of coal and oil assets would become stranded (essentially worthless) in this scenario. How could such a scenario be achieved? A global carbon tax, the introduction of carbon budgets, a hefty increase in investment in low-carbon technologies and an end to investment in or subsidies for fossil fuel extraction should do the trick.

A more plausible scenario is a world in which past trends essentially continue, with temperatures rising to 2.0-2.5°C above pre-industrial levels by 2100. The world would succeed in slowly reducing its dependency on fossil fuel, but it would take longer for the positive benefits of the new low-carbon economy to make themselves felt. Economic growth would be even lower than in the first scenario.

A third scenario would involve prioritizing growth to the detriment of climate change risks. Initially, economic growth would depend quite heavily on fossil fuels. But market confidence on the future performance of the economy would gradually worsen due to environmental degradation, water stress and increasing resource constraints, which would impact production capabilities and regional social cohesion.

4. Unhedgeable risk: How climate change sentiment impacts investment (CISL, 2015).

5. HSBC 'Statement on Climate Change' (October 2016)

The Cambridge study modelled the impact of these scenarios on four types of portfolios: conservative (low risk), balanced, aggressive (high risk) and fixed income only portfolio. The first three portfolios are diversified across asset classes and geographies. Equities will be most affected in the third scenario. Unsurprisingly, the long-term impact of the third scenario on the expected returns of the most risky portfolio is highest, because it has a larger exposure to equities. The fixed income only portfolio performs better than the other portfolios in the third scenario.

'A scenario of prioritizing growth to the detriment of climate change risks would produce better returns in the short term, but lower gains in the long run. So supporting the energy transition is not just in the best interests of the people living on our planet, but can also help deliver strong investment returns'

Figure 4: Summary of portfolio performance (long-term after 5 years) by structure and scenario, nominal per cent

Portfolio structure	Baseline	Two degrees	No migration
High fixed income	4%	-3%	-4%
Conservative	12%	9%	-26%
Balanced	16%	17%	-30%
Aggressive	21%	25%	-45%

Source: University of Cambridge

The impact of the various scenarios on sectors and regions has also been analyzed in the Cambridge study. In the first two scenarios, the worst-performing sector in developed markets would be real estate[6], followed by basic materials, construction and industrial manufacturing. The best-performing sectors would be transport, agriculture and consumer retail. Investment risks can be mitigated by switching out of the worst-performing sectors and into the better performers. The study also reveals differences between countries in terms of the vulnerability of their economic fundamentals and how they respond to shocks. Brazilian stocks, for example, are reasonably resilient whereas the Chinese market fairs less well. The study concludes that in the end, slightly less than half of the returns impacted by climate change can be hedged through cross-industry and regional diversification.

An important implication is that an investment manager wanting to hedge against the second and third scenarios would be advised to focus on fixed income products from developed markets. While their long-term returns may be low, such an approach should minimize downside losses. This is to be expected, as a 2018 report by HSBC suggests, the vulnerability of countries to the negative impacts of climate change varies widely, with poorer and countries with lower credit ratings the most vulnerable.

As global warming is tackled in the coming decades, investors will need to know what to invest in – and what to avoid. This ranges from multi-billion-dollar projects harnessing renewable energy to new business models in traditional industries such as car manufacturing, utilities and energy.

6. The physical impacts of climate change such as rising sea levels, storm surges and extreme weather events will inevitably damage or destroy property.

MEGATREND 2: RISING INEQUALITY

Fact: Global inequality has fallen over the past 30 years but risen sharply locally

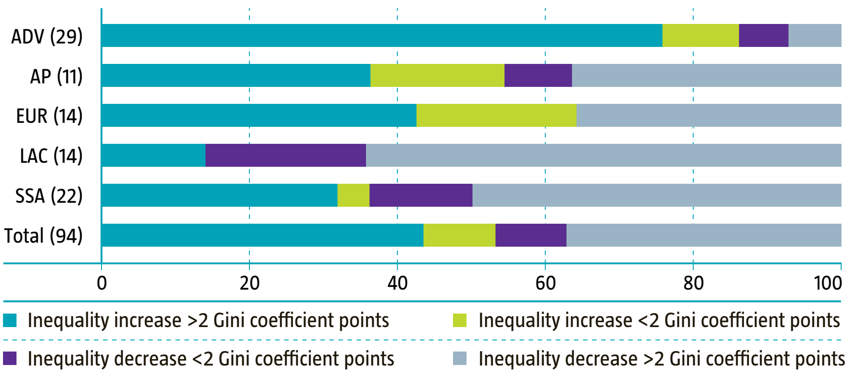
Since the publication of Thomas Piketty's controversial book, Capital in the Twenty-First Century, inequality has become a dominant topic in the political debate in many countries. Rising inequality is receiving increasing interest, especially in the wake of the Brexit vote and Donald Trump's election victory, as the income gap played heavily in the rhetoric of both winning campaigns. The lasting significance of inequality is also reflected in the 2018 Global Risks Report by the World Economic Forum in which 'rising income and wealth disparity' is ranked third among the top risk trends that will shape global developments over the next decade[7].

Although the extent of disparity in income and – in particular – wealth is hard to measure, and different methods of calculation produce different results, most studies conclude that inequality is increasing. Fresh evidence for this is provided by a recent report by the International Monetary Fund, which states that while global inequality *between* countries has fallen in the past three decades, it has risen sharply *within* countries[8]. According to this study, 53% of countries have seen an increase in income inequality over this period, with the rise particularly pronounced in advanced economies (especially the US), but also in some large emerging markets such as China, Russia and India. Between 1995 and 2015, the proportion of wealth held by the top 1% in China doubled from 15% to 30% and rose from 22% to 43% in Russia, while in the US this figure increased from 22% in 1980 to 39% in 2014[9].

The most commonly used measure of inequality is the Gini coefficient. It uses statistical analysis to determine inequality based on, for example, income. The coefficient can range from zero to one, where zero means perfect equality (everyone has the same income), and one means perfect inequality (one person holds all the income). The US's Gini coefficient surged from 0.316 in 1980 to 0.377 by 2015 (post-tax, post-transfer income). In China, the equivalent Gini values surged from 0.327 and 0.346 in 1980 to 0.515 and 0.525 by 2014[10].

7. The Global Risks Report 2018, World Economic Forum, Switzerland, 2018
8. IMF Fiscal Monitor: Tackling Inequality, October 2017
9. World Inequality Report 2018
10. Solt, Frederick: The Standardized World Income Inequality Database (SWIID); SWIID Version 6.2, March 2018

Figure 5: Change in inequality by region, 1985-2015
(Percent of total number of countries in region)



Source: IMF Fiscal Monitor: Tackling Inequality, October 2017

Note: Total number of countries represented in each bar is shown in parentheses. Absolute changes in Gini coefficient greater than 2 points are considered economically significant (See Atkinson 2105 for further discussion of economically significant changes).
ADV = advanced economies; AP = Asia and Pacific; EUR = Europe; LAC = Latin America and the Caribbean; SSA = sub-Saharan Africa

What are the major drivers of rising inequality?

Economic literature and empirical evidence suggest that there are various causes for the rise in inequality but that the following drivers appear to be the most important:

- **Globalization**, by increasing the supply of cheap labor through the integration of emerging markets into the global economy, which has displaced low-income jobs in advanced economies.
- **Technology**, as a shift in production processes has increased the demand for skilled labor at the expense of low-skilled workers.
- **Migration**, which has increased the supply of labor in advanced economies.
- **A rising profit share of GDP**, which means the share of the economic pie that is flowing to corporate profits has increased while the share going to labor has decreased. This is benefitting higher-income earners as a larger share of their income is profit-based.
- **Monetary policy**, as expansionary monetary policy in recent years has led to asset price inflation, which increases wealth inequality by boosting the price of equities and housing (assets typically held more by richer households).
- **Declining unionization**, which has considerably diminished the collective bargaining power of workers, reinforcing the pressure on wages.

While all of these aspects have contributed to an increase in intra-country disparity, globalization and migration have been important forces behind a decrease in the gap between certain countries, and in particular between emerging markets and advanced economies.

‘Given the rising inequality in many countries – with potentially far-reaching and disruptive economic, financial, political and social implications – investors would be well advised to seriously consider this matter when making investment decisions’

Why does it matter for investors?

Rising inequality has fueled discussions on its economic impacts in addition to the potential wider social and political implications. To date, however, the debate has been controversial and the economic literature inconclusive. Inequality can affect economic growth through different channels. It can promote growth as it provides sufficient incentives to accumulate capital, increase productivity and investment, and reward innovation and entrepreneurship. On the other hand, it can be damaging as it causes poverty, contributes to a sub-optimal allocation of human resources (low-income groups have limited access to education and health care), reduces social mobility, erodes social cohesion, leads to the concentration of political power, and boosts populist policies. All of these have a dampening effect on investment and productivity, undermine economic growth, and have the potential to cause macroeconomic and financial disruption[11].

A 2017 IMF paper found that the effect of income inequality on economic growth can indeed be either positive or negative, but that at a certain level – a Gini value of 0.27 – inequality starts to have a negative impact on economic development[12]. These findings are in line with a study by the OECD, which estimated that an increase in the Gini measure by 3 points from 0.29 to 0.32 (which has actually occurred over the past two decades) would result in a negative impact on growth of 0.35 percentage points per year over 25 years. This represents a cumulative loss of 8.5% of GDP[13]. So while in theory some degree of inequality is vital to propel growth in a free-market economy, it can have a negative impact if it becomes too extreme.

11-. Grigoli, Francesco & Robles, Adrian: Inequality Overhang, IMF Working Paper 17/76, 2017

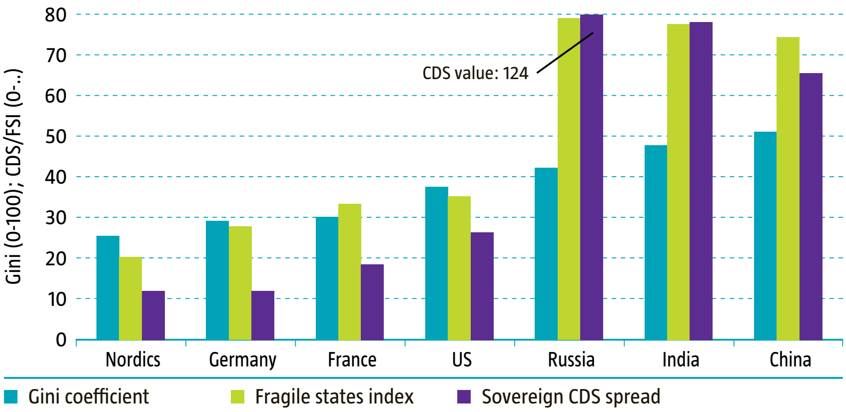
12. OECD: Focus on Inequality and Growth; OECD, December 2014

13. See Dabla-Norris, Era et al.: Causes and Consequences of Income Inequality: A Global Perspective; IMF Staff Discussion Note SDN/15/13, June 2015

There is considerable evidence that the potential for social and political unrest is higher in countries with more significant levels of inequality, and these countries are also considered to have inferior sovereign credit quality. This is evident from the chart below, which shows that lower levels of inequality (as illustrated by the Gini coefficient) correspond with lower risk premiums and potential for unrest (as represented by sovereign CDS spreads and the Fund for Peace's Fragile States Index, respectively), even though inequality is of course not the only explanatory factor.

It is no surprise that the issue of inequality has gained substantial attention from policymakers and international organizations such as the IMF, OECD and World Bank alike. Investors, too, would be well advised to keep a close eye on the developments in inequality, which could result in subdued economic prospects, a higher level of social uncertainty, more volatile – and lower – investment returns, and a reduced number of attractive investment opportunities. A structured approach to incorporating country-specific ESG information in investment processes could help inform investment decisions.

Figure 6: Greater inequality correlates with more social unrest and higher risk premiums



CDS & FSI: increasing values signify higher risk/unrest potential; latest available data

Source: The Fund for Peace, Bloomberg, The Standardized World Income Inequality Database (SWIID)

MEGATREND 3: CYBERSECURITY

Fact: In 2017, 6.5% of internet users were victims of identity fraud, with fraudsters stealing USD 16 billion

Societies and economies are becoming increasingly digitized and connected. While this has many advantages, it also comes with downsides. Whether it is foreign governments interfering with elections elsewhere, cyber extortionists using ransomware, or the widescale loss of sensitive customer data, the public is increasingly being confronted with a problem that computer experts have been seriously concerned about for a long time: cybercrime.

Russian hackers' attempts to influence the 2016 US presidential election probably appeal most to the public's imagination in this respect. However, 2017 saw an unprecedented number of other cyberattacks hitting the headlines as well.

What's more, while not technically a cybercrime, the 2018 Facebook/Cambridge Analytica row concerning the exploitation of user data has put the whole issue of data ownership and related security matters firmly on the political agenda.

Public concern backed up by some worrying figures

The recent rapid increase in public concern about cybersecurity is not based on a whim, but confirmed by a host of worrying figures:

- Research by cybersecurity firm Symantec shows that the number of ransomware attacks around the world rose by 36% in 2017.
- Symantec has also found that 1 in 123 emails is infected by malware.
- 6.5% of internet users were victims of identity fraud in 2017, with fraudsters stealing USD 16 billion, according to Javelin Strategy & Research.

Costs and investment spending for companies on the rise

Unsurprisingly, the cost of cybercrime has gone through the roof. The cost of cybercrime as reported to IC3, the Internet Complaint Center, skyrocketed from USD 18 million in 2001 to USD 1,330 million in 2016 – a compound annual growth rate of 31%. And it is well known that reported numbers of cybercrime incidents underestimate the true figure. The companies affected are naturally reluctant to disclose such occurrences as they may harm their reputation and, consequently, have a negative impact on their commercial operations.

The reported commercial damage is also likely to be significantly understated. A study by Deloitte suggests that the indirect and less tangible costs of cyberattacks may well represent the bulk of the total cost of cybercrime. According to the study, beneath-the-surface costs can amount to 90% of the total impact on an organization and are likely to be experienced two or more years after the incident. Typically, the reputational damage reflected in the devaluation of the brand leads to a loss of customer relationships and lost contract value.

The growing number of cyberattacks has prompted a spending spree by governments, private enterprises and individuals to counter the threat of cyberattack. In the US, spending on cybersecurity has grown by roughly 12% per year since 2010.

While the size of the global market in cybersecurity is difficult to estimate due to the proliferation of new products and services from hundreds of new market entrants, reputable market forecasters Gartner and IDC both put the current size at around USD 80-90 billion. Combining growth forecasts from Gartner and IDC, it seems safe to predict that global spending on cybersecurity will exceed USD 100 billion per year by 2019.

The growth of the cybersecurity market is being driven by three overarching trends:

1. A dynamic threat landscape

The sophistication of cyberattacks has been increasing steadily over time, even though the technical knowledge required by attackers has been declining. This is due to an explosion in the availability of easy-to-use cyberattack tools. This has forced the cybersecurity community to respond with ever-more sophisticated products to keep the threats at bay. Effectively, cyber attackers and defenders are locked in an arms race and the end is nowhere in sight. This arms race is one of the major drivers of the growth in cybersecurity spending.

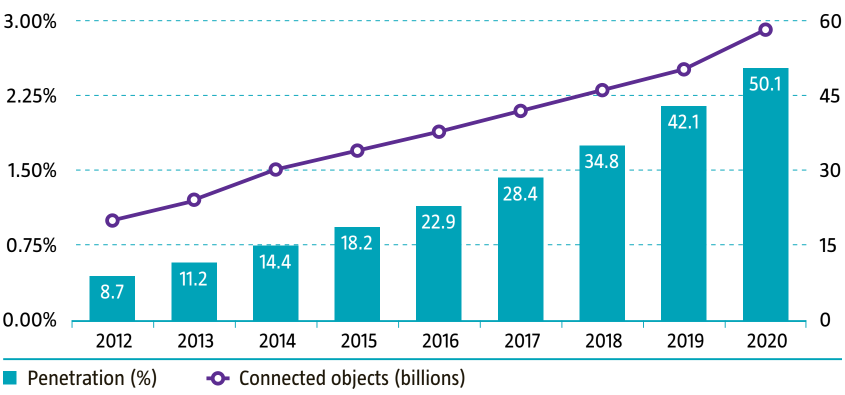
2. Increasing regulatory pressures

New EU regulations, including the General Data Protection Regulation (GDPR) and Network and Information Security (NIS) Directive, are being implemented in 2018. These regulations apply to all companies with business activities in Europe, which in a practical sense extends their scope of application around the world. Obviously, companies are highly motivated to protect themselves against the growing risks of cyberattack and data loss as these regulations come into effect, and cybersecurity spending is therefore expected to increase dramatically.

3. An expanding attack surface

The growing need for cybersecurity is ultimately driven by increases in data generation and data traffic, as these provide cybercriminals with access to an ever-expanding number of human and digital targets. Connectivity, driven by the rapidly growing number of internet users and, much more significantly, the connection of sensors, machines and wearable devices to the internet, is set to accelerate. Estimates of the explosive growth of big data vary, but one thing is absolutely clear: the amount of digital content will explode in the coming years.

Figure 7: Cisco's projections for the Internet of Things



Source: Cisco

What does it mean for investors?

Obviously, cybersecurity spending is a fast-growing cost for many businesses; a clear negative. For the moment, however, this is unlikely to impact profit margins too severely. At less than 5% of total IT spending for most companies, the cost of cybersecurity can still be absorbed relatively easily.

What is less predictable, and potentially much more devastating, is the cost associated with a 'successful' breach or data privacy issues – which can be reflected in sharp share price drops, as was seen after the Equifax breach (see below) and Facebook/Cambridge Analytica scandal in 2018. It is therefore in investors' interests to urge companies to up their cyber games. This involves encouraging them to improve not just their technology, but their behavior.

Organizational culture is at the root of the problem and the solution

No matter what companies spend on technical cybersecurity solutions, their success ultimately hinges on the judicious and disciplined implementation of cybersecurity policies. In most cyber incidents, negligent or risky behavior, ignorance of – or disregard for – procedures, or the sloppy implementation of security policies by company employees lies at the root of the problem. People are the weakest link in any organization's cybersecurity armor.

A case in point is the Equifax breach, which was caused by a failure to install patches for a tool called Apache Struts, leaving the company's systems vulnerable to cyberattacks. Equifax was warned long before the breach about the fix that was needed. The situation could thus have been prevented had the right processes been in place and followed diligently.

Much, therefore, depends on a firm's culture, explicit policies and agility when it comes to developing resilience to cyberthreats. These factors are rapidly becoming an important part of an organization's governance profile. To ensure that companies have the right culture and policies in place, investors have to be vigilant that firms are following procedures, training their workforces and keeping up with the latest developments. Active engagement on the topic of cybersecurity by investors can play a vital role in helping companies minimize the threat of cyberattack.

'The increasing connectedness of societies and economies is leading to risks of security breaches, data privacy issues and false information. No matter how much companies spend on technical cybersecurity solutions, success ultimately hinges on the judicious and disciplined implementation of cybersecurity policies. Investors need to anticipate both IT spending and culture'

Investment opportunities

The bright side of all this is that the rapid growth in cybersecurity spending is providing ample opportunities for solution providers to start successful businesses. The current marketplace is a mix of established, usually mature, cybersecurity vendors that made their mark in older security products such as anti-virus software and firewalls, and a new breed of companies that are rolling out next-generation cybersecurity products and services. The market's quick growth is providing a welcome tailwind for everyone involved, but competition is fierce and success is not guaranteed[14], so investors need to take a highly active approach in this area.

CONCLUSION

Climate change, inequality and cybersecurity are just three examples of the many megatrends currently rapidly changing the world around us. Demographic developments, the dark side of urbanization and polarization in the political sphere are a few more megatrends identified by the World Economic Forum in 2018. However, these three in particular are topics we frequently see in the media spotlight – because they are so close to home. It is the joint responsibility of governments, companies and investors worldwide to safeguard a sustainable future for ourselves and for generations to come. These trends have an impact on how we live, how we produce and work, and ultimately also on how asset managers invest. The three topics also show that sustainability is no longer an isolated investment theme, but a phenomenon with many faces, and its habitat is not limited to a handful of industries and sectors, or even a specific region.

14. A Robeco Trends Investing white paper (forthcoming) discusses the strategies investors can employ to benefit from this exciting growth market.

3

3 Sustainability investing: the state of play today

With roots dating back to the green crusades of the 1960s, there is no doubt that sustainability investing has now moved firmly into the mainstream – and today it is about much more than just investing with environmental issues in mind. Sustainability strategies now typically also consider a wide range of social issues, such as human rights, governance matters, and gender equality in the workplace. And there is a wide variety of sustainability approaches for investors to choose from.

By the end of 2016, there were USD 22.9 trillion of assets being managed in responsible investment strategies – an increase of 25% in just two years

Source: GSI Trends report 2016

Figure 8: Mapping investment strategies on the capital spectrum

	OUR STRATEGIES					
Financial-only	**Responsible**	**Sustainable**	**Impact**			**Impact-only**
Limited or no regard for environmental, social or governance practices	Mitigate risky environmental, social or governance practices in order to **protect value**	Adopt progressive environmental, social or governance practices that may **enhance value**	Address societal challenges that **generate competitive financial returns** for investors	Address societal challenges which ***may* generate a below-market financial return** for investors	Address societal challenges that **require a below-market financial return** for investors	Address societal challenges that **cannot generate financial return** for investors
Deliver competitive financial results						
	Mitigating Environmental, Social and Governance risks					
		Pursuing Environmental, Social and Governance opportunities				
			Focus on measurable high-impact solutions			

Source: Lessons from the Social Impact Investment Taskforce: Asset Allocation Working Group, 12 December 2014

It is clear that there is no one-size-fits-all approach to sustainability investing. However, over the course of time, consensus has grown on what approach fits various types of investors best.

Investors at one end of the spectrum only consider financial criteria, while those at the other only consider social criteria, including philanthropy. Institutional investors generally have a focus on strategies where sustainability is considered to mitigate risks, enhance value or create impact, alongside achieving competitive returns.

How does Robeco define sustainability investing?

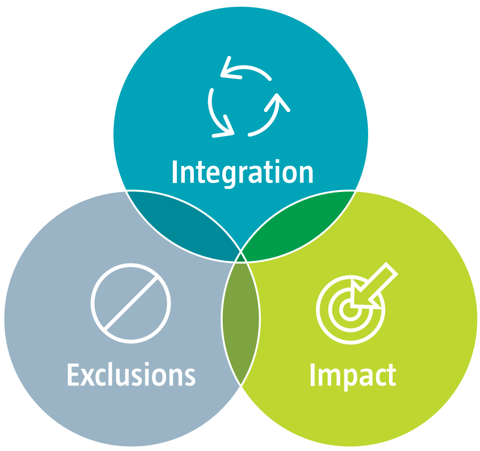
The terminology used in sustainability investing can be confusing. 'Socially responsible', 'green bonds', 'community investing', 'corporate engagement' and 'ethical investing' are just a few of the terms used to describe actions in this area. But in our view, sustainability investing is all of these and much more. The UN-backed Principles for Responsible Investment explains sustainability investing as follows: "We believe that an economically efficient, sustainable global financial system is a necessity for long-term value creation. Such a system will reward long-term, responsible investment and benefit the environment and society as a whole." At Robeco and our Swiss sister company RobecoSAM we use the term sustainability investing to mean "the pursuit of superior financial returns coupled with positive environmental, social and corporate governance outcomes". ESG is another term that we commonly use. It stands for environmental, social and governance and reflects the criteria that are considered when assessing the sustainability of a company or country.

PUTTING SUSTAINABILITY INTO PRACTICE

Once an investor has decided their motives for investing sustainably, there are several different approaches they can choose from. These can be grouped according to the sustainability goal it wishes to achieve and implemented on a stand-alone basis or in combination with other approaches (see Figure 9). Most can also be implemented across a variety of asset classes.

Figure 9: Three approaches to sustainable investing

Using financially material ESG information to improve the risk/return profile



Avoiding investments in areas of controversial products or business practices

Investing for socioeconomic impact, alongside the financial returns

Source: Robeco

EXCLUSIONS

Also referred to as negative screens, exclusions are the oldest sustainability investing strategy and particularly suitable for investors looking to manage their reputational risk – which is still what many investors see as the purpose of sustainability investing. These kinds of strategies exclude certain sectors, companies or countries from a fund's investment universe to fit in with particular groups of investors' ethical values, or to avoid what are commonly deemed to be controversial business practices and products. For example, many exclusion-based strategies avoid investing in firms involved in certain industries and activities such as tobacco, weapons, alcohol, nuclear power, gambling and pornography. These areas are sometimes referred to collectively as the 'sextet of sin'. But what is deemed controversial evolves over time. In recent years, it has become more common to exclude the worst climate offenders, including thermal coal and controversial oil and gas companies. Exclusions can also be based on behavior that is incompatible with sustainability standards or severe environmental or human rights violations. The Ten Principles of the UN Global Compact are often used as a guide in deciding which areas warrant exclusion.

Pros and cons: While on the face of it exclusions are a relatively straightforward strategy to implement, investors have to ask themselves some difficult questions. Excluding a company rarely leads to its product being removed from the market. And excluding entire sectors for non-financial reasons can have a meaningful impact on the risk/return characteristics of a portfolio. The devil also lies in the detail when it comes to implementation. In the case of alcohol, for example, should investors only exclude companies that produce alcohol or also those that derive a substantial portion of their revenues from it? And if they choose the latter, how exactly should they define a 'substantial portion'? And if they are excluding alcohol manufacturers from their universe, what about the firms selling it, such as major retailers? Fortunately, there are several data providers providing guidance on what is deemed market practice. And they analyze the companies and provide updates on a regular basis.

Suitable for: investors with a clear vision on which products or behaviors are incompatible with what they or their stakeholders deem important. For example, health insurers tend to exclude companies making products that are detrimental to general health.

Integration

BEST IN CLASS

While exclusion strategies adopt a negative approach, best-in-class strategies adopt a more positive stance, choosing to invest in the firms with the best ESG practices in a particular sector rather than deliberately avoiding certain areas. These strategies are based on the premise that firms with the best ESG practices are likely to outperform over the long term. For example, a firm with a highly equitable pay structure is unlikely to face expensive future lawsuits from employees who believe they have been unfairly underpaid relative to some of their colleagues, while a firm that has a minimal impact on the environment is unlikely to face major penalties for pollution down the line. Best-in-class ESG behaviors can also boost their profits – for example, firms with a strong brand reputation for leading the way in responsibility may be more likely to attract and retain customers than their rivals.

Pros and cons: As the universe is reduced by a fair amount, the impact on returns is debatable. Standard financial theory would suggest that reducing the universe reduces the number of choices to which investors can apply their skill, and this should lead to lower excess returns. However, sustainability investors would argue that investing in companies with good business practices yields better returns and/or lower risk. There is not enough evidence to support either premise as yet.

Suitable for: investors with a strong conviction in the importance of sustainability, and a clear belief that companies with good sustainability practices outperform their peers over the long run.

ESG INTEGRATION

This involves systematically including analysis of ESG criteria as part of the decision-making for a fund's investment process. This is based on the premise that ESG considerations can have a major impact on a security's future risk/return profile, in the same way that traditional financial and fundamental criteria can. How this is achieved differs widely from asset manager to asset manager, and sometimes even from team to team in the same firm. Sometimes ESG integration is carried out by specialist sustainability investment teams; sometimes by traditional portfolio management teams. Some firms conduct their own sustainability research, while others rely on external analysis provided by specialist ESG research firms. Sustainability data may be implemented via a top-down approach. It can be used to identify a theme of interest that may lead to opportunities for certain companies, and portfolio managers can then look for securities that fit into that theme. Alternatively, it can be implemented via a bottom-up approach, where ESG considerations are included in the process of security valuation and selection. This may be achieved by including financially material ESG criteria as inputs in the valuation model – generally on a sector-by-sector basis – or by using a non-sector-specific overall ESG score that the investment team can use in determining a security's overall risk/return potential.

Pros and cons: Done the right way, the inclusion of ESG criteria in investment analysis can facilitate better investment decisions. The goal is clearly financial; it does not necessarily lead to portfolios that only invest in the most sustainable companies. It is also difficult to assess whether ESG information is being taken seriously or simply used to 'greenwash' an investment strategy. Simply evaluating a portfolio's ESG score is not enough to determine this – a more rigorous due diligence of the investment process and documentation is needed.

Suitable for: investors who want to 'mainstream' ESG but do not want to apply a specific risk budget to these criteria. Such investors believe that using ESG information that is relevant (financially material) leads to better-informed investment decisions or a better risk/return profile.

Impact

THEMATIC SUSTAINABLE INVESTING

Thematic strategies invest in companies helping solve problems related to specific themes linked to sustainability. Theme-based products identify and invest in companies that pioneer innovative ways to use resources more efficiently as well as address the sustainability challenges present in the areas of water, energy, materials, food, and population health.

Pros and cons: Thematic investments are often narrow in focus and high conviction, and so should only make up a small part of a total portfolio. For large institutional investors, the costs and management attention required for such investments can be an impediment. However, companies addressing markets that are underserved tend to outgrow and outperform their peers.

Suitable for: investors with a clear vision on certain sustainability themes and who want to take exposure to them.

IMPACT INVESTING

Impact investing involves deliberately making investments with the aim of creating a measurable beneficial impact on the environment or society as well as earning a positive financial return. It has long been an approach favored by private philanthropists, and while it remains small for now it is quickly growing in prominence. It has traditionally been considered a niche concept that focuses on microfinance, private equity or project financing. However, in order to achieve a socioeconomic impact on a larger scale, it is increasingly being applied to mainstream asset classes, including listed equities and fixed income. Impact investing has gained more coverage in recent years through the launch in 2015 of the United Nations' Sustainable Development Goals (SDGs) – a series of goals with the overall aim of ending global poverty by 2030. It is recognized that impact investors have an important role to play in ensuring that the SDGs are met and in building a sustainable future.

Impact investing has three key components:
– **Intentionality**: an investor's intention to exert a positive impact;
– **Return**: it should generate a positive return on investment;
– **Measurability**: the financial, social and environmental benefits of impact investment should be measurable and transparent.

Some investors believe that impact investing should also incorporate the concept of 'additionality', which involves only allocating to businesses that they would not otherwise choose to invest in if they were not seeking to achieve a positive social impact.

Pros and cons: Making a difference or having a positive impact on society by allocating capital to impact investing and achieving competitive returns logically could be a sensible strategy to follow as an investor. Yet there are a few problems. Traditional impact strategies are very concentrated and often illiquid, so can only be applied to a small part of an overall portfolio. Again, the costs and management attention required could outweigh the return contribution. Applying impact investing strategies in more traditional asset classes could represent a solution, but this introduces a new problem: how do you accurately assess the impact of a globally diversified company? What's more, these strategies do not yet have established track records. Another problem faced by impact investors is that it is difficult to measure the positive impacts of their investments, although taxonomies and tools are currently being developed to overcome these issues.

Suitable for: investors wanting to make a positive impact on society and who believe that doing so can generate appropriate investment returns.

> The SDGs are taking sustainability to the next level. They are making impact investing tangible: moving from risk-based thinking to return-based thinking, from negative screening to positive contribution, from niche to mainstream. All portfolios have an impact on sustainable development (be it positive or negative). It is now up to the financial industry to steer more assets to make a positive contribution

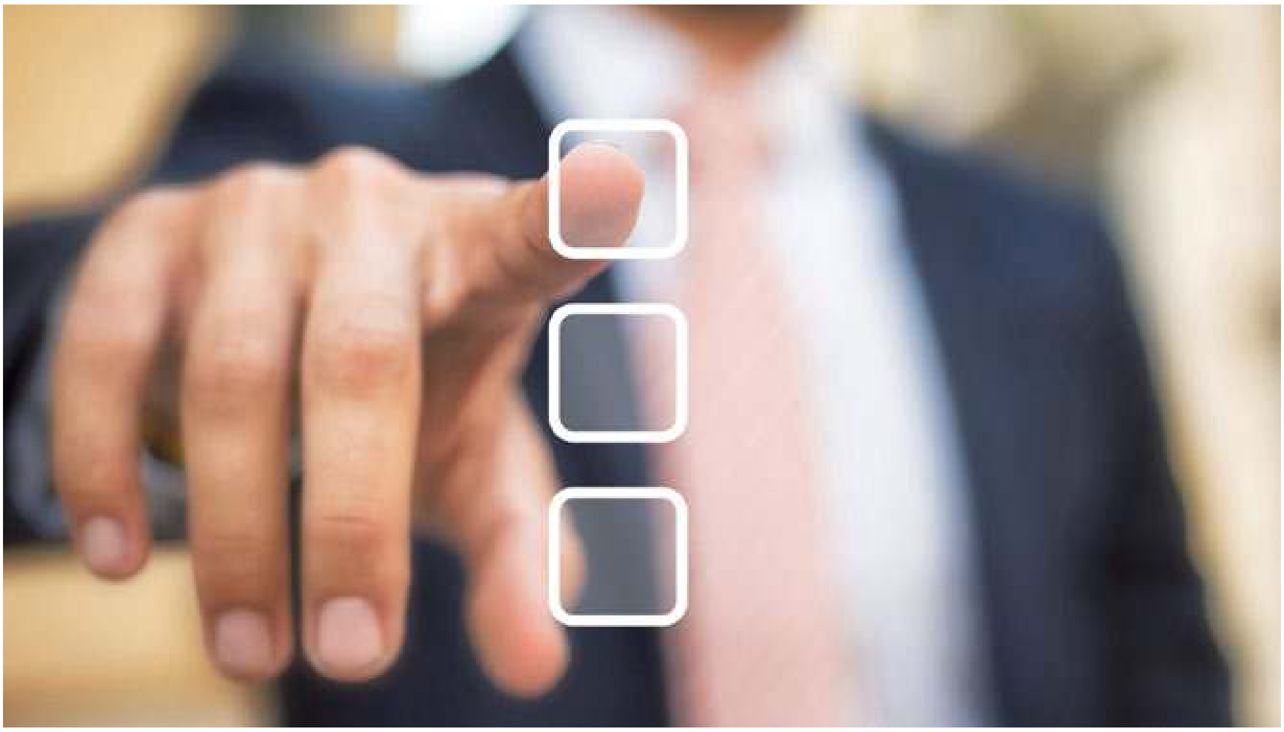
Impact

ACTIVE OWNERSHIP

Active ownership (voting and engagement) is when investors use their influence as providers of capital, or even the ultimate owners of a company, to attempt to persuade their management teams to act in a responsible manner. Engagement initiatives are an opportunity for investors to discuss sustainability risks and opportunities with companies, which in turn benefit from learning about their investors' expectations of their corporate behavior. Companies that adopt sustainable business practices can create a competitive advantage and are more likely to be successful over the long run than those that do not, ultimately improving the risk-return profile of their securities. Effective engagement to encourage firms to improve their practices can therefore benefit companies, investors and society at large. Conducted well, a company engagement typically runs over the course of several years, during which engagement specialists are in regular contact with company representatives and track the company's progress against their engagement objectives. In fact, engagement specialists from asset managers and asset owners often work together to maximize the effectiveness of their efforts. Exercising voting rights is an intrinsic part of active ownership and supports engagement efforts.

Pros and cons: The effectiveness of active ownership is difficult to prove. If a company does not make progress on serious issues, active managers can decide to divest; passive investors cannot. In addition, progress and results cannot be attributed to the engagement efforts of any one asset manager or asset owner, but are subject to many moving parts. And yet engagement can be a very powerful tool for change. The more investors apply active ownership, the more effective it becomes. Active ownership can also be implemented as an overlay, which makes it one of the easiest ESG tools to apply across an entire portfolio.

Suitable for: any investor wishing to make a positive socioeconomic impact and improve their investment returns.



A GLOBAL PHENOMENON, BUT WITH CONSIDERABLE REGIONAL VARIATION

Sustainability investing used to be seen as the preserve of European investors, and the figures back this up to a certain extent: of the total USD 22.9 trillion of assets managed in responsible strategies as at the end of 2016, Europe accounted for 52%, the US 38% and Asia just over 2%.

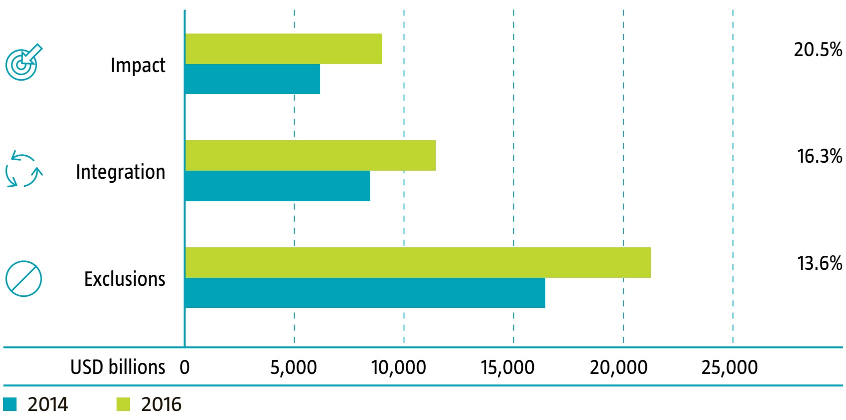
In recent years, however, other regions have been catching up fast. According to a recent survey, the fastest growth in sustainability investing between 2014 and 2016 was in Japan, followed by Australia/New Zealand and then Canada. It is also starting to make headway in emerging markets, including in Latin America and African countries such as Kenya, Nigeria and South Africa.

At the global level, the most prominent sustainable investment strategy is exclusionary screening, with USD 15.0 trillion of assets in such strategies as at the end of 2016. This was followed by ESG integration strategies, in which there were USD 10.4 trillion of assets, and corporate engagement, with USD 8.4 trillion.

There are also significant differences in how investors around the world approach sustainability. In northern Europe leaders in this field have strong sustainability strategies in place. They have a long-established practice of excluding companies that make products that are detrimental to society or that commit serious infringements of human or labor rights. In recent years they have started to integrate financially relevant ESG information into their investments and use active ownership to achieve better risk-adjusted returns. And very recently they have begun to assess the true socioeconomic impact of their entire investment portfolios. These efforts are all aimed at increasing their investments in companies contributing to sustainable development.

The importance of ESG is growing in other regions as well, including Asia, Australia and Japan. And specific themes are particularly prevalent in certain regions: in Japan and the rest of Asia, the primary focus is on improving corporate governance, while in France regulation has led to a focus on portfolios' carbon

Figure 10: Sustainably invested assets by strategy
Annual growth rate 2014-2016



Source: adapted from http://www.gsi-alliance.org/members-resources/trends-report-2016/

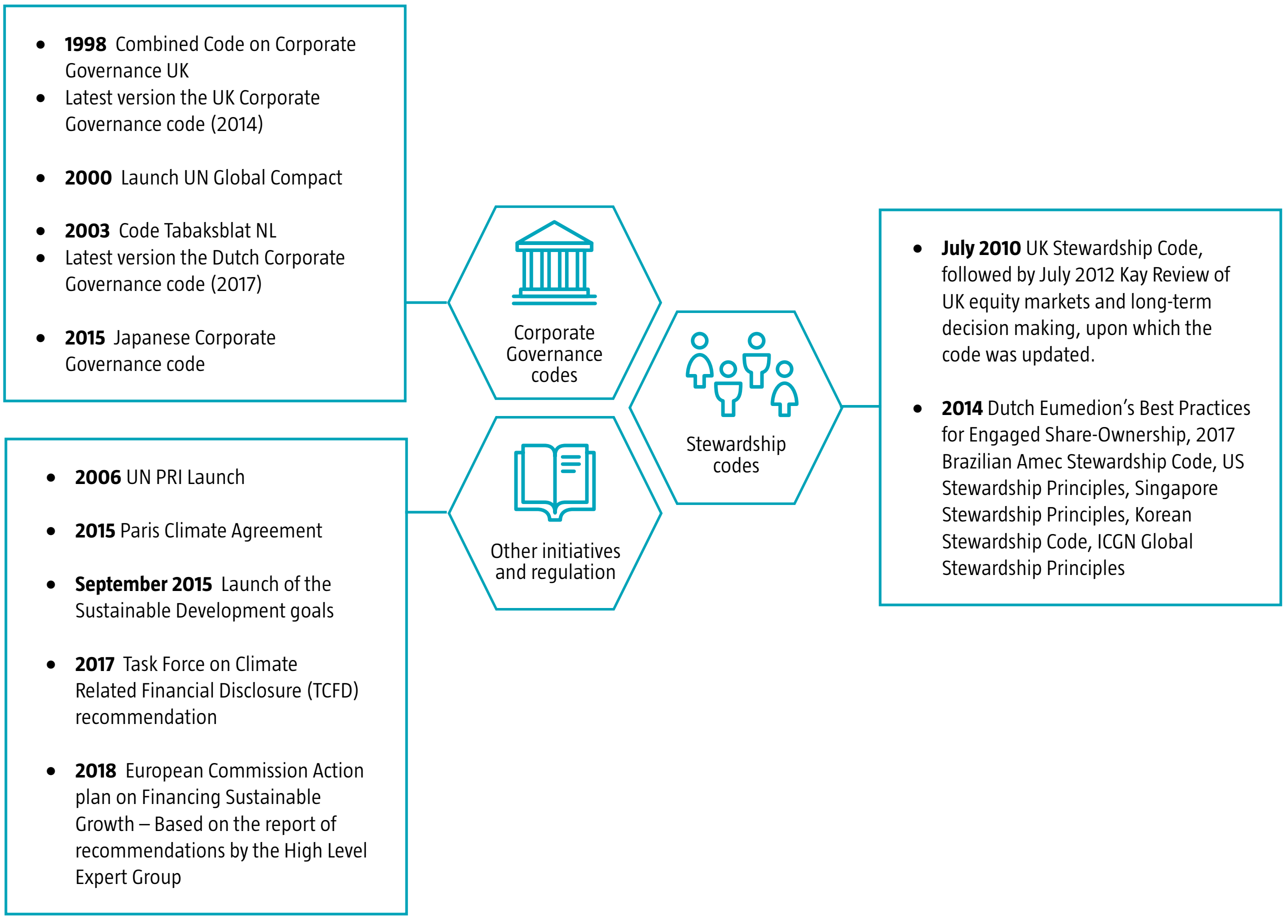
intensity. In the US, major pension funds are increasingly starting to invest in ESG and sustainable development strategies, which has led to a growing interest in sustainability issues among US asset managers. Pension funds in the UK have a clear focus on using ESG information to enhance returns and/or reduce risks, as this chimes well with attitudes in the country on fiduciary duty. The belief that ESG information should be a consideration in investment strategies is growing steadily in the country.

Conclusion: sustainability investing is here to stay and will continue to grow

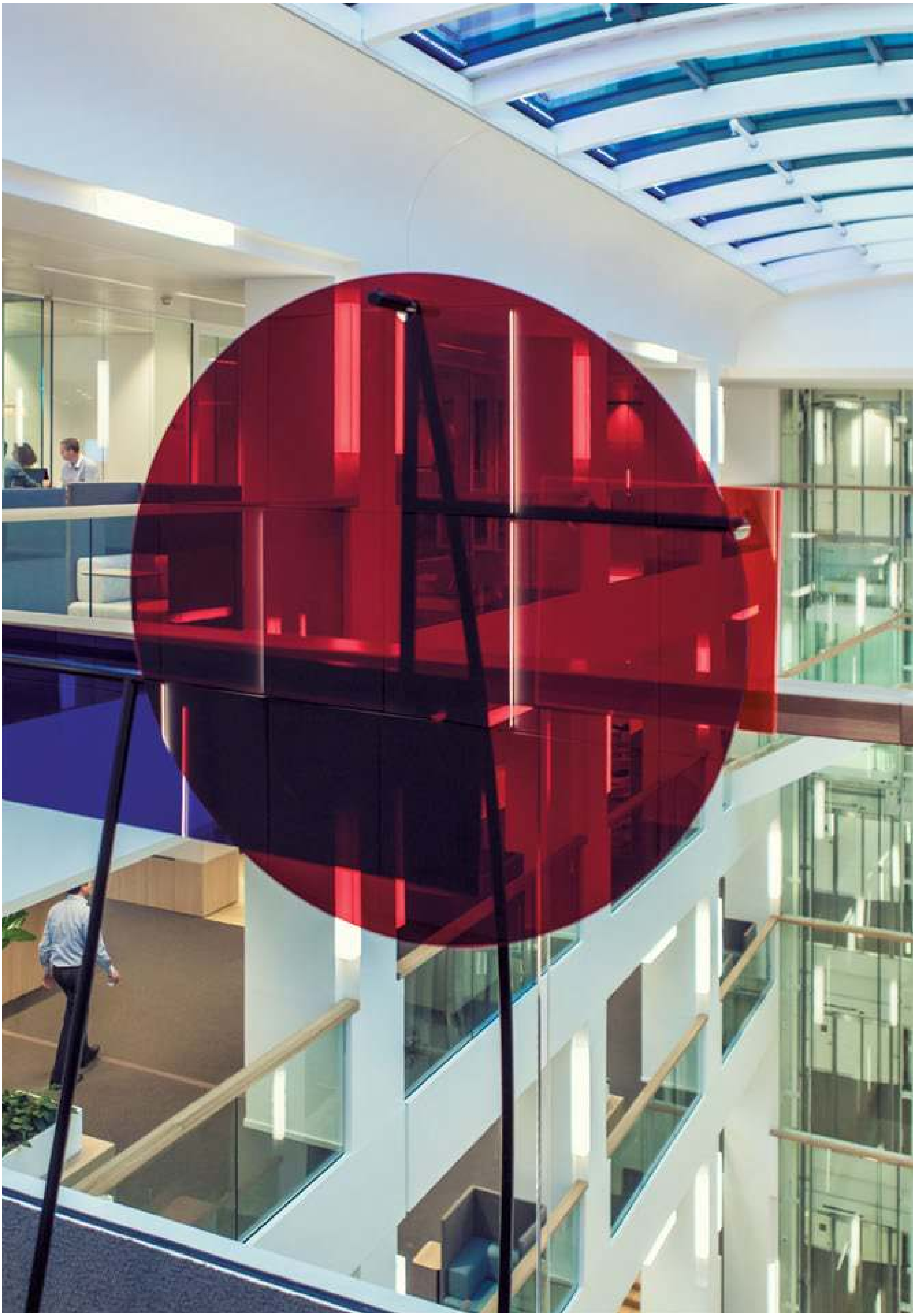
Sustainability investing has become firmly entrenched in the mindset of many institutional investors. And it looks like it is only going to gain in prominence, with companies, investors, regulators and society clearly increasing their focus on ESG. And the topic is now firmly established at the executive level within companies. Research on transcripts of quarterly earnings calls for S&P 500 constituents going back to 2010 has identified a 75% increase (as per end of 2017) in the number of companies discussing key environmental and social matters[13]. ESG issues were mentioned in nearly half of the calls. From a society and regulatory perspective, some important milestones (see Figure 11) are guiding the road ahead and the corresponding documents are a must-read for investors interested in sustainability investing. Investors have stepped up their efforts when it comes to sustainability in recent years, with the result that sustainable assets under management have increased sharply. It seems as if an inflection point has been reached.

13. Goldman Sachs: 'A Revolution Rising - From low chatter to loud roar'

Figure 11: Building a sustainable framework



Source: Robeco



4 How Robeco approaches sustainability

Robeco and RobecoSAM have a long history in sustainability investing, having been one of the first asset managers to see the potential of sustainability to enhance the returns of our clients' portfolios back in the 1990s. And with this same aim in mind, today we integrate ESG information across our range of investment processes and actively engage with the companies in our portfolios.

A UNIQUE SUSTAINABILITY CULTURE

Why is sustainability so important to us? We see it as a long-term force that is driving change in markets, countries and companies – which of course also means it can have a major impact on investment returns. So it makes sense to treat sustainability like other return drivers such as a company's financials or market momentum in our investment processes.

As an asset manager with a fiduciary duty to clients all around the world, our focus at Robeco is on how sustainability can maximize the return on our investors' assets. We are a signatory of the Fiduciary Duty in the 21st Century initiative, which aims to end the debate on whether fiduciary duty is a legitimate barrier to the integration of environmental, social and governance criteria in investment practice and decision-making. Moreover, it calls on investors to take ESG into consideration in their investment processes and decision-making, encourage high standards of ESG performance in the companies or other entities they invest in, and support the stability and resilience of the financial system.

At the bedrock of our approach lies our company's founding principle – that every investment strategy we run should be research-driven. This still holds true today and all of our actions linked to sustainability are grounded in exhaustive research. Our mission is to enable our clients to achieve their financial objectives by providing them with superior investment returns and solutions, and in so doing we are guided by our key beliefs:

- As an active asset manager with a long-term investment view we create added value for our clients.
- All of our investment strategies should be research-driven and executed in a disciplined way.
- Solid risk management is essential for investment success.
- ESG integration leads to better-informed investment decisions and benefits society.

The importance of stewardship

Whereas financial materiality (see the 'Focusing on financially material issues' textbox on page 40) is our chief concern in sustainable investing, we also see it as our duty not to ignore benefits to society as a whole. Our clients entrust us with their assets, which means we have a responsibility to them and the companies we invest in. This is reflected in our stewardship activities. We use our ownership rights through voting, and actively engage with companies that we hold in our equity and credit portfolios and with private equity managers in our ESG engagement program. Our aim is to influence companies' corporate governance and improve their behavior on environmental and social issues.

We carry out all of our stewardship activities in-house, and our dedicated active ownership team, which is part of our investments department, provides voting and engagement services to our clients.

A long commitment to sustainability investing

We have been involved in sustainability investing for nearly quarter of a century. Over this time, we have adapted and improved our methods and strategies in the face of changing markets and the evolving needs and expectations of our clients.

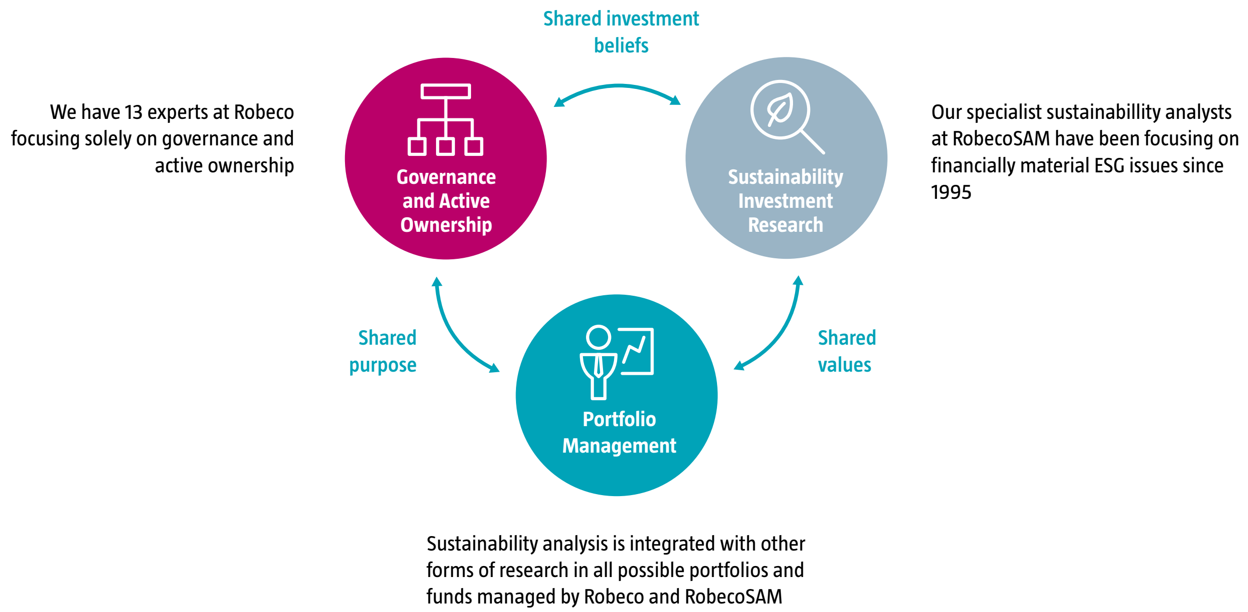
Figure 12: Our long commitment and innovation in sustainability

	1929	1995	1999	2001	2004	2005	2006	2010	2013	2014	2015	2016	2017
Robeco	Founding of Robeco		Launch Robeco Sustainable equity fund		World's first Sustainable Private Equity FoF and Clean Tech Private Equity FoF	Voting & Engagement service initiated	Among the first to sign the UN PRI	ESG integration in all capabilities		Highest scores in all UN PRI categories		Robeco signs Dutch SDG investing agenda	
RobecoSAM		Founding of RobecoSAM	Cooperation with Dow Jones	World's first sustainable water fund		RobecoSAM member of Robeco Group	Among the first to sign the UN PRI		Smart ESG scores introduced		Impact Investing platform lauched		Launch of Sustainable Global Impact Equities fund

Source: Robeco, RobecoSAM

Our long history of innovation and enhancing our sustainability products and services has only been possible because of the shared beliefs, values and purpose of our research, portfolio management and active ownership teams. This commonality enables us to leverage their expertise across our entire organization.

Figure 13: Close cooperation between expert teams



Source: Robeco

The close cooperation between our teams is a vital element in our commitment to sustainability, which runs from the top to the bottom of our company. We have a clear mandate for sustainability from the board, backed by our firm's own stakeholders, and a clear message communicated throughout Robeco that this is where the company believes its investing future lies. Involving our portfolio managers and analysts in setting up a solid ESG integration framework has also been instrumental. In doing so, we have placed a clear focus on financial materiality and made clear the rationale for our portfolio managers to adopt sustainability investing and prevent it from being a mere question of box-ticking.

Acting as an advocate of sustainability investing is also an important part of our sustainability culture. This is reflected in our continued support for many sustainability initiatives and the way we share knowledge with our clients and the wider market. It is also reflected in our high UN PRI score.

The United Nations-supported PRI initiative is an international network of investors working together to put the six Principles for Responsible Investment into practice. Its goal is to understand the implications of sustainability for investors and support signatories to incorporate these issues into their investment decision making and ownership practices. In line with Principle 6, the PRI signatories must "report on their activities and progress towards implementing the Principles". Signatories are scored for each UN PRI principle and the scores are measured against those of other investment managers that have signed the UN PRI.

A proactive and visible engagement strategy

The last concrete element of our sustainability culture is our active ownership approach, which dates back to 2004. Every year a dedicated team of Robeco engagement specialists is in active dialogue with around 200 companies and 70 private equity managers, discussing financially material themes that we identify in consultation with our investors. Our approach covers corporate governance, environmental and social topics. And our engagements are a highly effective way of influencing behavior and practices, particularly once companies realize it is in their own interests to improve. Better ESG performance can for example translate into lower costs and better risk management, which feeds right through to the bottom line.

As a long-term investor we like to engage with companies on issues that affect long-term value creation. Megatrends such as climate change and cybersecurity are prominent themes in our engagement program.

Figure 14: A leading advocate for sustainability investing

The UN Principles of Responsible Investing
Robeco and RobecoSAM were early PRI signatories and have been awarded highest scores

Dow Jones Sustainable Indices
RobecoSAM has partnered with S&P Dow Jones Indices since 1999 and provides the research that powers the S&P Dow Jones Sustainable Index series

Stewardship Codes
RobecoSAM is a founding member of the Global Impact Investing Network. Robeco subscribes to the Dutch SDG Investing agenda and to multiple stewardship codes across the globe

Knowledge sharing with our clients
We actively share our insights and developments in sustainability investing with our clients through client conferences, the RobecoSAM Forum, webinars and publications

Summary UN PRI Score card

Module name	Robeco	Median
Strategy & Governance	A+	A
Indirect - Manager Selection, Appointment & Monitoring		
Private Equity	A+	B
Direct & Active ownership modules		
Listed Equity - Incorporation	A+	A
Private Equity - Active Ownership	A+	B
Fixed Income - SSA	A+	B
Fixed Income - Corporate Financial	A	B
Fixed Income - Corporate Non-Financial	A	B

Source: Robeco

WORLD-CLASS SUSTAINABILITY RESEARCH

We can only run our sustainability strategies properly if we have access to all-encompassing, trustworthy data on sustainability practices. Without this kind of accurate information, our investment teams would not be confident in integrating ESG considerations into their processes, and the engagement dialogues our Active Ownership team is involved in might have limited use. Fortunately, we are in a privileged position at Robeco as we have at our disposal the unique proprietary sustainability databases compiled by our sister company RobecoSAM over the course of many years.

Corporate Sustainability Assessment

The RobecoSAM Corporate Sustainability Assessment (CSA) is an annual evaluation of companies' sustainability practices that has been carried out since 1999. The CSA analyzes sustainability in much more depth than frameworks based on public disclosure alone. Each year over 3,400 listed companies around the world are asked between 80-120 industry-specific questions (for more detailed information read the interview with Daniel Wild on page 80-85). These questions focus on economic, environmental and social factors (EES) that are relevant to their success but under-researched in conventional financial analysis. RobecoSAM summarizes its research by assigning each firm a sustainability score (from 0 to 100) that reflects its sustainability performance relative to that of its peer group. From this information it derives a smart ESG score that is highly relevant in our quantitative investment processes. Dedicated sustainability analysts also summarize relevant information in qualitative company profiles, which are tailor-made for use by Robeco's and RobecoSAM's investment teams in their fundamental strategies.

Country Sustainability Ranking

Developed by RobecoSAM and Robeco, the Country Sustainability Ranking (CSR) reflects the ESG performance and credentials of 62 countries and is based on a comprehensive biannual survey. By focusing on long-term factors such as aging, competitiveness and environmental risks, the CSR highlights countries' strengths and weaknesses that are not typically covered by rating agencies. The process results in an ESG 'country score' based on 17 indicators that our fixed income portfolio managers have selected in cooperation with RobecoSAM according to their availability, materiality, plausibility and financial relevance. The scores for these factors are based on over 200 underlying data series. The selection of indicators and data sources are subject to ongoing reviews, as this is an integral part of our model maintenance process, and the rankings are maintained through collaboration between RobecoSAM's and Robeco's fixed income portfolio managers. Used in combination with standard sovereign bond ratings, our country ESG rankings can be a powerful tool to enhance risk analysis for government bonds, enabling us to make better-informed investment decisions.

Smart ESG scoring

We have significantly improved our corporate ESG scoring process over time. Our Smart ESG methodology uses the wealth of sustainability data in our proprietary database to assign each firm a Smart ESG score that corrects for potential biases arising from differences in a company's size, region of listing or industry sector.

MUST READ

FOCUSING ON FINANCIALLY MATERIAL ISSUES

It is possible to assess a company's sustainability based on hundreds of criteria, and many factors can act as important red flags. Yet only a few are important enough to be likely determinants of the success of a company's future business model, and hence its stock performance. The problem is that these highly material factors vary among industries. For example, if we look at banks, there is little point in assessing their CO_2 emissions, water use or paper consumption, as there is no link between these environmental factors and the banks' long-term business models. It is much more useful to analyze their corporate governance, risk management processes and cybersecurity measures, as these are the factors that could affect a bank's future success. For a utility or energy company, however, CO_2 emissions are extremely important indicators, and they can have a major impact both on their long-term business models and society at large.

Besides the fact that this way of looking at sustainability makes sense from a fundamental perspective, there is also some scientific evidence that investments based on material sustainability issues can boost returns, while investments based on immaterial sustainability issues have limited impact on returns. This is why at Robeco and RobecoSAM we focus on material issues in research, ESG integration and engagement. RobecoSAM's Corporate Sustainability Assessment distinguishes between 60 different industries, and half of its questions are industry-specific, which means this research is highly relevant in our investment processes.

INTEGRATED ANALYSIS OF FINANCIALS & SUSTAINABILITY

At Robeco and RobecoSAM we integrate ESG criteria across our range of strategies – often at several stages of the investment process – and tailor how we do so according to the specificities of each asset class.

We have been implementing ESG criteria in both the country and company analysis we use for our **fundamental equities** processes since 2001. Our Robeco and RobecoSAM financial analysts quantify the impact of ESG criteria on a stock's valuation and, based on this analysis, adjust our target valuation for the stock. Based on the materiality analysis and the corporate sustainability information provided by RobecoSAM, all of our investment teams analyze the performance of a company on material issues, compare it with its peers and incorporate this analysis in their valuation of the investment opportunity. Our analysts can modify the cost of capital or their financial statement forecast if a company's sales growth or profit margins are likely to be affected by ESG factors. This adjustment can be negative or positive, reflecting the risks and opportunities that a company's ESG score involves.

In emerging markets, we also assign any country with a poor ESG profile a 'country risk premium', which means that we reduce our assessment of its valuation relative to a country with better ESG performance.

Our investment teams cooperate closely with our Active Ownership specialists to engage with certain companies with the aim of improving their ESG profile and, ultimately, their financial results. Whenever our teams identify potential ESG risks or opportunities at firms within their universe and believe that addressing them could boost the returns of their strategies, they engage with the companies' management teams to assess the risks and, if possible, trigger change. The information they gather during this process can also be used to support and complement their fundamental analysis.

In addition, all of Robeco's fundamental equity strategies follow our exclusion policy. We exclude from our strategies' investment universes any firms that structurally breach the terms of the United Nations Global Compact and do not show any sign of improving their practices after an intense three-year engagement process. Such breaches can involve matters such as human rights, corruption or environmental issues. We also exclude from our investable universes any companies involved in the production of controversial weapons, and since 2018 also the tobacco industry. In addition, RobecoSAM fundamental strategies exclude thermal coal, firearms, military contracting and child labor.

A portfolio construction algorithm ensures that all of our **quantitative equities** portfolios have a total weighted RobecoSAM sustainability score at least as high as that of their reference index. This score is based on information from corporate documents, media and stakeholder analysis and the findings of RobecoSAM's Corporate Sustainability Assessment. We assign companies a RobecoSAM score of between 0 (low) and 100 (high) based on a range of environmental, social and corporate governance factors. These strategies use RobecoSAM's Smart ESG scoring system, which helps us avoid undesired biases in our portfolios (such as a permanent tilt to Europe, just because ESG disclosures are more developed there). It also assigns a heavier weight to those ESG criteria with more predictive power of future returns.

The upshot of our process is that stocks with higher sustainability scores are more likely to be selected for inclusion in our quantitative equity portfolios than those with low scores. In effect, this means that the strategies positively screen stocks. This is in contrast to an exclusion policy, which remains the most commonly used method of integrating sustainability criteria among quantitative investors and only facilitates negative screening.

MUST READ

CONCRETE EFFECTS ON OUR INVESTMENT DECISIONS

Sustainability is no mere box-ticking exercise for us – it has a significant impact on our investment decisions. For example, ESG matters affect our fundamental view of 35% of the companies we analyze in our credit processes. And in our global equity portfolios ESG typically accounts for 7% of the target prices of the companies in our universe.

The way we integrate sustainability factors into our quantitative equity investment processes helps us to remove undesirable risk exposures that do not increase our portfolios' return potential. ESG risks come in many forms and are addressed in RobecoSAM's scoring methodology. Examples include liability risks relating to pollution or reputational risks resulting from human rights violations.

We also integrate sustainability into our analysis for our **government bond strategies**, in which our Country Sustainability Ranking acts as an early-warning system that helps us spot problems or opportunities in countries well before they are reflected in spreads or ratings.

That is because there can be substantial differences in the ESG credentials of individual countries, and these differences can have a significant impact on the positioning of our fixed income funds. For example, Ireland's ESG performance is above average as it has a robust governance framework and a favorable political and social climate. It also benefits from a well-developed welfare system that has not only helped to maintain social cohesion, but also meant its people were ready to accept much-needed, but painful structural reforms after the Euro-crisis. This, in turn, contributed to Ireland's remarkable recovery from the financial crisis and its status as one of the quickest-growing countries in the Eurozone in recent years. All of these considerations led us to take an overweight position in Irish government bonds for most of 2016.

In our **corporate bond strategies**, we integrate company-specific ESG criteria in all of our analysis, just like we do for our equity processes. Detailed fundamental analysis of the companies in our credit strategies' investment universes is at the heart of our approach to corporate bond investing. Our credit analysts perform an in-depth assessment of a company's business position, strategy, corporate structure and financial position, as well as scrutinizing how the company handles material ESG matters.

This ESG assessment is a perfect complement to our traditional analysis, as it enables the analysts to identify potential downside risks that might otherwise have been missed. These include risks of claims related to pollution or poor safety measures for personnel, or weak corporate governance that could lead to fraud. If these risks are significant enough to pose a threat to a firm's financial stability, the analysts adjust their overall appraisal of that company.

Our corporate bond strategies can also invest in green bonds – bonds whose revenues are used to finance green projects and that are making up an increasing part of the investment grade credit universe. However, we only invest in green bonds with what we believe to be attractive performance potential, and we thoroughly screen the bonds' green documentation to ensure that the proceeds the issue raises are indeed used to finance green projects.

Since 2004 we have also been incorporating sustainability principles into how we run our **private equity strategies**. We integrate ESG analysis in our due diligence process and in the post-investment, monitoring stage. We monitor the ESG activities of private equity managers we invest with and assess their progress on ESG integration on an annual basis. Assessment results serve as input for our ESG engagement program, through which we encourage private equity managers to integrate ESG considerations in their investment process and report on their ESG results.

In 2016 we started using the PRI Reporting Framework and online tool for the collection and assessment of ESG information from private equity managers in our ESG program. We monitor how the managers have formalized their ESG approach and how they are implementing it in their investment practices. As well as enabling us to benchmark the performance of the managers in our ESG program against the broader peer group of PRI signatories, the tool also helps us monitor the performance of our own ESG engagement program over time.

In 2015 we have introduced a more reactive engagement with private equity managers based on ESG incidents that take place in their portfolio companies. We use RepRisk, a media-search tool specialized in ESG news, as input for our analysis of incidents and for the dialogue with the affected private equity managers.

Impact investing

Robeco and RobecoSAM help improve society and the environment by developing and running high-quality impact investing strategies. These solutions range from CO_2 footprint reduction strategies and SDG investing strategies (investing in companies that have a positive impact on SDGs) covering both fixed income and equities, to more niche offerings targeting, for instance, gender equality and children's rights.

Reducing environmental footprints: combining carbon footprinting with ESG integration and active ownership to create impact

Portfolio decarbonization – measuring a fund's carbon footprint and reducing it by selling the biggest contributors – is a common way to reduce climate change risks in portfolios.

However, several other issues need to be considered. The major direct contributors to a portfolio's carbon footprint are generally found in a few carbon-intensive sectors such as utilities. But the successful creation of a lower-carbon society involves not just divesting from such firms, but also investing in many positive developments – such as more efficient buildings, renewables and other aspects – that will help limit global warming to less than 2°C above pre-industrial levels. This makes it impossible to avoid the energy, materials and utilities sectors; if investors were to fully divest from these, they would not be able to help bring about the much-needed energy transition. And they might even hinder the process. One cannot engage with divested companies, and selling to someone else simply transfers the problem. Selling out of an entire sector will not change much either; it may reduce a portfolio's carbon footprint, but it will have absolutely no impact on the environment. Extensive engagement with the largest generators of greenhouse gas emissions is a much more effective approach, in Robeco's view.

And a company's current footprint does not necessarily predict its future footprint. If two otherwise identical companies have the same carbon footprint, but one of them is considering making an important energy transition and preparing for the future, deciding where to invest is easy.

To assess a company's preparedness for the energy transition, we can use information based on RobecoSAM's Corporate Sustainability Assessment as it surveys forward-looking components such as environmental policies, initiatives and objectives, safeguards, product stewardship and innovation. Engagement is another tool that we use to address these issues with companies, to encourage them to make the energy transition, and to gain more information for our investment teams. Finally, we also invest in companies that offer solutions to climate change, such as those that issue green bonds.

Impact investing: aligning portfolios with the Sustainable Development Goals

The Sustainable Development Goals are taking sustainability and impact investing to the next level. They make sustainability tangible for investors, moving from a risk-based to a return-based approach, and from negative screening to positive contribution. Investors are increasingly allocating to companies that grow by creating products that help resolve sustainability issues, an approach that is also taking impact investing from niche to mainstream. The idea that all investment portfolios can have an impact on socioeconomic development – be it positive or negative – is gaining ground.

As major asset managers, Robeco and RobecoSAM acknowledge their role in this development. RobecoSAM was one of the founding partners of the Global Impact Investing Network, while in 2016, Robeco signed the Dutch SDG investing agenda, acknowledging that as an asset manager we play an important role in achieving these goals. We have also participated in several initiatives (set up by parties such as the Dutch central bank) to help develop a market standard for measuring contribution of companies to SDGs.

What's more, we have developed a methodology to determine the impact that companies have on the SDGs, and are now managing funds and solutions (both equity and fixed income) for clients where we invest in companies that make a positive contribution to these SDGs – both in equity and fixed income.

And we engage with companies to improve their contribution to the Sustainable Development Goals.

Our methodology for determining how companies align with the SDGs consists of three steps. First, we analyze what a company produces, and whether its products contribute positively or negatively to the SDGs. Positive contributors include firms that make medicines, assist with clean water supplies, or improve health care. Negative examples would be those involved in shale gas, tobacco or gambling. Second, we analyze how a company produces its goods or services, considering its previous business conduct, labor relations record and any human rights red flags. Finally, we check for any known controversies linked to the company, including pollution episodes, bribery allegations or mis-selling in areas such as financial services or pharmaceuticals. We add companies that perform well on all three steps to our SDG universe, and can select them for investment in our strategies. From this universe, we can construct high-conviction as well as core strategies.

Having an integrated, company-wide approach to sustainability enables us to identify sustainability trends at an early stage and incorporate this information in our investment strategies as well as engage with companies on these topics. It can take time for certain risks or opportunities to be priced into the market, but the structural way in which Robeco and RobecoSAM look at these issues means we are well prepared when that happens. For example, we identified the issue of data privacy as an important theme back in 2016, but the issue was only priced in by the market in early 2018 when it became clear that Facebook had not addressed this topic satisfactorily.

Thematic investment strategies

Recent innovations are visible across industries and sectors. They span not just the end products and services visible to consumers but also apply to the industrial processes employed to create, manufacture and re-use (or dispose of) physical waste.

Robeco Private Equity's clean tech and RobecoSAM's theme-based products identify and invest in companies that pioneer innovative ways to use resources more efficiently as well as address the sustainability challenges present in the areas of water, energy, materials, food, and population health. We identify innovative, future-oriented companies that are actively seeking to provide solutions to their respective thematic challenge.

Illustrative examples of technologies developed in direct response to global trends include electric and hybrid vehicles, wind turbines and solar farms, bio-plastics, precision farming, lightweight carbon fiber, cutting-edge robotics, wearable fitness devices, mass-market organic food, and advanced water collection and filtration systems. The list is as vast as it is diverse. Companies that adapt and respond to the challenges posed by these trends enjoy a competitive advantage over industry peers.

Figure 15: Creating Impact via Solution Providers

Energy

- Renewable energy
- Energy distribution
- Energy management
- Energy efficiency

Water

- Capital goods & chemicals
- Construction & materials
- Quality & analytics
- Utilities

Materials

- Advanced materials
- Transformational materials
- Process technologies
- Automation & robotics

Food

- Food security
- Sustainable processing
- Production & logistics
- Food consumption

Health

- Healthy nutrition
- Hygiene & personal care
- Lifestyle disease solution
- Activity

Source: RobecoSAM

Sustainable strategies

Besides integrated (mainstream), thematic and impact strategies, Robeco also offers a range of sustainable ones. These adhere to the following criteria, which we believe are compatible with clients' expectations in terms of sustainability:

1. Exclusions: companies active in the production of weapons, tobacco, in coal mining or that operate coal-fired power stations, and companies that systematically violate human rights, use child labor or cause environmental pollution, and do not improve their policies after three years of engagement.

2. Integration: RobecoSAM's Smart ESG Framework identifies unbiased and financially material sustainability criteria. All our sustainable strategies are based on or incorporate this Smart ESG score. Through integration of these criteria in factor models or a best-in-class approach, all of our sustainable portfolios achieve a much higher Smart ESG score than the benchmark.

3. Impact: our sustainable funds invest in companies that have a substantially lower environmental impact than the market average. Companies are assessed on energy consumption, water consumption, waste production and CO_2 emissions. In addition, Robeco votes at shareholder meetings and encourages companies to implement better sustainability policies.

Addressing the three major trends from Chapter 2 in our investment approach

Below we explain how we address the three megatrends we discussed in Chapter 2 in our investment processes.

Tackling climate change

We recognize the scientific consensus that human activities are responsible for increasing the amount of greenhouse gas in the earth's atmosphere, thus causing climate change. Robeco and RobecoSAM support the targets for cutting harmful greenhouse gas emissions set out in the Paris Agreement of December 2015. RobecoSAM is a member of the Portfolio Decarbonization Coalition. There are several ways in which we address climate change:

1. By integrating information on carbon strategies of companies into the investment process
2. By using active ownership to effect change
3. By decarbonizing portfolios
4. By divesting from carbon-intensive thermal coal
5. By investing in clean energy, energy efficiency and green bonds

Addressing cybersecurity

After starting an engagement theme related to data privacy in 2016, Robeco's engagement team embarked on a three-year engagement focused exclusively on cybersecurity in 2018. Our engagement specialists work in close collaboration with the portfolio managers to address the risks stemming from the world's increasing dependence on computers and digital data. In our thematic funds we see the increasing need for cybersecurity solutions as a major investment opportunity.

The dilemma of rising inequality

We incorporate intra-country inequality into our country assessments for our emerging equity and (emerging) fixed income government bonds investment processes. In our impact funds we actively invest in companies that have a positive contribution to the SDGs – among which reducing inequality. Meanwhile, our Fintech fund invests in companies that directly reduce inequality by providing access to the financial markets to groups that financial institutions previously would not serve.

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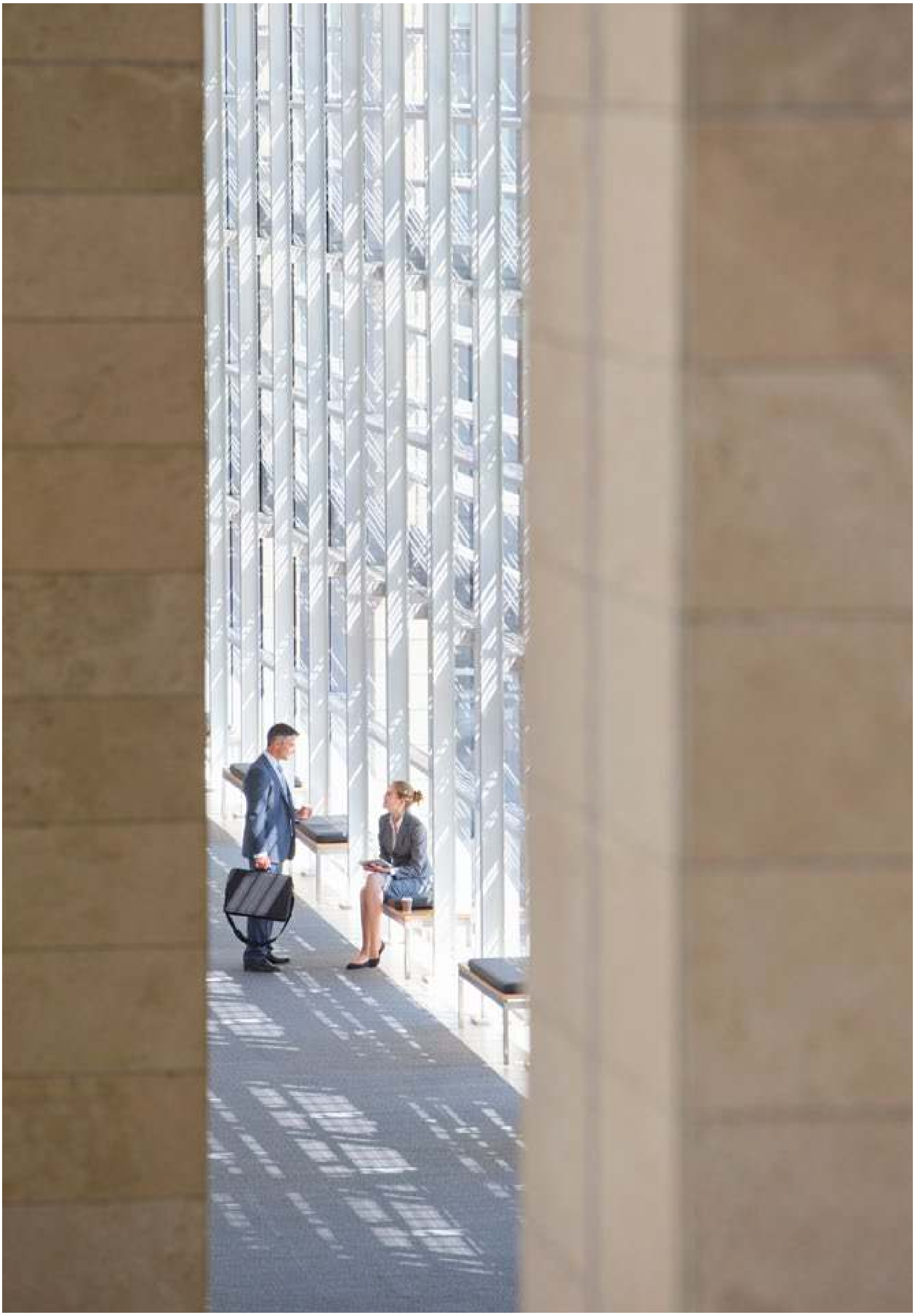


5 Providing flexible solutions: client cases

A FLEXIBLE APPROACH TO MEET INDIVIDUAL GOALS

Sustainability investing means different things to different people, and at Robeco we recognize that a one-size-fits-all approach does not satisfy the needs of most investors. That is why we adopt a flexible, modular approach that enables us to develop highly customized sustainability solutions to meet any institutional client's requirements (see Figure 16 for examples). What's more, we have developed state-of-the art sustainability reporting to inform our clients about the financial and sustainability outcomes of their investments with us.

Figure 16: Client-specific requirements can be ready met with our flexible, modular approach – sustainability building blocks

	Exclusions		Integration		Impact			
	Basic exclusions	Enhanced exclusions	ESG integration	Best in class	Active ownership	Reduce footprint	Thematic investing	Impact investing
France: mandate-specific engagement and voting	✓		✓	✓	✓			
Australia: Conservative equity with thermal coal exclusions	✓	✓	✓		✓	✓		
UK: 10% reduction in carbon footprint, specific exclusions	✓	✓	✓		✓	✓		
Netherlands: index solution with lower footprint, client-specific exclusions and labor-related target	✓	✓	✓			✓		
UK: Sustainable private equity mandate (conventional private equity buyout funds combined with clean tech funds)	✓		✓		✓		✓	

Source: Robeco

CASE STUDY 1

Taking enhanced indexing to the next level of sustainability

In 2015, the French pension fund Fonds de Reserve pour les Retraites (FRR) wanted to ensure that its passive portfolio met the highest sustainability standards. In particular, it was keen to reduce its carbon footprint by 50% and to enhance the ESG profile of its investments, with a particular focus on environmental issues.

We realized that many of the elements the FRR sought were already building blocks within our existing Robeco QI Global Sustainable Equities strategy, which integrates RobecoSAM's Smart ESG scores in its investment model. But how could we incorporate the FRR's environmental demands within the solution we developed while also maximizing returns?

Meeting strict environmental criteria

We were able to meet its environmental demands using RobecoSAM's Environmental Impact Monitoring tool, which assesses the environmental footprint of portfolios based on four important criteria: greenhouse gas emissions, energy consumption, water consumption and waste generation.

The solution we developed systematically incorporates the Environmental Dimension Score that this tool calculates. This score is a forward-looking measure that complements a company's current environmental rating by enabling us to gauge how ready the company is to deal with future environmental challenges and opportunities.

We also make extensive use of the huge database RobecoSAM has amassed through its annual Corporate Sustainability Assessment to ensure that the portfolio maintains the highest ESG standards.

In summary, this all means that the FRR's portfolio:

- avoids the worst environmental offenders
- applies a 50% carbon-reduction restriction to the portfolio construction algorithm
- invests in companies that are best equipped to manage future environmental challenges

Going beyond passive

But the solution we developed was not all about sustainability. Meeting its fiduciary duties to its investors is any pension fund's prime responsibility, and it became apparent that the FRR was willing to consider solutions that were not purely passive to boost its return. This enabled us to suggest an enhanced indexing strategy designed not only to capture the market return with a strong sustainability profile, but also exploit well-rewarded factor premiums.

Our core quant equity strategies lend themselves particularly well to combining performance targets with sustainability goals. The unique and highly flexible portfolio construction algorithm they use exploits proven factor premiums such as value, quality and momentum with the aim of consistently outperforming the market after costs have been deducted. This means we can easily adapt mandates to a variety of individual requirements covering, for example, their investable universe, their level of risk and the integration of strict sustainability criteria.

While most passive-leaning investment strategies deal with sustainability as a separate issue, our solution for the FRR unites sustainability investing and risk-controlled quantitative techniques in one comprehensive solution. By combining well-known factor premiums with a higher exposure to companies with strong sustainability profiles, the strategy generates a portfolio with a positive environmental impact while at the same time providing better risk/return potential than a standard passive strategy.

What's more, we further enhance the solution's sustainability characteristics through active ownership. This involves systematically voting to support the FRR's interests and engaging with the companies the portfolio invests in with the aim of generating a positive impact – not just on investment results, but also on society at large.

CASE STUDY 2

Partnering with BNP Paribas Fortis to become a sustainability leader in the Belgian market

In 2011, BNP Paribas Fortis, the Belgian bank of BNP Paribas Group, was emerging from the financial crisis and was looking for a new way to create a competitive edge. It decided to do so by embracing sustainability investing, and Robeco has been there every step of the way on its sustainability journey.

From having next to no assets in sustainable strategies back in 2012, in just six years BNP Paribas Fortis has built up its assets under management in sustainable strategies to around 10 billion in 2017 and is now seen as a sustainability leader in the Belgian market. The bank has been able to achieve this for a number of reasons:

- There is a strong commitment to sustainability throughout its entire Belgian branch, right from the very top of the company to the bottom.
- The firm has backed sustainability to such an extent that its bankers have been proactively offering sustainable solutions rather than traditional ones. This has been instrumental to the impressive growth in the firm's assets under management in sustainable strategies.
- It has made sustainable solutions the default option for its investors: BNP Paribas Fortis' clients have to deliberately opt out if they do not want to invest in a sustainable product. The company has been positioning investing in sustainable products as a no-brainer for its clients in terms of the benefits they provide.
- It has consistently built up its sustainable offering over time and now offers its clients a very broad range of sustainable strategies. That is where Robeco offers its added value.

Robeco has been working as a strategic partner with BNP Paribas Fortis for several years. We have been there to support BNP Paribas Fortis right from the start of its commitment to sustainability investing. Robeco supported BNP Paribas Fortis in every which way also when assets under management were still relatively small at the beginning of this journey. This has resulted in a close relationship between our two companies.

Given the broad range of sustainable investment solutions the Robeco Group can offer, we are able to meet many of the sustainable investment needs of BNP Paribas Fortis. In fact, the bank uses strategies from across Robeco within its funds of funds. As well as allocating to the specialist sustainability-driven solutions primarily offered by RobecoSAM, it also invests in the ESG-integrated products that Robeco runs. For example, it invests in some of RobecoSAM's thematic strategies for its funds of funds but also allocates to several core sustainable products both on the equity and fixed income side. For the bank, a credible ESG angle is a prerequisite for a potential investment.

Another very important consideration for BNP Paribas Fortis is a fund's size: most of the highly focused sustainability funds on the market are simply too small for it to invest in because it has strict holding ratio limits and when it moves into a product it typically does so in a significant way.

However, our relationship with BNP Paribas Fortis does not just involve providing them with products. We have also run several off-sites to share knowledge and discuss about sustainability investing with BNP Paribas Fortis' higher management. We have also been one of the few selected external asset managers to have received an invitation to present on sustainability at its client events. Moreover, we have jointly started a recurring annual event in Brussels on sustainability investing which is open to the entire investment community.

6

6 How investors can approach SI

Some investors spend a considerable amount of time discussing sustainability investing acronyms. Others debate how to implement sustainability investing and in which asset classes. But the outcome is often that most institutions will not go further than to exclude companies or implicitly integrate ESG into existing portfolios. The actual socioeconomic impact of these investment strategies is debatable. We believe it is time to move beyond exclusion.

The challenge for financial institutions is to consider the long-term implications of their investments. Climate change is an important topic, but human rights, labor standards and business ethics also require attention as society and regulators are increasingly holding companies and financial institutions to account for their contribution to our common future.

The question, therefore, is where to start. In this chapter, we describe a seven-step process that investors can follow to help them make decisions on and succeed in sustainability investing.

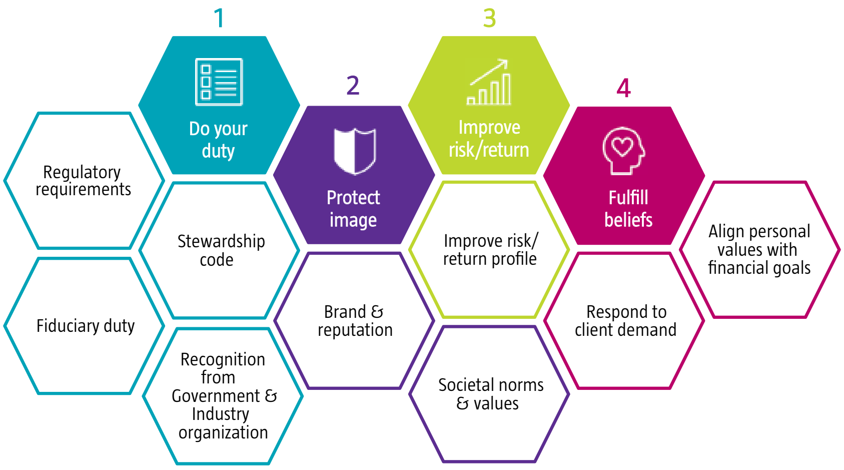
The seven key steps:

1. Defining a purpose
2. Setting priorities
3. Considering overlays
4. Theme implementation
5. Risk/return analysis
6. Manager selection and monitoring
7. Integrating and evaluating

STEP 1 – DEFINING A PURPOSE

First and foremost time needs to be spent discussing and assessing the motivations for sustainability investing with stakeholders (sponsors, participants and clients). Some of the key drivers of and motivations for sustainability investing are depicted below. They range from reacting to external pressure to being a full, pro-active believer in the benefits of SI. Once these motivations are clear, it is a matter of drawing up a policy statement or incorporating these motivations in your statement of investment beliefs.

Figure 17: Drivers and motivations for sustainability investing



Source: Robeco

FINANCIALLY MATERIAL

MUST READ

Robeco and RobecoSAM have the firm belief that using financially material ESG information leads to better-informed investment decisions and benefits society. This is one of the four investments beliefs that underpin our mission statement of enabling clients to achieve their financial goals by delivering superior investment returns and solutions.

STEP 2 – SETTING PRIORITIES

In addition to defining a purpose, a statement of priorities could help identify critical sustainability themes. Again, consulting major stakeholders is a way to prioritize the sustainability themes. However, there are several international codes and frameworks that can be of help. A few of these are mentioned below. For institutional investors this is an in-depth and formal process that involves many stakeholders. But for retail investors it is also important to start thinking about the goals that are driving you or your clients towards SI investing before making any investment decisions.

The Ten Principles of the UN Global Compact are guidelines for companies on how to operate in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labor, environment and anti-corruption. The principles are derived from the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption. They give broad guidance on sustainability and cover a range of sustainability areas.

Perhaps your institution or its stakeholders want to focus on particular sustainability themes such as climate change. The **Paris climate accord** could be used as a basis for developing your policy. And the **UN Sustainable Development Goals** can provide substance on how to frame goals and priorities. Officially known as 'Transforming our World: the 2030 Agenda for Sustainable Development', 193 countries have agreed to contribute to the realization of 17 Sustainability Development Goals (SDGs) by 2030.

CODES AND PRINCIPLES

MUST READ

The UN Global Compact principles, the Paris climate accord and the UN Sustainable Development Goals guide our research, investments and active ownership activities at Robeco and RobecoSAM. We were also early signatories of the Principles for Responsible Investment (PRI), and we have signed up to many local stewardship codes and the International Corporate Governance Network (ICGN) code for good governance.

It can be challenging to translate your purpose and priorities into an investment strategy. The key task is to balance specific sustainability requirements with their impact on risk and return, and to do this over multiple asset classes. Broadly speaking, the three key considerations should be:

– Overlays
– Themes
– Risk/return analysis

STEP 3 – CONSIDERING OVERLAYS

Generally speaking, applying an overlay across your entire portfolio should not directly affect its performance – or only to a limited extent.

There are several overlay solutions within sustainability investing:
– Voting (only for equity holdings)
– Engagement
– Exclusion of companies and countries

Most asset managers employ a voting strategy for their funds and mandates. However, policies and practices can differ quite substantially between asset managers. If you have identified a certain topic such as labor standards as being important, but the asset manager votes against every shareholder proposal to improve these standards at the company, this could conflict with your overall sustainability policy. It is therefore important to be aware of the voting policy and practices of your managers, or even to build your own policy. A starting point could be your own country's corporate governance code or the codes and practices of the ICGN. These could then be supplemented with specific instructions on the issues you have prioritized.

Engaging with companies can be a powerful tool for change. Better control of ESG risks and awareness of opportunities can lead to better financial performance and have a positive impact on society. Engagement can be applied across most asset classes and there are a few asset managers that offer engagement (and voting) as a service across entire portfolios. Another alternative would be to build a team to carry out the engagement, possibly focusing on the prioritized themes.

The exclusion of companies and countries is also commonly applied across portfolios. As exclusionary principles are mostly tied to protecting an image or the fulfillment of investor duties, it would not make sense to only apply them to part of a portfolio, as this would not eliminate the reputational risks. There are several data providers that maintain lists of companies based on exclusionary criteria that can be tailored to a client's specific values, as exclusion is values-based and can differ from investor to investor and culture to culture. Companies with business operations in the following areas are commonly excluded:

– controversial weapons (ABC: anti-personnel mines, biological and chemical weapons and nuclear weapons)
– controversial behavior (e.g. systematic violations of child labor or human rights laws, or very poor environmental practices)
– tobacco
– gambling
– alcohol

And there is a trend towards excluding the worst climate offenders, including companies that mine or use thermal coal or oil from tar sands. These products are seen as incompatible with sustainable development.

TAILOR-MADE SOLUTIONS

MUST READ

The implementation of sustainability can be tailored to individual accounts. For investment in funds, the implementation should be part of manager engagement. Assessing the manager's existing policies and procedures is a first step. Influencing them by discussing the purpose and priorities is a second. Sharing best practices of other managers can also be an effective vehicle for change, as we show further on.

STEP 4 – THEME IMPLEMENTATION

Some investors might want to focus their sustainability priorities on certain themes. Climate change is an obvious one, but we have also come across themes such as water scarcity, health, inequality and labor standards. There are several ways to implement a theme:

1. Avoid worst offenders
2. Integrate the factor into investments
3. Target portfolio exposure to the specific factor
4. Engage on the specific theme (including voting and submitting shareholder proposals)
5. Invest in companies that provide solutions to the issue

Depending on the intended goal, one or more instruments can be applied. The illustration below shows an example of how carbon risks in portfolios can be addressed.

Figure 18: Environmental portfolio management – How to adress carbon risks in investment portfolios

ESG monitoring & managing

Measure and manage:
– the environmental impact/footprint of your investment portfolio
– preparedness of companies via their environmental policies and practices

Voting & engagement

Encourage companies/industries with high carbon exposure to decarbonize

Divestment

Exclude companies/industries with high carbon exposure

Targeted investments

– Clean energy
– New technologies on energy efficiency
– Green bonds

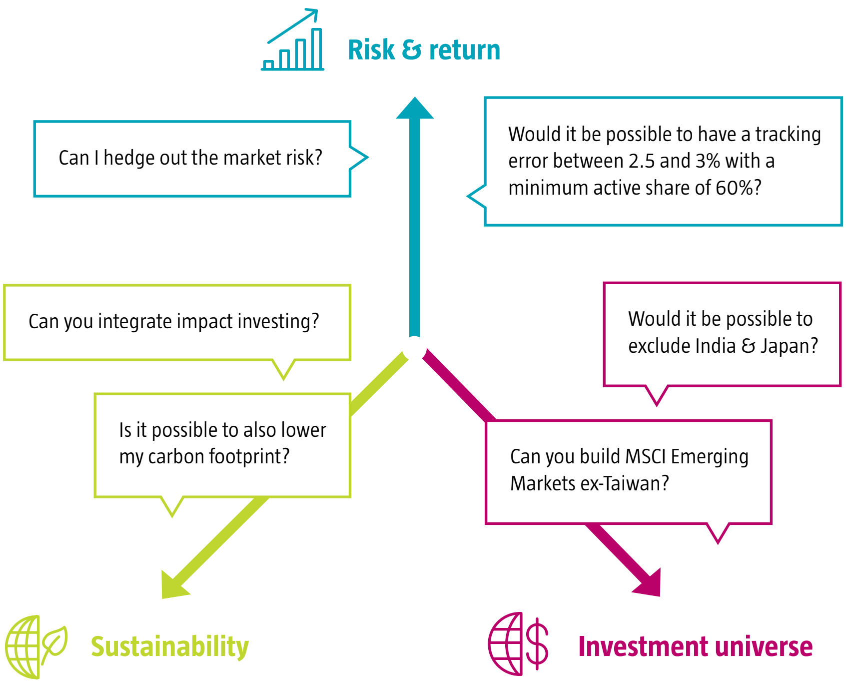
Source: Robeco

STEP 5 – RISK/RETURN ANALYSIS

Implementing sustainability characteristics can have an impact on the risk or return expectations for the portfolio. The implications will differ depending on the goal and the instrument used. This topic is discussed in more detail in Chapter 8 ('ESG and performance').

The process of setting sustainability objectives, determining a strategy and implementation is very similar to a regular investment process. Sustainability simply adds another dimension to the decision-making process (see illustration). In quantitative, rules-based portfolios, the effect of applying sustainability guidelines and themes is easier to quantify using evidence-based research. In fundamental strategies, the ex-ante effect of using ESG criteria might be less easy to calculate. However, we would argue that adding financially material ESG information leads to better-informed investment decisions, and a better risk/reward profile in the long run.

Figure 19: Adding the sustainability dimension



Source: Robeco

STEP 6 – MANAGER SELECTION AND MONITORING

Once the first two steps of the process are complete, it should be relatively straightforward to set up the guidelines for asset managers. For large investors investing in segregated solutions, sustainability factors can be built into existing mandates if the asset manager has a good understanding, experience and knowledge of sustainability investing. This might be more difficult for investors investing through pooled vehicles. In both cases, a first task could be to assess the strength of the current manager(s) in relation to sustainability investing. Again, these analyses would not be very different from the regular asset manager assessments that focus on people, process, portfolio, price, etc. At the end of this chapter you will find examples of a checklist and a questionnaire that can be used in this context.

Once the scorecard has been created, an effective way to promote change would be to engage with the managers on improving their sustainability profiles. Sharing the results of your assessment and best practices of other managers is a good way to achieve results. Holding roundtables to share knowledge can also be a powerful tool for change. Even if you are a small client, you can have an impact by doing the work and sharing the information. Needless to say, the more clients do this, the more inclined the asset manager will be to start improving.

STEP 7 – INTEGRATING AND EVALUATING

The chosen objectives should be evaluated once a year based on the sustainability reports of the managers involved. This could also be an opportunity to fine-tune the purpose, priorities and strategy. Ideally, this process should form part of your regular investment cycle to create a truly integrated ESG approach.

Implementing sustainability investing can take many years. We believe that investors should dip a toe in the SI water before jumping in. A first step could be to introduce exclusions and engagement and a second to consider adding some sustainability aspects (e.g. foot printing or ESG integration) to part of your portfolio.

In our view, sustainability investing involves the stages depicted in Figure 20. The process described in this chapter can help you establish a strategy. The outcomes should be evaluated and monitored regularly, and could be embedded in existing structures as an effective way to achieve true integration. As experience in sustainability investing grows, so too will conviction.

Figure 20: Evolutionary development of motivations for SI

	Discovery stage	Development stage	Advanced stage
GOAL	Education & forming opinion on SI	Integrate sustainability beliefs in existing processes	Invest for impact, make explicit sustainability choices
MOTIVATIONS	Do your duty Protect image	Do your duty Protect image Improve risk/return	Do your duty Protect image Improve risk/return Fulfill beliefs
WAYS OF ADDRESSING ESG ISSUES	**Exclusions** Avoiding investing in companies that employ controversial business practices or act unethically	**Integration** Using financially material ESG information to improve the risk/return profile	**Impact** Investing and engaging for a socioeconomic impact, not just financial returns

Source: Robeco

Figure 21: Take action now checklist

Purpose & priorities

- ☐ Organize sustainable development and investing knowledge sessions
- ☐ Establish what key stakeholders see as the purpose and specific priorities for ESG
- ☐ Discuss, define and publish objectives and guiding principles

Establishing a strategy

- ☐ Determine exclusionary principles, if applicable
- ☐ Assess possibilities for using a voting & engagement overlay
- ☐ Determine specific sustainability goals and test implications for risk/return

Implementation & integration

- ☐ Create ESG guidelines for managers
- ☐ Create an ESG questionnaire
- ☐ Discuss and set up ESG reporting according to set guidelines

Source: Robeco

A questionnaire or scorecard should cover at least the following topics:

1. Governance and support for ESG

- How is sustainability investing incorporated in the asset manager's overall strategy?
- Who has ultimate responsibility for this?
- What are the asset manager's SI targets/KPIs?
- Do the investment teams have SI targets and, if so, what are they?
- Has the asset manager signed up to any stewardship codes, PRI, etc.? And, if so, since when?
- How is knowledge shared within the company? Are there any ESG training opportunities for senior management, or the investment teams?
- What is the PRI assessment score for strategy and governance?

2. Team and experience

- How long has the company/team/portfolio manager been involved in SI?
- What resources are dedicated to sustainability research?
- What data/research is used?
- How is the quality of the data/research assessed?
- How is this shared with the investment teams?
- How do the investment teams work with sustainability experts?
- How does the asset manager approach active ownership?
- How is this organized? How many people are involved? What is the track record (experience and clear engagement successes)?
- What are the UN PRI scores for active ownership and ESG integration across the specific asset classes?

3. Process

- How are sustainability factors integrated into the investment process?
- How is the quality of the integration monitored and evaluated?
- How does sustainability information affect investment analysis/decision-making?
- For fundamental strategies: Can you give some examples of investment cases for which an integrated ESG approach has been used?
- For quantitative strategies: What research has been done on the effectiveness of ESG integration?

4. Outcomes

- Please show how sustainability factors/data have influenced your investment research/decision-making across the research universe.
- Show how they have affected the portfolio and/or performance of the fund.
- Show how they have affected the sustainability or social/environmental footprint of the portfolio.
- Provide evidence of the effectiveness and results of your active ownership approach.

5. Reporting

- Can you tailor your reporting? If so, to what level and for which topics?
- Show an example report.

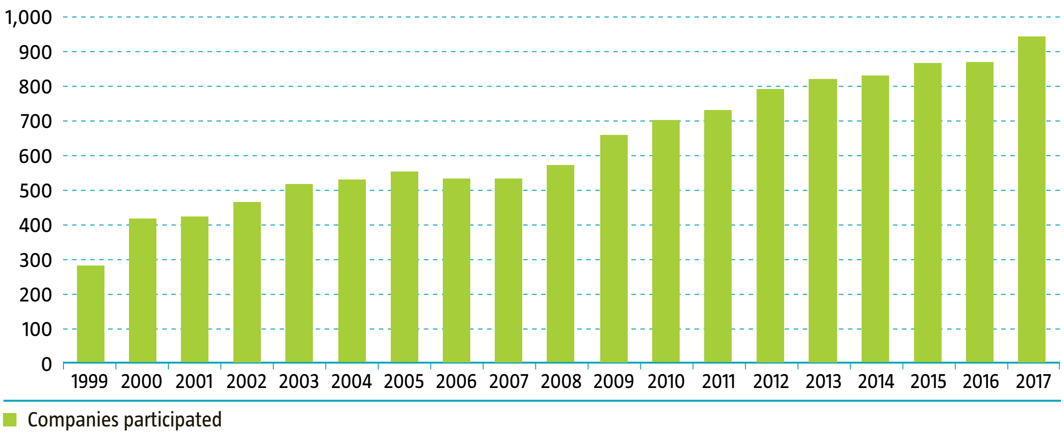
7

7 Sustainability reporting

REPORTING ON SUSTAINABILITY: TRENDS, POSSIBILITIES AND EXAMPLES

Once a sustainability strategy is in place and implemented in portfolios, reporting on sustainability is the ultimate step. In this chapter we show how sustainability reporting of corporates has evolved and how Robeco and RobecoSAM report on the different aspects of exclusions, integration and impact.

Figure 22: RobecoSAM CSA: participation trend – increasing participation of companies in DJSI over the years



Source: RobecoSAM

Corporate reporting: changing attitudes, practices and participation

Every year since 1999, RobecoSAM has measured corporate sustainability performance using its own unique Corporate Sustainability Assessment (CSA) – a tool that is also used by S&P Dow Jones, one of the world's leading index providers, to construct the Dow Jones Sustainability Indices (DJSI), as well as its family of regional sustainability indices. The CSA represents the industry's largest and most comprehensive proprietary repository of financially material ESG data, collected directly from companies.

Each year participation rates rise for all geographic regions, representing companies from a broad swath of the global economy (See Figure 22). In 2017, nearly 4,000 companies were assessed across 60 industries and almost 1,000 companies filled in the questionnaire. The highest participation rates are still seen in larger developed market countries. However, participation by companies in emerging economies is also increasing, with Peru, Greece, Russia and Mexico showing the strongest growth trends. This upward trend is a direct result of big corporates responding to stakeholder pressure on key social and environmental issues and the increasing importance of sustainability for governments, business and civil society.

Big industries are responding in ways that were unheard of just a decade ago. The sustainability agenda has moved from CSR departments to the boardroom, and become more strategic in nature. Oil and gas companies are diversifying their business models to accommodate cleaner energy alternatives, electric utilities are setting renewable energy targets for power sourcing and automotive manufacturers are announcing large-scale plans for electric vehicle production. But even without external pressures, many business leaders are recognizing the benefits of adopting sustainable practices and proactively taking steps to measure, monitor and publicly report on these matters.

Linking financial materiality to corporate sustainability reporting

Momentum for sustainability reporting is clearly increasing, but the gap between present practice and good practice is still wide. Not only does sustainability information need to be available and comparable, it should also be presented to investors in a format that they can understand and relate to. Financial materiality of sustainability and integrated reporting are key for both investors and corporates. Extra-financial information allows investors to systematically evaluate the companies in their portfolios, also against their benchmarks. It also enables companies to show a more complete picture of how they are positioned to meet future challenges.

RobecoSAM's CSA assesses the quality of companies' sustainability reporting based on two criteria: environmental reporting and social reporting. To make the business case more concrete, we also consider how companies report on environmental and social initiatives that lead to cost savings and revenue generation (see Figure 23 for examples) as this provides tangible evidence of the benefits of sustainability initiatives. And we evaluate companies' profitability to underline the fact that sustainability initiatives need to generate a return – at least in the long run.

Figure 23: Examples of environmental and social initiatives that could lead to cost savings and revenue generation

Environmental cost savings	Decreased energy consumption
	Increased load factor for transportation
	Decreased business travel – increase of virtual meetings
Environmental revenue generation	Development of new products with lower environmental impact
	Improvements of existing products' environmental performance, enabling the company to tap new market segments
Social cost savings	Initiatives to increase employee engagement, which in turn might lead to decreased voluntary turnover rates
	Improved health & safety measures leading to lower lost-time injury frequency rates (LTIFR)
	Policies on limiting working hours in the supply chain, which in turn can lead to lower claim rates following higher production quality
Social revenue generation	Development of new products with social benefits, for example, products specially designed for improving life in emerging markets

Source: RobecoSAM

Setting targets and measuring progress over time

Another part of the CSA's materiality reporting framework evaluates whether company reporting extends beyond simply defining material issues to include quantitative key performance indicators (KPIs) and targets that address these issues and demonstrate progress over time. This is important for investors who want to move from merely integrating qualitative sustainability information into their investment analysis towards more contextually relevant quantitative comparisons between peers.

Greater standardization of metrics combined with a focus on reporting quantitative information on material sustainability issues can help drive progress in this area. Besides evaluating a company's ability to report on the materiality of sustainability, we consider the extent to which the company's reports cover its operations, as well as any external assurance of the overall quality and reliability of its reporting.

In the last few years we have seen a transition towards standardization and integration. Initiatives such as the International Integrated Reporting Council (IIRC), Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative's G4 guidelines all aim to make sustainability and extra-financial information available to investors in a transparent, comparable and accessible way.

Investor reporting: changing attitudes and demand among investors

Besides improvements in global standards for corporate sustainability reporting, society is demanding more transparency from the financial industry on the social impact of loans and investments. So, the challenge for asset managers is not only to provide products that allow investors to allocate capital to sustainable companies and trends, but also to develop tools that quantify the impact of their contributions.

Using data collected from the CSA, RobecoSAM has developed a series of analytical reporting tools to help investors monitor the impact of their portfolio on a selection of quantitative environmental and social indicators.

Exclusion reporting: the minimum in sustainability reporting

Many investors use exclusions as an initial approach to sustainability investing. As has been described throughout this paper, this approach excludes or eliminates companies from the portfolio's investment universe. Exclusions can be strict or lenient and apply to countries (e.g. those that violate human rights laws), entire industries (e.g. fossil fuels or tobacco) or companies engaged in a particular activity (e.g. animal testing or child labor).

Exclusions are considered a minimum standard in sustainability reporting. Exclusion criteria can be standardized or determined by the client based on quantitative thresholds. For comparative purposes, this process could also involve an assessment of the benchmark's exposure to the chosen criteria. The diagram below shows a typical RobecoSAM Exclusion Report compared to the MSCI World.

Figure 24: Impact of values-based exclusion

			CGF RobecoSAM Sustainable European Equities		MSCI Europe	
Exclusion criteria	**Sub area for exclusion**	**Company revenue threshold**	**Number of securities**	**Portfolio exposure**	**Number of securities**	**Benchmark exposure**
Firearms	Production	0%	0	0.0%	1	0.5%
Military contracting	Weapon systems, tailor-made components	5%	0	0.0%	6	1.7%
Controversial weapons	Anti-personnel mines, cluster munitions, chemical-, biological-, depleted uranium- & nuclear weapons	0%	0	0.0%	6	1.7%
Global compact breaches	Own operations, supply chain	0%	0	0.0%	0	0.0%
Tobacco	Production, key parts	0%	0	0.0%	3	1.7%
Thermal coal	Coal mining	10%	0	0.0%	1	0.3%
Thermal coal	Coal-based energy production	20%	0	0.0%	1	0.1%
Alcohol	Production, sales	5%	0	0.0%	10	3.9%
Gambling	Production	5%	0	0.0%	3	0.3%
Adult entertainment	Production, services, print	5%	0	0.0%	1	0.1%
Total*			**0**	**0.0%**	**26**	**8.6%**

Source: Sustainalytics, RobecoSAM

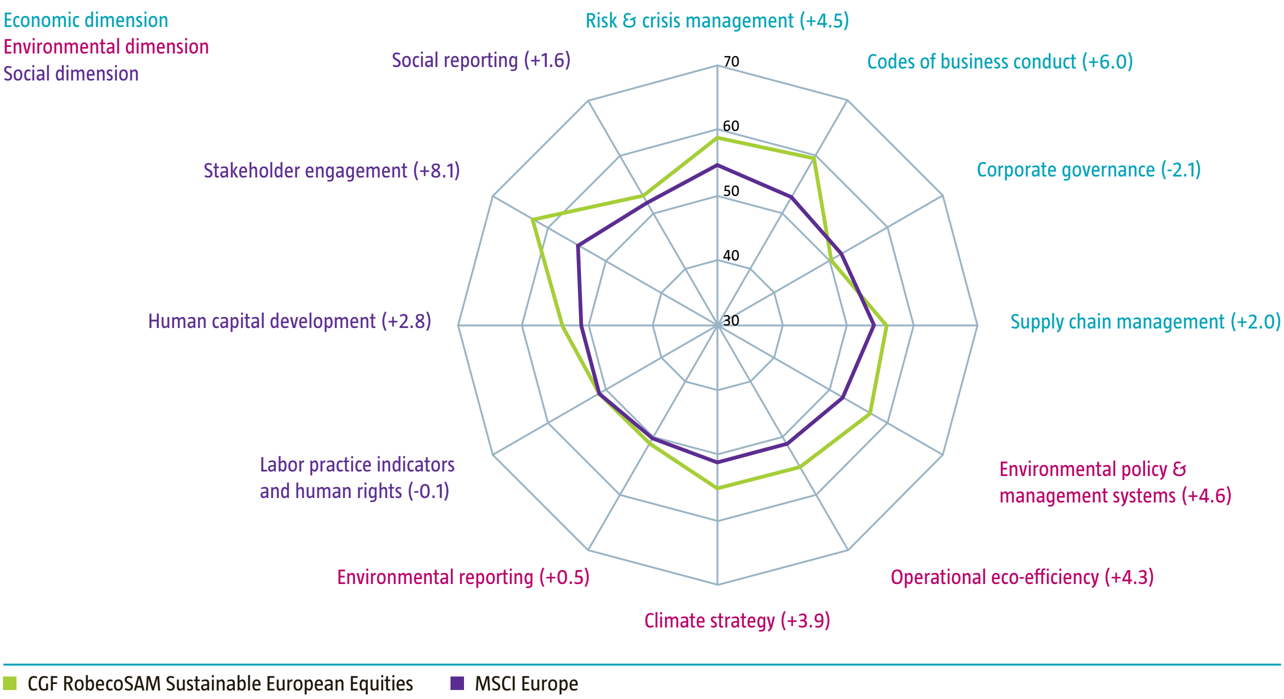
* Double counting of securities corrected at total level only

Sustainable portfolio analytics reporting: ESG integration in the investment process

Besides excluding companies, the integration of ESG into portfolios is another area to monitor. The RobecoSAM Sustainability Report measures the sustainability exposure of an equity or credit portfolio based on a selected set of general ESG criteria applicable to a broad range of companies.

The report covers the three dimensions of RobecoSAM's CSA (economic, environmental and social factors) and provides a general overview – displayed as a spider chart – of a portfolio's sustainability performance versus the relevant portfolio benchmark. The report compares the weighted average scores of the portfolio holdings for these criteria with the average scores of all the companies in the benchmark. The results demonstrate whether

Figure 25: Portfolio positioning against benchmark on relevant ESG topics



As of 31-03-2018 The number in brackets indicates the difference in score value of the portfolio compared to the benchmark

Source: RobecoSAM

the portfolio outperforms or underperforms the average company scores for each criterion and illustrates the areas of relative strength and weakness across key ESG criteria. Figure 25 shows a Portfolio Analytics Report for an equity portfolio compared with the MSCI Europe benchmark.

Impact reporting: quantifying the results and communicating the difference

Impact reporting represents the gold standard in measuring and communicating the positive and negative effects of company behavior within investment portfolios. However, impact reporting is heavily data-dependent. Detail and rigor are vital, and directly influenced by the reliability and robustness of the corporate data available.

Corporate reporting on environmental and certain types of social criteria (e.g. gender diversity) tends to be more advanced and quantifiable than many other more qualitative sustainability criteria. This allows us to measure and quantify impact more comprehensively and with more precision for these sustainability factors in client portfolios than for others with data that is more qualitative and less rigorously measured and reported by companies. What follows is a sample of the types of impact reports Robeco and RobecoSAM provide to their clients. These examples are not exhaustive but illustrate the types of impact reporting currently available for investment portfolios.

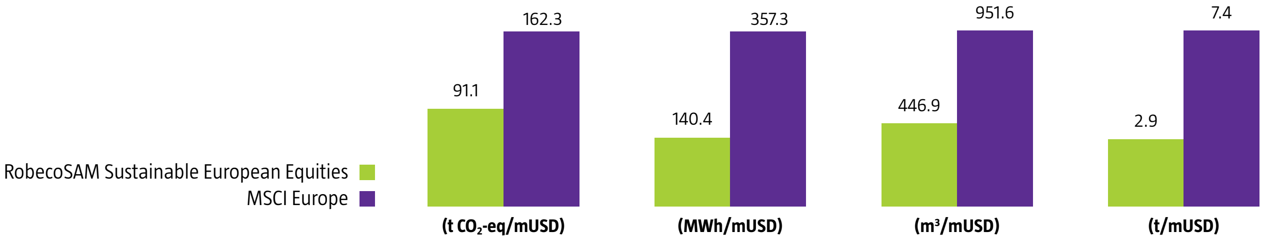
Environmental reporting: portfolio footprint

By measuring their portfolio's footprint against a series of tangible environmental indicators, investors can gain insight into the magnitude of the portfolio's environmental impact per invested dollar.

The quantitative indicators measured at the company level include greenhouse gas emissions, energy consumption, water use and waste generation. The results can be compared with peer companies in the same industry to reveal which companies are leading in a particular field. Furthermore, the same analysis can be conducted on the respective benchmark companies, to reveal differences in environmental performance between the investor's portfolio and the benchmark.

An attribution analysis relative to the selected benchmark helps the investor determine whether the portfolio's environmental impacts are driven by sector allocation or stock selection. From here, we can work with clients to develop a customized impact investing strategy with measurable targets, and help them determine how to adjust their portfolios accordingly. The diagram below is an example of the output of the environmental impact reporting tool, based on a sustainable European equity strategy and compared with the MSCI Europe Index.

Figure 26: Portfolio environmental footprint compared to benchmark



Impact per mUSD invested	GHG emissions – scope 1 & 2	Energy consumption	Water use	Waste generation
Unit per year	(t CO_2eq/mUSD)	(MWh/mUSD)	(m^3/mUSD)	(t/mUSD)
Impact	71.1	216.9	504.7	4.5
Impact (%)	**43%**	**60%**	**53%**	**60%**
Savings/mUSD*	27	56	11	9

Impact total invested: USD 607m				
Portfolio footprint	55,377	85,334	271,530	1,790
Benchmark footprint	98,633	217,123	578,191	4,545
Impact	43,255	131,788	306,660	2,755
Impact equivalent*	16,636	33,974	6,462	6,205

*** European average figures per year**
Average carbon dioxide emissions from new passenger cars per year; average 20,000 km and 130 g CO_2-eq/km; in t CO_2-eq (source: www.eea.europa.eu)
Average electricity consumption per household and year; in MWh (source: www.ec.europa.eu/eurostat)
Average water consumption per person and year; in M3 (source: www.eea.europa.eu)
Average waste generation per household and year; in t (source: www.ec.europa.eu/eurostat)
Source: RobecoSAM

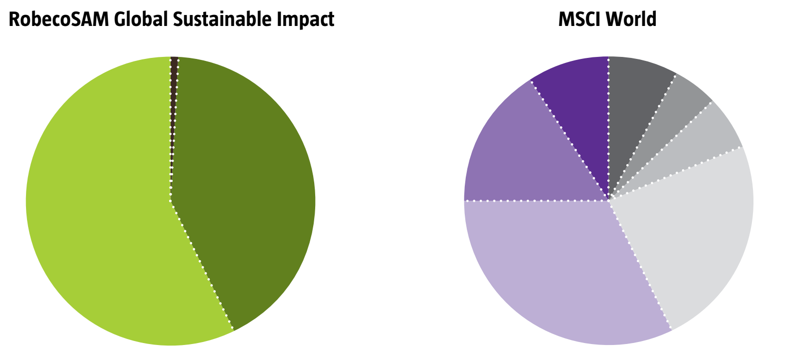
SDG impact reporting

The UN SDGs are an invitation and a framework for businesses to join the global efforts to "end poverty, protect the planet, and ensure prosperity for all". This has major implications for the development of sustainability investing.

Robeco and RobecoSAM collaborate to maximize our expertise across the fields of sustainability research, quantitative analysis, portfolio management and active ownership. The aim is to enhance our clients' ability to contribute to achieving the SDGs. Products of this partnership include the RobecoSAM Global Sustainable Impact Equity strategy and the RobecoSAM Sustainable Global Credits strategy.

Both strategies focus on investing in companies with products and services that directly contribute to the UN SDGs and which exhibit strong operational sustainability and financial attractiveness. And, using an internally-developed framework, they both measure, quantify and report on the impact of portfolio companies across the SDGs. RobecoSAM analyzes the impact of companies on the 17 SDGs and assigns an overall impact rating to each company. The rating is based on seven impact levels ranging from 'High positive' to 'High negative'. The pie charts below show the weight of the portfolio and the benchmark per impact level.

Figure 27: Total portfolio impact – portfolio weight per impact (in %)



Portfolio

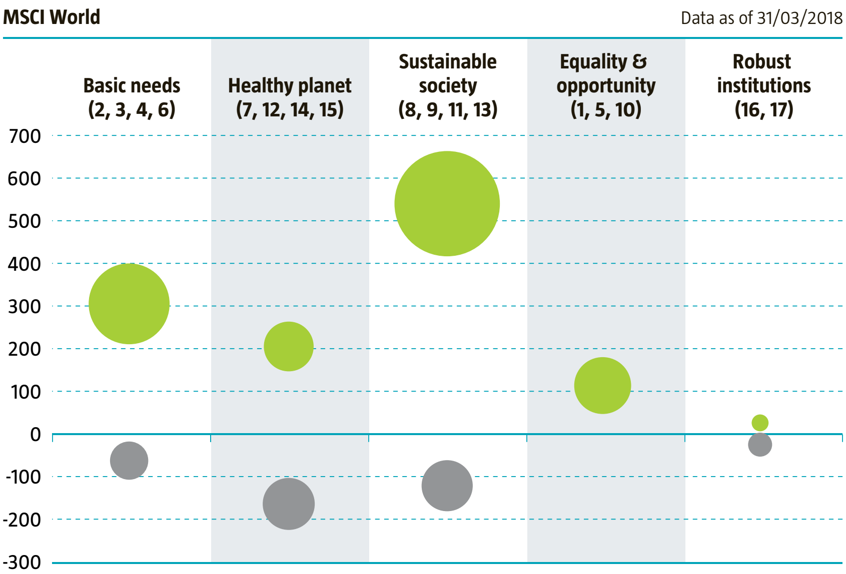
High positive	57%
Medium positive	42%
Low positive	1%

Benchmark

High positive	9%
Medium positive	16%
Low positive	32%
Neutral	-8%
Low negative	-5%
Medium negative	-6%
High negative	-24%

Source: RobecoSAM

Figure 28: Portfolio impact on SDGs



Source: RobecoSAM

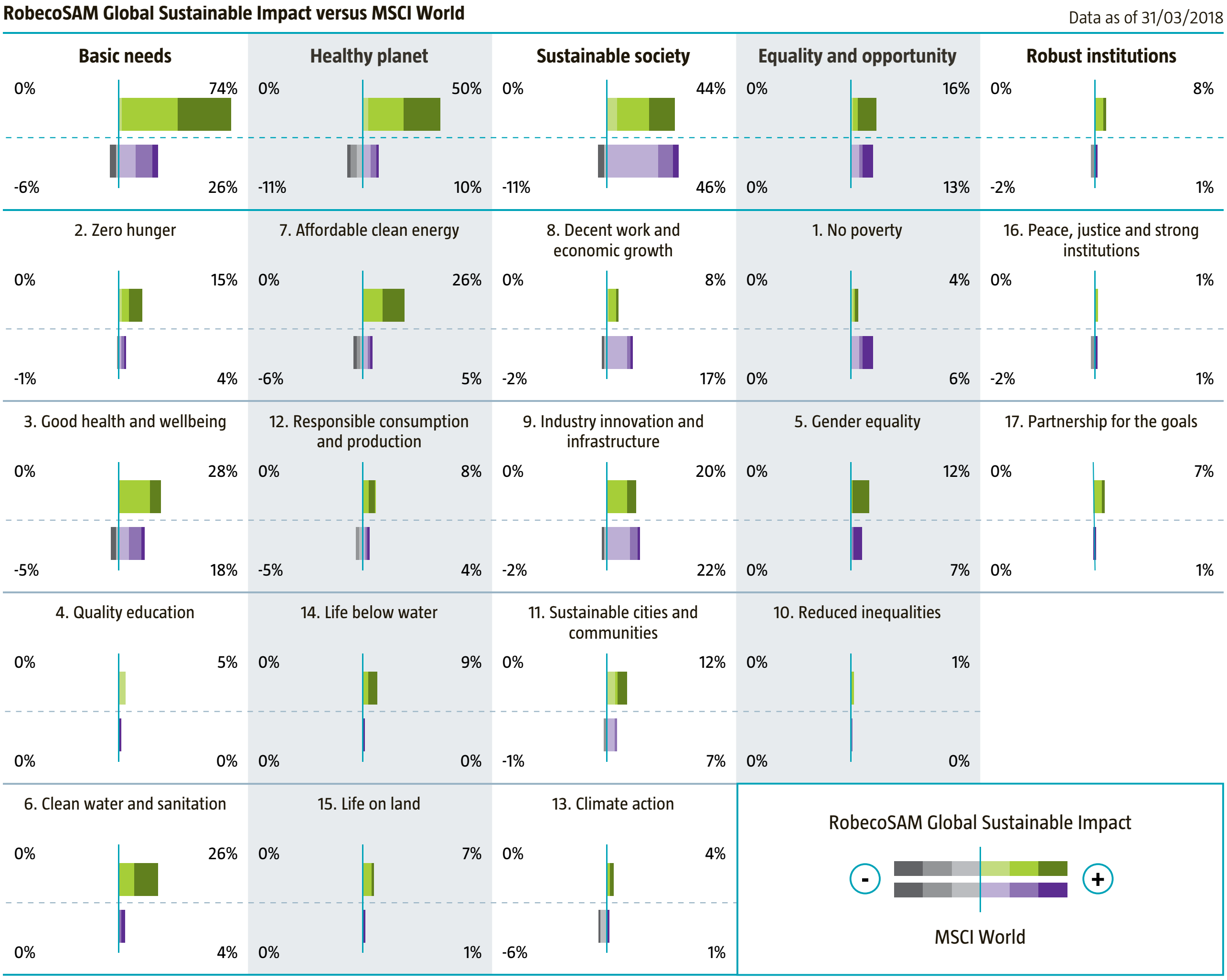
After determining the extent of the impact for each company in the portfolio, we then aggregate the impact across the SDGs to which the impacts are linked. In order to facilitate reporting, we group the 17 SDGs into five impact categories:

1. Basic needs (SDG 2, 3, 4, 6)
2. Healthy planet (SDG 7, 12, 14, 15)
3. Sustainable society (SDG 8, 9, 11, 13)
4. Equality & opportunity (SDG 1, 5, 10)
5. Robust institutions (SDG 16, 17)

An example of reporting per impact category is shown in Figure 28 for MSCI World. The bubble size indicates the weight of the portfolio exposed to each impact category. The vertical axis displays the number of companies with exposure to each impact category. Double counting has been used if a company has a positive (green) or negative (grey) impact on several impact categories.

For a more detailed breakdown, the bar charts of Figure 29 show the impact of the portfolio and the benchmark for each individual SDG. The aggregate of the individual SDG impact rolls up to the portfolio impact for each impact category. A company may have an impact on several SDGs and impact categories. Therefore, the area of all bars above will usually be above 100%.

Figure 29: Impact by category and SDG – RobecoSAM global sustainable impact vs. MSCI World



Source: RobecoSAM

Conclusion

What gets measured gets done. Given the increasing importance of sustainability, it is crucial to measure and report on this topic – for both businesses and investors. In this chapter, we have shown some of the state-of-the-art tools that RobecoSAM has developed for reporting on exclusions, ESG criteria and impact, which both Robeco and RobecoSAM can offer their clients.

8 ESG and performance

We are convinced that using financially material ESG information in our investment processes leads to better-informed investment decisions and better risk-adjusted returns in the long run. This belief is supported by a growing body of evidence. In this chapter, we give an overview of the research that has been published on this topic, both externally and by Robeco and RobecoSAM. Moreover, we explain how to overcome some of the data issues associated with ESG information. As there are many different methodologies for implementing sustainability and the availability of long-term historical data is still limited compared to other traditional financial measures, we will continue to research ESG factors to ensure that this information is implemented in our portfolios in the best way possible and in line with our firm belief that using ESG information in investment processes adds value to our strategies.

Majority of studies finds a positive relationship between ESG performance and financials

A good example of a meta-study on the relationship between ESG and performance is the 2015 paper entitled 'From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance' by Oxford University and Arabesque Partners[15]. This paper examines more than 200 sources – including academic research, industry reports, newspaper articles and books – and concludes that "80% of the reviewed studies demonstrate that prudent sustainability practices have a positive influence on investment performance". A separate survey later that year by Deutsche Bank's Asset and Wealth Management division in conjunction with the University of Hamburg went even further[16].

15. Clark, G.L., Feiner, A. & Viehs, M., 'From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance', 5 March 2015. Available at SSRN (https://ssrn.com/abstract=2508281)

16. Deutsche Asset and Wealth Management, 'ESG and Corporate Financial Performance: Mapping the global landscape', December 2015 (https://institutional.deutscheam.com/content/_media/K15090_Academic_Insights_UK_EMEA_RZ_Online_151201_Final_(2).pdf)

This research looked at the entire universe of 2,250 academic studies published on the subject since 1970, using data spanning four decades until 2014. It concludes that ESG made a positive contribution to corporate financial performance in 62.6% of meta-studies and produced negative results in only 10% of cases (the remainder were neutral).

Figure 30: Meta-studies show that sustainable businesses are more successful

Total shareholder returns	Operational performance	Lower cost of capital
80% confirm	**88% confirm**	**90% confirm**
↓	↓	↓
Higher returns	Higher returns	Lower risk

Source: Robeco, Clark & Feiner

Some ESG elements are clearly linked to better performance

There are several studies that examine the contribution of ESG to corporate performance. One of the first and most famous was that of Gompers et. al in 2003, which found a strong positive link between good corporate governance and results. More specifically, they found that companies with stronger shareholder rights had higher firm value, higher profits, higher sales growth, lower capital expenditures, and made fewer corporate acquisitions[17]. There is also significant evidence of a link between good human capital management and performance. For example, Edmans (2011) finds that companies listed on Fortune's 100 Best Companies to Work For (i.e. have satisfied employees) outperform the average company in terms of stock returns[18]. And Derwall et al. (2005) note that companies with a high eco-efficiency outperform their counterparts[18]. These are just three examples of a multitude of studies, many of which are listed in the literature studies mentioned above.

Why are some investors still skeptical?

Some of the negative studies tend to be the most well-known by the general public (see Hong and Kacperczyk on the returns of so-called 'sin stocks'[20]) and current discussions still focus predominantly on whether sustainability actually adds value. So why do people's perceptions of the benefits of sustainability investing differ so widely? One of the main reasons is that the concept of sustainable investing is very broad. For example, we have identified three different objectives for investing sustainably. First, some investors simply wish to avoid certain companies because those firms' business activities do not match with their beliefs. Much of the early academic work – including the sin-stock paper of Hong and Kacperczyk – focused on these values-based exclusion policies. Second, some investors want to create a positive impact by allocating capital to specific companies or sectors that offer solutions to global issues. Although it makes sense to allocate capital to companies that play into specific sustainability trends, financial motives can differ per investor.

17. Gompers, P.A., Ishii, J.L. & Metrick, A., 'Corporate Governance and Equity Prices', Quarterly Journal of Economics, Vol. 118. No. 1, pp. 107-155, February 2003

18. Edmans, A., 'Does the stock market fully value intangibles? Employee satisfaction and equity prices', Journal of Financial Economics 101 (http://faculty.london.edu/aedmans/Rowe.pdf)

19. Derwall, J., Guenster, N., Bauer, R., & Koedijk, K., 'The Eco-Efficiency Premium Puzzle', Financial Analyst Journal, pp. 61-2 (https://www.cfapubs.org/doi/abs/10.2469/faj.v61.n2.2716)

20. Harrison, H. & Kacperczyk, M., 'The price of sin: The effects of social norms on markets', Journal of Financial Economics, pp. 93-1 (https://www.sciencedirect.com/science/article/pii/S0304405X09000634)

Sometimes the main driver is the desire to have a positive impact on society. Third, investors increasingly want to exploit the growing amount of data and knowledge on sustainable business models as a way to improve their financial returns. Most of the academic work discussed above focuses on these kinds of approaches.

Different objectives lead to different outcomes

Distinguishing between sustainable investors' different objectives makes it easier to separate fact from fiction and say something meaningful about expected financial performance. If investors do not have any financial motives for taking certain steps (such as excluding particular companies), it is not uncommon to find that investing has no overall, or even a negative, impact on returns. Asness[21] goes one step further and argues that this type of 'virtuous investing' only achieves an impact (by raising the cost of capital) when it hurts. Our own research shows that while certain 'sin industries' have produced above-average returns in the past, this can largely be explained by attractive factor characteristics[22]. For fundamentally managed equity strategies, excluding stocks need not matter too much as such portfolios are typically already concentrated. For quantitatively managed strategies, however, restrictions usually tend to limit the power of the model, and therefore its expected performance. However, historical tests show that if the number of excluded stocks is modest, the universe is still large enough to retain most or all of its factor exposure. For low tracking error or passive strategies, one should be cautious of a basic approach to applying exclusions. As there is evidence that typical sin stocks have distinct factor characteristics, solid risk management is vital to make sure that the strategy's risk/return characteristics do not deteriorate.

Financial materiality matters

Most of the academic studies documenting a positive contribution from sustainability considerations focus on financially material factors. An example is 'Corporate Sustainability: First Evidence on Materiality' by Khan et al.[23] (2015), which shows that investments in material sustainability issues can be value-enhancing for shareholders, while investing in immaterial sustainability issues has, if any, little impact on returns.

When investigating the link between sustainability and future investment returns, people have traditionally looked at the link between a firm's current sustainability profile and its future investment returns. But lately, we have also seen studies examining the link between changes in a firm's sustainability profile and its future performance success – the hypothesis being that the best time to invest for those seeking to benefit from improvements in firms' ESG standards is before the improvement is widely recognized – and rewarded – by the market[24].

It is unsurprising that another interesting stream of research focuses on the financial pay-off of engagements. Dimson et al. (2015) document positive market reactions to RI engagements at 613 US public firms between 1999 and 2009. They show that after successful engagements firms' investment returns are on average higher than would be expected, while after unsuccessful engagements the subsequent returns are on average as would be expected had no engagement taken place. They also find that after successful engagements, companies experience improvements in their operating performance, profitability and governance[25].

21. https://www.aqr.com/Insights/Perspectives/Virtue-is-its-Own-Reward-Or-One-Mans-Ceiling-is-Another-Mans-Floor

22. https://www.robeco.com/media/3/7/7/377369b61e257bcf286acda92c82a68f_sin-stocks-revisited-resolving-the-sin-stock-anomaly_tcm17-9602.pdf

23. Corporate Sustainability: First Evidence on Materiality, The Accounting Review 91-6 (http://aaajournals.org/doi/10.2308/accr-51383)

24. 'The materiality of ESG factors for equity investment decisions: academic evidence', NN Investment Partners and ECCE report, 2016 (https://yoursri.com/media-new/download/ecce_project_the_materiality_of_esg_factors_for_equity_investment_decisi.pdf)

25. https://spilplatform.com/wp-content/uploads/2017/02/SPIL-The-Financial-Return-of-Responsible-Investing.pdf

The information advantage

One of the most important contributions to the asset pricing literature is the efficient market hypothesis developed by Eugene Fama in 1970[26]. Taking this hypothesis as the basis, there are several reasons why the expected returns of stocks could differ. If markets are efficient – that is, if all the available, relevant information is integrated in stock prices – differences in expected returns can be explained by the underlying risk the companies involve. Given that one of the key features of sustainability investing is the provisions it incorporates to deal with future risks, this explanation for higher returns is unlikely. That said, one cannot help but wonder whether all of the relevant information genuinely is already priced into stocks. The field of factor investing, which has received considerable attention in recent years, also challenges the notion of full market efficiency. Since the information about sustainability is so vast and complex, it is hard to imagine how it can all be perfectly incorporated by the market. The 'smart' use of this information could therefore enable investors to achieve a better performance than those with a more myopic approach who focus solely on more comprehensible financial metrics.

The challenge of translating qualitative information into a quantitative score

As the information on sustainability is so vast, and more qualitative in nature than traditional financial metrics, it is difficult to capture in a single comprehensive ESG rating. The most well-known rating companies – whose data are used in many sustainability indexes – are MSCI, Sustainalytics and RobecoSAM. All of these have their own methodology and summarize all the sustainability quality indicators as a single ESG score.

Access to these quantitative scores has many advantages, but they should be used in the investment process with caution. A key advantage is comparability: it is very easy to calculate a score at portfolio level by simply taking the weighted average of all the holdings, allowing investors to critically assess the underlying sustainability approaches. Companies can also compare their sustainability performance with peers to find potential areas for improvement. Nevertheless, creating a single score based on hundreds of data points involves many decisions. For example, what should be done when certain information is not available? For generic sustainability scores, a lack of information usually results in the firm receiving the worst possible score for that variable.

Larger companies often have more resources available to them to help them find and disclose information, which can result in higher scores. But are larger companies really more sustainable? It could also be argued that European companies tend to score above average because sustainability has been around in Europe for longer than in other parts of the world, or because most rating companies originate from Europe and therefore share common values with European firms. Ultimately, the information is most useful at the company level, and it is important that the scores used are comparable and financially relevant. Traditional ESG scores show very strong biases toward existing factors like size, country, and sector, which therefore tend to dominate the financial performance of the resulting portfolio or index. Moreover, ESG scoring and rating methodologies are typically much broader than common factors and therefore dilute those ESG indicators that carry financially material information.

26. Efficient Capital Markets: A Review of Theory and Empirical Work, Journal of Finance 25-2 (https://www.jstor.org/stable/2325486)

Overcoming the data issues

To overcome these issues, RobecoSAM has developed a Smart ESG score, which enables investors to analyze the link between sustainability and financial performance. Unlike more traditional ESG scores, these scores are embedded in a two-fold way. First, undesired exposures (for example, to regions or industries) are removed and, for each data point, companies are only compared with those with similar characteristics. Second, only financially material information is used to calculate the scores. This is achieved by combining forward-looking fundamental analysis to identify which sustainability factors drive business performance and quantitative evidence on the elements in RobecoSAM's comprehensive sustainability database that have shown the most explanatory and predictive power of future investment returns in RobecoSAM's comprehensive sustainability database[27].

When such financially material, comparable scores are considered, we find evidence of a link between corporate sustainability and financial performance. Giese et al.[28] observes that the smart ESG factor scores are unbiased to common factors and show a positive information ratio. They also report an improvement in the risk/return profile of two indices constructed on the basis of these scores compared with the underlying standard market-cap-weighted benchmark index. This Smart ESG score-based improvement in the risk/return profile was also found in a study by Robeco – which confirms that sustainability information is relevant for investing purposes, and that our approach to enhancing sustainability scores makes sense. By no means do the results imply that companies with higher scores will always outperform in the future. Significant testing is difficult given the relatively small sample size, and prices are likely to adjust once more market participants start incorporating these scores. Continuous innovation and research remains necessary, and our investment strategies always combine sustainability with financial analysis.

Sustainability data adds the most value when integrated into the investment process

Robeco and RobecoSAM are convinced that using financially material ESG information in investment processes leads to better-informed investment decisions and better risk-adjusted returns in the long run. For a fundamental investor, integrating sustainability in the process could involve dealing with the presence of unaddressed sustainability risks by increasing a company's calculated cost of capital or, updating a firm's sales and profitability forecasts based on sustainability opportunities, and then reflecting these factors in the stock's calculated fair valuation and return potential. For a quantitative investor, it is important to always consider proven factors such as value and momentum but if, for example, a value strategy results in a portfolio consisting mainly of companies with poor environmental practices, the stocks of these firms might be cheap for a reason. Integrating sustainability data within the process could help overcome the risk of taking exposure to such stocks.

In this chapter, we have discussed the growing body of evidence that supports our investment belief. We have also explained how to overcome some of the data issues associated with ESG information. As there are many different methodologies for implementing sustainability and the availability of long-term historical data is still limited compared to other traditional financial metrics, we will continue to research ESG factors to ensure that this information is implemented in our portfolios in the best way possible and in line with our firm belief that its use in investment processes adds value to our strategies.

27. http://www.robecosam.com/images/Smart_ESG_integration_factoring_in_sustainability.pdf

28. ESG as a Performance Factor for Smart Beta Indexes, Giese et. al., The journal of index investing, winter 2016.

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'In ten years we will no longer be talking about ESG research'

INTERVIEW

RobecoSAM is the pioneer in sustainability investing. We talked to Daniel Wild, co-CEO about the past, present and future of ESG research.

Sustainable investing all starts with research. But to be able to understand what's going on, you need to know about the past, present and future of sustainability investing research. How did we get to where we are today?

"We have to go back to 1995 and the founding of SAM, the world's first investment company focused solely on sustainability themes. This essentially marked the birth of sustainability research, as the founders were convinced that understanding sustainable macro trends that changed the environments companies operate in required the ability to identify ideal investments. In the long term, the firms that dealt best with the risks and opportunities created by secular sustainability trends would make the best investments."

"Back then, there was little information available, and certainly no systematic approach for gathering, understanding and comparing the data that were to hand. So we had to start from scratch to find out how companies were exposed to trends such as climate change or demographics. We literally had to call them and ask questions. Further down the line we sent out questionnaires by post – but we had to convince them to cooperate. This process generated data that we couldn't compare to any benchmark, because there wasn't such a thing at the time. Since they were plain figures that were hard to assess in isolation, we developed our own models for creating information from the data based on background knowledge and academic studies. Designing and populating a database was, of course, crucial, but it took years of hard work before we had enough data to statistically interpret the figures a company would provide and thus support our original core belief with hard data."

A little over twenty years later, sustainability investing research is being carried out in a completely different environment. There are plenty of data, and companies are willing to collaborate.

"At least we do not have to explain its importance anymore. Nowadays we have access to public data, at least to some degree. But there are still challenges. Yes, companies generally report on sustainable topics, but they report on different things and in different ways, so the data are still difficult to compare, even between companies in the same industry. This means there is an increasing need for standard reporting that facilitates unbiased comparison. At RobecoSAM we do not approach firms in a confrontational way, but rather agnostically and with the motivation to team up. We collect the data and compare the firm in question against the benchmark in the respective industry. This enables us to identify where its strengths and weaknesses lie compared with its peers. The information we provide with our rankings is undoubtedly valuable from the perspective of sustainability, because no CEO wants their company to be bringing up the rear. What gets measured, gets managed."

It is not only about companies, but also about investors...

"Yes, investors are generally more tuned in today and want to know about the financial materiality of ESG indicators. Our data span two decades now, including two financial crises, which means our analysis has statistical significance. We can now say, with some level of confidence, that there is statistical evidence that some ESG indicators provide predictive value of stock returns. However, we know from assessment participants that companies are not particularly interested in the stock market or their share price – something investors tend to overestimate – but that they do want to know about the financial materiality of ESG factors in relation to their own accounting metrics. How does it affect their profit margins, or future growth, for example? How do the E, S and G dimensions compare? In Europe and the US, the G of ESG has become a hygiene factor, but in emerging markets it is the dimension that most progress is being made in. Yet we also see momentum on the E and S side in emerging markets: climate change, and the fair treatment of employees and shareholders."

Can you give an example of how sustainability research impacts companies in a very specific and positive way?

"Many companies use our assessment as input for KPIs that influence the variable pay of their employees. The bonuses of some 7,000 employees at insurance company AXA are linked to our assessment. It is also used for the remuneration of management at Japanese company Omron. These examples clearly show the importance of ESG – including in Asia."

The world is changing rapidly, so sustainability research has to evolve as well. How has the way you gather data changed and where do you see sustainability investing research over the longer term?

"We have a methodology committee that updates the digital questionnaires we send to companies each year. Besides deciding on the strategic aim of the questionnaire and introducing new topics, this involves selecting questions and fine-tuning the wording. Around six years ago, we added questions on water scarcity. Three years ago, we added questions on tax transparency – this was before the Panama Papers scandal. At the time, a large Swiss bank complained about having to answer even more questions. But shortly after, they said they were happy that we had included them because they had been bombarded with questions from journalists and the media on that very subject. Thanks to us, they'd felt in a good position to be able to respond. Sometimes we are ahead of companies; sometimes it is the other way around. We cover 60 industries in our yearly survey, and try to include as many industry-specific questions as we can. Our governance questions are, by and large, the same for all companies. But banks have totally different environmental issues from chemical companies."

‘We can now say, with some level of confidence, that there is statistical evidence that some ESG indicators provide predictive value of stock returns’

How much data do you gather?

“We now collect around 600 data points per company, based on 100 questions. The questions are grouped into various topics. For example, the gender diversity topic can contain questions about the number of women on the board, the remuneration gap between male and female employees, a question on specific training programs for female employees, and so on. We also look at the 17 Sustainable Development Goals that the UN published in 2015. The idea behind these is that to continue to have successful economies and attractive returns in the future, we need to ensure the sustainability of our economic, social and environmental resources. Therefore, embracing ESG and successful business go hand in hand. We are seeing pension plans and institutional investors in particular realize that it is not just about financial returns, but also socioeconomic impact. And this is based on their self-awareness as universal owners.”

Sending questionnaires to companies is great, but how do you verify the data? What checks and balances are in place?

“We realize that people tend to lie in such situations. All data collection nowadays is web-based. We have various levels of quality control to check the information that companies provide. For instance, they need to submit supporting documents, and we have 30 people in India who check every single data point against the evidence provided: this could be internal documents or memos, or sustainability reports. Last year 150,000 documents were uploaded to our servers, including data from the 942 companies that filled in the questionnaires and the 3,000 companies we analyzed based on publicly available data. In addition, we perform outlier analyses, cross-sectoral consistency checks and random sample checks and also have an external audit carried out by Deloitte.”

In your sustainability rankings, how do you account for the differences between companies that provide data and those that you analyze based on publicly available data?

“It comes as no surprise that there is a difference between these two groups – a different level of disclosure. So there is a bias you have to correct the data for. The question is: what does the disclosure of less data mean? Do you punish companies by giving them a lower score, or are these just unknown areas? Do we see it as a weakness if they do not provide data on questions they are required to answer according to today’s generally accepted reporting standards? If they refuse to provide any sustainability or environmental reports, it is interpreted as a bad thing. Then again, if non-participating companies, for example,

'Usually, we see big improvements in the first three or four years after companies start to participate in our surveys'

do not yet provide full public access to information on the absolute pay gap between men and women at different management levels, it is probably not something to punish them for at this point in time. Full pay transparency is rarely found in today's society. The goal is always to look at the situation from the perspective of financial materiality – in the end, we are still investors, remember. For a quantitative strategy, we might not necessarily want to exclude a firm just because certain data cannot be found and a peer comparison is not possible. In a fundamental strategy, it will be up to investment analysts to decide whether a positive investment case is still possible despite limited data availability."

Where have companies made the biggest improvements recently?

"Usually, we see big improvements in the first three or four years after companies start to participate in our surveys. This makes sense, because that's normally when they launch internal sustainability programs. Once they realize ESG is a key topic, the starting point to improve things is often a first assessment by RobecoSAM. Then they organize themselves and work to improve the weaknesses that have been identified. And then, in general, we see the greatest improvements in relation to topics that are often in the media – climate change is an obvious one. Geographically, Japan is making the greatest strides. Prime Minister Abe has rightly made governance a top priority, challenging companies to have really independent boards and improve diversity. The motivation for firms to embrace ESG can, however, differ around the world. In Japan, the change is driven by political incentives, in Europe and the US it is more about the competitive edge. When it comes down to financially material matters, you do not want to be behind your peers."

It also has to do with reputational risk, of course. Being a sustainability leader is no guarantee either these days. We all remember what happened to 'industry leader' Volkswagen.

"Indeed. As I said before, we do not have an activist approach, but we do celebrate leaders in sustainability – through our Yearbook, awards, etc. The Volkswagen case has showed that doing proper research, which includes the necessary checks and balances, does not mean you will spot every weakness, or even outright fraud. But it does reduce the likelihood of unpleasant surprises. And, of course, we also ask ourselves if there were any warning lights flashing before an incident took place. When analyzing major incidents, you do sometimes find that they were preceded by smaller hiccups. A little inconsistency here, a little inconsistency there. So we work with RepRisk to scan the global news in 16 languages for any mention of companies – TV, newspapers, social media, and so on. And we use the output to present cases of incidents to our analysts. The problem here is that there are a lot of 'false positives', particularly in sectors with high ESG risks. The mining sector is an example – that would generate signals each and every day."

RobecoSAM is of course not the only firm involved in sustainability investing research. Who are the others, and what should be considered the standard for sustainability reporting?

"At the moment, there are two pure sustainability data providers worth noting: Sustainalytics and MSCI ESG. But companies are not necessarily happy with their approach. These data providers sell data to as many users as possible, and can be considered 'a kind of a standard' more from the supply side. Then there are initiatives such as SASB (Sustainability Accounting Standards Board), which is very much US-oriented. The oldest multi-stakeholder initiative is probably the GRI (Global Reporting Initiative), which provides recommendations on how companies should report on the subject of sustainability. And then there are newswires like Bloomberg and Thomson Reuters, which basically publish everything they come across. S&P Global Market Intelligence is about to kick off as well. Today the gap between financial research and sustainability research is closing rapidly – the two are clearly merging. All financial analysts look at some sort of corporate sustainability data. At the end of the day, it should all lead to one integrated assessment of a company."

Do you see this trend continuing for, say, the next ten years?

"In ten years we will hopefully – or even probably – no longer be talking about ESG research. It will just be good research. In the end, it is all about identifying good investment opportunities for the longer term with attractive risk/return characteristics. But making sense of all the data you collect will still be an art. We currently have 10 people running the assessment operations, supported by 30 staff in India. Building on these resources, our 11 sustainability investing research analysts use their understanding of financially material ESG factors to make good and profound data research available for profitable investment strategies. This takes place in collaboration with the various investment teams across the asset classes within Robeco and RobecoSAM."

‘Addressing global issues through our products’

Cees de Jong
CEO Chr. Hansen
Annemarie Meisling
Director of Sustainability
Chr. Hansen

INTERVIEW

Chr. Hansen is a major global bioscience company based in Denmark that develops natural solutions for the food, beverages, nutritional, pharmaceutical and agricultural industries. We spoke to its CEO, Cees de Jong, and Director of Sustainability, Annemarie Meisling, to find out how sustainability is a critical component of its business strategy, what it delivers in terms of performance and the role of the firm's shareholders in its sustainability strategy.

What does your company do?

Cees: "Chr. Hansen probably isn't well known to the average consumer or investor, but pretty much anyone who eats yoghurt or cheese knows our taste. That's because every second yoghurt and every second cheese in the world contains our ingredients – the cultures or bacteria you add to milk to acidify it, or the enzymes to make it clot. Significantly more than a billion people consume Chr. Hansen products every single day. We also provide ingredients that can go into animal feed, make supplements for human health such as probiotics, and are involved in bioprotection – using bacteria to keep food fresh and safe to eat for longer. And last but not least, we have a business in natural food coloring. Everything we do is based on what nature gives us. We are not involved in genetic modification – all the bacteria we use are entirely natural."

What's your mission when it comes to a sustainable world?

Annemarie: "What I think is so special about this company is that the core of our products and our ambitions when it comes to sustainability go hand in hand. We see our mission as addressing global challenges through our products, and we use the UN's Sustainable Development Goals (SDGs) as a framework to help us determine which global challenges are relevant for us. The core thing I'd say is that sustainability really is in the DNA of our company and that it always has been, as our products and solutions have always been entirely natural. But now we are very clear that addressing global challenges is at the very heart of our company."

How does your sustainability profile compare with those of your competitors?

Cees: "I will answer that in an indirect way. Around three years ago I met with one of our large investors, and the company's director of sustainability joined us. I thought that was good news, but they actually made it clear during the meeting that even though we were doing lots in terms of sustainability, we were barely reporting on this fact. That made me really quite grumpy, because at that point in time we did not look good relative to other companies who were at best reducing their environmental footprint – their sales were not contributing to a sustainable world like ours were."

"So shortly afterwards I hired Annemarie, and one of the things we have done is to map our entire portfolio of 3,000 products and assess to what extent they truly contribute to the three SDGs we have chosen. We have found that the figure is 81%, and this figure has been audited by PwC. I have not seen many other companies carry out this kind of exercise, so I think that distinguishes us from other players in the market."

Where in the 'farm to fork' food chain are you active?

Cees: "For us it starts at the farm by providing bacteria that can replace chemical pesticides. For instance, we have bacteria that can be sprayed on soil to help sugar cane grow better, with a 10-12% higher yield than untreated sugar cane. This higher yield puts us in the same league as that achieved by a chemical pesticide. And it is entirely sustainable. One of my favorite stories is from when I visited Brazil, where our product was being tested. I was standing on the top of a hill there, and all I could see for miles around was sugar cane. But when I looked closer I could also see a truck that had been converted into a mobile hospital. Our guide explained that the pesticides they were using – and still use in some countries – are so toxic that if the workers are exposed, they need to be treated on site because they would die before they made it to hospital. This pesticide is being put on our food. Some chemicals still being used in some countries have profiles similar to nerve gas – they kill pretty much everything, including humans, which is why they're so effective."

"So at the farm, we are on the land, and we also provide good bacteria – probiotics – for animal health. That helps reduce the need to use antibiotics in animal feed, which is creating a huge problem of antimicrobial resistance. The probiotics keep the animals healthy and help them grow better from the same amount of feed. Going one step further in the production chain, you will find our natural solutions at the big dairies producing yoghurts and cheeses. We are really good when it comes to optimizing the yields in those facilities, so there is less waste or so they can produce a bit more cheese from the same amount of milk. You will also find us at the industrial level with the natural colors we produce. Here in Europe, we are all used to natural colors being used in our foods and drinks, but that's not the case everywhere, and there is a trend towards natural coloring that we can help with."

"Moving forward in the value chain, we are heavily involved in bioprotection, so you can find us in consumers' fridges. Bioprotection involves adding good bacteria to food like yoghurt. It fights the yeast and mold that make the yoghurt go bad, so it is a natural protective mechanism that helps the yoghurt last longer."

Where do you find the bacteria that you use in your processes?

Cees: "I think we have the world's biggest collection of bacteria – around 30,000 different strains that we have been building over the years – and we find them throughout nature. I once came into the office and saw someone in R&D with two dead pheasants. I asked her what she was doing with them and she told me that they'd been killed during a hunting trip and that she was going to open up the gastrointestinal tracts to see if they contained any bacteria that were not in our collection. This is a pretty wild example – a lot of our other specimens come from cultures in collections at universities and we negotiate access to them."

Can you give some examples of innovation at your company?

Cees: "We spend around 7% of our sales on innovation. Historically, the company was really focused on dairy, where around 60 to 70% of our focus was on improving yields and the remainder coming up with new concepts. I'm a big believer in allowing researchers to play with their ideas. I control around 80 to 85% of the R&D budget, but otherwise they can do pretty much what they want. They do not need to tell me what they're doing or which business line it will contribute to. Of course I'm interested in what they're doing, but I do not force them to explain how it will help our business results. A while ago the researchers said they could come up with a way to produce non-alcoholic beer in one go through fermentation, rather than making normal beer and then extracting the alcohol – a process that also takes away most of the taste. So we now have a really interesting, innovative product in a market that's growing quickly and that we are already selling to clients."

"Another interesting area we are involved in is the microbiome – all of the bacteria that we have in and on our bodies. There are far more bacterial cells in our bodies than there are human cells, and they play a vital role in keeping us healthy. We play two roles in this area. First, we are a production partner for start-ups that want to use bacteria in clinical trials or in nutritional supplements. Second, we have been looking into how our 30,000 bacteria could help impact our health in a positive way."

How important is sustainability in your business strategy?

Cees: "It is an integral part of our strategy. At Chr. Hansen there aren't separate business and sustainability strategies. One of the things we do before embarking on any new project is to see how it would help us contribute to the three SDGs that we focus on. That's an important criterion before we commit resources to any new research project."

What does sustainability deliver in terms of performance?

Annemarie: "At the top line, it helps clarify the purpose of our company, and that really helps motivate our employees. And by looking at our products from a sustainability point of view – if you take, for example, bioprotection – we can see how it helps reduce food waste. Some of our biggest customers are very focused on food waste and set their own targets, alongside things like reducing CO_2 emissions. So we have that additional angle to our products, which is very valuable to our customers and makes us even more relevant as a major supplier in the dairy space. Then of course you have the more traditional roles that sustainability plays, such as helping reduce water and energy use. And making sure we operate with business integrity is very important when we have subsidiaries and representative offices in over 30 countries and customers in about 140 countries around the world. So I'd say sustainability drives our performance on many different levels."

‘If we could reduce food waste by just 25%, we could feed all the people in the world suffering from hunger and malnutrition’

How do your shareholders influence your sustainability profile?

Cees: “As I mentioned before, one of our largest shareholders was responsible for triggering us to up our game in terms of measuring and reporting on our sustainability performance, and rightly so. What I have noticed is that while it was nations that signed up to the UN SDGs back in 2015, today it is companies, shareholders and asset managers that are actually responsible for driving these changes, and it is great that we are all working together towards a sustainable world.”

Can you quantify your impact on the fight against food waste?

Annemarie: “Food waste is a major global challenge as on one hand we have a growing global population that needs more food and on the other we throw away a third of all the food we produce. If we could reduce food waste by just 25%, we could feed all the people in the world suffering from hunger and malnutrition. We have focused on our core business area – dairy – which is one of the sectors where there is a lot of waste: 17% of all yoghurt is thrown away, and 20% of all dairy products. We had an external consultant independently look into the numbers for us and they found that 80% of all yoghurt that’s thrown away is discarded because it is passed its use-by date, even if it hasn’t gone bad. They found that if we applied our bioprotective cultures to all yoghurt in Europe we could reduce waste by 30% – equivalent to around 440,000 tons of yoghurt or 520,000 tons of CO_2 emissions – just by extending shelf life by a very conservative estimate of seven days.”

What proportion of yoghurts in Europe are currently using your bioprotection technology?

Cees: “Even though they’re growing very quickly – by around 40% per year – bioprotective solutions in yoghurts still have a penetration rate of under 10% in Europe, so there is still huge growth potential.”

Is there a risk that food companies won’t want to use this technology because it would result in people buying less yoghurt?

Cees: “Our analysis shows that if you can extend shelf life by one week, it is actually beneficial for both the producers and the consumers.”

Annemarie: “What you see in many countries is that the supermarkets only have the yoghurt on commission: if it is not sold, it is sent back to the producers and they end up with a lot of yoghurt waste. And it is in producers’ interest to make their yoghurts last a bit longer as there is more opportunity for the product to be sold. Then of course many consumers choose the yoghurt with the furthest-away use-by date as they do not want to waste food.”

What other foodstuffs could bioprotection work on?

Cees: “Currently, bacteria are used to help preserve yoghurts, cheeses and meat. They can also be used on salads and salmon, although here the penetration rate is even lower. Salmon is a particularly interesting area because it is a product that goes off very quickly and we have been asked completely independently by supermarkets around the world – in Australia, Germany, Poland – to work with their suppliers to get our product sprayed on. In our research we are focusing on developing further generations of bioprotective solutions. There are lots of foods we can't currently protect – bread, for instance – but as we have the largest collection of bacteria in the world we are hopeful that that will change."

How does Chr. Hansen align with the UN's 17 SDGs?

Annemarie: "When we defined our corporate strategy we mapped the 17 SDGs, looking at where we had the biggest impact, and also where the biggest opportunities for us to make a difference were. The ones that are very clear for us are SDGs 2, 3 and 12. In SDG number 2 – ending hunger – we are focusing on the sub-target of sustainable agriculture, something we are heavily involved in by increasing crop yields in a natural manner. One of our long-term targets is to apply our natural solutions to 25 million hectares of farmland by 2025. That's equivalent to twice the amount of farmland in Italy, so it is a significant area."

"SDG 3 focuses on health and well-being, and we are relevant here due to our products – especially probiotics – helping human health. For example, in Denmark we sell a yoghurt with probiotics added to it as consumers are increasingly aware of how probiotics can have benefits not just to their physical, but also their mental, well-being. We also have a commitment to launch products with a documented benefit on health. Finally, one of the sub-targets of SDG 12 – sustainable consumption and production – relates to food waste. We have committed to reduce waste in fermented milk products by 700,000 tons by 2020 – an amount equivalent to how much yoghurt the UK wastes over ten years."

"Of course our company also has an impact on the other SDGs – topics like climate change and education. But one of the things we are really good at is concentrating on what we do best, so we focus on the three SDGs I described as we are 100% certain that we can have a major positive impact in these areas. But that's not to say that the others aren't relevant to us."

What are your plans for Chr. Hansen in the coming years?

Cees: "We have done some work with a specialized consultancy company that spent time with consumers on three continents. They did not just talk to them – they ate with them and went shopping with them. Then they tried to assess where the industry is growing, and from all this came the notion that consumers are increasingly looking for authentic food. They do not want food that is processed or canned or put in a box. Even the word natural has become a bit devalued – it is all about authenticity. Their food needs to be affordable, it needs to be safe, and it needs to be tasty. And all of these things play to our strengths because all of our products are natural. If we wanted to, we could enter GMO, but there is absolutely no reason for us to do so because we think consumers will increasingly want to focus just on what nature provides. And that's where Chr. Hansen helps."

"So we are going to continue to focus on turning the company into a true provider of microbial solutions, working with bacteria along the value chain – in the fields, in factories, and in consumers' homes – and that will enable us to continue to grow strongly. We have been growing by over 10% per year for the past five years, and we believe we will be able to keep this up over the long term. And in turn, this will enable us to continue to invest heavily in R&D, developing the microbial solutions of tomorrow and helping us contribute to solving some of the world's most pressing challenges."

10 | Terminology

Definitions

Active ownership
Best in class
Corporate governance
Corporate Responsibility (CR)
Decarbonization
Engagement
Environment
ESG integration
Exclusion
Footprint
Impact investing
Integrated reporting
Materiality
Negative screening
Positive screening
PRI
Sin stocks
Social
Socially Responsible Investing (SRI)
Stewardship code
Stranded assets
Supply chain management
Sustainable Development Goals
Sustainability investing
Thematic investing
UN Global Compact
Voting

Active ownership

Actively exercising your rights as a shareholder. The two main ways to do this are voting at shareholder meetings and engaging – taking part in a dialogue – with investee companies.

Active shareholders discuss environmental, social or corporate governance concerns with the companies in which they invest in order to preserve long-term shareholder value and enhance long-term returns. They can be very effective in influencing companies' behavior, especially when they cooperate with other shareholders.

Voting and engagement are two tools that, when combined, can strengthen each other. A long-standing relationship resulting from a multi-year engagement process inspires trust. Voting then becomes much more than simply casting a vote, and evolves into an important element in an ongoing mutual exchange of views.

There is not as much academic literature on active ownership as there is for other sustainable investment topics because there isn't much historical voting information yet, and data on engagement are often confidential. However, there are studies that have investigated the relationship between active ownership and financial performance, demonstrating that it can lead to higher returns.

In 'Active Ownership' (2013), Dimson, Karakaş and Li analyze a proprietary database of engagements with US public companies between 1999-2009. During the year after an initial engagement with a company, they observe that a company's stock returns an average of 180bp more than would have been expected had no engagement taken place. For successful engagements this figure rises to 440bp, while there is no market reaction to unsuccessful engagements. After successful engagements, companies experience improvements in operating performance, profitability, efficiency and governance.

Best in class

The best-in-class approach to sustainability investing involves investing in companies that are leaders in their sector in terms of meeting environmental, social and governance criteria.

An investor who follows the best-in-class principle does not exclude sectors or industries, such as tobacco or mining, but instead invests in the companies that make the most effort to meet the environmental, social and governance criteria that are relevant for their respective industries. A next step is to engage with these companies to help them improve their sustainability performance.

The most sustainable companies in a sector – also referred to as those adopting best practice – are used as a benchmark to be equaled or surpassed.

The Dow Jones Sustainability Indices follow the best-in-class principle: out of the 2,500 corporations listed in the Dow Jones Global Index, every year the 10% of companies in a given sector that best meet certain ESG criteria are selected for inclusion. No industries are excluded from this process. This best-in-class approach helps stimulate competition among companies for inclusion in the indices. To be included or remain in the index, companies have to continually intensify their sustainability initiatives to the benefit of investors, employees, customers, and ultimately society as a whole.

Corporate governance

The set of rules, practices and processes by which a company is managed (governed) and its management is supervised.

Corporate governance relates to good governing practices and covers the basic principles, rights, responsibilities and expectations of an organization's board of directors. A well-structured corporate governance system aligns the various interests of all the stakeholders in a company, such as shareholders, management, clients, suppliers, financiers, government and the community. It supports the company's long-term strategy.

The principles of the International Corporate Governance Network (ICGN) constitute an internationally recognized code for good corporate governance. The organization aims to improve corporate governance, risk management, remuneration policy, shareholders' rights and transparency.

Corporate Responsibility (CR)

Taking responsibility for a company's impact on the environment and society.

Companies that integrate corporate responsibility into their business models actively monitor the impact of their operations on the environment and social well-being. They can try to minimize any negative impact or go a step further and take proactive measures to compensate for their impact or take actions that have a positive social or environmental effect.

Decarbonization

The reduction in the carbon intensity of global energy use. Similarly, investment portfolios can also be decarbonized.

The 21st United Nations Conference of the Parties (COP21), held in Paris in December 2015, came up with concrete targets to limit further global warming. Minimizing global warming involves reducing the world's reliance on fossil fuels. This will require some large companies, such as the oil majors and utilities, to fundamentally change their business models. However, moving towards a global energy system based on renewable sources creates another problem: stranded assets. These are the vast reserves of coal and oil that probably cannot be used if the world is to limit global warming to 2°C or less above pre-industrial temperatures.

In line with this trend, investors are also adjusting their portfolios. The simplest way to do this would appear to be by divesting fossil fuel companies from their portfolios. However, as there is a buyer on the other side of every sell transaction, this would simply mean transferring the problem to someone else. An effective alternative is to engage with carbon-intensive companies to try to cut emissions at source. Another way to reduce the carbon footprint of the portfolios is through impact investing. This can be achieved by, for example, underweighting the industry groups that account for over 80% of the global environmental footprint, i.e. energy, materials, utilities and transportation.

The Carbon Disclosure Project (CDP) encourages companies to disclose their greenhouse gas emissions and climate change strategies in order to set reduction targets and improve their environmental impact.

Engagement

A long-term dialogue between investors and companies on environmental, social and governance factors.

An active dialogue offers investors the opportunity to discuss sustainability risks and opportunities with companies and provides these firms with insights into investors' expectations of corporate behavior. This way, investors encourage companies to adopt more sustainable practices. Companies with sustainable business practices can create a competitive advantage and are more likely to be successful over the long run, ultimately improving the risk/return profile of their securities. Effective engagement can therefore benefit companies, investors and society at large.

Robeco applies an integrated approach to engagement based on close collaboration with analysts and portfolio managers at both Robeco and RobecoSAM. Analysts in RobecoSAM's Sustainability Investing research team identify long-term, financially material factors that can affect companies' ability to create value. This helps the engagement specialists to set SMART (Specific, Measurable, Attainable, Relevant and Timely) engagement objectives for companies. The outcome of the engagement efforts is communicated to analysts, portfolio managers and clients, enabling them to incorporate this information into their investment decisions.

Engagements typically run over a three-year period, during which the engagement specialists are in regular contact with company representatives and track progress against engagement objectives. They often combine their efforts in collaborative engagement initiatives with other institutional investors.

Environment

The 'E' in ESG: one of the three key factors to consider in sustainability investing, together with social and governance matters.

Institutional investors are increasingly working to better understand the potential financial impact of environmental issues on companies in their portfolios. They are calling for companies to pay greater attention to areas such as climate change, energy- and energy-extraction-related risks (such as coal combustion and hydraulic fracturing), energy efficiency, recycling and environmental hazards in the air, water and soil. Investors play an important role in environmental topics by drawing attention to the relevant issue and influencing disclosure.

The potential negative effects for companies that do not manage environmental risks include increasing costs (such as the need to clean up oil spills or restore the landscape around exploration sites), reputational damage in the event of headline-grabbing polluting incidents, or litigation costs. Integrating environmental considerations into a corporate strategy can also present opportunities. For example, using resources efficiently will reduce costs, while companies offering innovative solutions, such as printer suppliers helping their customers to get by with fewer and more energy-efficient printers, can gain a competitive edge.

ESG integration

The structural integration of information on Environmental, Social and Governance (ESG) factors into the investment decision-making process.

Sustainable investors believe that sustainability can have a material impact on companies' performance, and that factoring in financially relevant sustainability information can therefore lead to better investment decisions.

As a wide variety of sustainability information is available, investors first determine which ESG information is financially relevant. The second step is to analyze the impact of these material factors on individual companies and any competitive advantages or disadvantages that arise. The final stage is to translate this impact into adjustments to the valuation models used for equities.

Robeco also integrates sustainability information into the analysis of government and corporate bonds. Robeco's credit analysis team focuses on a bond issuer's cash-generating ability and the quality of those cash flows. The team's model uses five different variables, one of which is ESG. The importance of the E, S and G factors differs for each sector. The credit crisis, for instance, revealed the importance of good corporate governance for financial corporate bonds.

Robeco uses RobecoSAM's Country Sustainability Ranking in the management of its government bond portfolios. This ranking is based on a comprehensive ESG database. It is updated twice a year and functions as an early-warning system that helps us to identify both the threats and the opportunities in a country before they are reflected in spreads or ratings.

Exclusion

The exclusion of sectors or companies from an investment portfolio if they do not comply with specific ESG criteria.

Investors can choose to exclude a list of controversial countries or companies that do not comply with international agreements or treaties, such as producers of controversial weapons.

Sustainable asset managers have the primary duty to obtain good performance for their clients, and want to achieve this in a sustainable way. Consequently, they tend to focus less on exclusion, preferring instead to have constructive dialogues with companies to encourage them to improve their sustainability performance.

Robeco engages with companies that systematically breach the UN Global Compact principles in terms of human rights, labor rights, the environment and corruption. If these companies are excluded from our investment universe from the outset, we cannot exert any influence on them. We therefore only exclude companies when engagement fails to have the desired effect. However, we do exclude controversial countries on the basis of international agreements, and companies on the basis of legislation, such as producers of controversial weapons.

Ethically driven funds can take this principle further and exclude companies that do not comply with their moral beliefs, such as tobacco companies or firms that are involved in deforestation or child labor.

Footprint

A country, company or person's impact on the earth's resources and on other people.

An ecological footprint is a way of measuring how a company or an investment portfolio of companies impacts the planet. There are various ways to determine a footprint. It can be an indicator of, for example, how much productive land, freshwater or seawater a company uses; how much greenhouse gas it emits; or how many trees it needs to cut down to produce a certain article. It can also show the emissions generated from the oil, coal and gas we burn, or how much land is required to absorb our waste.

A portfolio's footprint can be reduced by excluding or underweighting sectors or companies with a large footprint, or by engaging with them to reduce their footprint.

Impact investing

Targeted investments that produce both an attractive return and a measurable positive social or environmental impact.

Starting with a specific impact objective, impact investors require their investments to produce quantifiable socioeconomic or environmental benefits.

Traditionally, impact investors have focused on smaller, private allocations to social enterprises and project-type investments, for example through microfinance instruments. However, this has remained a niche activity due to liquidity constraints and limited scalability. But today, impact investing is increasingly being taken from the margin to the mainstream as the concept is being introduced to major asset classes such as listed equities and fixed income.

Focused impact investing portfolios allocate to companies that provide products and services that make a positive impact. The impact objectives of these portfolios are often linked to resource efficiency in areas such as climate, energy, water, health and food. These portfolios can invest in companies in areas such as alternative energy, water treatment technologies or energy efficiency equipment. Companies providing resource efficiency solutions not only enjoy competitive advantages relative to other firms, but also have a greater positive social and environmental impact.

Integrated reporting

Communicating both sustainability and financial targets and results in one report, linking them to each other.

The concept of providing a comprehensive report integrating the two separate streams of information most companies currently provide – sustainability data in a corporate responsibility report and financial information in an annual report – is rapidly gaining ground.

Whereas a corporate responsibility report does not speak the language of financial analysts, and an annual report only provides financial data, an integrated report links traditional sustainability data to the company's strategy and its financial results. It translates sustainability targets into Key Performance Indicators and value creation.

The International Integrated Reporting Council (IIRC), a global coalition of regulators, investors, companies, accountants and NGOs, promotes integrated reporting and thinking in both the public and private sectors.

Materiality

The relevance of a sustainability factor to a company's financial performance.

Financially material ESG factors are factors that could have a significant impact – either positive or negative – on a company's business model and value drivers, such as revenue growth, margins, required capital and risk. The material factors differ from one sector to another. Examples of factors that can be material include supply chain management, environmental policy, worker health and safety, and corporate governance.

For sustainability to translate into financial performance, it must have an impact on either the cash flow generated by the company, or its cost of external financing (the weighted average cost of capital). Free cash flow is a function of revenues and expenses, as well as taxes and reinvestment rates. The weighted average cost of capital is a function of short-term interest rates and the risk premiums a company must pay for acquiring equity, debt financing and cash.

Negative screening

Excluding companies that engage in activities that are deemed objectionable.

Negative screening involves excluding from an investment universe companies that do not comply with specific pre-set social or environmental criteria. For example, some mutual funds screen out companies involved in the production of alcohol, tobacco or gambling products, also referred to as 'sin stocks'. Other negative screens frequently applied are on weapons manufacturers, nuclear power producers or companies that use child labor.

Negative screening can be a first step for investors to invest sustainably. The downside is that it has no net impact, as there is always someone who is willing to buy the relevant shares in their place.

Positive screening

Investing in companies that show leadership in social and environmental issues, such as employee policies, environmental protection or human rights.

Positive (or affirmative) screening means that rather than excluding companies, investors select companies that set good examples in terms of their, for example, environmentally friendly products or socially responsible business practices. Unlike negative screens, which are generally more black and white, positive screens require analysis of complex issues such as pollution, workplace practices, diversity and product safety.

Part of a positively screened investment portfolio may consist of smaller companies that have come up with innovative products that enhance the world's sustainability. Examples include firms generating renewable energy, such as solar power, wind power or hydrogen fuel cells; manufacturers of natural food and healthy living products; and companies involved in environmental clean-up and recycling.

A well-diversified portfolio also needs to invest in large and medium-sized companies. Larger companies, and the problems they face, are more complex. Positive screening can help determine which are heading in a positive direction. Mutual funds and other institutions often use a 'best-in-class' approach to positively screen companies. This means that they can include a tobacco company that is showing leadership in its industry, despite the overall record of that particular industry.

PRI

The Principles for Responsible Investment, a global initiative supported by the United Nations. Also referred to as UN PRI.

The United Nations-supported Principles for Responsible Investment (PRI) initiative is an international network of investors working together to put the group's six Principles for Responsible Investment into practice. Its goal is to understand the implications of sustainability for investors and support signatories in incorporating these issues into their investment decision-making and ownership practices.

In implementing the Principles, the signatories contribute to the development of a more sustainable global financial system. They have a duty to act in the best long-term interests of their beneficiaries. In this fiduciary role, they believe that environmental, social, and corporate governance issues can affect the performance of investment portfolios. They also recognize that applying these Principles may better align investors with the broader objectives of society.

The six principles are:
Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.
Principle 5: We will work together to enhance our effectiveness in implementing the Principles.
Principle 6: We will each report on our activities and progress towards implementing the Principles.

Robeco and RobecoSAM have been signatories of the PRI since 2006.

Sin stocks

Shares in companies involved in activities that are considered unethical, such as alcohol, tobacco, gambling, adult entertainment or weapons.

Ethical investors tend to exclude sin stocks, as the companies involved are thought to be making money from exploiting human weaknesses and vices. It is a relative concept, though, as different cultures have different opinions on what constitutes a sin. Although sin stocks usually include alcohol, for example, brewing bear or making a fine wine can be considered a noble tradition in various regions or countries in the world. And whereas some investors exclude weapons manufacturers on moral grounds, serving in the military can be considered an act of patriotism by others.

Various studies show that sin stocks deliver better returns than stocks in general. There are several explanations for this. One of them is that sin stocks are undervalued because many investors avoid them. Another one is that sin industries pose increased litigation risk or reputation risk, for which investors are compensated with a risk premium.

A more recent explanation is offered by David Blitz, Head of Quantitative Research at Robeco, and Frank Fabozzi, Professor of Finance at EDHEC Business School, in their article 'Sin Stocks Revisited: Resolving the Sin Stock Anomaly' published in the Journal of Portfolio Management. They show that the outperformance of sin stocks can be explained by two Fama-French quality factors, 'profitability' and 'investment'. The profitability factor maintains that high-profitability stocks perform better, while the investment factor suggests that stocks in firms with high total asset growth perform worse. Sin stocks tend to have high exposure to both factors; cigarette makers, for example, enjoy high margins due to relative price inelasticity, and are restricted in how they can grow their assets.

Social

The 'S' in ESG: one of the three key factors to consider in sustainability investing, together with environmental and governance matters.

Social issues relate to the rights, well-being and interests of people and communities. These issues include human rights, labor standards in the supply chain, child and forced labor, workplace health and safety, and relations with local communities.

A company that manages social issues well and takes the interests of its various local stakeholders into account will obtain a 'social license to operate'. This refers to a level of acceptance or approval by local communities and stakeholders. This will facilitate the obtaining of government permits and 'social permission' to conduct its business. Increasingly, a social license to operate is an essential part of operating within democratic jurisdictions as without sufficient popular support, government agencies are unlikely to grant operational permits or licenses.

A company that does not address social issues risks reputational damage, increased costs and lawsuits.

Socially Responsible Investing

An investment strategy that seeks to consider both financial returns and social good.

Sometimes also referred to as sustainability investing, although this term is considered to be broader (see Sustainability Investing).

An investment is considered socially responsible based on the nature of the business the company conducts. Common themes for socially responsible investments include avoiding investment in companies that produce, sell or are involved in addictive substances or activities (like alcohol, gambling and tobacco) and seeking out companies engaged in social justice, environmental sustainability and alternative energy/clean technology. Socially responsible investments can be made in individual companies or through a socially conscious mutual fund or exchange-traded fund (ETF).

One example of socially responsible investing is community investing, which goes directly toward organizations that have a track record of social responsibility by helping a community, but have been unable to garner funds from other sources, such as banks and financial institutions. The funds enable these organizations to provide services, such as affordable housing and loans, to their communities. Their goal is to improve the quality of the community by reducing its dependency on government assistance such as welfare, which in turn has a positive impact on the community's economy.

Stewardship code

A code requiring institutional investors to be transparent about their investment processes, engage with investee companies and vote at shareholders' meetings.

The first stewardship code was introduced in the United Kingdom in 2010, with the objective of enhancing the quality of engagement between asset managers and companies to help improve long-term risk-adjusted returns for shareholders. In early 2015, Japan was the first country in Asia to introduce a stewardship code. The International Corporate Governance Network has launched a Global Stewardship Code.

Although stewardship codes are not compulsory, they are increasingly viewed as a condition if companies wish to retain business. For example, Japan's largest pension fund, GPIF, requires its asset managers to be signatories of the Japanese Stewardship Code.

Robeco is a signatory of the UK, Japanese and Taiwanese Stewardship Codes and has its own Stewardship Policy, which explains how Robeco fulfills its duties as a good steward by engaging, voting and reporting about its sustainability investing strategy in a transparent way. Through this policy, Robeco also complies with all existing codes.

Stranded assets

Assets on corporate balance sheets that rapidly lose their value as a result of forced write-offs.

Stranded assets currently mainly refer to utilities and exploration companies, whose traditional activities of finding and generating energy from fossil fuels have come under pressure as a result of climate protection regulations.

Research by Nature magazine published in January 2015 suggests that a third of oil reserves, half of gas reserves and 80% of coal reserves should remain unused from 2010 to 2050. The research identified the largest risks areas as coal reserves in China, India and the former Soviet Union, and oil and gas reserves in the Middle East.

Supply chain management

Integrating environmentally and socially viable practices into the entire supply chain life cycle.

There is a growing need for companies to ensure and monitor the sustainability of their supply chains. If a company's supplier resorts to, for example, child labor, this can result in reputational damage and costs for the company. Corporations therefore increasingly see sustainability in their entire supply chain as essential to their long-term profitability. A sustainable supply chain can offer value creation opportunities and competitive advantages.

Supply chain management affects the production process from product design and development, to material selection (including raw material extraction or agricultural production), manufacturing, packaging, transportation, warehousing, distribution, consumption, return and disposal. Environmentally sustainable supply chain management and practices can help organizations not only reduce their total carbon footprint, but also optimize their end-to-end operations to achieve greater cost savings and profitability.

Sustainable Development Goals

A set of sustainability goals released by the United Nations in 2015 as a successor to the Millennium Development Goals. Officially known as 'Transforming our world: the 2030 Agenda for Sustainable Development'.

193 countries have agreed to contribute to the realization of 17 Sustainability Development Goals (SDGs) by 2030. The goals aim to tackle social and environmental challenges such as climate change, the promotion of clean energy, extreme poverty, gender equality and sustainable agriculture.

SDGs differ from the Millennium Development Goals in that they call on the private and public sectors, together with the signatory governments, to cooperate closely in order to tackle the most serious issues facing people and the planet.

As a sustainable investor, Robeco embraces the SDGs. We already integrate Environmental, Social and Governance (ESG) factors into our investment processes in order to make better-informed investment decisions and improve the risk/return profile of our investments.

Robeco sees the SDGs as a business opportunity for listed companies, providing them with a future competitive advantage by being a source of innovation, process improvements and operational efficiencies. At the same time companies can have a positive impact on society and the environment. We believe that companies that embed the SDGs in their business strategy will be more likely to align with governmental policies and regulations and therefore avoid the risk of losing their license to operate or encountering high costs resulting from structural change.

Sustainability investing

An investment discipline that considers environmental, social and corporate governance criteria to generate long-term competitive financial returns and positive societal impact. Also referred to as responsible investing.

Sustainability investing is a broad concept, and there are many different rationales, approaches and definitions. The motives behind it vary from ethical principles to simply wanting to achieve better investment results. There are various methods to invest sustainably, such as through active share ownership (engagement & voting), integration of ESG factors, best-in-class approaches, thematic investing, impact investing and exclusion.

Responsible investing is a holistic approach that aims to include any information that could be material to investment performance. As a signatory of the Principles for Responsible Investment, Robeco uses this approach as well, but we use the term sustainability investing.

Thematic investing

Investing in themes contributing to the development of sustainability.

Sustainability-themed investments help address social or environmental challenges by investing in companies offering solutions to these problems. The most important issues tend to be population growth, rising wealth in the developing world, natural resource scarcity, energy security and climate change. Such investments generally focus on environmental themes, but can also cover social issues, such as health.

RobecoSAM offers a range of thematic strategies investing in companies that provide solutions to the most urgent sustainability challenges. Its range includes smart energy, healthy living, smart materials and sustainable water strategies.

UN Global Compact

A global corporate sustainability initiative, calling on companies, investors and other participants to align their strategies and operations with universal principles on human rights, labor, environment and anti-corruption.

The ten principles are:

Human Rights
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
Principle 2: Make sure that they are not complicit in human rights abuses.

Labour
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4: The elimination of all forms of forced and compulsory labor;
Principle 5: The effective abolition of child labor; and
Principle 6: The elimination of discrimination in respect of employment and occupation.

Environment
Principle 7: Businesses should support a precautionary approach to environmental challenges;
Principle 8: Undertake initiatives to promote greater environmental responsibility; and
Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Robeco is a participant in the UN Global Compact and engages with companies that structurally and severely breach UN Global Compact principles.

Voting

Voting at Annual General Meetings of shareholders (AGMs), aiming to influence a company's governance or operations.

Voting is a way for active owners to influence companies. If there are important issues and a company is unwilling to listen to shareholders or other stakeholders, voting at its AGM can be a powerful tool. The results of decisions made at AGMs are made public. When shareholders vote against a proposal, a company has to address the issue.

Robeco has drawn up a voting policy on the basis of the principles of the International Corporate Governance Network. This is an internationally recognized set of best practices for good corporate governance. The principles aim to improve corporate governance, risk management, remuneration policy, shareholders' rights and transparency. Robeco assesses all voting decisions in light of its voting policy.

Sustainability Pioneers

ROBECO
The Investment Engineers

ROBECOSAM
We are Sustainability Investing.

Robeco is a pioneer of sustainability investing, as one of the first asset managers to take it seriously in the 1990s. Since the creation of the first Groencertificaten (Green Certificates) in 1995 to the launch of the first sustainable equities fund in 1999, its importance within the firm has only grown over the past two decades. ESG analysis has been integrated in the mainstream investment process since 2010, and is now routinely applied across the entire fundamental equities, fixed income and quantitative fund ranges.

It is not just about investment: we have a dedicated Active Ownership team, with engagement specialists who enter into active dialogues with the companies in our portfolios, and those of clients. We vote at almost 5,000 shareholder meetings per year, using voting policies that are based on the internationally recognized principles of the International Corporate Governance Network (ICGN). Robeco is also a signatory to the UN Principles for Responsible Investment – gaining the top A* rating in 2017 – along with the UN Global Compact and other global and local initiatives.

Our sister company RobecoSAM, founded as Sustainable Asset Management in 1995, is an investment specialist that focuses exclusively on sustainability investing. It offers asset management, indices, impact analysis and investing, engagement, voting, sustainability assessments and benchmarking services. Asset management capabilities cater for institutional asset owners and financial intermediaries and cover a range of ESG-integrated investments in public and private equity, with a strong track record in resource efficiency themed strategies.

Together with S&P Dow Jones Indices, RobecoSAM publishes the globally recognized Dow Jones Sustainability Indices (DJSI). Based on its Corporate Sustainability Assessment (CSA), an annual ESG analysis of over 4,000 listed companies, RobecoSAM has compiled one of the world's most comprehensive databases of financially material sustainability information.

For more information, please visit https://www.robeco.com/en/about-us/

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Credits

We would like to show our thanks and appreciation to all Robeco and RobecoSAM colleagues who contributed to the creation of this book in writing, editing, providing input and feedback, among whom (in alphabetical order):
Steef Bergakker, Chris Berkouwer, Christian Bosshard, Koos Burema, Leon Cornelissen, Silva Dezelan, Bart van der Grient, Frank Groven, Johan Hillebrand, Peter van Kleef, Vera Krückel, Carola van Lamoen, Heather Lane, Jacob Messina, Guido Moret, Fabio Pellizzari, Christoph von Reiche, Sharolyn Reynard, Max Schieler, Rikkert Scholten, Clarinda Snel, Gilbert Van Hassel, Taeke Wiersma, Daniel Wild, Masja Zandbergen and Machiel Zwanenburg.

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