



Four ways credit investors can contribute to a more sustainable future

Contents

1. Introduction	3
2. The four methodologies	
- ESG integration	6
- The Robeco SDG Framework	12
- Selection framework for ESG-labeled bonds	18
- Robeco Sector Decarbonization Pathway methodology	23
3. Building the agenda for future research in sustainability	30
4. The importance of innovative tooling	34



1. Introduction

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As the world's awareness grows of the importance of sustainability, investors are seeking to align capital allocation with personal values, while also wanting to comprehend the implications of their investment choices. Credit investors, too, have an opportunity to drive and navigate change by incorporating sustainability factors into their decision-making processes. But doing this effectively requires a disciplined application of sensible tools and methodologies.

In this publication we highlight four methodologies that Robeco's Global Credit team uses in issuer selection and portfolio construction to make better-informed investment decisions and help direct capital for the well-being of society. We discuss the ESG integration methodology, the application of Robeco's SDG Framework, the selection framework for ESG-labeled bonds, and Robeco's latest innovations in decarbonizing credit portfolios.

Portfolio managers, credit analysts and sustainability experts share their insights, describe the practical application of these methodologies and discuss case studies. We also highlight areas that Robeco has identified for future sustainability research and outline the importance of innovative tooling for the management and application of sustainability data.

A key message from the insights in this publication is that each of these methodologies has a particular role to play in helping investors navigate the transition to a more sustainable future, whether the aim is to mitigate the downside risk of dynamic ESG factors or to align investments with sustainable development and the low-carbon transition.

2. The four methodologies

- ESG integration
- The Robeco SDG Framework
- Selection framework for ESG-labeled bonds
- Robeco Sector Decarbonization Pathway methodology



ESG integration

ESG integration

Credit events such as defaults or bankruptcies can often be traced to issues that in retrospect might have seemed glaringly obvious. ESG-related infringements like poorly designed governance frameworks, environmentally damaging activity or weak health-and-safety standards will almost inevitably undermine a company's financial performance.

By considering ESG factors in the investment decision-making process, the Robeco credit team gains a better and more complete picture of the fundamental credit quality of the companies in their investment universe, which in turn supports their ability to select quality assets for portfolios.

How it works

"The key focus of Robeco's credit analysis is the cash-generating capacity of the issuer, the quality of cash flows, and the ability to repay debt," says Taeke Wiersma, Robeco's Head of Global Credits. Analysts evaluate five factors to reach a conclusion on this, which is expressed in the form of a fundamental score – referred to as an F-score. The issuer's ESG profile is one of these five factors, alongside its business position, strategy, financial position, and corporate structure and covenants.

Figure 1 - The five pillars of Robeco's fundamental credit analysis

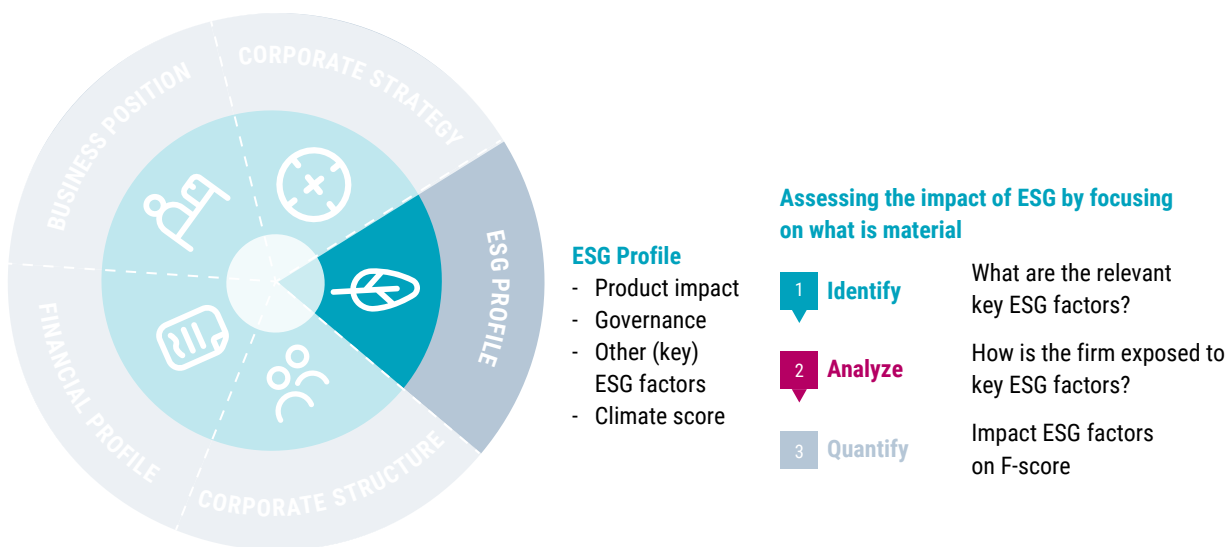


Source: Robeco. For information purposes only and not intended as investment advice.

"We believe in the principle that using financially material ESG information leads to better-informed investment decisions," he says.

The assessment of ESG factors and their implications for an issuer’s fundamental credit quality involves four elements: the impact of the product or service produced, the company’s governance system, how the business is positioned in terms of the key ESG criteria relevant to each sector, and its climate resilience and decarbonization strategy.

Figure 2 - The role of ESG integration in fundamental credit analysis



Source: Robeco. For information purposes only and not intended as investment advice.

The credit analyst team keeps track of the extent to which ESG considerations have a substantial impact on the credit fundamentals of the companies in their coverage universe. The bottom line is that this analysis plays a key role in shaping analysts’ findings: data for January 2023 shows that ESG information has a financially material impact in about 28.6% of company profiles, of which 22.4% is negative and 6.2% is positive.

ESG considerations have been integral to Robeco’s investment process since 2010, and are an essential part of the sustainable investing methodology in fundamental credits. The ESG integration framework is applied to each company in which the team invests – and across all our fundamental strategies, regardless of whether they have an explicit sustainability focus.

Perspectives on the application of the ESG integration framework

Clear, substantiated recommendations

The value of clearly defined methodologies such as the ESG integration framework is that they take the emotion out of the equation.

“It gives me peace of mind that, by using the methodology, I can make clear, substantiated recommendations that are consistent with the recommendations our team makes across the universe of companies we cover,” says Ihor Okhrimenko, Credit Analyst at Robeco who specializes in the utilities and infrastructure sectors. “This is especially helpful in clarifying thinking about topics or sectors where we as analysts might have strong personal opinions.”

Like all his colleagues in the credit analyst team, Okhrimenko publishes detailed reports on the companies in his beat, each bearing a conclusion and recommendation on the cover page, alongside the F-score. To ensure sufficient time for thorough analysis, each analyst produces a maximum of 40 reports per year.

He believes that it is especially important to apply fundamental analysis when it comes to ESG, given that the data quality in this realm is not always as rigorous as it is for financial indicators. "As analysts we know the companies we cover well and know when a data point doesn't make sense. So that's where we can add value to the proposition."

Every company report produced by the credit analysts has an ESG integration section, including a climate score and an SDG score. The sustainable investing (SI) profiles produced by Robeco's SI Research team are used as input for this, along with internal data tools and data from third-party ESG data providers.

"Our role in the process is to go deeper in the sustainability assessment and to help fixed income investors understand the risks," says Gabriella Abderhalden, Analyst in the SI Research team, who specializes in consumer discretionary companies.

"We read the published ESG reports, which of course all sound great. But it's a matter of figuring out if there are any pitfalls for investors. We have all these nice [ESG and sustainability] targets, but in some instances this is not founded on a solid strategy. They talk about recycling, but there's very little information on what they do in this area, and how they have improved over the last, say, three or five years. These are all elements of greenwashing. And that's what I'm trying to identify."

ESG integration, step by step

The first pillar in the ESG integration framework involves looking at the impact of the products that a company sells, to determine whether these entail financially material risks for the business. This is based on our view that companies that produce unsustainable products and services could face additional and financially material risks, which in turn could pose risks for credit investors. "Airlines or oil companies are examples of businesses that might be under pressure, because the environmental impact of their products and services could eventually lead to reduced sales, or because there is a risk that carbon taxes could dilute a company's earnings," Okhrimenko says.

The second pillar of the ESG framework considers corporate governance. "This is an especially important element since, if there's a corporate governance issue, it's almost always financially material," he explains.

The third pillar evaluates key ESG risk factors, which differ by sector. Robeco's SI Research team features prominently here, as they provide a materiality framework per sector, in each case reflecting elements critical to that industry.

For the automotive industry, Abderhalden highlights human capital management in the transition to electric vehicles as one of the relevant sector-specific themes that she investigates and communicates to the credit analyst, especially in light of the enormous shifts that the industry is undergoing. Most automotive manufacturers are currently ill-prepared to face union-related issues and concerns about what the energy transition implies for the labor force. "The fact that car makers have to launch battery cars is a huge human capital risk, because the workforce is large and the question is: how do you reskill everyone?"

“ Our role in the process is to go deeper in the sustainability assessment and to help fixed income investors understand the risks.

The issuer's exposure to climate change and its readiness to mitigate the effects are the theme of the final pillar of the framework. Here, the credit analyst uses an issuer-specific climate score, generated in accordance with the methodology created by the specialists in the SI Center of Expertise. This score reflects an assessment of the company's influence on climate. Okhrimenko explains that, "unlike in the other three pillars, we here consider double materiality: not only the financial risks of climate for the company, but also the company's impact on climate." This pillar requires the analyst to draw a conclusion on the issuer's carbon intensity as well as the credibility of the company's decarbonization strategy.

Here, too, the automotive industry is an interesting example. Abderhalden describes how she applies the methodology to assess the merits of a carmaker's spending plans to finance its transition to electric vehicle production. She runs the numbers to estimate what it would cost the company to set up production facilities for batteries and battery cars, and the implied capex requirement for the coming five years. This is then compared with what has been communicated to the market. "If their capex budget falls short of our estimates, I would regard it as a warning sign and would flag it as a risk in the SI research report. The relevant credit analyst and portfolio managers would then pick this up."

Efficiencies through collaboration

The sharing of information between credit analysts, SI analysts, engagement specialists and portfolio managers is an ongoing process that creates efficiencies and adds depth to the insights generated. This collaboration includes formal meetings to identify the sustainability leaders and laggards, and to determine what it means for the investment case. While the analysts make recommendations based on the assessment, the final investment decision is up to the portfolio manager.

The value of Robeco's ESG integration framework needs to be seen in the context of the full spectrum of sustainability-related tools that the credit teams apply. As Okhrimenko puts it, "ESG integration is important, but I view it as being the very first – and basic – element of a sustainability toolkit. It considers only the financial risk faced by the bond issuer, and is not necessarily about making the world a better place. The critical aspect in our move towards a more sustainable future is to have a focus towards impact."

In that regard, he says, Robeco has powerful tools including its work on decarbonization, its ESG bond selection framework and the Robeco SDG Framework.

Case studies

A GLOBAL AGRITECH COMPANY

"We believe this company faces some serious ESG risks as it faces legal action on grounds of allegations that one of its products creates significant health issues. Well before the matter featured in third-party research from the sell side, we strengthened our assessment of the financial materiality of this risk by consulting a legal expert in this field."

"The conclusion was that there were indeed material ESG risks, but that these are manageable from a financial point of view. But to underscore how each methodology has a different perspective and purpose, it's important to be aware that this company has a negative SDG score in terms of our SDG Framework. That means that, for those strategies that strive towards positive impact, this company would be excluded as a holding."

Credit Analyst, Chemicals

THE AIRLINE INDUSTRY

"We have a negative view on the airline industry, based on the product impact pillar of the ESG integration framework and, specifically, the negative impact on the environment. From an analyst perspective, the complication here is the time horizon. While the financially material ESG risk for the airline industry could play out over many years, our horizon in determining an F-score is up to about 18 months. Over this timeline it is a matter of assessing the financial risk of, for example, emissions-related taxes that are now being imposed on the industry." ***Credit Analyst, Airline industry***

CALCULATING THE CLIMATE SCORE FOR A EUROPEAN ENERGY UTILITY

"Our analysis of this company's climate strategy, which forms part of the overall ESG assessment, results in a climate score of +2, from a possible range of -3 to +3."

"Given its low carbon intensity, expressed as total emissions relative to enterprise value, the starting point for the score is zero. Our qualitative assessment of the company's climate strategy results in this being upgraded to the final score of +2. This is because 90% of its capex plans for 2023-2025 are aligned with the EU Taxonomy. Its projected decarbonization pathway of -8% per year is faster than the sector average and includes clear short and medium-term goals. Furthermore, this pathway is aligned with the best possible Paris Climate Accord scenario, namely 1.5 °C, not just simply below 2 °C. The targets are validated by the SBTi."

"The utility's carbon intensity of global power generation was 88 gCO₂/KWh in 2022, which is well below the 374 gCO₂/KWh global average threshold required for a 2 °C alignment pathway, and is already below the 100 gCO₂/KWh where the entire industry needs to reach by 2030 for a 1.5 °C alignment."

Ihor Okhrimenko, Credit Analyst, Utilities



The Robeco SDG Framework

The Robeco SDG Framework

Sustainable investing requires investors to be able to determine to what extent an investment aligns with their sustainability objectives. But there are very few methodologies available for screening and monitoring investments for their ESG-related and impact characteristics, let alone ones that are widely accepted and simple in application.

To fill this gap, and to ensure meaningful progress with its sustainability ambitions, Robeco developed its own methodology, the Robeco SDG Framework.

How it works

The methodology is based on the UN Sustainable Development Goals (SDGs) – which represent a comprehensive set of universally adopted ambitions – and is a clear, consistent and replicable approach for assessing a company's contributions to the SDGs.

It consists of a three-step sequence that starts by assessing the impact of a company's products and services on broader society. This is followed by an investigation of the company's operations, and then a screening of controversies that could negatively influence the SDGs.

Robeco's proprietary SDG Framework provides clear and consistent guidelines for quantifying issuers' alignment with sustainable development.

Step 1: What do sectors and companies produce?

The process starts with mapping an issuer's activities to the relevant industry baseline. The contributions of companies within the industry are then assessed based on their performance across industry-specific sustainability indicators. These indicators correspond to the targets that underpin each of the SDGs.

Step 2: How do companies operate?

Step 2 assesses the processes with which companies create their products, and whether these are compatible with the SDGs. Do they cause pollution, do they respect labor rights and is the board diverse? Analysis relies on comprehensive evaluations of a company's governance, internal policies and historical track record on operational sustainability.

Step 3: Is the company involved in controversial issues or litigation?

Even if a company's products and processes are in line with the SDGs, it could still be embroiled in scandals that have a negative impact on the SDGs. Examples include fraud, bribery and human rights abuse.

For this reason, a final round of monitoring is conducted whereby analysts examine whether companies are involved in controversies or legal disputes. Key factors scrutinized include whether a controversy has had a significant adverse impact on the SDGs; whether the company has taken appropriate actions to remediate negative impacts; and whether it has taken decisive steps to ensure such issues do not arise in the future.

The final results of this three-step analysis are quantified in an SDG score. Positive-impact companies can receive an SDG score of +1 to +3 (lowest to highest) depending on the strength and quality of their contributions to the SDGs. Similarly, negative-impact companies receive SDG scores of -1 down to -3 (the worst), depending on the extent to which they detract from the SDGs.

Robeco has a range of fundamental SDG-related fixed income strategies that use the SDG Framework to determine their investment universe. Strategies with the strongest sustainability profile invest only in bonds with an SDG score of zero or higher, while other strategies can also allocate a limited proportion of the portfolio to issuers with an SDG score of -1 and that are considered to be in transition.

In addition to being applied to these SDG-related credit strategies, Robeco's SDG Framework is also employed in the fundamental credit reports described in the chapter on the ESG integration framework. These reports form part of the input for the issuer selection process for all Robeco's credit strategies. This reflects our view that companies producing unsustainable products and services could face additional and financially material risks, which in turn could pose risks for credit investors.

"Empirical evidence supports our view that screening credit holdings for their SDG impact and sustainability characteristics is positive for performance in the sense that it enhances our ability to screen out poor performers – without impeding our capacity to generate alpha through issuer selection," says Taeke Wiersma, Head of Global Credits at Robeco.

“ Companies producing unsustainable products and services could face additional and financially material risks, which in turn could pose risks for credit investors.

Perspectives on the application of Robeco's SDG Framework

A novel approach

Jan Anton van Zanten, SDG Strategist at Robeco, considers the methodology to be unique. "I think the importance of the framework is that it is novel. A lot of sustainable investors still focus mainly on avoiding ESG risks, while very few are truly targeting companies with positive impact. And I think our SDG Framework is innovative in that it is an absolute framework that judges companies based on their contributions to the SDGs."

Reinout Schapers, who is a portfolio manager for, among others, RobecoSAM Global SDG Credits, says the framework positions investors to raise the bar on sustainability, year after year. "For our SDG-focused credit strategies, the set-up is such that you are setting a minimum standard and continuously progressing toward something even better."

Even for strategies that do not invest with an explicit goal of contributing to the SDGs, the framework helps create better outcomes. According to Schapers, it means he and his colleagues are better informed about companies' longevity and resilience because they gain insight into which businesses or industries have outdated business models or are vulnerable to being left with stranded assets, for example. "In fact, I believe that as investors we are developing the discipline of adopting a much longer time horizon."

An effective tool for demonstrating alignment with sustainable outcomes

With expanding regulatory oversight to ensure that investors can substantiate sustainability-related claims, the transparency and replicability of the SDG Framework are especially relevant features.

The EU Sustainable Finance Disclosure Regulation (SFDR), for instance, requires asset managers marketing investment solutions in the EU to provide comprehensive sustainability disclosure. “The SDG Framework is a very good tool for aligning with this important requirement, in that we can conclude that a company with a positive SDG score could be considered a sustainable investment,” Schapers says. The same could apply to the UK’s forthcoming Sustainability Disclosure Requirements (SDR) regulation.

But Van Zanten observes that it will take time for the majority of investors to move beyond a mindset that focuses purely on identifying ESG-related risks to their assets, and to develop clear thinking about how their investments have an impact on society and the planet.

“It takes a lot of education to encourage people to change their thinking, because once they are focused solely on ESG integration it’s hard to take a next step to also consider the impact that companies have. ESG integration is great but more needs to be done to support the SDGs.”

He uses some colorful real-life examples to drive home his point about the significance of an SDG-framed assessment of portfolio companies. A certain global miner embroiled in serious governance issues, and a multinational that manufactures cigarettes and other tobacco products both have top-notch ESG scores. Both businesses have negative SDG scores, though; the former because of its environmental impact and controversial behavior, and the latter because of the products it produces.

Van Zanten then describes another pair of companies: one of the world’s largest manufacturers of solar panels, and a water treatment business. Viewed from the perspective of the SDG Framework, both companies have positive SDG scores, thanks to their products and services, and because they aren’t involved in any major controversies or illegal behavior. However, both have very low ESG scores, mainly because their governance structures do not meet western standards – even though their way of working is acceptable in their respective markets.

“These are anecdotal examples to illustrate research that we conducted on this topic, which showed that sustainable investment strategies designed only around integrating ESG ratings could have sub-optimal outcomes. In particular, such strategies are likely to continue investing in companies responsible for negative impact, while missing investments in companies that make positive contributions.”

In other words, this could result in investors failing to meet their sustainability objectives. “While there is indeed value in ESG ratings, they should be used to complement an SDG score, to thereby support financial performance while targeting positive impact.”

Quantifying the contribution to the SDGs

Robeco has continued to develop the application of the SDG Framework, which goes beyond generating an SDG score. "While the SDG score is of course a very good indication of the expected positive impact of an issuer, there is tremendous value in being able to quantify that impact, and in particular the impact that a client's capital is supporting," Van Zanten says.

For instance, a pharmaceutical company could receive an SDG score of +2, indicating it has medium positive impact, thanks to the fact that it manufactures adequate and safe medicines that help reduce mortality and morbidity. Only by quantifying the outputs and outcomes that investee companies provide, can the real-world effects of a particular investment be evaluated.

To this end, the Robeco SDG team developed a framework through which companies' contributions to relevant SDGs are captured in a concise, consistent and comparable manner. It generates metrics that are linked to official SDG targets and indicators. Paul Ruijs, Impact Specialist at Robeco, explains that for holdings with a positive SDG score, the overall contribution to these targets and indicators is quantified. Examples include gigawatts of clean energy generated by the company, cubic meters of clean drinking water distributed, or the value, in billions of euros, of mortgage financing provided to low and middle-income households.

"And based on our approximation of the total impact that a company has, we then attribute a portion of this impact to our investment, depending on the proportion of the issuer's outstanding capital that we are financing."

The ultimate objective of these metrics is to illustrate to clients why portfolios are invested the way they are, to further the education process, and therefore to help drive the momentum on sustainable investing.

In line with this philosophy of leading constructive discussions on sustainability in investing, Robeco now offers academics, sustainable investing experts and clients access to its SDG Framework and SDG scores via its SI Open Access platform. The aim is to promote and encourage research and idea generation, and to enable an optimized approach to impact-aligned investing.

Van Zanten concludes that, if you claim to be a sustainable investor, you need to invest in things that are good for the world. "To do that, you need a metric and a sound methodology. I believe we were one of the first to create a metric that measures sustainable impact. And that's clearly a positive development for our clients."

"The ultimate objective is to illustrate why portfolios are invested the way they are, and to help drive the momentum on sustainable investing."

Case studies

BANKING TO ALLEVIATE POVERTY

“A large Latin American bank is an example of an issuer that has a positive overall SDG score, and which makes a notable contribution to SDG 1, ‘No poverty’. It provides financial and non-financial solutions to individual and corporate customers in five countries in the region and – importantly – offers financial solutions to those who would otherwise have been unbanked.”

“In particular, in its primary market, the bank serves 9.3 million microentrepreneurs and self-employed workers, and 5.6 million micro-businesses.”

“In so doing, the bank contributes to SDG target 1.4, which calls for improved access to basic services, including financial services.” **Paul Ruijs, Impact Specialist**

IMPACT THROUGH WATER AND WASTE

“A European-headquartered business with global operations in water, waste and energy management makes a clear contribution to SDG 6, ‘Clean water and sanitation’, and in particular SDG target 6.1, ‘Safe and affordable drinking water’ and SDG target 6.3, ‘Improve water quality, wastewater treatment and safe reuse’.”

“In 2021, the company treated around 5.2 billion cubic meters of wastewater and distributed more than 6.8 billion cubic meters of clean drinking water to 79 million people. It also recycled almost 10 million tons of materials through waste treatment, which is reflected in SDG target 12.5, ‘Substantially reduce waste generation through prevention, reduction, recycling, and reuse’.” **Paul Ruijs, Impact Specialist**

A RENEWABLE ENERGY PRODUCER THAT’S POWERING CHANGE

“We’ve identified a fast-growing Asian renewable energy company, that focuses on developing and storing clean energy through wind, solar, and hydropower, as a contributor to SDG 7, ‘Affordable and clean energy’. It operates in a country in which coal accounts for around three-quarters of generated power and thus has a key role to play in reducing carbon-intensive energy production. The company produced 9,745 GWh of renewable energy in 2021, which was enough to power 2.7 million households. This makes it a positive contributor to SDG target 7.2, which refers to increasing the global share of renewable energy in the overall energy mix.”

Paul Ruijs, Impact Specialist

CONTRASTING FINDINGS FROM ESG AND SDG METHODOLOGIES

“An interesting case study that highlights how our SDG scoring methodology can result in recommendations that are very different from those implied by ESG ratings is a power management company with a global market base. It produces electrical equipment for power distribution, storage and safety. Data providers allocate an average to good ESG rating, with one concluding that the company faces low risk across the E, S and G dimensions. But our SDG Framework allocates the lowest possible SDG score, namely -3, owing to the fact that the company is involved in military contracting.”

“Another case study is a European telecommunications company, which is on an asset owner’s exclusion list owing to labor rights violations in the US in 2016. Nevertheless, ESG ratings providers give it an average to good score, while our SDG score for the business is a low positive, at +1. Our conclusion on the business is that the labor-related controversy is not significant enough to warrant a negative SDG score.”

Jan Anton van Zanten, SDG Strategist

The background is a dense, colorful graffiti wall. A large, semi-transparent white circle is centered on the page, partially overlapping a dark brown, semi-circular shape on the left side. The text is overlaid on the white circle.

Selection framework for ESG-labeled bonds

Selection framework for ESG-labeled bonds

Growing investor commitment to sustainable development and positive impact has prompted far greater scrutiny of assets that are claimed to have positive sustainability credentials. This trend has been especially notable in the market for ESG or GSS+ bonds – that is, green, social, sustainability, and sustainability-linked bonds.

“There has been a definite shift towards formalizing the way investors assess the entire ESG bond market over the past year or two, in line with a heightened awareness of the risks of greenwashing,” says Gino Beteta Vejarano, Green Bond Analyst at Robeco.

In practice, this has encouraged more investors – asset owners and asset managers – to set up in-house ESG-bond screening processes to mitigate these greenwashing risks. There is also recognition that this screening needs to be more rigorous than a simple check against the international guidelines and principles that apply to this category of the bond market.

Peter Kwaak, portfolio manager of RobecoSAM Global Green Bonds, says that, while these international green bond and ESG bond principles are a handy guide for issuers when they structure an ESG bond, investors need to apply deeper analysis. “For us as an asset manager, it’s very important to have our own view on green bonds, for example, and to apply our principles and ideas on whether bonds genuinely align with sustainable values and have a positive impact on the environment or society.”

To this end, Robeco has developed a five-step selection framework for each of the ESG-labeled bond categories. The aim of these frameworks is to ensure that only bonds that adhere to internationally accepted standards, and that Robeco trusts to have an impact, are eligible for inclusion in our strategies.

A range of ESG-labeled bonds

Green bonds are bonds where the use of proceeds is allocated towards environmentally friendly projects, like green buildings and renewable energy projects.

For **social bonds**, the use of proceeds is allocated to socially beneficial projects, such as projects targeting low-income areas or social welfare improvements.

Sustainability bonds allocate funding to sustainable outcomes. This means that the proceeds are eligible for social as well as green projects.

Sustainability-linked bonds have bond features that are linked to pre-determined sustainability targets for the issuer.

How it works

The five-step framework is broadly similar for each category of the ESG bond family.

In the first three steps, the bond documentation is evaluated with the aim of assessing, firstly, whether there is indeed alignment with principles or industry standards relating to the labeled ESG objective; secondly, to examine what the stipulated allocation of proceeds is or whether the pre-determined sustainability targets are material, and thirdly to scrutinize the impact reporting.

The last two steps require an analysis of the bond-issuing entity, to consider the issuer's sustainability strategy and to evaluate the issuer's conduct.

For green, social, and sustainability bonds, the bond must pass each of the five steps in order to become eligible for inclusion in Robeco's strategies.

Once the universe of eligible ESG-labeled bonds is determined, a fundamental analysis is applied, which is part of the disciplined and repeatable investment process used by the Robeco Credits team.

Perspectives on the application of the selection framework for ESG-labeled bonds

Aligning capital allocation with longer-term objectives

To investors, verifying the credentials of ESG-labeled bonds is not only about addressing concerns around greenwashing. It is also a matter of ensuring that capital allocation aligns with asset owners' and asset managers' values and longer-term objectives.

"If we consider ESG bonds to be an important mechanism to channel financial resources to tackle climate or environmental issues, we as investors need to act responsibly and make sure that these selected green bonds are indeed financing truly green projects," says Beteta Vejarano. "And we also need to make sure we avoid those projects or green bonds that do not generate any positive impact on the environment or on society. I believe this is our duty."

The efficiency achieved through targeted allocation of capital is especially relevant in situations where ESG bonds empower investors to tackle large and seemingly overwhelming issues. "In emerging markets and in a region such as Asia, where one accepts that there are many issues to be addressed, it makes sense to follow a funding route that ringfences the use of proceeds. This frees one from the problem of needing to fix the whole company or the whole country," says Thu Ha Chow, Portfolio Manager for Robeco Sustainable Asian Bonds. "It enables investors to isolate the returns, the risk, and the impact. As long as the structures are right, we can safeguard our investments."

While the market in ESG bonds is still dominated by green bonds, it's clear that social and sustainability bonds are gaining traction, while sustainability-linked bonds are still in the early stages of investor acceptance. "Social bonds gained a lot of attention in 2020, and the market expanded rapidly as debt was issued to alleviate the impact of the Covid-19 crisis on households and companies," says Beteta Vejarano. There has been a shift since

"It's very important to have our own view on green bonds, and to apply our principles and ideas on whether bonds genuinely align with sustainable values."

then towards funding to support economic recovery. Interestingly, most of this funding has had a green theme, with companies and countries aiming to 'greenify' their productive capacity, and many using green bonds to achieve this.

Initially, the issuance of social bonds was hampered by questions around the definition of what constitutes social impact. "While it has always been relatively easy to define green projects, it's more complicated when it comes to defining and measuring a project with social impact," says Chow. "But we're making progress. For example, I've just evaluated a social bond whose proceeds are earmarked for housing. Here the use of proceeds is in line with the EU social taxonomy objective of 'adequate living standards and well-being' and is therefore consistent with social impact."

The daily disciplines of an ESG bond investor

As is the case with the application of other sustainability oriented methodologies at Robeco, ESG bond screening and selection require cooperation across disciplines and areas of specialization.

"We have a look every morning at the primary market, in other words, the new bond issues being pushed into the market. In cases where the bond spread seems interesting, and if it is a green bond, I contact the ESG bond analysts and ask them to conduct their analysis," says Kwaak. Only if and when an ESG bond passes the five steps of the screening framework can he, as portfolio manager, participate in the new bond issue.

Completing the assessment for a corporate issuer typically requires understanding the issuer's sustainability strategy. "And in those cases, we usually reach out to the sustainable investing research specialist who covers that sector, or to the credit research analyst who covers that issue, to make sure that the purpose stipulated by the issuing entity for the bond proceeds is consistent with its overall sustainability strategy," explains Beteta Vejarano.

He adds that the work doesn't end there. Analysts keep track of subsequent impact reports to ensure that the issuer does indeed deliver the impact promised in its bond documentation. "We monitor the issuance after the company reports on the impact. And of course, if the company fails to disclose the information based on what it committed to do, we could 'fail' the ESG bond."

But the team recognizes the value of constructive communication with issuers in those instances where reporting and other procedures seem lacking. "We have stepped up our engagement with companies as we've learned that shortcomings, such as on the ESG bond reporting side, could simply be due to lack of knowledge – and are not necessarily greenwashing," Beteta Vejarano points out.

"We had a recent success with a development bank, where we had concerns about its disclosure of allocation of bond proceeds and the impact thereof. We had multiple conversations with them, through which we discovered that the information already existed but that they didn't know how to disclose it. In the subsequent impact report, they disclosed the information based on our recommendations."

Aside from giving clarity on the eligibility of bonds for strategies with explicit sustainability objectives, the ESG selection framework strengthens the traditional credit

analysis by giving bondholders more information. “It compels us to think carefully not only about whether the use of proceeds is aligned with the company’s sustainability strategy, but also with the overall corporate strategy. Overall, this sharpens our fundamental credit research,” says Kwaak.

Case studies

SCRUTINIZING ESG-LABELED BONDS

A successful blue bond issue

“An Asian national credit agency recently issued its country’s first blue bond – a type of green bond whose proceeds are limited to the financing of marine ecosystem-friendly projects, such as sustainable marine transportation. Although Asian ESG bonds have so far trailed behind ESG bond issues in the West in terms of adherence to industry principles, this agency made significant effort to align its bond disclosures with the EU Taxonomy regulation and best practices. The bond offering was 4.9 times oversubscribed, reflecting the attractiveness of this issuance to global investors. In fact, this was the largest foreign currency bond issued by any financial institution in its home market.”

Poor disclosures

“On the negative side, we recently failed an ESG bond issued by an Asian national credit agency. The issuer used broad category descriptions in its disclosures, while some social categories did not specify the target population that would benefit from the social projects. Furthermore, the issuer was exposed to a potential breach of the UN Global Compact due to the financing of a coal power project that has a potentially severe environmental impact, and which was located near a UNESCO World Heritage Site.”

No impact reporting

“Another example of a bond that didn’t pass the scrutiny of our ESG bond selection framework was a green bond issued by UK local government agency. The institution disclosed information about the allocation of proceeds of the green bond but provided no impact reporting. We contacted the issuer regarding our concerns, and were told that the agency was still working on the bond impact indicators – despite the fact that the bond had been issued five years previously. Our conclusion was that the issuer did not show significant progress on this matter. In line with our eligibility process, our stance is that inadequate or non-existent impact reporting on projects being financed could render an investor liable for greenwashing.”

Gino Beteta Vejarano, Green Bond Analyst



Robeco Sector
Decarbonization
Pathway
methodology

Robeco Sector Decarbonization Pathway methodology

Effectively tackling the climate crisis requires focused measures to decarbonize the global economy by 2050. Keeping track of progress is critical to this action, to gain insight into whether these measures are successful, and to highlight if regulators need to step up their interventions.

For investors, too, it's important to track this progress. Monitoring whether credit issuers are meeting decarbonization targets and their own strategic carbon-related goals is valuable in being able to identify who will succeed in the march towards the goals of the Paris Agreement – and who is at risk. But doing so requires emissions-reduction pathways as well as reliable information about how companies are faring relative to these pathways.

And then there is the complication that, for some sectors, decarbonization performance is largely tied to reductions in Scope 3 emissions, in other words, emissions from current and future consumer use rather than from the manufacturing process. This is of course difficult to measure, and depends on our skills in accessing quality forward-looking data.

Another complexity is that each sector differs in the technology needed to meet emissions-reduction goals, and in terms of the cost implications, risks and opportunities of the transition. The consensus approach, driven by organizations such as the Science Based Targets initiative (SBTi) and the Transition Pathway Initiative (TPI), is therefore to develop sector-specific decarbonization pathways.

Robeco began work on its proprietary series of sector-based decarbonization pathway models in 2020, with the objective that these would inform the investment teams as they evaluate the risks, challenges and opportunities that companies and sectors face as they align their operations and products with the goal of net-zero emissions.

The Robeco Sector Decarbonization Pathway (SDP) methodology is designed to measure the position of each company relative to its sector in terms of carbon emission reduction targets, to identify what investments it needs to make in low-to-zero-emissions technologies, as well as possible regulatory penalties and other sector-specific criteria.

This tool is the latest in Robeco's pioneering innovations that help advance sustainable investing and achieve real-world influence through objective data, rigorous analysis and consistent frameworks.

The outputs from the methodology are used by the investment teams, the Sustainable Investing (SI) Research team and the Active Ownership team to identify sector leaders and laggards in light of their overall preparedness for managing the inevitable future costs and risks of a transition to net-zero emissions.

"The road to a net-zero economy will be long, bumpy and disruptive," says Lucian Peppelenbos, Climate and Biodiversity Strategist at Robeco. "To navigate the risks of the transition and to capture its opportunities, investors need forward-looking metrics. Robeco's Sector Decarbonization Pathways move investors one step closer to the holy grail of climate analytics."

“ To navigate the risks of the transition and to capture its opportunities, investors need forward-looking metrics.

How it works

For each company, the Robeco SDP methodology has three components.

In the first component, analysts from the SI Research team construct a company's projected emissions pathway to 2050, using backward and forward-looking data consisting of information disclosed by the company and projected estimates.

The company's projected emissions pathway is then compared with scientifically modeled, sector-specific benchmark trajectories, to evaluate its relative performance. This is expressed in the form of a decarbonization score, which ranges from 0 to 100, with 100 being the best score. The closer the company's alignment with the relevant sector pathway, the better the score.

Timing also matters here: emission reductions in the short and mid-term count more than those in the long term, which means that the scores of companies planning to cut emission intensities sooner rather than later will be higher.

Robeco's Sector Decarbonization Pathway (SDP) methodology

1. Assign a **decarbonization score** that rates a company's current and future emission reduction pathways relative to sector peers and an objective sector benchmark
2. Assess the company's **credibility and capacity** for hitting its own decarbonization targets as well as benchmark emission targets
3. Analyze the financial impact of **potentially stricter regulatory regimes** as well as expected demand destruction over time

The second component of the SDP model is an assessment of a company's credibility and capacity for hitting its own targets as well as the benchmark emission targets. To do this, SI analysts calculate the required level of investment – capital and operational expenditures – needed to achieve the company's disclosed decarbonization pathway; they also compare this to the company's current and projected capex investments into carbon abatement technologies (e.g., battery electric vehicle production for the automotive sector, clean and renewable energy generation for oil and gas). Severe shortfalls in capex spending cast doubt on a company's intention or even ability to cut future emissions and reach its own or regulatory emission targets.

Thirdly, the model assesses the financial impact of potential regulatory fines, stranded assets and demand reduction – all of which are critical threats for carbon-intensive industries.

Perspectives on the application of the Sector Decarbonization Pathway methodology

Crucial input for assessing creditworthiness

Taeke Wiersma, Robeco's Head of Global Credits, believes the insights generated by the model are crucial in assessing the creditworthiness of an issuer. Companies are exposed

to rising taxes and costs related to their emissions footprint, while also needing to incur capital and operational expenditure to transform their activities in line with net-zero ambitions, all of which erode cash flow.

And there is no getting away from the financial repercussions: companies unwilling or unable to make the necessary changes to decarbonize their operations and products will be penalized – for example because they are left with stranded assets or because regulators impose harsh penalties.

“Companies have no place to hide,” he says. “They simply have to make the transition. And that’s why it’s so relevant for our investment views to know where an issuer is positioned relative to its SDP curve. The further away it is from where it’s supposed to be, the more likely it becomes that the regulator will act harshly, essentially forcing the company to make investments or costly changes to the production process.”

Rolling out the SDP methodology across sectors

Initiating and expanding the coverage of the Robeco SDP model across all sectors has been a painstaking process of consulting academic and industry research, establishing what data and benchmarks are available, building forecasting models and gleaning the necessary company information.

“We began with the most highly carbon-intensive sectors, including oil and gas, automotive, meat production, steel, cement and aluminum manufacturing, real estate and power generation,” says Farahnaz Pashaei Kamali, SI Analyst in the Robeco SI Research team.

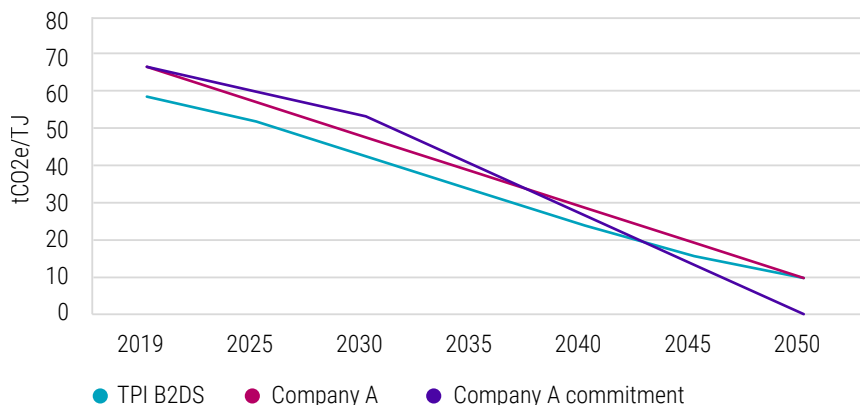
“Our starting point for the sector benchmarks were the TPI [Transition Pathway Initiative] decarbonization scenarios, to which we applied insights from academic research to define technologies, costs and the carbon budget for each sector, and to assess in which sectors we ought to include Scope 1, 2 and 3 emissions.”

“Our intention with assessing a company’s performance relative to its sector benchmark was to move beyond using only backward-looking data, such as a company’s reported carbon footprint, and to capture forward-looking metrics by asking: what are companies’ targets and commitments as they move to decarbonize their activities?”

In the second component of the methodology, that of assessing the credibility of these targets, the SI analysts assess the cost of these plans. “This puts companies’ commitments into perspective,” she says. “A company could report its decarbonization commitments to the SBTi, which would verify whether this is in line with the sector pathway. But as an investor we would still need to establish whether the company has the capacity and means to honor those commitments.”

Current and future regulatory action represents a further cost element to be estimated. “We look at the policies and regulation applicable to each sector, consider the exposure to various taxes and emissions trading systems, and estimate what these mean for companies’ future earnings. Carbon taxes, for instance, already play a big role in the cost burden, but as regulation governing emissions become stricter, these costs could escalate further,” Pashaei Kamali says.

Figure 3 - Comparing an oil and gas company's decarbonization commitments to required targets



Source: Robeco. Note: The chart displays decarbonization pathways for an illustrative oil and gas company, 'Company A'. The magenta line indicates Company A's so-called Convergence Pathway, which is constructed by an SI Research analyst; the purple line indicates Company A's so-called Commitment Pathway, which is based on its disclosed emission-reduction plans. The turquoise line reflects the TPI Below 2 °C Pathway, which is the annual emission intensity reduction required of the oil and gas sector in order for global temperatures to remain below 2 °C. For illustrative purposes only and not intended as investment advice.

Here she uses the example of the oil and gas industry: "Fines will be negligible compared to revenue loss from drastically reduced demand, as governments direct their attention to heavy emitters in order to make good on net-zero pledges. A critical feature of the SDP for the oil and gas sector is that it captures the economic impact of reduced demand and write-downs on capital assets (e.g., plants, property and equipment) on future enterprise value."

A powerful tool for the engagement process

The SDP methodology is an important tool in credit analysts' and portfolio managers' toolkits, as they assess the risks and opportunities to which issuers are exposed. And, as the methodology becomes automated, the SDP models enable analysts to construct and assess the short, mid and long-term decarbonization performance of companies across product universes and asset classes.

The granular analysis also provides Robeco's engagement specialists with objective, specific and quantified data on a company's decarbonization performance relative to peers – a powerful means for prioritizing, driving and accelerating engagement activities among slow movers.

Pashaei Kamali recounts that she was part of the team that engaged with a European multinational oil and gas company on their climate transition policies. "It was clear that they were surprised by the depth and detail of our evaluation, including our assessment of the credibility of the capex commitments. We gave them deeper insight into the workings of our model and they could clarify aspects of their investment plans."

Indeed, the application of the decarbonization methodology is one example of the strong outcomes created through cooperation across Robeco's areas of expertise – from credit analysts and portfolio managers in the investment teams, to the engagement specialists as well as the SI Research team.

“(It) is one example of cooperation across Robeco’s areas of expertise – from credit analysts and portfolio managers in the investment teams, to the engagement specialists as well as the SI Research team.

“These teams have complementary competencies and we are continuously sharing information,” says Cristina Cedillo Torres, Engagement Specialist at Robeco. “I think you get the most out of an engagement process when cooperating in this way. In a recent engagement with [a European multinational electricity and gas manufacturer and distributor], we had the SI researcher digging into the cost curves of certain technologies and the implications for capex, which in itself is an important insight that the investment teams take into account. And my role was to judge the company’s forward-looking strategy for addressing an ESG topic.”

On the lessons learned and plans for future research

Robeco has developed proprietary sector decarbonization pathways for the majority of high-emitting industries, and the progress continues. Once all sectors are covered, SDP assessments can be done for the majority of companies that Robeco covers. Ultimately, this means it will be possible to assign SDP scores to portfolios.

Peppelenbos says the teams working on developing the Robeco SDP methodology have gained valuable insights over the past three years. “While many investors seem to have a strong focus on seeking out clean companies for inclusion in their portfolios, it became clear to us through this research that there are many opportunities in transition companies – and that this tooling helps us to identify these companies.”

Future research will include expanding the methodology to take account of regional differences. “One of our learnings has been that, in the same way that each sector needs a tailored approach when it comes to decarbonization, the assessment should also vary to take account of geographical differences. Our next aim, as a joint project between the SI Research team and climate specialists, is to apply a geographical factor correction.”

Wiersma says that, “from our perspective in fundamental credit analysis, this is a very important component of our work. We are only at the beginning of this research process and there is much more to come.”

Case studies

APPLYING THE SDP MODEL TO THE AUTOMOTIVE SECTOR

“The application of the SDP model in the automotive industry generates results that I believe are useful for many different stakeholders. It allows SI Research analysts to track automotive companies’ carbon performance against peers. It also provides fixed income analysts an additional perspective on company costs, cash generation potential, and creditworthiness. It is clear that the battery electric vehicle (BEV) transition will trigger significant capex; in this case the SDP model gives us insight into what capex commitments are necessary to succeed in the transition. The model also estimates potential regulatory fines in the EU. Those inputs can be used to refine cash flow forecasts, which drive the creditworthiness of an automaker.”

“Robeco’s proprietary SDP model assesses original equipment manufacturers’ (OEM) decarbonization trajectories based on interim BEV targets, the credibility of those trajectories using capex commitments and the potential for regulatory fines as governments raise emission standards in the run-up to 2050.”

“We conclude that most of the automakers assessed in our sample fail to align with 2 °C targets. Second, based on OEMs analyzed thus far, the majority of automakers seem to be well funded to reach their own self-reported commitment pathways – but not the convergence reduction pathway that our calculations suggest is needed. However, with the increasing likelihood of regulatory tightening and potential changes to the convergence benchmark, we expect upgrades to their capex plans over time to avoid fines and reputational risks.” **Gabriella Abderhalden, SI Analyst in the SI Research team**

FACTORING IN AN EXPECTED TERMINAL DECLINE IN REVENUES IN THE OIL AND GAS INDUSTRY

“Most sectors are expected to incur some costs as they modify their production methods and supply chains to ensure they can achieve the needed decarbonization targets. But the situation is especially dire for the oil and gas sector, which is more likely to experience significant declines in future revenue because of the strong drive to reduce the use of hydrocarbons.”

“Many energy companies are investing in renewable sources of energy to diversify their revenue base. In most cases, though, the new business lines might not fully compensate for the expected revenue losses, as competition for investing in renewables is high and returns tend to be lower. Thus, we expect many oil and gas companies to enter a phase of a terminal decline in revenue, earnings and cash flow. Valuation models therefore need to incorporate this in order to accurately reflect the impact of the trends in Scope 3 carbon emission reduction.”

“Such forecasts are of course subject to much uncertainty, although this can be reduced by considering elements such as the company’s decarbonization strategy, the level of political commitment to decarbonization in countries where a company operates, and the cost and environmental sustainability of the company’s production processes.” **Farahnaz Pashaei Kamali, SI Analyst in the SI Research team**



3. Building the agenda for future research in sustainability

3. Building the agenda for future research in sustainability

The next frontier in sustainable investing research at Robeco is to source data and develop metrics and tooling related to biodiversity, human rights and the circular economy. This is in addition to fine-tuning its recently developed analytics and methodologies for climate-aligned investing.

This is not an easy task. Data scarcity is a real constraint, while researchers have to navigate highly complex concepts to create simple and functional tools for application across investment processes.

Understanding how each investment contributes to a more sustainable future

Lucian Peppelenbos, Climate and Biodiversity Strategist at Robeco, has big goals for current and future research projects. “Our ambition is to understand how each company in our portfolios contributes to the transition to a net-zero economy, to a circular economy, and to a society where human rights are respected in the broad sense of the word.”

In practice, this requires developing the thought leadership and metrics to be able to quantify these interactions. By combining the expertise of the SDG, climate and biodiversity strategists, sustainable investing researchers, the active ownership team, data scientists and fundamental analysts, Robeco has made good progress in deepening its insight related to SDG investing and climate investing. It was one of the first asset managers to formally develop a proprietary investment framework focused on the SDGs and has been working on its Sector Decarbonization Pathway (SDP) methodology for three years.

But incorporating predictive elements in these methodologies – for example in tooling that assesses the extent to which companies are aligned with global climate goals – is a challenge.

“We all do carbon footprint assessment nowadays. That’s standard practice. The difficult part is the forward-looking component. How are companies prepared for the net-zero transition? How credible are their plans to reduce their emissions and contribute to climate solutions? That is what we capture in our research.”

Building biodiversity dashboards

The next theme for Robeco’s sustainable investing research program is to factor biodiversity considerations into the investment processes. This is in line with the asset manager’s view that the loss of biodiversity and natural habitats represents a systemic risk, and is therefore highly relevant for investors.

To this end, Robeco is developing a biodiversity investment framework that will enable it to link individual companies to biodiversity contributions across all its investments. The ultimate goal is to be able to measure and steer investments according to their contribution to the protection of biodiversity and nature.

“Incorporating predictive elements in these methodologies is a challenge.”

As is the case with decarbonization research, this is highly complex terrain – partly because the financial implications of biodiversity loss are rarely measured. Furthermore, to have meaningful results for portfolios, it is critical to have accurate, localized data.

“Biodiversity has many different components and you can’t rely on a single metric like carbon emissions, say. What we’re trying to capture in our research is how companies contribute to or mitigate drivers of biodiversity loss,” Peppelenbos says.

These drivers include changes in land use, exploitation of natural resources, pollution and invasive species. The objective with this tooling is to generate a biodiversity score; this score would indicate individual companies’ positive or negative contribution to biodiversity-loss drivers.

“To truly understand a company’s impact on biodiversity, we need locational data, which of course is very specific. What is the connection between a company’s activities or its supply chain and events such as deforestation or a watershed?”

He says it will take many years to implement new disclosure standards and build the needed databases.

“We don’t have the time to wait for that. So we’re dealing with the challenge by developing outcomes-related key performance indicators that will be a proxy for biodiversity impact. This is why we talk about companies’ contribution to halting or reversing biodiversity loss, rather than trying to directly measure a company’s impact on biodiversity. And, of course, as data becomes available, we can enrich our models and adjust the measurements.”

Once the work of quantifying the impact of investments on biodiversity is well underway, attention will shift to building tooling to measure companies’ contribution to human rights.

Doubling down on double materiality

Peppelenbos says there have been various learnings from thinking deeply about investing with an SDG, climate and biodiversity lens. A primary lesson is around the concept of double materiality – understanding the impact of a company on sustainable factors such as the environment or human rights, as well as the extent to which a company is exposed to risks from these factors. “When you build out your analytics, you need to consider these two aspects of impact and risk separately, but they are very much related. Any impact metric also has risk elements.”

“ The lesson is that we now have a better appreciation of how double materiality works for climate, and we are applying this to biodiversity.

“So, I guess the lesson is that we now have a better appreciation of how double materiality works for climate, and we are applying this to biodiversity, to frame our metrics accordingly. In time, we will apply this to human rights, too.”

As the interplay between impact and financial risk is becoming increasingly dynamic – thanks to society’s collective movement toward sustainable development, and given regulators’ drive to penalize adverse impact and incentivize positive impact – investors certainly need to have a good handle on how this shapes investment outcomes.

Many hands make sustainability work

Peppelenbos says he talks to many peers and asset owners about their sustainability objectives and their ability to invest accordingly. Not everyone seems confident about having access to the right data or methodologies to do this well, which makes him all the more determined to deliver on Robeco’s lofty ambitions.

Teamwork will be critical. “This is really about collaboration. We have an excellent group of researchers from different teams at Robeco: sustainability researchers, industry specialists and data scientists. We work as an integrated team and leverage external work from data providers, academics and experts – all of whom guide and challenge us.”

Equally, it is about screening new data and making choices that will underpin the robustness of the models. “We constantly review what new data is available, as this is now developing really quickly, and we need to make the best selection.”

The research and the tooling design have been immensely satisfying for him and his team members. “It’s the perfect combination of applying curiosity – scientific curiosity – with innovation and collaboration.”

In doing this work, Peppelenbos’s mantra is Da Vinci’s philosophy that simplicity is the ultimate sophistication. “We cover very complex topics like climate change, biodiversity and human rights, to create simple solutions that still do justice to the underlying complexity. That’s a true intellectual challenge and one that I love.”



4. The importance of innovative tooling

4. The importance of innovative tooling

Sustainable investing wouldn't be possible without sustainability data. It also depends on tooling to manage and apply the data, to generate meaningful insights. In a world that is growing increasingly complex, there is great value in having multiple data sources and methodologies to deepen investors' perspectives.

Furthermore, the approach and architecture underpinning it all need to be flexible and scalable, to accommodate growth, changes in regulatory requirements and – importantly – to cater to each client's specific needs.

Viewed more broadly, the ability to source, manage and optimize data and tooling is rapidly expanding in importance in the asset management industry, and is now a key driver of competitive strength.

Handling more and more data

"There is a surge in the volume of sustainability-related data, from a variety of sources," says Erik van Leeuwen, Robeco's Chief Operations Investments. "This is good news for investors. Analysts and portfolio managers need to have multiple views on different ESG and sustainability angles. Access to different data providers and perspectives can help to enrich these investment views. While some data vendors have a values-based approach, for example, others take financial materiality into consideration; some give best-in-class rankings while others generate absolute ratings."

User-friendly access to data: Robeco's carbon analysis tool as an example

Collating information and insights from numerous data sources and making these available through user-friendly interfaces is one of the focus areas for Robeco's operational and research teams.

Its carbon analysis tool is an example of this. It enables investment teams to track the greenhouse gas emissions performance of portfolios against relevant benchmarks. Using its dashboard, analysts and portfolio managers can examine a company's emissions – normalized by revenue or enterprise value – and track how these have developed over time. Trends across industry sectors, issuers and countries can also be explored.

Access to multiple data sources on sustainability-related topics is all the more relevant for areas where standardized reporting and standards are not yet available or are still being developed.

Climate-related data is a case in point. "Several companies started reporting on their carbon footprint about twenty years ago and the data quality and coverage have improved over the years. But we're not there yet. So, having multiple data providers can

help you in assessing the quality of the different vendors, screen out the outliers and improve the data quality. Moreover, we see our clients often have their own preferred provider and we need to be able to service these needs.”

He believes this is even more applicable in areas like biodiversity, where data reporting and standards still need to be defined. “In fact, you cannot rely on data vendors in these new areas. It comes down to using different types of data to create your own frameworks and scores, to inform your investment views.”

Transforming the data into valuable, investable insights

Van Leeuwen emphasizes that the data itself is not the ultimate objective. “There’s a lot of data, but in the end it’s how you translate the data into forward-looking information.”

The Robeco SDG Framework is an example of how this is done. It is built on economic and sustainable investing principles, with clear key performance indicators to show which companies contribute to or detract from the SDGs. This information is then employed in investment decision-making.

The same applies to our proprietary forward-looking climate scores that are based on companies’ performance relative to their sector decarbonization pathways and our credibility analyses. These forward-looking elements are an important input in the analysts’ and portfolio managers’ issuer-selection decisions.

Maintaining the integrity of the data, tooling and outputs is crucial. “With the ever-increasing need for data, we’ve devoted significant resources over the past five years or so to our data architecture. This is a long-term project that focuses on the capacity, storage, speed and governance of our data. In the end, we want to be sure of the consistency and reliability of the data.”

That includes maintaining clear audit trails throughout the organization for all tooling and methodologies – such as climate scores, SDG scores or screening decisions for ESG-labeled bonds – as well as reporting on these to clients.

This is also a trend that he sees more widely in the industry, with the recognition that success in this area could determine longer-term competitiveness and even survival. “Judging by what we’ve been able to achieve – such as using data from multiple sources in our portfolio construction, implementing new sustainability screening methodologies, applying client-driven restrictions – I believe we have built a solid foundation.”

Creating open access to Robeco’s data

A major next step in Robeco’s data and tooling management capability is in making certain data available to others via its Sustainable Investing Open Access Initiative. Robeco now provides academics, investors and sustainable investing experts access to its SDG Framework and scores.

“The philosophy behind our Open Access Initiative is twofold. We welcome external feedback on the framework, so that we can further improve our intellectual property [IP]. Secondly, we see that clients really want to use this IP for a broader purpose, like reporting on their total book of business, or enhancing the screening of their own portfolios – including portfolios that we do not manage on their behalf.”

“ In the end it’s how you translate the data into forward-looking information.

Van Leeuwen explains that this process of giving a wider group of stakeholders access to Robeco data and information requires the right set-up and support, so that clients can use the data in ways that are consistent with their particular operational needs. "With the infrastructure we have in place, we've been able to deliver on that so far, while we will also look at other distribution methods."

Effective data management and research-based methodologies to transform data into usable insights is a significant area of focus for investors. Looking to the future, Van Leeuwen expects this focus to remain crucial to enhancing investment results and meeting clients' and regulators' sustainability requirements.

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This information is solely intended for professional investors or eligible counterparties in the meaning of the Austrian Securities Oversight Act.

Additional information for investors with residence or seat in Brazil

The Fund may not be offered or sold to the public in Brazil. Accordingly, the Fund has not been nor will be registered with the Brazilian Securities Commission (CVM), nor has it been submitted to the foregoing agency for approval. Documents relating to the Fund, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of the Fund is not a public offering of securities in Brazil, nor may they be used in connection with any offer for subscription or sale of securities to the public in Brazil.

Additional information for investors with residence or seat in Brunei

The Prospectus relates to a private collective investment scheme which is not subject to any form of domestic regulations by the Autoriti Monetari Brunei Darussalam ("Authority"). The Prospectus is intended for distribution only to specific classes of investors as specified in section 20 of the Securities Market Order, 2013, and must not, therefore, be delivered to, or relied on by, a retail client. The Authority is not responsible for reviewing or verifying any prospectus or other documents in connection with this collective investment scheme. The Authority has not approved the Prospectus or any other associated documents nor taken any steps to verify the information set out in the Prospectus and has no responsibility for it. The units to which the Prospectus relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the units offered should conduct their own due diligence on the units.

Additional information for investors with residence or seat in Canada

No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein, and any representation to the contrary is an offence. Robeco Institutional Asset Management B.V. relies on the international dealer and international adviser exemption in Quebec and has appointed McCarthy Tétrault LLP as its agent for service in Quebec.

Additional information for investors with residence or seat in the Republic of Chile

Neither Robeco nor the Funds have been registered with the Comisión para el Mercado Financiero pursuant to Law no. 18.045, the Ley de Mercado de Valores and regulations thereunder. This document does not constitute an offer of or an invitation to subscribe for or purchase shares of the Funds in the Republic of Chile, other than to the specific person who individually requested this information on their own initiative. This may therefore be treated as a "private offering" within the meaning of Article 4 of the Ley de Mercado de Valores (an offer that is not addressed to the public at large or to a certain sector or specific group of the public).

Additional information for investors with residence or seat in Colombia

This document does not constitute a public offer in the Republic of Colombia. The offer of the fund is addressed to less than one hundred specifically identified investors. The fund may not be promoted or marketed in Colombia or to Colombian residents, unless such promotion and marketing is made in compliance with Decree 2555 of 2010 and other applicable rules

and regulations related to the promotion of foreign funds in Colombia. The distribution of this Prospectus and the offering of Shares may be restricted in certain jurisdictions. The information contained in this Prospectus is for general guidance only, and it is the responsibility of any person or persons in possession of this Prospectus and wishing to make application for Shares to inform themselves of, and to observe, all applicable laws and regulations of any relevant jurisdiction. Prospective applicants for Shares should inform themselves of any applicable legal requirements, exchange control regulations and applicable taxes in the countries of their respective citizenship, residence or domicile

Additional information for investors with residence or seat in the Dubai International Financial Centre (DIFC), United Arab Emirates

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Additional information for investors with residence or seat in France

Robeco Institutional Asset Management B.V. is at liberty to provide services in France. Robeco France is a subsidiary of Robeco whose business is based on the promotion and distribution of the group's funds to professional investors in France.

Additional information for investors with residence or seat in Germany

This information is solely intended for professional investors or eligible counterparties in the meaning of the German Securities Trading Act.

Additional information for investors with residence or seat in Hong Kong

The contents of this document have not been reviewed by the Securities and Futures Commission ("SFC") in Hong Kong. If there is any doubt about any of the contents of this document, independent professional advice should be obtained. This document has been distributed by Robeco Hong Kong Limited ("Robeco"). Robeco is regulated by the SFC in Hong Kong.

Additional information for investors with residence or seat in Indonesia

The Prospectus does not constitute an offer to sell nor a solicitation to buy securities in Indonesia.

Additional information for investors with residence or seat in Italy

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This document is considered for use solely by qualified investors and is distributed by Robeco Japan Company Limited, registered in Japan as a Financial Instruments Business Operator, [registered No. the Director of Kanto Local Financial Bureau (Financial Instruments Business Operator), No.2780, Member of Japan Investment Advisors Association].

Additional information for investors with residence or seat in South Korea

The Management Company is not making any representation with respect to the eligibility of any recipients of the Prospectus to acquire the Shares therein under the laws of South Korea, including but not limited to the Foreign Exchange Transaction Act and Regulations thereunder. The Shares have not been registered under the Financial Investment Services and Capital Markets Act of Korea, and none of the Shares may be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in South Korea or to any resident of South Korea except pursuant to applicable laws and regulations of South Korea.

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Additional information for investors with residence or seat in Malaysia

Generally, no offer or sale of the Shares is permitted in Malaysia unless where a Recognition Exemption or the Prospectus Exemption applies: NO ACTION HAS BEEN, OR WILL BE, TAKEN TO COMPLY WITH MALAYSIAN LAWS FOR MAKING AVAILABLE, OFFERING FOR SUBSCRIPTION OR PURCHASE, OR ISSUING ANY INVITATION TO SUBSCRIBE FOR OR PURCHASE OR SALE OF THE SHARES IN MALAYSIA OR TO PERSONS IN MALAYSIA AS THE SHARES ARE NOT INTENDED BY THE ISSUER TO BE MADE AVAILABLE, OR MADE THE SUBJECT OF ANY OFFER OR INVITATION TO SUBSCRIBE OR PURCHASE, IN MALAYSIA. NEITHER THIS DOCUMENT NOR ANY DOCUMENT OR OTHER MATERIAL IN CONNECTION WITH THE SHARES SHOULD BE DISTRIBUTED, CAUSED TO BE DISTRIBUTED OR CIRCULATED IN MALAYSIA. NO PERSON SHOULD MAKE AVAILABLE OR MAKE ANY INVITATION OR OFFER OR INVITATION TO SELL OR PURCHASE THE SHARES IN MALAYSIA UNLESS SUCH PERSON TAKES THE NECESSARY ACTION TO COMPLY WITH MALAYSIAN LAWS.

Additional information for investors with residence or seat in Mexico

The funds have not been and will not be registered with the National Registry of Securities or maintained by the Mexican National Banking and Securities Commission and, as a result, may not be offered or sold publicly in Mexico. Robeco and any underwriter or purchaser may offer and sell the funds in Mexico on a private placement basis to Institutional and Accredited Investors, pursuant to Article 8 of the Mexican Securities Market Law.

Additional information for investors with residence or seat in Peru

The Superintendencia del Mercado de Valores (SMV) does not exercise any supervision over this Fund and therefore the management of it. The information the Fund provides to its investors and the other services it provides to them are the sole responsibility of the Administrator. This Prospectus is not for public distribution.

Additional information for investors with residence or seat in Singapore

This document has not been registered with the Monetary Authority of Singapore ("MAS"). Accordingly, this document may not be circulated or distributed directly or indirectly to persons in Singapore other than (i) to an institutional investor under Section 304 of the SFA, (ii) to a relevant person pursuant to Section 305(1), or any person pursuant to Section 305(2), and in accordance with the conditions specified in Section 305, of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. The contents of this document have not been reviewed by the MAS. Any decision to participate in the Fund should be made only after reviewing the sections regarding investment considerations, conflicts of interest, risk factors and the relevant Singapore selling restrictions (as described in the section entitled "Important information for Singapore Investors") contained in the prospectus. Investors should consult their professional adviser if you are in doubt about the stringent restrictions applicable to the use of this document, regulatory status of the Fund, applicable regulatory protection, associated risks and suitability of the Fund to your objectives. Investors should note that only the Sub-Funds listed in the appendix to the section entitled "Important information for Singapore Investors" of the prospectus ("Sub-Funds") are available to Singapore investors. The Sub-Funds are notified as restricted foreign schemes under the Securities and Futures Act, Chapter 289 of Singapore ("SFA") and invoke the exemptions from compliance with prospectus registration requirements pursuant to the exemptions under Section 304 and Section 305 of the SFA. The Sub-Funds are not authorized or recognized by the MAS and shares in the Sub-Funds are not allowed to be offered to the retail public in Singapore. The prospectus of the Fund is not a prospectus as defined in the SFA. Accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply. The Sub-Funds may only be promoted exclusively to persons who are sufficiently experienced and sophisticated to understand the risks involved in investing in such schemes, and who satisfy certain other criteria provided under Section 304, Section 305 or any other applicable provision of the SFA and the subsidiary legislation enacted thereunder. You should consider carefully whether the investment is suitable for you. Robeco Singapore Private Limited holds a capital markets services license for fund management issued by the MAS and is subject to certain clientele restrictions under such license.

Additional information for investors with residence or seat in Spain

Robeco Institutional Asset Management B.V., Sucursal en España with identification number W0032687F and having its registered office in Madrid at Calle Serrano 47-14^º, is registered with the Spanish Commercial Registry in Madrid, in volume 19.957, page 190, section 8, sheet M-351927 and with the National Securities Market Commission (CNMV) in the Official Register of branches of European investment services companies, under number 24. The investment funds or SICAV mentioned in this document are regulated by the corresponding authorities of their country of origin and are registered in the Special Registry of the CNMV of Foreign Collective Investment Institutions marketed in Spain.

Additional information for investors with residence or seat in South Africa

Robeco Institutional Asset Management B.V. is registered and regulated by the Financial Sector Conduct Authority in South Africa.

Additional information for investors with residence or seat in Switzerland

The Fund(s) are domiciled in Luxembourg. This document is exclusively distributed in Switzerland to qualified investors as defined in the Swiss Collective Investment Schemes Act (CISA). This material is distributed by Robeco Switzerland Ltd, postal address: Josefstrasse 218, 8005 Zurich. ACOLIN Fund Services AG, postal address: Leutschenbachstrasse 50, 8050 Zürich, acts as the Swiss representative of the Fund(s). UBS Switzerland AG, Bahnhofstrasse 45, 8001 Zurich, postal address: Europastrasse 2, P.O. Box, CH-8152 Opfikon, acts as the Swiss paying agent. The prospectus, the Key Information Documents (PRIIP), the articles of association, the annual and semi-annual reports of the Fund(s), as well as the list of the purchases and sales which the Fund(s) has undertaken during the financial year, may be obtained, on simple request and free of charge, at the office of the Swiss representative ACOLIN Fund Services AG. The prospectuses are also available via the website.

Additional information relating to RobecoSAM-branded funds/services

Robeco Switzerland Ltd, postal address Josefstrasse 218, 8005 Zurich, Switzerland has a license as asset manager of collective assets from the Swiss Financial Market Supervisory Authority FINMA. The RobecoSAM brand is a registered trademark of Robeco Holding B.V. The brand RobecoSAM is used to market services and products which entail Robeco's expertise on Sustainable Investing (SI). The brand RobecoSAM is not to be considered as a separate legal entity.

Additional information for investors with residence or seat in Taiwan

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Additional information for investors with residence or seat in Thailand

The Prospectus has not been approved by the Securities and Exchange Commission which takes no responsibility for its contents. No offer to the public to purchase the Shares will be made in Thailand and the Prospectus is intended to be read by the addressee only and must not be passed to, issued to, or shown to the public generally.

Additional information for investors with residence or seat in the United Arab Emirates

Some Funds referred to in this marketing material have been registered with the UAE Securities and Commodities Authority ("the Authority"). Details of all Registered Funds can be found on the Authority's website. The Authority assumes no liability for the accuracy of the information set out in this material/document, nor for the failure of any persons engaged in the investment Fund in performing their duties and responsibilities.

Additional information for investors with residence or seat in the United Kingdom

Robeco is deemed authorized and regulated by the Financial Conduct Authority. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorization, are available on the Financial Conduct Authority's website.

Additional information for investors with residence or seat in Uruguay

The sale of the Fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. The Fund must not be offered or sold to the public in Uruguay, except under circumstances which do not constitute a public offering or distribution under Uruguayan laws and regulations. The Fund is not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay. The Fund corresponds to investment funds that are not investment funds regulated by Uruguayan law 16,774 dated 27 September 1996, as amended.

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