

ESG Investments – regulatory requirements and investment strategies in Europe and the United States



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Executive Summary

Environmental, Social and Governance (ESG) investing has seen tremendous growth recently and is projected to account for a significant portion of global investment. Milliman authored this paper to provide an overview of the ESG investing landscape in the EU, UK and US. Our key observations are:

- ESG assets totaled \$35.3 trillion in 2020 up from \$30.6 trillion in 2018 and \$22.8 trillion in 2016 reaching a third of current total global assets under management, according to the Global Sustainable Investment Association.
- Under the ESG investing umbrella several common drivers and investor objectives crystallized. In a nutshell: improving financial returns, improving and safeguarding reputation, comprehensive risk management, regulatory demands, and client/investor demands.
- ESG investing returns have been comparable to the general market, showing the ESG investing is not a constraint but an opportunity.
- ESG investing is currently much more advanced in the EU and UK than in the US. European green bond issuance is over 3 times that of the US in 2020.
- ESG investment regulations are mainly focused on disclosure standards rather than differential financial factor treatments.
- ESG standards are more driven by regulatory bodies in the EU and UK, while quasi-regulatory bodies such as rating agencies, auditors and professional associations play a more significant role in the US.
- ESG aspects are incorporated by various investor alliances. The most prominent alliances are the UN Principles for Responsible Investing, the IIGCC Paris Aligned Investment Initiative, the Net Zero Asset Managers initiative, the Net Zero Asset Owners Alliance and the Climate Action 100+ initiative.
- There is a wide diversity of practices and definition in ESG investing. We view this vibrant ecosystem as being ultimately beneficial to the growth of ESG investing, although short term confusion and inconsistency would require specialized expertise.

The paper explores these findings in detail.

MILLIMAN ESG-INVESTING INFOGRAPHIC

We present various examples of investor alliances, frameworks and case study examples, many of which have common themes. We have put together the following info-graphic to capture all the key elements that we see in the information that we have gathered, into 4 main components.

ESTABLISH CREDIBILITY



- Define and assert beliefs, principles and policy
- Agree and set appropriate targets
- Define strategy and a plan for implementation, management and accountability
- Embed into existing frameworks, policies and mandates

IMPLEMENT



**DRIVE DECARBONISATION
MANAGE RISK**

- Measurement (exposure)
- Measurement (impact)
- Due diligence & screening
- Integration
- Optimization (e.g. low carbon tilts)
- Engagement / stewardship
- Divestment from thermal coal

**ENABLE GREEN FINANCING
CAPTURE GROWTH**

- Direct infrastructure investment
- Invest in new/growing sectors
- Review taxonomy exposures
- Support and invest in new markets (e.g. green bonds)
- Issue green bonds directly
- Support negative emissions

COLLABORATE & INFLUENCE



- Engage and influence stakeholders
- Join and participate in industry groups
- Support and drive industry policy advocacy

COMMUNICATE & DISCLOSE



- Publize beliefs and actions
- Disclose strategy, plan and performance
- Disclose risk metrics – e.g. carbon intensity
- Disclose action metrics – e.g. voting record
- Comply with industry standards – e.g. TCFDs

Table 1: Info-graphic summary (source: own illustration)

COMMON ESG INVESTING APPROACHES

The following describes some of the common actions, strategies and techniques from the infographic above.

Governance and strategy – setting beliefs and principles for alignment and your commitment to a net zero investment strategy, climate risk assessment, and setting mandates and reporting on implementation.

Setting Targets – for setting strategy on implementing portfolio decarbonization: (1) on engagement; (2) on sectors; (3) on sub-portfolio emissions; and (4) financial transition – i.e. to contribute to initiatives aimed at expanding the universe of low carbon investment opportunities and developing solutions.

Measurement: ESG Analysis – conducting a thorough, proprietary ESG analysis of new companies that are being evaluated for inclusion in the investable universe and reviewing the ESG research on a regular basis. Also analyzing companies' governance structures from a country-perspective, environmental and social policies, processes, and disclosures (identifying the most material risks) and past controversies.

ESG Incorporation: Integration – to effectively manage risk and maximize returns, ESG considerations should be explicitly and systematically included in investment analysis and choices.

ESG Incorporation: Security Valuation – adjustments are made to forecasted financial and valuation-model for the expected impact of ESG factors/scenarios and the effect of financial ratios is assessed. The value of securities is calculated using ESG-integrated valuation multiples.

ESG Incorporation: Screening – involves filtering a list of possible investments to determine if a company is in or out of contention for investment depending on an investor's choices, values, or ethics. There are three types of screening: negative/exclusionary; positive/best-in-class; norm-based. Negative screen is the most common approach used when integrating values in a portfolio, by excluding certain sectors.

ESG Incorporation: Thematic Investing – including impact investing, seeks to combine desirable risk-rewards profiles with a desire to contribute to a certain environment.

ESG Incorporation: Strategic asset allocation – a process to optimize asset allocation to achieve Paris Alignment. The framework uses scenario analysis to inform on climate risks and opportunities, selects asset class variants that permit lower carbon investing, and lastly examines barriers to achieve higher climate targets.

Active Ownership or Stewardship: Engagement – involves the improvement of ESG performance of investees. Engagement entitles investors to discuss ESG problems with corporations to improve their handling, including transparency, of such issues. This can be done individually, or in conjunction with other investors.

Active Ownership or Stewardship: Proxy Voting – is an approach where investors vote on resolutions and draft shareholder resolutions on specific ESG concerns to formally express favor or disapproval.

Divestment – divesting a portfolio from companies with a significant revenue from thermal coal, is now a common strategy. Other fossil-intensive sectors such as tar sands exploitation and oil & gas, are being considered by some.

Direct Investment – supporting the development of new markets and investing in assets with a direct positive impact on sustainability, and which help to directly finance the low-carbon economy, such as green bonds.

Issuing Green Debt – leveraging existing balance sheet and financial strength to issue green bond debt and invest proceeds in projects that support the low-carbon economy.

Stakeholder & Market Engagement – influence the enabling environment to facilitate alignment. This can be delivered through meetings, letters, responding to consultations, and media activity, as well as ensuring trade association advocacy is in line with net zero goals. Engaging with market actors including credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers.

Policy Advocacy – supporting the relevant policy and regulation for achieving net zero emissions by 2050 or sooner. Collectively and directly advocate with policymakers and regulators on climate change solutions, increasing shareholder rights and pathways towards net zero emissions.

Sustainability Related Disclosures – regulation is aiming to harmonize disclosure standards, supporting more transparency regarding both sustainability risks and adverse sustainability impacts. It is also aiming to discontinue different approaches and diverging measures regarding sustainability-related disclosures.

1 Introduction

The impulse for this document is the growing relevance of ESG investing, which is also often referred to as "sustainable investing". In this context the abbreviation ESG stands for environmental, social, and governance issues. In the last few years, there was a marked worldwide expansion of ESG-labelled investments and sustainable finance has become a financial industry megatrend. Despite the turmoil in financial markets on the back of the global pandemic, investments in sustainable assets increased significantly in the last two years 2020 and 2021. The reasons for the move towards sustainable investing are multilayered, but the regulatory pressure, external stakeholder requirements, the managing of investment risks and the improvement of financial returns can be identified as main drivers of this trend.

Against this backdrop, this research focusses on recent and ongoing developments in regulations of three major jurisdictions, the United States, the European Union¹, and the United Kingdom². Also, potential upcoming supervisory actions are highlighted. Another focus of this research topic is the investigation of ESG investment frameworks, particularly investment strategies and approaches, respectively. Regarding this, on the one hand a compact overview of ESG investing strategies³ are presented. On the other hand, preferred ESG investing strategies of bigger companies in the abovementioned jurisdictions are explored and thus potential cross-national commonalities and differences identified.

The research is carried out from a long-term investors' perspective and is therefore particularly addressed to insurance companies and pension funds. The acceleration of implementing regulatory requirements in the EU and the UK has direct relevance for insurance companies and pension funds based in Europe as well as actual and potential investors in those companies. Besides this, these developments are also interesting for insurance companies in other jurisdictions (even if there is no direct connection to the US or to Europe), as their own regulators may observe developments in these leading markets and may align their own approaches accordingly.

The **second chapter** *The ESG investment spectrum* provides basic definitions of the ESG terminology and a classification of ESG strategies within the whole investment spectrum. Furthermore, a brief market overview of ESG investing is given for Europe and the US. Beside this, prominent investor alliances, which incorporate ESG aspects are presented and an extract of their investment frameworks highlighted.

In the **third chapter** *ESG Government strategies* a comprehensive and concise overview concerning the recent and ongoing government strategies of ESG investing in the EU, the UK and the US is presented. Even though the increased focus on sustainability and ESG is global, it is managed very differently

in these jurisdictions. While in Europe in the last years various strategies like the EU's "Green Deal" (2019) and UK's "Green Finance Strategy" (2019) were launched, in the US the Biden administration just recently shifted sustainability to the top of their agenda and a preparation of a Climate Finance Plan was announced (2021).

In the last few years regulatory authorities have begun to implement sustainable development goals, including key issues on ESG investments to force the transition to a sustainable economy. For this reason, **Chapter four** *ESG regulatory requirements - recent and ongoing developments* focusses on the regulatory side of ESG investments. While in the EU and the UK several statements and acts have already been implemented, the authorities in the United States have not yet made as much progress as it has in Europe. Nonetheless, the market participants in this jurisdiction are not passive in this regard and are developing and working on their own disclosure framework.

Chapter five *ESG market practices - Case studies* brings a practical viewpoint to the report and presents various case studies on implementations of ESG investments strategies. Particularly, ESG investing approaches of bigger companies are outlined, whereby a wide range of investors like (re)insurance companies, pension funds and asset managers are covered.

Finally, **chapter six** *Summary and Conclusion* gives a résumé of the most important aspects of the report.

2 The ESG investment spectrum

For asset owners or managers, there is a wide range of factors to consider when it comes to ESG investing. To begin with, it could be a little overwhelming for some investors just to distinguish the exact meaning of some different, but similar, terms used by other market participants in this type of conversations. There are also various different aspects and approaches to consider for ESG investing, some focusing purely on the Environmental ("E") aspects and others taking a broader view of sustainability to capture Social ("S") and Governance aspects ("G"). For this reason, this chapter initially presents how ESG investing can be classified in the spectrum of purely financial investing and social investing, and moreover, gives an overview of definitions of ESG investing strategies.

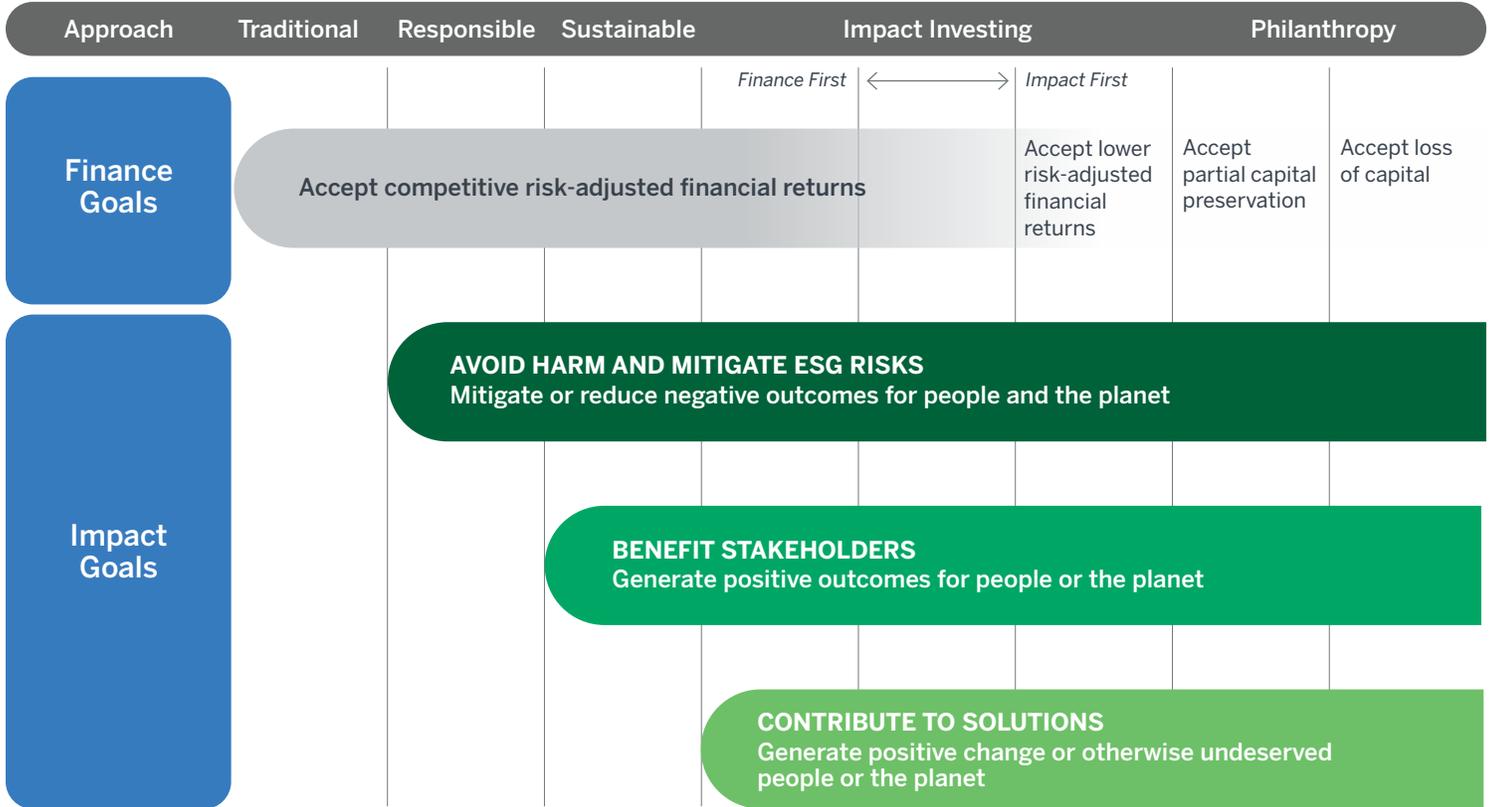
Furthermore, in the context of ESG investing important questions arise which need to be clarified: If an institutional investor wishes to promote ESG investment within its own organization, what principles should it follow? Which methods for bringing ESG considerations into the decision-making process of investors are used? Which initiatives or alliances could they theoretically sign up for so that they can actively get involved? And what are they key differences between those alliances?

This section also intends to address exactly those points.

The Impact Investing Institute in the UK created a useful schematic to set out the spectrum of different types of investing:⁴

2.1 OVERVIEW OF THE DEFINITIONS OF ESG INVESTING
2.1.1 ESG within the investment spectrum

THE SPECTRUM OF CAPITAL



Source: Bridges Fund Management and Impact Management Project
The Impact Investing Institute

Prior to the rise in ESG as an investing consideration, **traditional investing** frameworks typically focused on purely financial risk and return performance as defined by market prices. The desire for investors to behave more responsibly, lead to **responsible investing** – where the definition of risk incorporates non-financial factors, in particular bad outcomes for people and planet. There has also been a recognition by some to overcome the failings of short-termism, which leads to **sustainable investing** – where risk and return horizons are extended to consider financial performance over the longer term. Once focus is on the longer term, consideration must be given to a wider set of stakeholders, to maintain a resilient investment with time. Finally, the next jump is to **Impact Investing**, where the end goal is a balance of both non-financial and financial outcomes. The end extreme is **philanthropy** where no expectation on financial gain is expected. Impact Investing sits somewhere in between a pure long-term financial and pure long-term non-financial gain.

Our report is focused on **ESG investing** (“Environmental, Social and Governance”). ESG elements could come into all of the above definitions. Given the climate crisis we’re now experiencing, much of the focus is often around the ‘E’ of ‘ESG’. However, it is increasingly recognized by many that if we are to solve the climate crisis, a ‘just transition’ is vitally important and all sections of society need to be taken into account. Therefore ‘S’ and ‘G’ are fundamental parts of the solution too, and hence one reason why ‘ESG’ remains popular terminology.

2.1.2 ESG investment strategies

In the following we present five primary strategies of ESG investing — exclusionary screening, positive screening, ESG integration, impact investing and active/thematic ownership. These strategies reflect a wide range of objectives that include managing ESG risks, generating higher investment returns and seeking measurable impact – to name but a few. It is worth mentioning that these strategies are not mutually exclusive; in fact, they are often used in combination. Obviously, some

of these strategies are also a fundamental part in investment frameworks of the investor alliances which are presented in more detail in section 2.4.

Exclusionary Screening:

Under exclusionary screening specific activities or industries⁵ are deemed to be unacceptable, i.e. securities which are related to those will be excluded. The reasons for this can be multilayered and may be affected by, e.g., ethical or legal standards⁶ of a company.

Positive Screening:

Implementing a *positive screening* means that companies (or securities of those) are selected that provide environmentally friendly products and use socially responsible business practices. In contrast to the negative screening approach, which typically implies black and white decisions, positive screening requires an analysis of more complex issues such as pollution and workplace practices. Sometimes the approaches *positive screening and best-in-class selection* (i.e. to overweight companies with a better ESG performance relative to sector peers) are used synonymously.

ESG Integration:

ESG Integration implies a systematically inclusion of information on ESG factors into the investment decision-making processes and risk management activities. Even though these processes and activities are implemented specifically by each company, the overall process can roughly be described as follows: At first, relevant ESG information needs to be filtered from the wide spectrum of sustainable information. After this, the impact of the identified, relevant factors needs to be analyzed with regard to the chosen individual company. Finally, this impact needs to be taken into account during the decision-making process and translated into adjustments of models used in risk management, respectively.

Impact Investing:

Impact Investing intends to generate a measurable beneficial impact on the environment or society, as well as earning a positive financial return. According to the UN's Sustainable Development Goals (SDGs) the practice of impact investing has three core characteristics:

- **Intentionality:** an investor intends to have a positive social and/or environmental impact.
- **Return:** investments are expected to generate a positive return.
- **Measurability:** the benefits should be measurable and transparent.

Active/Thematic Ownership:

Active Ownership refers to the practice of actively exercising both ownership rights and “voice” as an investor. Basically,

there are two main ways to put that into practice: Voting at shareholder meetings (ownership rights) and engaging with investee companies, i.e. having active dialogues. The latter one is especially relevant in cases where investors do not have voting rights.

Thematic Investing allows investors to address ESG issues by investing in specific solutions to them, such as renewable energy, waste and water management, sustainable forestry and agriculture, health products and inclusive finance.⁷

2.2 ESG INVESTING – MARKET OVERVIEW AND DRIVERS

Generally, it can be stated that over the last decade the growth of assets under management (AUM) that incorporate some element of ESG review and decision-making has increased exponentially. This section provides a brief overview of the ESG investing market and corresponding drivers of its growth.

2.2.1 ESG investing – market dimensions

In 2020 the worldwide value of AUM from sustainable investments has reached \$35.3 trillion in the five biggest markets⁸, which corresponds to a significant increase of 55% in the past four years. As the total professionally managed AUM during the reporting period has grown in 2020 by up to \$98.4 trillion, sustainable investment AUM now make up a total of 35.9% of total AUM, i.e., more than a third of all assets. In the following the development of the global sustainable invested assets is illustrated:⁹

Region	2016	2018	2020
Europe	12,040	14,075	12,017
United States	8,723	11,995	17,081
Canada	1,086	1,699	2,423
Australasia	516	734	906
Japan	474	2,180	2,874
Total (\$ billions)	22,839	30,683	35,301

Figure 1: Global Sustainable Investment Alliance (GSIA; 2021) - Global sustainable invested assets, 2016-2018-2020 (\$ billions)

The Global Sustainable Investment Alliance (GSIA) data show that Europe and the United States are the dominant markets according to sustainable investments and represent more than 80% of the global sustainable invested assets during 2018 to 2020. But, while Europe was the leading market until 2018, in 2020 the United States account for about half of the value of sustainable AUM. Figure 1 shows that the European market for sustainable investments seemed to have contracted by \$2 trillion between 2018 and 2020. However, in this context it is worth mentioning that the GSIA explains this effect by a change in the measurement methodology which the European data is subjected to. More precisely, the effect is associated with

revised definitions of sustainable investment that have become embedded into legislation in the EU as part of the European Sustainable Finance Action Plan.¹⁰

The data also show that sustainable investment assets are continuing to expand rapidly. The largest increases over the past two years could be observed in the United States (42%) and Canada (48%), but also Japan grew significantly (34%) from 2018 to 2020.¹¹ The latter indicates that the next wave of growth in the ESG investment market could emerge from Asia.¹²

2.2.1.1 ESG Funds – Morningstar’s “Global Sustainable Fund Flow Report”

Region	Q3 2021 Flows		Assets		Funds	
	\$ billion	% Total	\$ billion	% Total	#	% Total
Europe	108.7	81%	3,431.6	88%	6,147	83%
United States	15.7	12%	330.7	8%	484	6%
Asia ex-Japan	0.9	1%	50.0	1%	308	4%
Australia/New Zealand	1.9	1%	27.2	1%	144	2%
Japan	5.1	4%	31.6	1%	237	3%
Canada	1.7	1%	22.2	1%	166	2%
Total	134.0		3,893.2		7,486	

Figure 2: Global Sustainable Fund Flow Report (Morningstar; Q3 2021) - Global Sustainable Funds Q3 2021 Statistics

The global sustainable universe attracted \$134.0 billion in net inflows in the third quarter of 2021. While Europe took in the bulk of it (81%), the US also accounted for a significant proportion of it (12%). The remaining flows are allocated to the rest of the world (7%), whereby the most of this can be attributed to Japan. Supported by strong inflows in Europe, in Q3 2021 global assets neared the \$4 trillion threshold. Europe accounts for 88% of global assets, followed by the United States with 8%.

The last years have seen a steady increase in assets in sustainable funds globally. With currently 7,486 sustainable funds available and many more that now formally consider ESG factors in a non-constraining way to better manage risks and improve returns, Europe is by far the most developed and diverse ESG market. Precisely, the report mentions that in the third quarter there were 270 sustainable fund launches around the world: 63% of these took place in Europe but the US saw a record number of 38 new funds with sustainable mandates coming to the market.

2.2.1.2 Deep dive – Europe

Mainly driven by the Sustainable Finance Disclosure Regulation (SFDR)¹⁵ in Europe, the global sustainable fund assets almost

Morningstar has been publishing the so-called “Global Sustainable Fund Flow Report”¹³, which explores the activity in the *global sustainable fund universe* within the past quarter, detailing regional flows, assets, and launches. The global sustainable fund universe is clearly specified and “encompasses open-end funds and ETFs globally that, by prospectus, factsheet, or other available resources, claim to have a sustainability objective and/or use binding ESG criteria for their investment selection”.¹⁴ The reports provide useful information and due to the transparent definition of the fund universe the international comparability is ensured.

In the following a summary of the regional flows, assets and number of funds is presented for Q3 2021:

doubled during the second and third quarters of 2021 and reached \$3.9 trillion in Q3 2021. Similarly in Europe, during H2 2021 sustainable fund assets have more than doubled, i.e., from \$1.6 trillion to \$3.4 trillion.

Besides this, sustainable fund flows represented nearly half of overall fund flows in Europe in the third quarter of 2021, adding to evidence that growth in some corners of ESG investing is approaching an exponential pace. At the end of September 2021, there were more than 6,000 ESG funds and ETFs available. In total, this means that there have been more than 2,500 new sustainable fund launches in the last six months. This high level of sustainable product development continues to be spurred by the European regulator.¹⁶

According to the Association of the Luxembourg Fund Industry, which represents the region’s biggest fund market, large investors, pension funds and institutional investors, expect that in one or two years they will not consider mainstream funds anymore. Asset managers are devoting more attention to sustainable funds than to conventional funds. Launches of new ESG vehicles jumped by almost half in 2020 compared to 2019, while the number of traditional products slipped by 17%.¹⁷

2.2.1.3 Deep dive – United States

According to Morningstar, and as already mentioned above, for investors in the United States, there are nearly 500 ESG funds and ETFs available, representing \$330 billion in AUM. Overall, the growth in ESG investments is remarkable, particularly in recent years.¹⁸ The AUM doubled in a little less than 3 years. In addition, a survey conducted by E&Y finds growing interest among investors and fund managers in ESG products. Between 2019 and 2020, both the amount of investors currently required to invest in ESG products and those anticipated to be required to invest have almost doubled.

In the US, ESG investing developed from Socially Responsible Investing (SRI) initiatives, but there are key differences. Earlier models typically used value judgments and exclusive screening to decide which companies to invest in. ESG investing and analysis, on the other hand, looks at finding value in companies as a means towards supporting a set of values.

Although ESG investing appears to be adding one extra constraint in the security selection process, historical data has shown that ESG investing produced comparable results as the general market. The 10-year annualized return for the S&P 500 ESG index is 16.1%, while the S&P 500 index's return is 15.9%.¹⁹

2.2.2 Key drivers of ESG investing

The main drivers of the rapid growth of ESG investing have been explored by various surveys. As a result, under the ESG investing umbrella several common drivers and investor objectives crystallized. More precisely,

- improving financial returns,
- improving and safeguarding reputation,
- comprehensive risk management,
- regulatory demands, and
- clients/investors demand

are the most prominent factors behind ESG investing in the recent past. In the following, this is underlined by two prominent surveys.

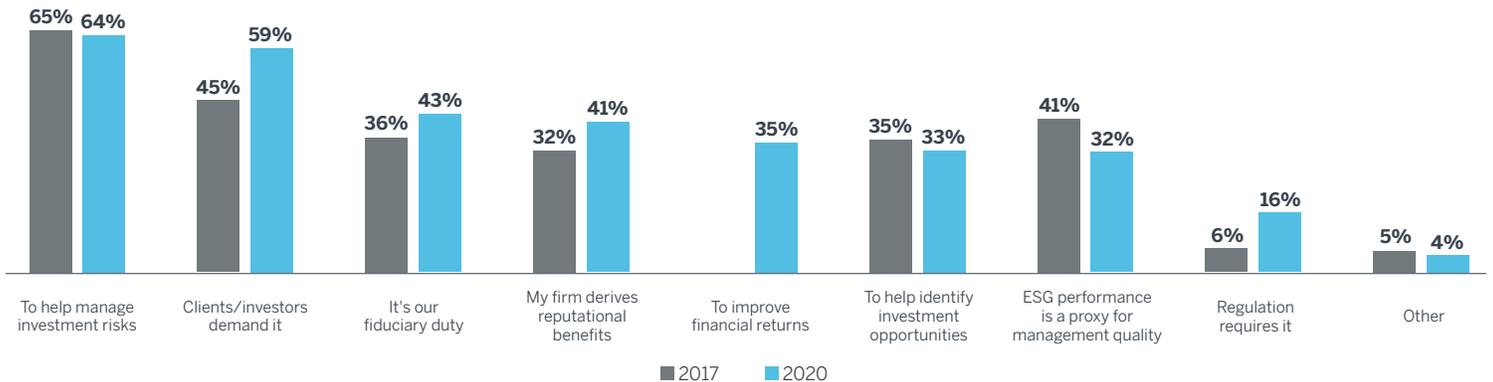
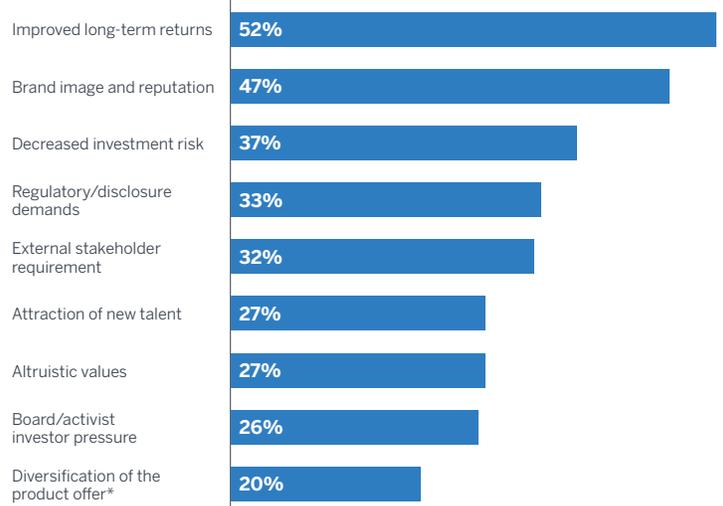


Figure 4: CFA (2020), "Why do you or your organization take ESG issues into consideration in your investment analysis/decision?" – Driver of ESG Investing²²

A survey aimed at institutional investors and asset managers carried out in 2019 by BNP, notes that just over half of the respondents aim to integrate ESG due to "improve long-term returns" (52%), followed by "brand image and reputation" (47%). Moreover, the survey shows that "lowering investment risk" (37%) and "regulatory demands" (33%) rank within the top four reasons for adopting an ESG strategy:

DRIVERS BEHIND ESG INTEGRATION



*option for asset manager respondents only

Figure 3: BNP (2019), "The ESG Global Survey 2019" – Drivers behind ESG integration²⁰

Valuable information was also revealed by a survey conducted in 2020 of 2,800 CFA institute members, which were asked "Why do you take ESG issues into consideration in your investment analysis/decisions?". In this survey, the highest proportion of respondents selected "to help manage investment risks" (64%) as their primary reasoning followed by "clients/investors demand it" (59%) and "fiduciary duty"²¹ (43%). Interestingly, "regulatory requirements" is here not within the top five reasons, which indicates that the majority of survey respondents supports the view that the consideration of ESG issues in investing is not led by regulation.

2.3 INVESTOR ALLIANCES

In the following, the most prominent investor alliances which incorporate ESG aspects are presented. In this context, the main global organization for promoting ESG consideration with the investment community is the [UN Principles for Responsible Investment](#) (UN PRI or PRI).

2.3.1 UN Principles for Responsible Investment

The PRI was launched in April 2006 and was supported by the United Nations to encourage investors to use responsible investment to enhance returns and better manage risk. These organizations engage by signing the PRI's six core principles and reporting on their progress on a regular basis. As of March 2020, it presently has over 3,300 signatories with a combined asset value of \$103.4 trillion²³.

The PRI put forward six core principles, to which signatory companies must agree to commit themselves. These six principles are as follows:

2.3.1.1 Six Principles for Responsible Investment

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

2.3.1.2 Responsible Investing

PRI defines responsible investing as 'a strategy and practice to incorporate environmental, social and governance (ESG) factors in investment decisions and active ownership', to ensure all relevant factors are accounted for when assessing risk and return.

Examples of ESG issues:

- **Environmental:** climate change, pollution, and resource diminution;
- **Social:** human rights, child labor, and working conditions;
- **Governance:** tax strategy, bribery and corruption, and board diversity and structure.

When investing responsibly, there are two overarching area investors can focus on:

1. ESG incorporation – involves building a portfolio, looking into ESG factors.

Underneath the ESG incorporation umbrella, you have 3 different approaches: **Integration, Screening** and **Thematic**.

When using **Integration**, to effectively manage risk and maximize returns, ESG considerations should be explicitly and systematically included in investment analysis and choices.

Screening involves filtering a list of possible investments to determine if a company is in or out of contention for investment depending on an investor's choices, values, or ethics. There are three types of screening: negative/exclusionary; positive/best-in-class; norm-based. Negative screen is the most common approach used when integrating values in a portfolio, by excluding certain sectors.

Thematic Investing, including impact investing, seeks to combine desirable risk-rewards profiles with a desire to contribute to a certain environment.

2. Active ownership or stewardship – involves the improvement of ESG performance of investees. Underneath the active ownership umbrella, there are two different approaches: **Engagement** and **Proxy Voting**.

Engagement entitles investors to discuss ESG problems with corporations to improve their handling, including transparency, of such issues. This can be done individually, or in conjunction with other investors.

Lastly, **Proxy Voting** is an approach where investors vote on resolutions and draft shareholder resolutions on specific ESG concerns to formally express favor or disapproval. In recent years, a number of investor alliances have formed to collaborate and lead industry efforts to assist in achieving the Paris goals. These alliances have a range of global participants, and each sets out a series of goals, participant commitments and intended approaches that provide a broad framework for how the investment industry can assist in addressing climate change. A key focus of these alliances is therefore on the 'E' of ESG.

2.3.2 IIGCC Paris Aligned Investment Initiative

The [Institutional Investors Group on Climate Change \(IIGCC\)](#) established the Paris Aligned Investment Initiative (PAII) in May 2019 at the request of asset owner members. As of March 2021, the initiative has expanded into a global collaboration supported by four regional investor organizations. It presently has over 118 investors with a combined asset value of \$34 trillion engaged with the development of the so-called Net Zero Investment Framework.

The initiative aligns its goals according to the Paris Climate Change Agreement. Its objective is to keep global warming considerably below 2 degrees Celsius (ideally 1.5), relative to pre-industrial levels and achieve net zero emissions by 2050. A climate neutral world can be achieved by countries aiming to reach global peaking of greenhouse gas emissions.

2.3.2.1 The initiative's goals

- Develop definition for topics related to portfolio alignment with the Paris Agreement's aims and build consensus among investors around them.
- Examine techniques and methodology for measuring alignment and transitioning portfolios across different asset classes to identify best-practice solutions to meet Paris alignment goals.
- To help investor understand the implications of transition their portfolios by utilizing real-world portfolio to analyze financial features, risks and opportunities associated with transition of portfolios.
- Provide a transparent foundation for investors to commit to achieving global net zero emissions by 2050, in accordance with the Paris Agreement, and to take comprehensive, science-based, and effective action to accomplish this objective.
- To accelerate the real economy transition to net zero and a resilient future, the aim is to supporting investors in putting these methodologies and approaches into practice and addressing challenges and barriers.

2.3.3 Net Zero Asset Managers Alliance

The *Net Zero Asset Managers initiative* launched in December 2020 to encourage the asset management sector to adhere to a net zero emissions target. It is an international group of asset managers committed to support the global efforts to keep global warming below 1.5 degrees Celsius; and to stimulate investments that will result in net zero emissions by 2050 or sooner. To accomplish this goal the key actions investor will have to take are: **Client involvement, asset management aims aligned with net zero paths, corporate engagement and stewardship, and policy advocacy.** It also serves as a platform for sharing best practices and overcoming roadblocks to achieving the net-zero goal.

The founding partners are PRI, Investors Group on Climate Change, IIGCC, Ceres, CDP, and Asia Investor Group on Climate Change. The initiative has **87** signatories representing **\$37 trillion** in assets under management. Some of the signatories include Allianz, Aviva, AXA, BlackRock, Fidelity, Invesco, M&G, and many more.

2.3.3.1 Asset Manager's Commitments

- Collaborate with asset owner clients on decarbonization targets, with the objective of achieving net zero emissions by 2050 across all assets managed.
- Set an intermediate target for the percentage of assets that will be under management to achieve net zero emissions by 2050.
- To reassess their intermediate target at least every five years, with the goal of gradually increasing the percent of AUM covered until all assets are covered.

2.3.3.2 How will Asset Manager's meet these commitments

- Setting intermediate goals for 2030 that reflect a fair share of the 50% worldwide CO₂ reduction – highlighted as a necessity on the IPCC special report on global warming of 1.5 degree Celsius.
- Assessing portfolio Scope 1 and 2 emissions, as well as portfolio Scope 3 emissions where possible.
- Prioritizing achieving real-world emission reductions in the area and companies they invest in.
- Investing in long-term carbon removal, if offsets are used, and there are not any other technologically or financially viable options for reducing emissions.
- Creating investment products that are linked with net zero emissions by 2050 and encouraging additional investment in climate solutions.
- Providing information and analytics on net zero investment, climate risk and opportunity to asset owners.
- Implementing a stewardship and engagement strategy with a clear escalation and voting policy that is compatible with achieving net zero emissions by 2050 for all assets under control.
- Engaging key players in the financial system, such as credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers, to ensure that products and services available to investors are in line with goal of global net zero emissions by 2050.
- Ensuing that any related direct and indirect policy advocacy they engage in supports the Paris Agreement goals.
- To annually publish TCFD disclosures, including a climate action plan, and submit them for review to the Investor Agenda via its partner organizations. This will ensure that the approach is based on a robust methodology, consistent with the UN Race to Zero criteria, and that action is taken in accordance with the commitments made.

2.3.4 Net Zero Asset Owners Alliance

The United Nations-convened [Net Zero Asset Owners Alliance](#) launched in September 2019 at the UN Secretary General's Climate Action Summit initiated by Allianz, CDC, CDPQ, Folksam Group, PensionDanmark, and SwissRe. It is an international group of 42 institutional investors committing to transitioning their investor portfolios to net zero greenhouse gas (GHG) emissions by 2050. The initiative represents \$6.6 trillion AUM, and it is an action plan to show investor how to align portfolios with a 1.5 degree Celsius. Asset Owners (AOs) play a key part in catalyzing economic decarbonization and climate-resilience, as they can influence today's financial landscape through investment mandates.

The plan includes regularly reporting on progress, including, in accordance to the Paris Agreement, creating intermediate objectives every five years. The types of targets are absolute and intensity emissions reductions, corporate engagement and finance tracking. To manage risk and achieve target investment returns, the initiative uses a holistic ESG approach to manage sustainability considerations, climate change and GHG emissions reduction in the real economy. This consist of **advocacy, engagement on corporate, industry action and public policies for a low-carbon transition of economic sectors**. The primary asset classes the initiative focuses on is public equity, corporate debt, and real estate. Members have the stewardship rights and obligations to ensure that boards of companies are accountable for their management of financial capital as well as ESG factors used in the day-to-day operations of investee firms.

2.3.4.1 Potential actions

- The targets set by the Alliance are on the asset owner's own Scope 3 emissions, as well as encouraging targets for Scope 1 and Scope 2 emissions. Alliance members are required to publish their emissions reduction targets and associated progress in CO₂ every five years and explain and adjust for large organic and inorganic portfolio changes.
- The Alliance recommends all 4 target setting methods across the portfolio: Engagement, Sector, Sub-Portfolio and Financial Transition Targets.
- **Engagement Targets:** Used to track members' activities and progress with individual corporates. To engage with 20 firms with an emphasis on the portfolio's biggest polluters or those responsible for 65% of emissions. To contribute to alliance position papers, for asset managers to participate in at least one engagement with the pre-identified 4 asset managers and engage with corporates in target sectors.
- **Sector Targets:** To connect portfolio-level reductions to efficiency goals and real-world outcomes. Alliance key sectors (O&G, Utilities, Steel, and Transportation – Aviation, Shipping, Heavy and Light Duty Road) to have intensity-based reductions; Including Scope 3 wherever possible; KPIs

for sector-specific intensity; targets established using sectoral decarbonization pathways; refer to these targets to inform their stewardship, policy and allocation activities in these sectors.

- **Sub-Portfolio Emission Targets:** Reduction in absolute or intensity-based terms against the 2019 base year; covering portfolio emissions Scope 1 and 2, as well as Scope 3 tracking; Listed equity and publicly traded corporate debt should reduce CO₂ emission by -16% to -29% by 2050, with the same suggested for real estate and/or CRREM national routes used.
- **Financial Transition Targets:** Progress on climate-positive investment to be reported; contributing to initiatives aimed at expanding the universe of low carbon investment opportunities and developing solutions; focusing on renewable energy in emerging markets, green buildings, sustainable forests, green hydrogen.
- The Net Zero Asset Owner Alliance outlines a set of principles Asset Owners need to evaluate and engage with asset managers on their climate-related proxy voting activities. The foundations for this are based on four main themes: governance, interest alignment, merit-based evaluation, and transparency. The alliance members believe this is important to support the changed needed to reach the Paris Agreement's goals. The Climate Voting approach requires asset managers to have a clear organizational structure and delegation of roles and duties that reflect the organization's ability to identify, assess, and implement Climate Voting.

2.3.5 Climate Action 100+

The [Climate Action 100+](#) initiative launched in 2017 to focus investors' attention on 167 global firms with large greenhouse gas (GHG) emissions are crucial to achieving net-zero emissions and fulfilling the Paris Agreement's goals. The companies engaged by the initiative cover 32 markets that are responsible for approximately 80%+ global industrial emissions. They were chosen from the MSCI All Country World Index, using CDP modelled and reported data. Climate Action 100+ is now the largest investor engagement initiative on climate change, delivered through five partner organizations PRI, AIGCC, IGCC, IIGCC, and CERES, CA100+. The initiative has over 575 signatory investors representing \$54 trillion AUM. In accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, the initiative aims to improve governance, increase climate-related financial reporting, support the net-zero focus, collaborate on sector-specific decarbonization pathways, and support collective investor action.

There are three commitments boards and senior management of companies participating in Climate Action 100+ adhere to:

- Building a comprehensive governance structure that sets out the board’s responsibility for climate change risk management and supervision.
- Taking steps to decrease greenhouse gas emissions across the value chain, in line with the Paris Agreement’s objective of limiting global average temperatures below two degrees Celsius over pre-industrial level, with a target of 1.5 degrees.
- Enhance corporate disclosure in accordance with the TCFD recommendations and sector-specific Global Investor Coalition on Climate Change. To improve investment decision-making by enabling investors to examine the resilience of firms’ business plans against a range of climatic scenarios.

The initiative developed a new approach to measuring company’s progress known as the Climate Action 100+ Net Zero Company Benchmark. The **10 indicators** included in the Benchmark: the net zero GHG emissions by 2050 ambition; long-term GHG reduction targets; medium-term GHG reduction targets; short-term GHG reduction targets; decarbonization strategy; capital allocation alignment; climate policy engagement; just transition; climate governance; and TCFD reporting.

Engagement with specific focus companies is a collaborative work focused around the three commitments. If engage with companies on an individual basis, they are required to share information with the engagement working group or investors’ network. Engagement approaches include sending a formal

letter; conducting meetings with the company directors; conducting investor roundtables; asking a question or making a statement at a company’s Annual General Meeting; and exercise voting rights to hold directors accountable for climate-related issues or file a shareholder resolution. The strategies used are influenced by a variety of factors such as the company’s and industrial sector’s profile, the company’s climate change strategy, its responsiveness to engagement, the lead investor’s active ownership approach, and the regional environment. Multiple investors may be working on a company’s involvement in various situations.

2.4 INVESTMENT FRAMEWORKS

A number of the investment alliances presented in the previous section set out more detailed frameworks of recommended approaches for how to embed ESG considerations into the investment process. Some of the main frameworks are outlined below.

2.4.1 UN PRI – Investing with SDG outcomes

The UN PRI outlines five ways that the Sustainable Development Goals (SDGs), a globally agreed on framework, are relevant to investors to ensure the world is more sustainable by 2030. The [five-part framework](#) for investors to understand the real-world outcomes of their investments, and to shape those outcomes in line with the SDGs are: Identify outcome; set policies and targets; investors shape outcomes; financial systems shapes collective outcomes; and global stakeholder collaborative to achieve outcomes in line with the SDGs.



1) IDENTIFY OUTCOMES

- Understanding the unintended outcomes of their investments and their own operations.
- Incorporating ESG to provide data and metrics identifying and analyzing the positive and negative real-world outcomes related to investees’ operations, products, and services.
- Action: mapping existing investments to SDGs and identifying the number of investments in activities that are explicitly SDG linked.

2) SET POLICIES AND TARGETS

- Setting policies and targets for their intentional activities.
- Taking a holistic approach when considering their most important outcomes, i.e. climate change and water scarcity.

3) INVESTORS SHAPE OUTCOMES

- Shaping outcomes in accordance with the policies and targets and reporting on progress against those objectives.

- Actions: Investment decisions, asset allocation and portfolio construction, stewardship of investee, and engagement with policy makers and key stakeholder.
- To increase positive outcomes and decrease negative outcomes.

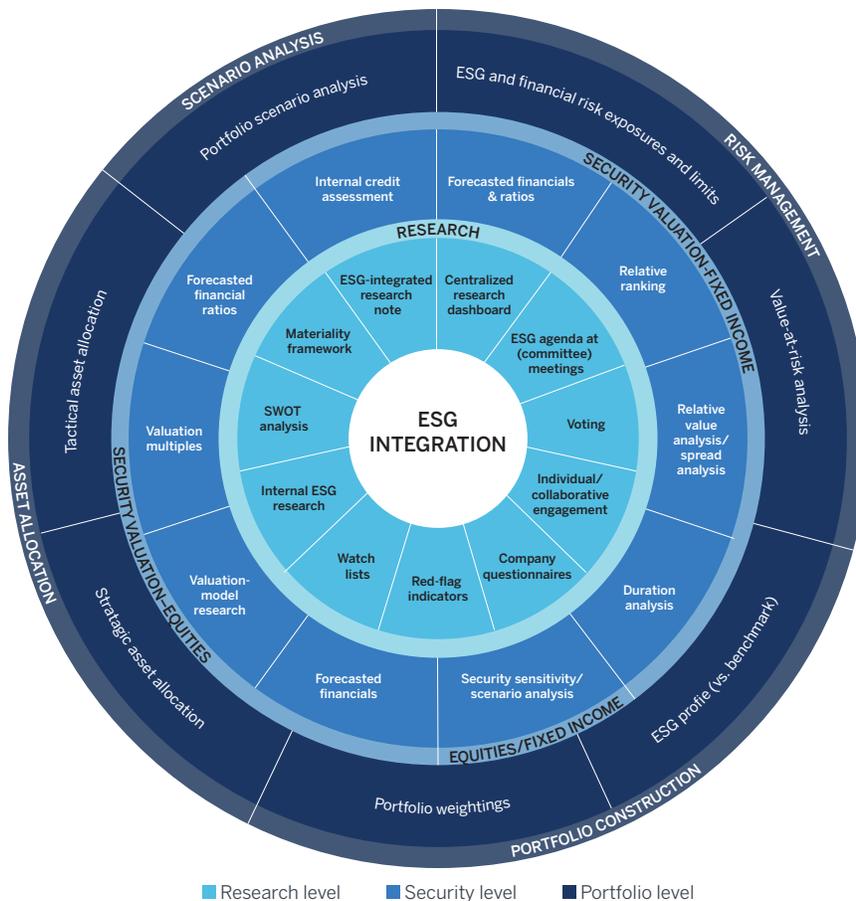
4) FINANCIAL SYSTEM SHAPES COLLECTIVE OUTCOMES

- At the financial system level, shaping outcomes in line with the SDGs is accomplished by aggregating individual investor actions as well as by investors acting collectively - including alongside other financial system participants such as credit rating agencies, index providers, proxy advisors, banks, insurers, and multilateral financial institutions.

5) GLOBAL STAKEHOLDERS COLLABORATE TO ACHIEVE OUTCOMES IN LINE WITH THE SDGS

- To accomplish the SDGs, investor must work together with broader stakeholders - the banking sector, corporations, governments, universities, civil society, the media, individuals, and their communities.

THE ESG INTEGRATION FRAMEWORK



The UN PRI gives investors a guide on how to implement ESG integration techniques in their investment analysis and decisions (for equities and fixed income).

The framework is split into three different sections: research level, security valuation and risk management. It is a reference for investors to use to identify ESG integration techniques suitable for them.

THE RESEARCH LEVEL:

Qualitative Analysis

- Company questionnaires: ESG data and information collect through questionnaires, used in parallel with regular business meetings to address ESG issues.
- Red-flag indicators: Using lists and databases to identify securities with high ESG risk.
- Watch lists: Securities with a high ESG risk are placed on a watch list and monitored on a regular basis.
- Internal ESG research: For every security in the portfolio and investing universe, proprietary ESG research/views/scores are produced based on a range of data sources.
- SWOT analysis: ESG factors included in traditional SWOT analysis.
- Materiality framework: For each sector/country, a sustainability framework is established that incorporates all the main ESG risks and opportunities. It is used to make investment decisions and is updated on a regular basis.
- ESG-integrated research note: Traditional financial information and analysis, plus ESG information and analysis, are included in research notes/credit notes.
- Centralized research dashboard: Traditional financial data and ESG data are maintained on the same platform (database) so that practitioners may evaluate both traditional financial and ESG variables at the same time.
- ESG agenda at (committee) meetings: All investment team meetings have a designated ESG topic on the agenda (and perhaps ESG teams/specialists) – to discuss ESG strategy, portfolio ESG performance, and/or contentious stocks.

Active Ownership

- Voting: An organized procedure that gathers all voting rights and conducts a thorough review of management and shareholder proposals. Also, used to propose resolutions for other shareholders to vote on, in addition to voting.
- Individual/collaborative engagement: Engagement refers to any interactions between an investor and an existing or

future investee company about ESG issues and strategies, with the objective of improving (or recognizing the need to improve) ESG practices and/or transparency. A structured process that includes dialogue and continuously monitoring companies.

SECURITY LEVEL:

Security Valuation – Equities

- Adjustments are made to forecasted financial and valuation-model for the expected impact of ESG factors/scenarios and the effect of financial ratios is assessed. The value of securities is calculated using ESG-integrated valuation multiples.

Security Valuation – Fixed Income

- Credit Analysis: Issuers' internal credit evaluations are adjusted using ESG analysis and forecasted financials and future cash flow estimates are adjusted. To determine if all risk factors are priced in, an issuer's ESG bond spreads and relative value vs those of its sector peers are examined.

PORTFOLIO LEVEL:

Risk Management – value-at-risk model use ESG research as input and different ESG scenarios are used to analysis the impact on portfolio risk and return.

Portfolio Construction – to evaluate the influence of ESG factors on portfolio risk and return, several ESG scenarios are conducted, and adjustments are made in a portfolio.

Asset Allocation – ESG factors are integrated into strategic asset allocation and tactical asset allocation to minimize ESG risks.

2.4.2 PAII – Net Zero Investment Framework Implementation Guide

The [Net Zero Investment Framework](#) has been developed to help investors become a 'net zero investor' to align with the Paris Agreement goals. It was published in March 2021 and is meant to be executed by investors following the PAII Net Zero Asset Owner Commitment or a Net Zero Asset Managers initiative commitment.

It is a structure that investors should follow to decarbonize their investment portfolio and increase investment in climate solutions – in line with 1.5-degree Celsius net-zero emissions future. The framework identifies 5 components of a net zero investment strategy: **engagement and advocacy activity, smart capital allocation, set targets at portfolio and asset level, governance and strategy and asset class alignment.** The framework covers four asset classes - sovereign bonds, listed equities and corporate fixed income and real estate.

Governance and strategy – setting beliefs and principles for alignment and your commitment to a net zero investment strategy, climate risk assessment, and setting mandates and reporting on implementation.

Portfolio level targets – The framework provides the main minimum parameters for pathways that are used to describes the emissions reductions, technology, and investment in climate solutions to a achieve the net zero goal. Investors use this information as a guide to determine their own portfolio target regarding emissions reductions and investment; to evaluate the alignment of underlying assets to a net zero; and to ensure the approach providers that give these services are using a sound foundation for their analysis. Therefore, the framework recommends a set of targets and goals.

Strategic asset allocation – A process to optimize asset allocation to achieve Paris Alignment. The framework uses scenario analysis to inform climate risks and opportunities, selects asset class variants that permit lower carbon investing, and lastly examines barriers to achieving greater of climate goals. Different funds are unique in terms of their level of flexibility to restructure asset allocation, therefore, the framework proposes some key elements to be used by all types of funds. A high-level alignment process for strategic asset allocation involves investors evaluating the relative carbon and green revenue intensity for each asset class and subclass. They then shift their allocation towards maximizing the intensity of green revenues and minimize carbon intensity in accordance with the 1.5 degrees Celsius pathway. Investors can add climate-focused asset class variants such as green bonds, listed renewable infrastructure, and green real estate to their opportunity set. The new aligned portfolio has improved climate alignment and should deliver the same predicted risk-adjusted returns as in the current portfolio.

Asset level assessment and targets – The aim is to shift the alignment of asset to achieve the set portfolio targets. This requires investor to set **11** asset class alignment targets, reviewing asset alignment using suggested approaches, and implementing alignment actions.

Implementing Alignment – This involves portfolio construction to allocate capital to support the transition and invest in climate solutions, engagement and stewardship or direct management to impact asset alignment and performance, and if alignment cannot be accomplished to use selective divestment.

Stakeholder & market engagement – Influence the enabling environment to facilitate alignment. This can be delivered through meetings, letters, responding to consultations, and media activity, as well as ensuring trade association advocacy is in line with net zero goals. Engaging with market actors including credit rating agencies, auditors, stock exchanges, proxy advisers, investment consultants, and data and service providers. This is to ensure their assessments/data are based on alignment standards and consistent with net zero emissions.

Asset owners should engage with asset managers to promote strategies and products to achieve net zero investment goals. Asset managers should engage with existing or potential clients to encourage net zero investing and to support climate risk assessment, provided research and analysis of such strategies and products.

Policy Advocacy – Supporting the relevant policy and regulation for achieving net zero emissions by 2050 or sooner. Collectively and directly advocate with policymakers and regulators on climate change solutions, increasing shareholder rights and pathways towards net zero emissions.

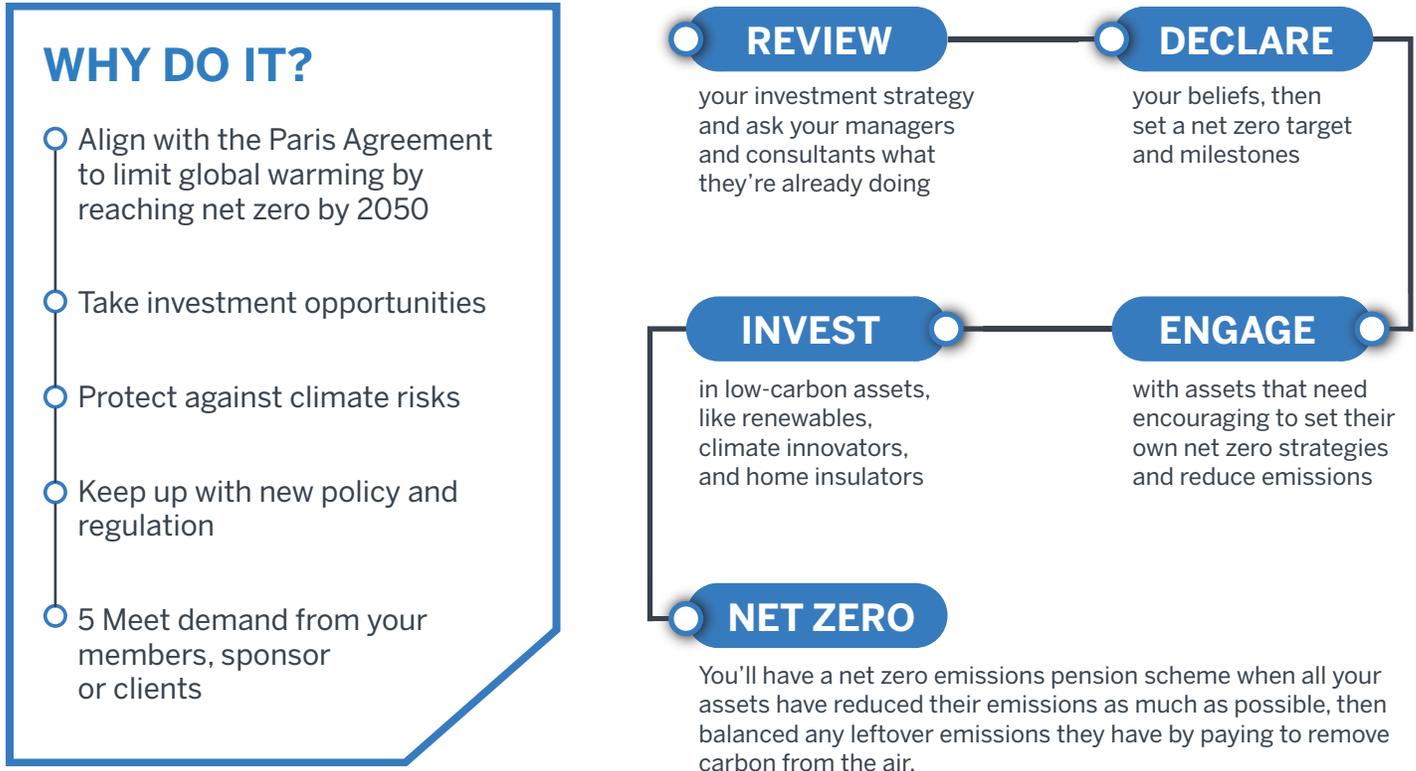
ASSET CLASS TARGETS AND MEASUREMENT

Asset Class	Sovereign Bonds	Listed Equity/Corporate Fixed Income	Real Estate
Targets/objectives	<ul style="list-style-type: none"> Increase average climate performance/AM (maximum extent possible), exceeding the average benchmark score Increase allocation to green or SDG climate bonds, if possible 	<ul style="list-style-type: none"> Set portfolio coverage target for % of AUM in net zero, aligned, or aligning assets Set target for increase % climate solutions revenues/AUM Set engagement goal for coverage of assets aligned or under active engagement at >70% of financed emissions from material sectors 	
Asset alignment and climate solutions assessment criteria	<ul style="list-style-type: none"> Past and future expected territorial production emissions performance/capita or /GDP against net zero pathway Past and future performance on key sectors (energy use, and exposure of the economy to fossil fuels) Other national and international policy positions <p>+ allocation to verified green or SDG climate bonds</p>	<ul style="list-style-type: none"> A long term 2050 goal consistent with global net zero; Short & medium term emissions reduction targets; Current emissions intensity performance (scope 1, 2, and material scope 3) Disclosure of scope 1, 2 and material scope 3 emissions A quantified plan to deliver targets; Capital allocation alignment <p>+ Revenues from EU mitigation taxonomy activities</p>	<ul style="list-style-type: none"> Current alignment of building carbon emissions and energy use in line with regional/building type net zero pathway Future expected alignment based on plan for retrofit demand management and renewable energy use
Recommended Methodologies	Germanwatch Climate Change Performance Index	Climate Action 100 benchmark; Transition Pathways Initiative; Science Based Targets Initiative	Carbon Risk Real Estate Monitor (CRREM)

2.4.3 QUIET ROOM – Journey To Net Zero

A key part of implementing ESG practices is the engagement of various stakeholders. This schematic from Quiet Room in the UK, is a useful tool to set out the journey of various considerations in aligning to Net Zero, to support discussions with key stakeholders.

ASSET CLASS TARGETS AND MEASUREMENT



3 ESG Government strategies

This chapter presents a comprehensive and concise overview concerning the recent and ongoing government strategies of ESG investing in the EU, the UK, and the US. Even though the increased focus on ESG investing is global, it can be stated that it is managed very differently between those jurisdictions.

In Europe, an early acceptance of ESG-driven strategies in the financial industry was observable. As a result, there was an early expansion of ESG investments making Europe the worldwide leader in ESG investing. This in turn serves as an impetus for the governments in Europe to push reforms in this field. In line with EU’s commitments under the 2015 Paris Climate Agreement, the European Commission launched the so-called “Sustainable Finance Action Plan” in 2018, which provides much of the conceptual framework in the context of sustainable finance regulation. A further strengthening was implemented with the announcement of the EU’s “Green Deal” in 2019. In the course of Brexit, the UK government published in 2019 its own

“Green Finance Strategy” setting out an overarching strategic plan for achieving net zero emission by 2050 and postulating that the UK would “match the ambition” of the EU’s Action Plan. Furthermore, in November 2020 the UK’s HM Treasury, together with other UK regulators, set out an indicative roadmap towards a mandatory climate-related disclosure across the UK economy aligned with the TCFD recommendations.

In the United States ESG investing continues to grow at a rapid pace, which makes it the world’s second major market in this field. In contrast to the EU and UK, the US government only just recently shifted the climate crises and the associated sustainable investing to the top of their agenda. At the beginning of the year 2021 a preparation of a Climate Finance Plan was announced. This addresses the need to better align public and private financial flows to achieve the Paris Agreement’s temperature and resilient-development goals.

In the following section, the most well-known recent developments in the abovementioned jurisdictions EU, UK, and US are presented in more detail.

3.1 EUROPE

3.1.1 EU

3.1.1.1 EU Strategy on adaptation to climate change (2013)

In 2013 the European Commission (EC) released an EU Strategy concerning the adaptation of climate change.²⁴ Its main focus lies on dealing with a changing climate and preparing the EU for current and future impacts of climate change.

Generally, the climate change is measured by the rise of the average global temperature in relation to its pre-industrial levels. The EU Strategy aims to limit this rise to a level below 2.0°C above pre-industrial level. With this limitation the EU wants to avoid serious risks of climate change and large-scale irreversible impacts.

However, it is made clear by the EC that however successful these mitigation efforts might prove to be, there will be a measurable impact of climate change generating economic, environmental, and social costs. In 2013 the world was already 0.8°C above pre-industrial level, and dealing with climate change at this stage cannot reverse global warming instantaneously, and furthermore there will be delayed impacts of past and present greenhouse gas emissions. With this strategy, the EU is trying to bring forward costs that would inevitably arise at some point in the future as a result of climate change. Strictly speaking, taking active and effective approaches along with paying for planned adaptation is cheaper than paying for not adapting and living with the (bad) consequences. Where the consequences will not only be felt on the cost side, but also in the way we will live.

Many scenarios are shown in the strategy released by the EC. As already mentioned there will be costs arising simply from not adapting to climate change. For example, the costs of not adapting to a changing climate is estimated by € 100 billion a year in 2020 to € 250 billion in 2050 for the EU as a whole. As this strategy is solely directed to the EU, worldwide figures have a much wider dimension.

The flood catastrophe in Central Europe in 2021 confronted the population directly with possible impacts of a changing climate. Already in the EU strategy from 2013, floods play a major role as they generate a huge amount of social costs. It is outlined that floods in the EU resulted in more than 2500 fatalities and affected more than 5,5 million people over the period 1980-2011.

To prepare the EU in this and many other aspects, this EU Adaptation Strategy aims to contribute to a more climate-resilient Europe. The strategy is not bound on an EU level, it addresses preparedness on a local, regional, national level and on the EU level itself.

With this strategy the EC sets out a framework and mechanisms for adapting to a world with a changing climate and to actively

limit this process with respect to pre-industrial levels. As a conclusion in the strategy itself, it is said, that “it is proposed to do this by encouraging and supporting action by the EU Member States on adaptation, by creating a basis for better informed decision-making on adaptation in the years to come, and by making key economic and policy sectors more resilient to the effects of climate change.”

3.1.1.2 EU Action Plan (2018)

In March 2018, the EC released an action plan for financing sustainable growth.²⁵ This action plan follows the adoption of the Paris Agreement and the release of the UN 2030 Agenda for Sustainable Development in 2015. Whereas the Paris Agreement has as a global climate agreement that aims to limit the rise of the global temperature level to a level below 2°C above pre-industrial level, the UN 2030 Agenda defines 17 Sustainable Development Goals (SDGs). The EU action plan consists of ten actions, which will be described in the following. All of these ten actions are linked to the **three main objectives** this action plan has:

1. To reorient capital flows towards sustainable investment and away from sectors contributing to global warming such as fossil fuels.
2. To manage financial risks stemming from climate change.
3. To support greater transparency in financial and economic activity in order to achieve sustainable growth.

Starting with the objective of reorienting capital flows towards a more sustainable economy, we obtain the first five actions.

- Action 1: Establishing an EU classification system for sustainable activities.
- Action 2: Creating standards and labels for green financial products.
- Action 3: Fostering investment in sustainable projects.
- Action 4: Incorporating sustainability when providing financial advice.
- Action 5: Developing sustainability benchmarks.

To give the term “sustainable” a broader and unified meaning, the first action aims to establish a unified EU-wide classification system. On the one hand this classification system intends to measure climate change impacts, but its purpose is also to measure climate, environmental and social aspects as a whole. Furthermore, standardization and labelling help market participants in their ESG investing decision process. All actions together aim to reorient capital flows towards more sustainable investment activities, which is as the EC puts it, the most important and urgent action at this stage.

To go on from an investment classification system, we approach the second goal. It is summarized as mainstreaming sustainability into risk management with the following actions:

- Action 6: Better integrating sustainability in ratings and market research.
- Action 7: Clarifying institutional investors' and asset managers' duties.
- Action 8: Incorporating sustainability in prudential requirements.

These are the first steps to increase transparency by providing market standards. Especially ratings play a key role in well-functioning and effective financial markets.

As the last main objective, the Action Plan wants to foster transparency and long-termism. The last two actions are as follows:

- Action 9: Strengthening sustainability disclosure and accounting rule-making.
- Action 10: Fostering sustainable corporate governance and attenuating short-termism in capital markets.

Transparency needs to be standardized to give investors valuable and reliable information. This includes the sustainability risk exposure of the companies.

3.1.1.3 European Green Deal (2019)

In December 2019 European Green Deal was announced by the EC.²⁶ Since then the following major steps of progress can be observed:

- January 2020: Presentation of the European Green Deal Investment Plan and the Just Transition Mechanism
- March 2020: Adoption of the European Industrial Strategy, a plan for a future-ready economy
- May 2020: Presentation of the EU Biodiversity Strategy for 2030 to protect the fragile natural resources on our planet AND Presentation of the 'Farm to fork strategy' to make food systems more sustainable
- July 2020: Adoption of the EU strategies for energy system integration and hydrogen to pave the way towards a fully decarbonized, more efficient and interconnected energy sector
- September 2020: Presentation of the 2030 Climate Target Plan
- October 2020: Renovation wave AND Methane Strategy AND Chemicals strategy for sustainability
- November 2020: Offshore renewable energy

- December 2020: European Climate Pact
- December 2020: European Battery Alliance
- January 2021: New European Bauhaus
- February 2021: New EU strategy on adaptation to climate change
- March 2021: Organic Action Plan
- May 2021: Zero pollution Action Plan
- May 2021: Sustainable blue economy
- July 2021: Delivering the European Green Deal
- September 2021: New European Bauhaus: new actions and funding

Finally, in July 2021, the status of the European Green Deal was marked as delivered, as the EC has adopted the corresponding policies. The overall goal of this Deal is to reduce net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. With this goal in mind, the EC wants to ensure that there are no net emissions of greenhouse gases by 2050.

One focus of this deal lies on the emissions which are generated by the transportation sector. To create a sustainable transportation system, the deal aims to reduce emissions produced by new cars to zero in 2035. Besides mobility, buildings are also a key driver with regard to the emissions of greenhouse gases. Therefore, another aim of this Deal is to renovate 35 million buildings by 2030 to meet the new requirements.

Not only the way we use energy is shifted, but also the mix of the energy itself. The EC proposes as target a mix containing of at least 40% renewable energy.

All these steps have been taken to reduce risks and threats induced by climate change and environmental degradation. Nonetheless, this Deal keeps in mind that this can only be done, by sustaining a resource-efficient and competitive economy.

3.1.2 UK

3.1.2.1 Green Finance Strategy (2019)

In 2008, UK was the first country in the world to legislate its climate change target.²⁷ In July 2019, about 10 years on, the UK government set out its overarching strategic plan for achieving its net zero emission by 2050 – the Green Finance Strategy²⁸ (the Strategy).

The Strategy has two objectives in the center of its heart:

- Aligning private sector financial flows with clean, environmentally sustainable and resilient growth; and

- Strengthening the competitiveness of the UK financial service sector.

Under these two objectives, three strategic pillars have been proposed:

- **Greening finance:** this is to further enhance the awareness of climate change and its associated financial risks within the UK economy, and to ensure the current and future financial risks arising from climate change are integrated into the mainstream financial decision-makings of organizations and participants in the real economy.
- **Financing green:** this is to help promote projects that are climate-cleaner and are more in line with UK's ambitions of building a cleaner, resilient and environment-friendly economy going forward.
- **Capture opportunities:** this is to encourage UK companies, particular those in the financial service industry, to capture commercial opportunities arising from the journey to zero emission in building world-leading business intelligence, analyzing platforms, and other financial products and services.

The Strategy has highlighted that insurance companies have a significant role to play in the government's strategic framework.

- First, insurance companies are one of the largest asset owners²⁹ (some of them are long-term investors) in the UK's economy. Insurance companies can play a vital role in influencing capital flow, providing required funding and finance to green initiatives that contribute to the government's net zero emission target;
- Second, providing insurance products to its customers or clients is the main function of insurance companies. In the context of the climate change, providing risk sensitive, economic sound and affordable insurance products to participants in the real economy, such as other insurance companies, end-investors, customers or other asset owners etc. is important to a smooth transition to low carbon and the efficient functioning of the economy;
- Third, given the data, both in relation to assets and to climate-related risk, possessed by insurance companies, they can contribute significantly to, knowledge sharing, setting out good risk management practice, providing scenario and sensitivity analysis etc. That information, if being disclosed correctly by insurers, can help promote better understanding of climate-related threats, risks and opportunities, and help other decision makers to make better informed decisions when coming to their own business.

In addition to the insurance sector, The Pension Regulator (TPR) in the UK has updated the defined contribution investment guidance³⁰ to reflect government regulation to clarify

and strengthen trustees' duties, including those relating to ESG considerations.

Although the Strategy does not explicitly set out an investment framework for asset owners, such as insurance companies, it highlights the importance of incorporating environment-related financial risks into all major activities performed, and decisions made, by such companies. For example, major activities may involve long-term strategy and business planning, product design, risk management and investment management. The Strategy also highlights the work done so far by financial regulators in promoting climate-risk management and Task Force on Climate-related Financial Disclosures (TCFD)-aligned³¹ disclosure by financial service companies. See the following section for more detail on a roadmap proposed by the government towards the mandatory climate related disclosures.

Through this strategic framework, the government's ambition is to re-allocate tens of trillions of pounds of capital towards cleaner and more resilient growth. A significant proportion of this to be re-allocated capital is expected to be under management by insurance companies and pension funds.

3.1.2.2 A Roadmap towards Mandatory Climate Related Disclosure (2020)

In November 2020, a year on since the UK government published the Green Finance Strategy (see the previous section), the UK's HM Treasury (HMT), together with other UK regulators³², set out an indicative roadmap³³ towards a mandatory climate-related disclosures across the UK economy aligned with the TCFD recommendations. All types of companies active in the UK are in scope for this roadmap, subject to meeting certain criteria. The roadmap illustrates how the coverage of disclosure requirement will increase each year as potential new regulatory or legislative measures, proposed by regulators to relevant sectors, come into force.

Given the urgency of the climate threat, the regulators believe that it would be both less efficient and less effective to ask the market to provide a sufficient amount of disclosures to a high standard if these were to be requested on a voluntary basis. This is to ensure that the right information on climate-related risks and opportunities is available across the investment chain, i.e., from companies in the real economy to financial services companies, and to end-investors. High-quality disclosures about how organizations and assets would be impacted by, and impact, environment change should improve transparency, encouraging better informed pricing and capital (re-)allocation. This should in turn drive investment in more sustainable projects and activities.

The first group of companies coming into the scope are those largest asset owners and premium listed companies in the UK.³⁴ Under that group, some of the largest life insurance companies and Financial Conduct Authority (FCA)-regulated occupational

pension schemes are required to make publicly available TCFD-aligned climate-related disclosure to end-investors and clients by end of 2022. By end of 2023³⁵, it is estimated that about 98%³⁶ (measured by asset under management) of all life insurance companies and FCA-regulated pension schemes will be required to make mandatory disclosures.

For life insurers and pension schemes that have been, or are to be, captured by relevant regulatory measures on mandatory disclosures, companies must ensure that they explicitly consider climate-related financial risks and opportunities in their business decisions, in particular investing in assets for long-term benefits; and incorporate those considerations within their risk management frameworks where they see fit.

3.2 UNITED STATES

Although the US is the world's largest and deepest market for investors, it lags behind Europe when it comes to ESG investing. The lag is not from a lack of interest in ESG, the political and regulatory framework is another story. Unlike in the EU or the UK, there is no formal ESG regulation in the US. However, there are quasi-regulatory forces pushing for regulatory framework for ESG investments, mainly focused on proper disclosure standards.

The previous US government's stance towards ESG issues was not friendly in general. More precisely, the federal government discouraged sustainable investing and environmental protections. Further, the administration has pulled out of the Paris Climate Accord and rolled back environmental regulations. But, however, with the new administration (in office since January 2021) there are positive momentums for a positive treatment of ESG investments in the current legislature. Besides this, the U.S. Securities and Exchange Commission has indicated that ESG disclosure regulation will be a central focus of recently confirmed SEC Chair Gary Gensler's tenure. However, one should be cautious about any concrete timeline for such an implementation.

In addition, many investment professional organizations are developing ESG disclosure standards. The Chartered Financial Analyst (CFA) Institute is the most prominent among them and is actively developing voluntary, global industry standards to establish disclosure requirements for investment products with ESG-related features. An Exposure Draft of the Verification Procedures for the ESG Disclosure Standards for Investment Products by the CFA Institute is currently soliciting feedbacks.

4 ESG regulatory requirements - recent and ongoing developments

This chapter presents recent and ongoing developments in the context of ESG regulatory requirements. In line with the previous sections, we continue to focus on the three jurisdictions, the EU, the UK, and the US.

In the EU and the UK several statements and acts have been implemented. In the EU the EC has published the EU Taxonomy Climate Delegated Act as a classification system in 2020 and the EU's Sustainable Finance Disclosure Regulation (SFDR) came into effect just this year. In the UK, on the other hand, there were several authorities active in this field. We focus on the Prudential Regulation Authority, the Financial Conduct Authority, the Financial Reporting Council and the Department for Work & Pensions. To complete this picture in the EU and the UK we present the EU Green Deal Investment Plan as of 2019 and The Pension Schemes Act 2021 for the UK.

In contrast to the EU and UK, the United States a lack of formal regulations can currently be observed. Nonetheless, the market participants in this jurisdiction are not passive in this regard. To be precise they are developing and working on their own disclosure framework.

4.1 EUROPE

4.1.1 EU

4.1.1.1 EU Taxonomy Climate Delegated Act (2020)

The EU Taxonomy Climate Delegated Act is implemented to reach the objectives defined in the European Green Deal.^{37,38} The European Green Deal has defined climate and energy targets for the year 2030 and the EU taxonomy is a classification system to enlarge environmentally sustainable economic activities.

With this taxonomy, it is clarified for companies, investors and policymakers which economic activities can be considered as environmentally sustainable. Furthermore, this classification system is integral part of the EU Action Plan (action 1).³⁹ With the implementation of this classification system, the EC aims at providing more security for investors to enlarge environmentally sustainable investments and to shift investments more and more in this direction. Additionally, the EC wants to encourage and help companies in their way to become more climate friendly.

The EU Taxonomy Climate Delegated act entered into force in July 2020 with the following six main objectives:

1. Climate change mitigation,
2. Climate change adaptation,
3. The sustainable use and protection of water and marine resources,
4. The transition to a circular economy,
5. Pollution prevention and control,
6. The protection and restoration of biodiversity and ecosystems.

The first two objectives will enter into force and application from 1 January 2022, whereas the remaining objectives 3 to 6

will enter into force and application one year later, i.e., from 1 January 2023. For the latter four objectives there will be a second delegated act published. This publication is currently planned for 2022. A first review on this regulation is planned for the middle of 2022 and from there on every three years.

To make it easier for everyone to understand this taxonomy, the EC is currently working on an IT solution, which will provide a better overview and understanding of this regulation. This IT-tool is called EU Taxonomy Compass and provides a visual representation of the taxonomy and its appendices.

4.1.1.2 Sustainability related disclosures (2021)

The EU Sustainable Finance Disclosure Regulation (SFDR) became effective on 10 March 2021.⁴⁰ It is part of the EU Action Plan to support greater transparency. Especially action 9 directly addresses the need for a strengthening of sustainability disclosure together with accounting rule-making. As it is part of the EU Action Plan, this regulation is aligned with the Paris Agreement as of 2015 and the UN 2030 Agenda for Sustainable Development. The latter agenda defines Sustainable Development Goals (SDGs) which required the EU's commitment to fully implement means and measures to ensure a transition to a low-carbon and resource-efficient economy. Furthermore, the SFDR is aligned with the EU Green Deal to reach its greenhouse gases-neutrality goals.

The Action Plan underlines the need for a harmonized regulation on sustainability disclosures. On the one hand a harmonized regulation is aiming at supporting more transparency regarding both sustainability risks and adverse sustainability impacts. On the other hand, an official harmonized regulation aims to discontinue different approaches and diverging measures regarding sustainability-related disclosures. With the lack of a regulation, several market participants have developed own measures and own terminology, which resulted in less reliable information.

As a first aspect, this regulation gives a concise definition of financial market participants, insurance undertaking, insurance-based investment product, pension product, financial adviser and many other. Important is the definition of a sustainability risk, which is defined as an environmental, social or governance event or condition that, if it occurs, could cause an actual or a potential material negative impact on the value of the investment. Furthermore, sustainability factors under this regulation are defined as environmental, social and employee matters, respect for human rights, anti-corruption and anti-bribery matters.

Regarding these sustainability risks, financial market participants are obliged to publish information easily accessible on their websites about their sustainability risk policies applied in their investment decision-making process or respectively their investment advice or insurance advice.

The same holds true for adverse sustainability impacts at an entity level. Financial market participants have to disclose both on their website, where they consider adverse impacts resulting from their investment decisions, and where they consider the opposite, in order to establish comprehensive transparency.

Furthermore, this regulation distinguishes between investments, which just promotes, among other aspects, ESG characteristics (article 8), and those investments, which are sustainable by themselves (article 9). It is stated which requirements on disclosures have to be met by both forms of investments.

4.1.1.3 EU Green Deal Investment Plan (2020)

The first two steps in the process of the European Green Deal led to the EU Green Deal Investment Plan.⁴¹ At the end of 2019, the EU Green Deal was announced and with the beginning of 2020, the EU Green Deal Investment Plan became effective as a second step in this process. The interconnectedness between the European Green Deal and the corresponding investment plan is visualized by the following graphic from the EC:

THE INVESTMENT PLAN WITHIN THE EUROPEAN GREEN DEAL



A major part of the Green Deal Investment Plan is the development of an EU Green Bond Standard (EUGBS) to increase both, public as well as private investments in sustainable green bonds. While this standard is part of the Green Deal, it is also part of the EU action plan, where action 2 calls for the creation of standards and labels for green financial products.⁴²

The Green Bond framework is characterized by four key requirements outlined by the EC:

- funds raised by the green bonds need to be aligned with the EU taxonomy,
- full transparency is obtained by respective reports,
- external review of funded projects need to be in line with the corresponding regulations,
- these reviewers are supervised by the European Securities Markets Authority (ESMA).

Altogether the plan of the EU Green Deal Investment Plan is to mobilize at least EUR 1 trillion over the next decade under the Sustainable Europe Investment Plan. This amount is derived at least one half from the EU budget itself, while the rest should come from triggered investments, like the ones generated by EU Green Bond Standard and consecutive programs launched by the EU.

4.1.2 UK

4.1.2.1 Prudential Regulation Authority

Supervisory Statement 3/19

Back in 2015, the Prudential Regulation Authority's (PRA's) climate change adaptation report⁴³ for UK insurance sector concluded that climate change posed significant threats not only to the liability-side of general insurers, but also to the asset-side of both general and life insurers. In April 2019, following the consultation period, the PRA published the Supervisory Statement (SS) 3/19, 'Enhancing banks' and insurers' approaches to managing the financial risks from climate change'.⁴⁴

The SS, which is effective on the date of publication, i.e. 15 April 2019, covers all PRA-regulated firms setting out the PRA's expectations for these companies, including insurers, to establish strategic approaches to the management of financial risks of climate change, in particular, how firms:

- Embed the consideration of the financial risks from climate change in their governance arrangements;
- Incorporate the financial risks from climate change into existing financial risk management practice;
- Use (long-term) scenario analysis to inform strategy setting and risk assessment and identification;

- Develop an approach to disclosure on the financial risks from climate change.

The SS has highlighted that the financial risks from climate change have a number of distinctive elements which, when combined together, present unique challenges and require a strategic approach to financial risk management. In particular, insurers should recognize that there is a high degree of certainty that financial risks from some combination of certain types of climate-related risks will occur in the foreseeable future with a significant uncertainty in timing or horizon, or the impact being likely to be non-linear, correlated and irreversible.

Under the risk management sections, the PRA has made clear that incorporating climate change risk factors into the investment risk management frameworks and assessing whether there has been an excessive accumulation of unmodellable, or less well understood, risk in the investment portfolio are key functions that insurers should look to develop over time. This has been further highlighted by a 'Dear CEO' letter from the PRA requiring all insurers to fully embed their approach to managing climate-related financial risks by end of 2021.

The PRA reminds insurers in the SS that all investment activities carried out by an insurer should comply with the Solvency II Prudent Person Principle (PPP). Where there is a significant uncertainty in identifying or quantifying the asset risks to be taken, a prudent investment approach should be taken instead. See our take on the interaction between the climate change and the Prudent Person Principle [here](#).

In addition, insurers are required to incorporate financial risks from climate change within its regulatory reporting, e.g. Pillar 3 under Solvency II, and its reporting to shareholders, e.g. as required under UK Companies Act where such risks are considered material or principal for a given firm.

4.1.2.2 Financial Conduct Authority

Policy Statement 19/30

The Financial Conduct Authority's (FCA's) Policy Statement (PS) 19/30⁴⁵ introduces further responsibilities for Independent Governance Committees (IGCs) of workplace pension schemes. In the case of smaller or less complex schemes, there may be a Government Advisory Arrangement (GAA) in place of an IGC however the additional responsibilities remain relevant. Companies with IGCs or GAAs would offer workplace pensions, examples include life insurers or self-invested pension scheme operators. IGCs are put in place to act in the best interests of members of the pension schemes currently during the accumulation phase, who typically are not overly involved in making choices regarding the investments made by the fund. As a result, the members of the workplace pension scheme are unlikely to be considering ESG related investment choices, and it

is therefore the responsibility of the IGC or the GAA to consider these on behalf of scheme members.

The PS requires IGCs or GAAs to consider and report on the ESG policies in place for the firm, including around climate change. The IGC or GAA must also publish a statement in their annual report around the adequacy and quality of the ESG policy for the products it oversees. The FCA does acknowledge that this may require upskilling members of IGCs to be knowledgeable in ESG related matters, through training, using external expertise or recruiting individuals with the required expertise.

The FCA believes that the increased transparency as a result of requiring IGCs (and GAAs) to publish its view on the firm's ESG policies should result in greater competition between providers of workplace pension schemes to include ESG factors into their investment decisions. The change in policy should also mean that members of the pension scheme who do not actively consider ESG issues in their investment choices should not be unduly impaired as a result, as the IGC or GAA should consider these issues and the potential impact on members as a result of the firm's current policy.

Policy Statement 20/17

The FCA's PS 20/17⁴⁶ includes a new listing rule, focusing on disclosures made by companies with a UK premium listing, as well as a finalized technical note to clarify current requirements for UK issuers including listed firms to disclose (in certain circumstances) information on ESG issues, which is set out in the FCA handbook and in EU legislation (which will continue to apply to UK companies after the transition period on 31 December 2020). The technical note will also apply to issuers trading in regulated markets and other entities in scope of EU legislation that will be adopted by the UK at the end of the transition period, in particular Market Abuse Regulation and Prospectus Regulation. The new listing rule will apply for accounting periods beginning on or after the 1 January 2021.

The listing rule requires that issuers state in their annual report whether they have made disclosures consistent with TCFD's recommendations, or to provide an explanation why they have not done so including where relevant steps they plan to take to be able to produce the disclosures in future reports and proposed timescales around this.

The new listing rule (and the clarification provided by the technical note) is expected to result in increased market integrity, as more information is available for more accurate asset pricing. Additionally, the policy should foster the development of products that meet the ESG and climate-related preferences of customers, therefore increasing the range of products available on the market and reducing the probability of customers purchasing unsuitable products. This should also

result in greater market competition, as investors will have the information to choose products which best suit their needs and preferences. It is expected that this proposal will result in the cost of capital for companies being more reflective of their management of ESG and climate related risks, and as an overall outcome for the policy to help the UK move towards the goal of net zero carbon emissions.

4.1.2.3 Financial Reporting Council

UK Stewardship Code 2020

The UK Stewardship Code sets high stewardship standards for asset owners and asset managers, and for service providers that support them. The Code comprises a set of 'apply and explain' Principles for asset managers and asset owners, and a separate set of Principles for service providers. The principles for asset owners and asset managers cover purpose and governance, investment approach, engagement and exercising rights and responsibilities. The principles for service providers cover purpose and governance as well as how service providers can support clients' stewardship.

For example, signatories should disclose how their purpose and investment beliefs have guided their stewardship, investment strategy and decision-making. They should assess how effective they have been in serving the best interest of clients and beneficiaries.

It is an enforced framework, however, the Code does not prescribe a single approach to effective stewardship. Instead, it allows organizations to meet the expectations in a manner that is aligned with their own business model and strategy. To become a signatory to the Code, organizations must submit to the FRC a Stewardship Report demonstrating how they have applied the Code's Principles in the previous 12 months. The report may cover any 12-month period beginning after 1 January 2020.

4.1.2.4 Department for Work & Pensions

Clarifying and strengthening trustees' investment duties

The government's response to the consultation on Clarifying and Strengthening Trustees' Investment Duties requires that schemes which are required to update or produce a Statement of Investment Principles update it to set out how they take into account financially material considerations arising from ESG considerations including climate change, and their policies in relation to the stewardship of investments by 1st October 2019.

"Relevant schemes" - broadly money purchase schemes with a few exceptions - are required to publish their Statement of Investment Principles on a website and inform members of its availability via the annual benefit statement. From 1st October 2019, trustees are also required to prepare and publish a separate

“statement on members’ views” setting out how they will take account of views which they believe members hold, when they next prepare or update their Statement of Investment Principles.

Finally, from 1st October 2020, trustees of “relevant schemes” are required to produce an implementation statement setting out how they acted on the principles they set out, and how they acted on the statement which covered how they would take account of the views which, in their opinion, members hold. The implementation statement must be published online.

4.1.2.5 The Pension Schemes Act 2021

The Pension Act 1995 in the UK has been amended to include the potential regulation requirements for the climate change risk.

In particular, this legislation⁴⁷ will impose requirements on the trustees and managers of an occupational pension scheme to publish information that states that there is effective governance in place for the scheme with respect to the effects of climate change. These effects include, in particular, risks arising from steps taken by the government because of climate change, and opportunities relating to climate change.

The information to be published by trustees and managers should cover how the effective governance of a scheme is aligned with achieving climate change targets, such as the relevant goal defined under Paris Agreement 2015.

4.2 UNITED STATES

Despite the friendly stance towards ESG regulations of the newly confirmed Securities and Exchange Commission (SEC) chairman Gary Gensler, there have been heated debates about whether the SEC should even attempt such regulations. The SEC has had the reputation of a fair and neutral regulator, which is fundamental to the successful execution of its tripartite mission — to protect investors; maintain fair, orderly, and efficient markets; and facilitate capital formation. Towards that end, the SEC has historically facilitated access for the average investor to reliable, issuer-specific, financially material information that is generated in a cost-efficient way and provided in a useful format. Some market participants have argued that ESG disclosure regulations are an attempt to generate disclosures that may be relevant to society and stakeholders, but are financially immaterial to investors. Philosophically, the question is, should the SEC use ESG reporting requirements to advance societal or environmental reform or, more narrowly to help investors create value in a rapidly evolving and diverse landscape of ESG risks and opportunities? Without ironing out these questions, specific SEC regulations are hard to come to fruition.

However, there are other quasi-regulatory forces in the market that also play a significant role, such as professional associations, auditors and rating agencies. For example, the CFA Institute is developing voluntary, global industry standards to establish

disclosure requirements for investment products with ESG-related features. Major auditors and rating agencies also generally have evolving ESG evaluation systems that influence their assessments.

Overall, despite a lack of formal regulations in the US, there are market participants working to develop a network of disclosure framework.

5 ESG market practices – Case studies

With the growing prominence and importance of sustainability, companies forced their sustainable activities and started to integrate ESG concerns into their core business. Asset owners, like pension funds and insurance companies, are greatly accelerating this way by adopting ESG integration strategies for their investment portfolios. For that reason, this chapter presents various case studies and intends to explore market practices of ESG investment strategies and approaches. More precisely, the case studies demonstrate how ESG investing is integrated in the corporate governance framework and how ESG factors can influence the investment decision-making process of the companies.

5.1 CASE STUDIES

5.1.1 Europe

5.1.1.1 EU

5.1.1.1.1 Pension Funds

The case study series starts with Pension Funds with an industrial background.

BASF Pension Fund

In case of the BASF Pension Fund one can obtain the usage of an external provider of ESG information for their sustainability integration. Due to their size, they use external information to align their investment strategy to ESG criteria. Furthermore, the BASF Pension Fund orientates its strategy with respect to the UN Principles for Responsible Investments⁴⁸, and negative screening plays a key role in its ESG investing framework. E.g., the production, use, transfer or storage of cluster bombs are excluded.⁴⁹

Bayer Pension Fund

Since 2014 the Bayer Pension Fund established a sustainability statement for their largest pension plans. The statement has two key features. On the one hand, their general investment principles are orientated towards the UN PRI.⁵⁰ But, to put it in concrete terms, they haven’t signed the UN PRI, because the specific implementation of them are assessed to be inefficient and impractical. This can be attributed, on the other hand, to the second component of the sustainability statements:

defining practical dos and don'ts for different asset classes. This effectively means that sustainability is one among many criteria, but not handled as an overarching principle. E.g., and in contrast to the BASF Pension Fund, they do not apply an a-priori exclusion of sectors.

Apart from this, sustainability is taken into account as a risk, which is evaluated in the form of a stress test for the respective portfolios via using a pre-defined ESG-risk scenario. The results of this stress testing are presented to the supervisory board of the fund regularly.⁵¹

5.1.1.1.2 Life Insurers

Allianz SE

Allianz, the market leader in the insurance sector in its home country Germany, has developed its own ESG integration framework. Last developments to the current version 4.0 were prepared and approved in March 2021 by the Group ESG Board.⁵²

This Group ESG Board was established in 2012 and is key player in Allianz' developments regarding its ESG strategy. Further actors within the group include Global Sustainability, ESG Task Forces and Local ESG governance.

Within this framework, Allianz publicly defines its approach to integrate ESG criteria to its own investment strategy. Besides using own data, Allianz is provided with external ESG ratings and scoring data provided by MSCI ESG research.

As integral part of their ESG activities, Allianz sees active ownership as an important part to address ESG risks and issues. Allianz wants not only to act as a passive investor, but also to improve these companies' approach to manage ESG-related topics. Especially, they want to encourage additional disclosure on ESG-related policies together with creating a rising awareness of ESG risks in those companies. Allianz uses negative screening, which means they have introduced several exclusion policies with respect to the following sectors: controversial weapons, coal, certain companies with material ESG concerns, sovereign issues with elevated human rights risks and other ESG concerns.

Allianz provides a specific and systematic approach for asset managers to follow this framework. Starting with the implementation of ESG exclusion policies, asset managers are obliged to immediately disclose and report any ESG-related issues, conflicts, concerns, and breaches to Allianz Investment Management (AIM), the investment management firm of the group.

The framework not only deals with risks arising from ESG related topics. On the other hand, they see ESG specific business opportunities. Especially the transition to a low-carbon economy and the need for greater environmental protection and social inclusion is seen as a huge potential for generating sustainable solutions.

AXA S.A.

For AXA, a big French Life Insurer, ESG is an integral part of its Responsible Investment (RI) strategy. This strategy is specified by the Responsible Investment Committee with the Group Chief Investment Officer as head of it. Aim of the strategy is to manage risks arising from investments in controversial sectors on the one hand together with including positive aspects arising from ESG issues on the other hand.⁵³

Furthermore, AXA is a member of the UN PRI.⁵⁴ Their engagements are summarized in the AXA Group UN PRI Public Assessment Report. Besides this, AXA is also engaged in the form of several partnerships and memberships, e.g. United Nations Global Compact and United Nations Principles for Sustainable Insurance (PSI). Moreover, AXA signed the Kyoto Statement of the Geneva Association and Caring for Climate, The Business Leadership Platform.

As part of their investment strategy, AXA uses negative screening with following exclusions: controversial weapons, coal, oil sands, palm oil, food speculation, and tobacco. For each of these sectors AXA publishes an extra sector guideline. They also use impact investment and invest in green bonds. And like we mentioned above in case of the Allianz, AXA's sustainability strategy also includes active ownership (engagement and proxy voting).⁵⁵

Assicurazioni Generali S.p.A.

Generali started in 2004 to incorporate ESG issues by establishing a Corporate Social Responsibility (CSR) unit.⁵⁶ Starting with this early stage, Generali went through a lot of steps, including the join of the Principles for Sustainable Insurance (PSI) and the orientation towards the UN PRI⁵⁷ in 2011 as part of their development phase. Since 2020 Generali is a member of the Net-Zero Asset Owner Alliance⁵⁸ and specific to the insurance industry, they are founding member of the Net-Zero Insurance Alliance since its start in 2021. At this current stage Generali announces to be in a phase of proactive value creation, where sustainability is identified as an originator for the business strategy.

Generali has implemented its ESG investing activities at four specific levels. At first, exclusion policies are implemented. As a result, unethical behaviors and breach of UN Global Compact as well as risky activities for the environment (e.g., coal, tar sands) and controversial business sectors as unconventional weapons are excluded. On the second level, ESG criteria are integrated by defining thresholds for coverage in the ESG analysis framework. With the growing importance of ESG, on the third stage, Generali has integrated impact and thematic investment issues, which consists of Green & Sustainable Infrastructure Investments as well as other sustainable investments like the Covid-19 EU recovery plan. On top level, Generali has committed itself to active ownership, meaning to encourage ESG practices, to be more active in voting and to get more into dialogue on ESG topics.⁵⁹

5.1.1.1.3 Reinsurance Companies

Munich Re

The Munich Re Group has accepted the UN Global Compact and has signed the Principles for Sustainable Insurance (PSI) as well as the PRI. Furthermore, Munich Re joined the Net-Zero Asset Owner Alliance in 2020.⁶⁰

Munich Re has identified several subgoals, which are summarized under the so-called ESG framework, which in turn has become an integral part of the corporate responsibility strategy and thus also a key element of the core business. For the environment they identified the three aspects: Natural resources and biodiversity, Pollution and Climate Change. With regard to society, they focus on these six aspects: Political environment and public perception, Human rights, Working conditions, Cultural heritage, Resettlement of people and Health and safety of the community. As last group of aspects they identified with respect to governance: Responsible and careful planning and assessment, Compliance and Consultation, and transparency.⁶¹

Having started with the ESG aspects of Munich Re's ESG framework, in the following we focus on sensitive issues. As part of the framework, Munich Re has identified seven different sensitive issues. Each of these issues led to a policy within their ESG framework. The following picture is taken from their corporate responsibility report 2020.⁶²

SENSITIVE ISSUES:

Munich Re positions and measures

	Banned weapons: Policy on cluster munitions and land mines
	Coal: Policy on coal business underwriting and investments
	Arctic drilling: Guidelines, risks to be referred to Arctic Drilling Panel
	Oil sands: Policy on oil sands business underwriting and investments
	Fracking: Position paper including specific questions on ESG aspects
	Mining: Position paper including specific questions on ESG aspects
	Investments in farmland: Mandatory ESG check for investments

The seven aspects in combination with the sensitive issues lead to Munich Re's position and measures. They use an ESG-Tool for underwriting, where they assess different industries and follow best practices in credit/surety. Furthermore, they have developed a sustainable investment process, which includes 'ESG research & ratings'. Finally, they include ESG information in their Country Risk Assessment to introduce a ESG country rating.

Additionally, Munich Re has enhanced their investment strategy by including a net-zero climate commitment based on joining the Net-Zero Asset Owner Alliance (AOA) in 2020. These goals are also anchored in the "Munich Re Group Ambition 2025". The aim of the commitment is to achieve a GHG-neutral investment portfolio by 2050. But, the net-zero commitment is not only focused on the asset side, it also takes into account the liabilities. More precisely, one subgoal is to be net-zero in the (re)insurance of oil and gas production by 2050 together with a full exit from thermal coal-related (re)insurance by 2040. Besides assets and liabilities Munich Re wants to achieve net-zero emissions across their own operations by 2030.

In September 2020 Munich Re published its Green Bond framework to deepen the integration of ESG criteria and to address Climate Change. The framework is aligned with the ICMA Green Bond Principles 2018. Within this framework there are several eligible green project categories identified. These categories are the following ones: Renewable Energy, Energy Efficiency, Clean Transportation, Green Buildings, Sustainable Water and Wastewater Management, Eco-Efficient and/or Circular Economy, Environmentally Sustainable Management of Living Natural Resources and Land Use. As one result from this framework, Munich Re issues its Green Bond Allocation and Impact Report on a yearly basis.

SCOR

SCOR, a big French reinsurance company, has put its ESG ambitions into its "Quantum Leap" strategic plan.⁶³ SCOR itself adheres to both, the PRI⁶⁴ and the United Nations Principles for Sustainable Insurance. Furthermore, the group is a member of the Technical Expert Group on Sustainable Finance at the EC.

According to this strategy, SCOR has identified five pillars to base its investment policy on. These so-called Sustainable Investing Principles are:

1. Risk Management: Building a Resilient Portfolio,
2. Screening: Enhancing Sustainable Investment Decisions,
3. Engagement: Fostering Sustainable Behavior,
4. Thematic Investment: Financing a More Sustainable World,
5. Participation in Initiatives and Debates: Supporting Climate Awareness.

Regarding the first principle, SCOR has embedded climate risk modelling in their investment decisions. They try to build a resilient portfolio. This means especially resilient against physical risks induced by climate change, but also transition risks arising from the use of new technologies and market innovations. For the screening activities of the group, we refer to the following graphic by SCOR⁶⁵:



Resulting from their exclusionary screening, SCOR is a founding signatory of the tobacco-free finance pledge. But, on the other hand, also positive screening plays key role in SCOR's sustainable framework to take up opportunities arising from ESG investing. Opportunities as seen by SCOR are Green Bond and investments in solar, wind and energy efficiency (real estate). These fields not only grant opportunities by itself, but moreover they provide diversification to the Group's investment portfolio.

Further, SCOR encourages ESG ratings and supports climate awareness. Its own investment portfolio has been rated by ISS-oekom, which came to the conclusion that SCOR's asset portfolio is rated "C".⁶⁶ The Group has induced a voting policy to be a more responsible investor. This voting policy covers the aspects of: Independence of Board members, diversity of Board members, compensation, lobbying transparency and sustainable behavior of the company SCOR has invested in. To create even more awareness, they aim to be more in dialog with issuers.

With its fourth pillar, this strategy aims at the transition to a low-carbon economy. SCOR has aligned its thematic investments to the UN Sustainable Goals (UN SDGs) which has on the one hand effects on its own investment decisions as investing in sustainable bonds, but also on the other hand effects on its real estate portfolio management.

SCOR summarizes and publishes its current efforts in their sustainable investment reports. This report is produced according to the recommendations of the Task Force on Climate-related disclosures.

5.1.1.2 UK

5.1.1.2.1 Pension Funds

Mallowstreet Survey

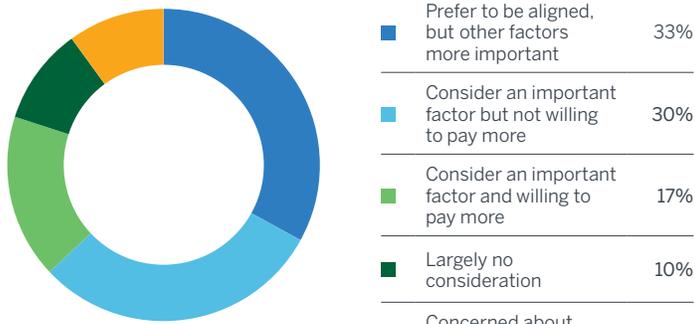
In March 2021, in collaboration with Milliman, Mallowstreet surveyed 31 UK pension experts, representing DC plans and master trusts. The survey was to investigate how they handle DC investment risk during decumulation and retirement, as well as the actions they take to guarantee a successful retirement. A key finding from the survey was that DC trustees believe members are concerned about the long-term viability of their investments as they near retirement. Therefore, ESG requirements for managers are increasing, including carbon and impact indicators, as well as alignment with climate scenarios.

Key results:

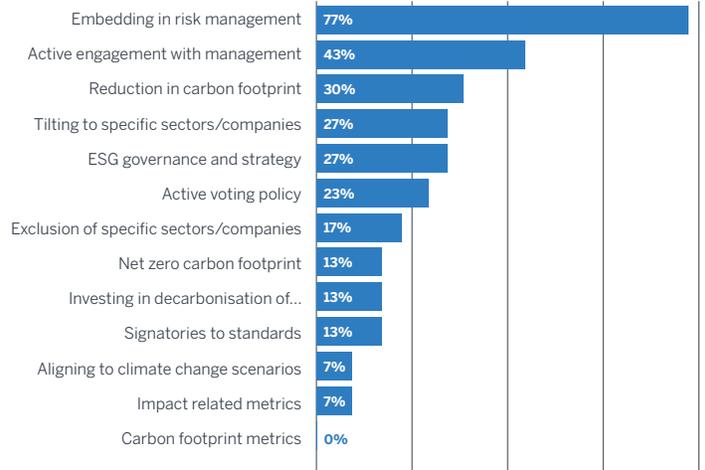
- A **third** of DC trustees feel their members would like their investments to stay aligned with ESG factors as they approach retirement.
- Another **30%** say their members value sustainability but are unwilling to pay more or forego returns to achieve it.
- **77%** of trustees believe their members want ESG to be at least incorporated in risk management, but many also believe that schemes and managers should collaborate to interact with investee firms and decrease carbon footprints.

These assumptions are consistent with ESG requirements for asset managers in DC default funds: at least 70% of schemes want managers to treat ESG as a substantial risk, give a clear ESG strategy, vote actively, and communicate with investee companies. However, in the future, at least half of the schemes will demand carbon footprint and effect related indicators, as well as seek alignment with specific climate scenarios (e.g., 1.5°C or 2°C warming).

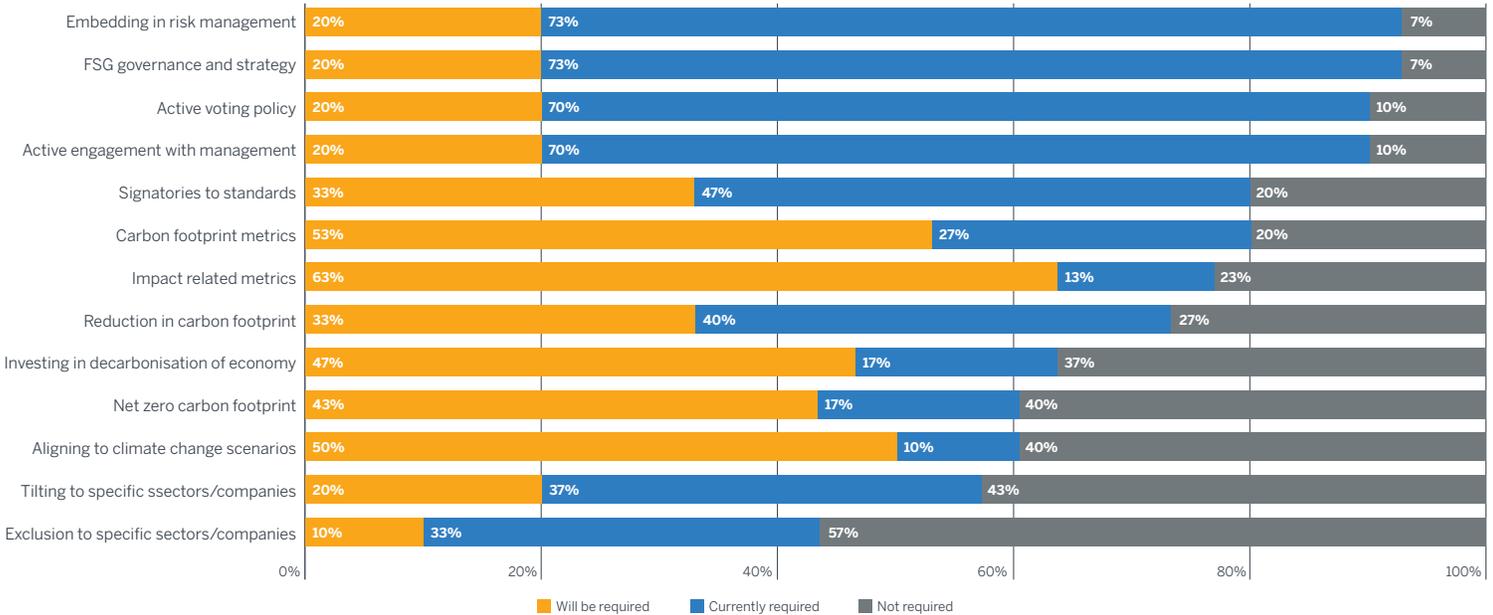
ESG CONSIDERATIONS WHEN APPROACHING RETIREMENT



ASSUMPTIONS ABOUT MEMBERS ESG PREFERENCES



ESG REQUIREMENTS FOR MANAGERS IN DC DEFAULT FUNDS



NEST Pensions

NEST Pensions is the workplace pension scheme set up by the government. *NEST* believes long-term financial returns may be boosted by sustainable practices and a responsible approach to ESG concerns - 'As long-term investors, incorporating ESG factors is integral to the investment management process.' To guide and prioritize their actions, NEST developed 4 responsible investment objectives: (1) Better risk-adjusted returns by targeting an improvement in ESG performance (2) Better functioning markets (3) Support long-term wealth creation

(4) Manage reputational risk. They have established a goal of aligning their investment portfolio with limiting global warming to 1.5 degrees Celsius. By 2050, to have net zero emissions, and by 2030, they want to have cut emissions in half.

4 key ways NEST invest responsibly:

1. **Voting and Engagement** - Voting and engagement with companies, can encourage positive behavioral change and help build excellent connections and trust. NEST exercise their voting rights to help companies they own shares in

becoming more sustainable and profitable in the long term on behalf of their members. Voting usually takes place at each company's AGM. As one of the UK's largest pension plans by membership, they actively contribute to the public dialogue on climate change risks and possibilities. In 2020, NEST voted in 4,491 company meetings - 99.8% of total voteable meetings, highlighting their commitment as active owners. Engagement also involved writing letters, having discussions in private meetings, and taking part in group meetings with other like-minded investors.⁶⁷

2. **Working with Others** – Working with fund managers, key stakeholders, partners, and organizations helps NEST to be more successful in addressing problems that are important to their members. When selecting fund managers, they must communicate their expectations for managing ESG risks and opportunities. For example, how they evaluate ESG concerns and use that evaluation into their investing process, voting, and engagement activities
3. **Risk monitoring** – NEST has created a risk management model to help companies with poor ESG performance improve. The model assigns a score to companies based on their ESG and financial performance. The results from the model have aided NEST in identifying and prioritizing three major risks: (1) Looking into how companies treat the environment by focusing on their greenhouse gas emissions. (2) Focusing on behavior, culture, employee incentive, and growth to address how companies engage with people. (3) Addressing how companies lead and organize themselves by focusing on audit and dividends,

which contribute to public and investor confidence and trust.

4. **Asset allocation** – Incorporating ESG factors into asset allocation decisions. The first step was including a climate aware global equity fund into their portfolio as one of the main components of their default strategy. It aims to minimize the amount of money invested in highly carbon-intensive companies and increase investment in enterprises that are well-positioned to achieve the Paris Agreement's goals. Also, considering ESG factors as a key focus when designing their segregated commodities fund, which resulted in the exclusion of many commodities from the fund's universe such as energy providers with high climate risk exposure and companies focused on thermal coal, palm oil, uranium, and tobacco. To reach their target of aligning their investment portfolio with limiting global warming to 1.5C, NEST are decarbonizing their portfolio (withdrew £1.16bn) and investing more money into companies that are creating low-carbon technology and renewable energy infrastructure (invested £1.16bn). Over £7.18bn was invested in developed market equities. Working with Northern Trust, NEST existing emerging markets fund manager, they've developed a tailored strategy to reducing investments in companies with large oil or gas reserves and high carbon intensity. They are also increasing investments in companies with low carbon intensity compared to its sector or its intensity is reducing over time, strong energy-efficient practices, renewable energy opportunities, clean technology, and sustainable construction.

GOVERNANCE AND OVERSIGHT



Identify and prioritise

- Proprietary investment research carried out
- Issues selected on relevance and interest for members
- Analysis conducted to understand the market-wide and real-world impact of the issue
- Understanding of codes and standards that allow us to meaningfully address issues
- Objectives are defined



Implement

- Develop an evidence-based policy
- Asset allocation decisions are made
- External fund managers are informed
- Issues are incorporated in our voting and engagement standards
- Issues are reflected in our voting subset
- Direct or collaborative engagement is carried out



Review

- Our responsible investment strategy is reviewed annually
- Policies and standards are reviewed periodically
- Third-party ESG data provision is reviewed tri-annually
- Members are surveyed on their interests and priorities annually

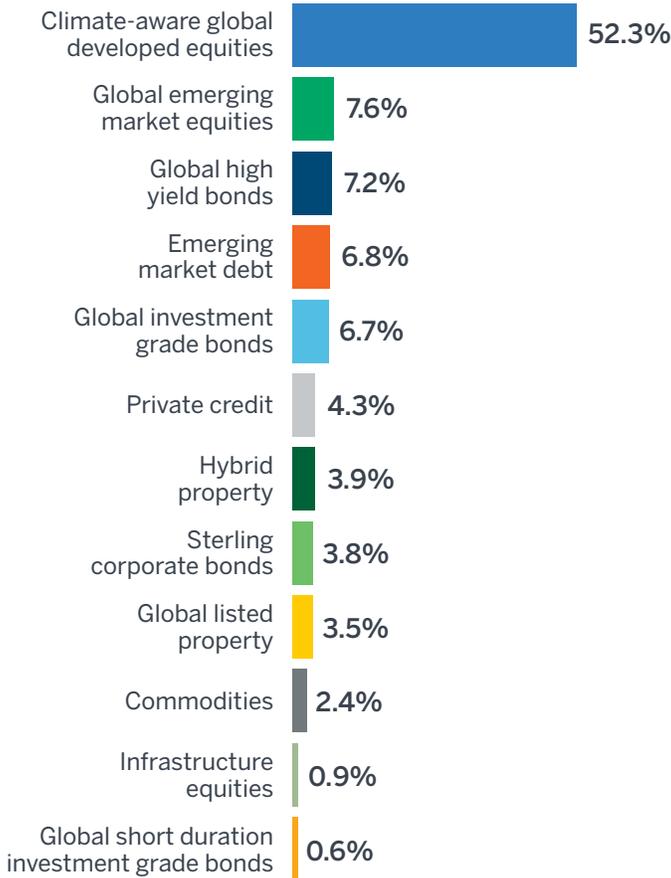


Monitor

- Regular meetings with external fund managers
- Company engagement and progress against objectives is recorded
- Risk monitored through the ESG risk dashboard
- Escalation options are considered

NEST 2040 RETIREMENT DATE FUND

Asset allocation



Global breakdown of equity*



North America	56.1%	Japan	7.2%
Europe and Central Asia Ex UK	15.3%	UK	3.2%
East Asia and Pacific Ex Japan	14.9%	Latin America and Caribbean	1.0%
South Asia	1.1%	Sub-Saharan Africa	0.5%
Middle East and North Africa	0.7%		

*Made up of emerging market and developed market equities, worth 59.9% of this fund

RailPen Net Zero Plan

The Railways Pension Scheme's investment manager, RPMI Railpen ("Railpen"), oversees c. £32 billion in assets. The trustee body for the Railways Pension Scheme is committed to the goal of paying the 350,000 Railways Pension Scheme members securely, affordably, and sustainably.⁶⁸

Railpen have joined the Paris Aligned Investment Initiative's Asset Owner Net Zero Commitment. Their goal is to achieve net zero GHG emissions by 2050 or sooner. As of December 2020, 65% of their investment portfolio, which covers listed equities, corporate fixed income, and sovereign bonds is within scope of this net zero plan.

The 4 pillars of the Net Zero Plan:

- **Governance and Strategy:** Commitment, beliefs, responsibility & ownership, reporting.
 - The Net Zero Plan is based on the Paris Aligned Investment Initiative's Net Zero Investment Framework. It was created by the internal Climate Working Group, which was formed in September 2020.

- To ensure clients' assets are resilient to systematic and societal threats such as climate change and use their influence to affect positive change in the world.
- Railpen shares and follows through on the Investment Beliefs of its Trustees. The beliefs include ESG issues, such as climate change, are linked to long-term investment outcomes.

- **Targets and Objectives:** Fund-level GHG reduction targets, climate solution targets.

- To achieve net zero by 2050 or earlier, Railpen aims to deliver the decarbonization of their investment portfolio - by corporate engagement to ensure that investee companies are aligned with the Paris objectives.
- Investing in climate solutions, for example, most of its infrastructure portfolio in the UK is invested in renewable energy and smart meters.
- Controlling their organizational Scope 1 and Scope 2 emissions, with the goal of achieving net zero by 2050 or sooner. To employ high-quality carbon offsets where it is required.

- **Asset Class Alignment:** Portfolio-level alignment targets, engagement targets, selective divestment – focusing on listed equities and corporate fixed income, and sovereign bonds.
 - The engagements' goals, to align underlying companies on a net zero trajectory, will be met through direct and collaborative involvement. The primary collaborative engagement vehicle will be Climate Action 100+ (CA100+). Annual engagement plans will be created and revised, taking into consideration portfolio turnover. Also, Railpen believes it is necessary to engage with companies that affect energy demand more than those involved in the supply of energy.
 - Railpen has been excluding companies that generate more than 30% of their annual revenue from thermal coal or tar sands. As a result, 175 companies have been excluded from their investment portfolio due to high climate risk. They oppose the allocation of capital to new thermal coal projects (new mines, mine expansions, or new coal-fired power plants), as well as new tar sands exploitation.
- Railpen has a large percentage of its assets invested in UK Gilts. They used the NZIF's Sovereign Bonds approach to their Gilts allocation. The UK has approved legislation mandating net zero GHG emissions by 2050, and it is ranked second only to Sweden in the Climate Change Performance Index.
- **Policy advocacy and Market engagement:** Strategic policy and market-level engagement, direct and collaborative support for the Paris goals.
 - Railpen is an outspoken advocate for climate policy and regulation.
 - They engage in policy and market-level discourse both individually and collaboratively.
 - Railpen's near-term priorities is show in the table below. These are aimed at improving the flow of consistent and comparable climate change data across the public and private investment chains. Supporting regulatory and market frameworks that drive participants to achieve a just transition to net zero by 2050 will be a medium-to-long-term policy and market engagement priority.

NEAR-TERM POLICY ADVOCACY AND MARKET ENGAGEMENT PRIORITIES

	Policy advocacy	Market engagement
Stakeholders	<ul style="list-style-type: none"> • Global policy makers • Home market policy makers • US and China 	<ul style="list-style-type: none"> • Auditors • Proxy Advisers • Peer Investors • Data Vendors
Activities and aims	<ul style="list-style-type: none"> • Global climate policy • Cop 26 advocacy • BEIS consultations • Improved climate data in private assets • Protection of minority shareholder rights 	<ul style="list-style-type: none"> • Climate accounting • Proxy advisor engagement • Supporting peer investors with their net zero plans • Contributing to delivery of further net zero methodologies and the enabling tools and data
Key collaborations and memberships	Investor Agenda, IIGCC, FRC Investor Advisory Group, GFANZ, BVCA RI Advisory Group, UKSIF, ACGA, PRI Global Policy Reference Group, PLS Stewardship Advisory Group, CII, PCRIG	ICGN, CA100+, FRC Investor Advisory Group, RI Roundtable, ACSI, PAII, Scheme Advisory Board RI Advisory Group, SASB Investor Advisory Group, TPI

Fund level reference targets:

- Railpen has recognized that it is necessary to increase investments in climate solutions to achieve net zero by 2050 or earlier.
- In 2020, their financed emissions were 70 tonnes of GHG per €m invested. By 2025 to reduce financed emissions by 25-30% and by 2030 reduce it by 50%.

Portfolio-level reference targets:

- Currently, 70% of the companies they engage with are aligned to net zero, but the plan is for that to become 90% by 2030. The sectors covered by the engagement targets includes metal & mining, airlines, construction materials, chemicals, food products, oil & gas, and electric utilities.

- One of their alignment targets is that 100% of AUM in 'material' sectors is either net zero, oriented to net zero, or on its way to becoming net zero by 2040.

5.1.1.2.2 Life Insurers

PIC

The Pension Insurance Company (PIC) uses [a purposeful investment strategy](#) to ensure guaranteed pensions for their growing policyholder base. Their purpose is to pay the pensions of current and future policyholders. Therefore, the management of key risks, such as ESG factors, are important when paying the pensions of policyholder over the next few decades. This has resulted in socially beneficial investments in sectors like renewable energy, social housing, and national infrastructure that will benefit current and future generations – over **£1.3 billion** was invested in renewables (2012-2020). As well as incorporating climate risk into their corporate risk taxonomy covering physical, transition and liability risks. Some of the key outcomes of PIC's purpose include: active engagement in public policy discussions about sustainable investing; a workplace that is fair and fulfilling; increase investments in renewable energy while reducing exposure to carbon-intensive industries; and significant investments in urban redevelopment, social housing, and other sectors that promote intergenerational equity are being made.⁶⁹

PIC's ESG strategy, as determined by the Board, incorporates ESG risks into investment choices, and engage with their private debt investments. They are also a signatory to the UNPRI. Approximately half of PIC's **c.£50 billion** portfolio is handled domestically, while the other half is managed by external managers. The external managers, who run the listed debt portfolios, are required to consider ESG factors. Internally, ESG factors are critical considerations for their privately sourced debt investment, which are long-term in nature. This involves engagement with management to understand their ESG risks and assist them in managing several possible long-term disruptions, as well as to promote improved governance and reporting transparency.

Environment – PIC's aim to divest their remaining assets in firms that rely on coal mining or combustion for more than 10% of revenue by the end of 2050. They believe thermal coal is no longer a viable long-term energy source due to its high pollution levels. This is a risk as long-term cash flows created by coal extraction or combustion are unsustainable. PIC considered the potential carbon taxes on coal-burning companies; the possibility of protestors and others filing lawsuits against companies; and as ESG issues grow increasingly important, the supply and demand dynamic shift that will occur, resulting in downgrades or defaults in corporate debt tied to the industry. There is also a heavy focus on reducing investments in carbon-intensive sectors such as oil & gas and increasing greener investments. A challenge faced by long-term investors is the transitional risk, as it is a component that should be carefully considered as part of an overall integration plan.

Social – Over **£11.4 billion** investments have gone to renewable energy, social housing, education, not for profit and utilities as of 2020. PIC defines a socially beneficial asset as “one whose primary purpose establishes a net positive outcome to society”.

Governance – The PIC believes that effective governance leads to long-term returns. For long-term and illiquid assets like social housing, ESG risk concerns are critical considerations for debt investors. Housing associations have been driven to enhance their strategy and business models, particularly in terms of governance, because of investor due diligence processes. Improved governance enables the industry to focus more on tenant results and stakeholder needs, making it better positioned to attract future investment.

PIC Responsible Investing actions:

- **Conducting ESG quality reviews** – The ESG team investigates the controls, sustainability plan, social responsibility aim, and, ultimately, commitment to all stakeholders of an investee firm. The reviews are based on publicly accessible data, such as the investee company's yearly financial statements, sustainability reports, and website information.
- **Proxy Voting** – By best practice and CRISA standards, the PIC makes its proxy-voting reports for listed equities publicly available on its website and are updated quarterly,
- **Liaison with investee companies** - The ESG team meets with investee company management teams to resolve problems and influence the ESG landscape through shareholder activism.
- **Active engagement:** PIC regularly engages with investee companies, to build a holistic perspective of their financial and non-financial issues. Examples of engagements are one-on-one meetings with firms, written correspondence, and phone conversations.

AVIVA

The UN PRI 2020 annual assessment awarded Aviva the highest grade, A+, for its ESG strategy, governance, and active ownership. Aviva France and Aviva UK Life have been working on developing funds and solutions for consumers wanting to include ESG factors into their investing strategy. Aviva is continuously creating innovative products and solutions that fit their customers' unique requirements and values, including the creation of a Sustainable Outcomes Funds Range that is tied to the United Nations Sustainable Development Goals (SDGs). Also, they are implementing specific ESG integration policies for each investment function: Credit, Equities, Multi-Asset and Macro, Real Assets and Solutions. Over the next three years, the company plans to spend **£10 billion** on UK infrastructure and real estate projects⁷⁰, as pension funds and insurers continue to increase their demand for such investments. They use unique quantitative ESG scoring techniques to analyze ESG risks

at both the securities and portfolio levels. Aviva has several sustainability-focused funds that are meant to provide long-term results in addition to financial performance.

Aviva is also a member of Climate Action 100+ and has actively engaged with BP to co-file a resolution to define how the company's strategy aligns with the Paris Agreement's aims. The outcome was BP pledged to be net-zero for oil and gas extracted, dramatically reduce carbon intensity for sold energy, and define a plan that includes a 40% reduction in oil and gas over the next decade, as well as a tenfold increase in new energy expenditure to £5 billion.⁷¹

Integration - To assist in the monitoring of a fund's ESG performance, appropriate ESG metrics and goals are used; any active mandate, underlying active fund, or team proposing deals to Aviva will integrated ESG standards stated in the product design during the decision-making process when creating and managing investment strategies; all asset class managers should explicitly define the methodology for incorporating ESG factors into their investment choices and recommendations. This involves incorporating ESG factors into investment processes, portfolio design, and investment valuation.

Stewardship - Asset managers to consider all voting rights attached to shares; voting, stewardship, and participation policy should be provided from all managers of funds and mandates and made available on AVLAP platforms; voting and engagement

activity should be reported quarterly and made publicly available on their website, and asset managers should support and engage with boards of companies they invest in to conduct a regular meeting with company management and other stakeholders on specific climate, social and governance-related issues and exert influence when necessary.

Just – Green Bonds

Just Group is a life insurance company that invests client premiums in a diverse portfolio of corporate bonds, government bonds, cash, liquidity funds, commercial mortgages, and lifetime mortgages. They were the first UK insurer to become a signatory to the United Nations PRI as an asset owner. Therefore, they adhere to the six principles of responsible investing and incorporate ESG factors into their investment decisions.

As set out in their *Sustainable Bond Framework*, ESG forms part of their ongoing credit analysis and the process used to assess the suitability of the asset managed internally and through their asset managers. Just is subscribed to the MSCI ESG database and reporting tool to help them improve the ESG filtering process, identify ESG red flags, review the back book, score their liquid portfolio holdings, and monitor the impact of new investments. They have also created a flexible ESG management tool to help them integrate ESG factors into their investment process on a regular basis. An example of this would be the framework for restrictions and exclusions as shown below:

Restriction/screening framework	Complete divestment	No new investment	Watchlist
Objective	Reduce to 0% the exposure to the particular sector	Sectors that are under increasing pressure/challenges due to ESG consideration, or where the business model is not complying with our internal ethos	Companies that are momentarily on the credit watchlist for ESG reasons. Companies can go on and off the watchlist, but while they are there, any new investment is carefully evaluated
Action	No new investment. Proceed to sale of all the exposure <ul style="list-style-type: none"> Gradually sell the exposure in the back book when the opportunity arises Ultimately achieve 0% exposure 	No new investment. Monitoring of the back book vs applicable regulations including emission targets <ul style="list-style-type: none"> No new investment from the date of the relevant committee approval Move to complete divestment or watchlist depending on ESG trend 	Monitor existing watchlist names. Careful evaluation of new investments in these names. Consider on a case-by-case names that offer a significant premium against reasonable ESG risks <ul style="list-style-type: none"> Companies where social and governance standards are breaching applicable laws Companies that show a deteriorating ESG trend
Sectors/ Companies	Tobacco Controversial weapons	Oil exploration and production only Utilities (majority of production comes from coal) Gambling (majority of revenues come from gambling activities)	Company A Company B Company C

Climate change, branding/reputation, social standards, and governance standards are the current area/sectors that are being reviewed. Before implementation, the investment team discusses and evaluates these exclusions/limitations internally:

Climate Change – Investing in green bonds, subject to market conditions and portfolio constraints. Limiting risk to power generation companies by excluding companies that generate electricity primarily from coal and shale oil and considering companies that are reducing their reliance on these energy sources.

Branding/reputation – Having no investments in tobacco company bonds; limiting gambling exposure by excluding

companies, casinos and hotels that generate wealth from gambling; zero involvement in controversial weapons by selling positions relating to nuclear weapons, cluster munition, etc. and excluding companies that primarily manufacture components or products for military purpose; no exposure to high interest rate lending companies by excluding companies that generate revenue through home-collected credit or unsecured short-term loans with high double-digit annual percentage rates (e.g. payday lenders)

Social standards – Limiting exposure to companies that have poor social standards. Therefore, excluding companies who consistently violate applicable laws by taking advantage of flexible human rights and labor standards.

Governance standards – Limiting exposure to companies with poor governance structures. Therefore, excluding companies with no policies related to bribery, anti-money laundering and corruption.

The next steps for tackling Climate involve Just planning to fully integrate climate change analysis and reporting for their portfolios. This will mean they will meet the new standards requested by the Prudential Regulation Authority (PRA), but also as a risk mitigation tool. As quality data is important to effectively address and map these risks, they are developing a long-term relationship with Carbon Delta, who provides a thorough bottom-up study on both single holdings and portfolio level to assess Climate Value at Risk contribution on transition risk and physical risk scenarios.

ESG factors play a priority in their investment decisions. They have a significant portion of their investment goes into renewable energy such as Walney and Hornsea wind projects and other positive social impact investments - £527m invested in offshore wind and solar farms, and £5320m in social housing and local authority loans.

Green Bond Issuance

They are the first company in the UK's insurance sector to issue a green bond, raising over £250m to support investments in green infrastructure to support the transition to a low-carbon economy.

In explaining the rationale for issuance, Just recognizes the important role that the UK insurance industry (and broader financial services) has to play in the transition towards a sustainable low-carbon economy. Through the measures described above, Just has established a framework for incorporating ESG and having a positive impact on society and the environment. By engaging in direct bond issuance, Just are providing fixed income investors with the opportunity to support their vision, and invest in this framework.

The sterling-denominated bond maturity date is 15 April 2031 with a reset date of 15 April 2026. It is trading on the Euro MTF Market of the Luxembourg Stock Exchange and is rated BBB by Fitch. The coupon was subsequently set at 7% and it is a Green Tier 2. The capital raised will be used to fund green construction, renewable energy, and sustainable transportation initiatives.

Just has an eligibility criteria framework for green bond principles, which includes 3 eligible categories:

Green building – Investment in real estate have received or are expected to receive: BREEAM6 certification (Outstanding or Excellent) or LEED7 certification (Platinum or Gold), e.g., Southampton property.

Renewable energy - Investments relating to the construction, development, acquisition, maintenance, and operation of renewable energy/projects/companies including, among others, solar and wind power.

Clean transportation - Investments relating to the development, construction, acquisition, maintenance, and operation of electric vehicle infrastructure, electric rail infrastructure and electric rolling stock for both passenger and freight transportation.

These categories avoid the tCO_{2e} indicative metric and meet one of two of the SDGs.

Just had improved their ESG methodology, by analyzing data to determine their portfolio's ESG score and examining the impact of climate change on their investment. In 2019, Just decreased the Group's carbon footprint by 41%, with Scope 1 emissions falling by 12%, Scope 2 emissions falling by 17%, and Scope 3 emissions falling by 54%.

5.1.1.2.3 Asset Managers

FTSE – Low-carbon indices

ESG Low Carbon Select

The indexes within the FTSE ESG Low Carbon Select Indexes include benchmarks that evaluate the performance of several market categories. For example, benchmarks for Developed and Emerging Markets, and individual countries.

The FTSE ESG Low Carbon Select Indexes considers the performance of stocks representing a specific set of ESG characteristics in its index design. The indexes are built using the following Sustainable Investment datasets: FTSE ESG Ratings - the [FTSE Russell Sustainable Investment Metrics](#), Operational Carbon Emissions and Fossil Fuel Reserves, and data for product involvement exclusions and UNGC controversies exclusions is sourced from Sustainalytics.

Operational Carbon Emissions - The current annual CO₂ equivalent greenhouse gas (GHG) emissions in metric tons scaled by annual sales (in USD).

Fossil Fuel Reserves - The projected CO₂ equivalent GHG emissions in metric tons created by the burning of a company's fossil fuel reserves, divided by its total market capitalization (in USD).

The Target Exposure Indexes use a tilt strategy to adjust company weights based on FTSE Russell's ESG Ratings. The targets are an Operational Carbon Emissions Intensity reduction of 50%, a Fossil Fuel Reserves Intensity reduction of 50% and an ESG uplift of 20% relative to the underlying. All of this is contingent on factors such as country, industry, maximum stock capacity, maximum business weight, and minimum diversification.

The FTSE ESG Low Carbon Select Indexes will be treated similarly to the FTSE Global Factor Index Series Ground Rules in terms of company actions and events.

The table below lists the underlying Target Exposure indexes for the FTSE ESG Low Carbon Select Indexes.⁷²

FTSE ESG LOW CARBON SELECT INDEX	UNDERLYING TARGET EXPOSURE INDEX
FTSE Developed Europe ESG Low Carbon Select Index	FTSE Developed Europe Target Exposure Index
FTSE Asia Pacific ex Japan ESG LOW Carbon Select Index	FTSE Asia Pacific ex Japan Target Exposure Index
FTSE Japan ESG Low Carbon Select Index	FTSE Japan Target Exposure Index
FTSE USA ESG Low Carbon Select Index	FTSE USA Target Exposure Index
FTSE Developed ESG Low Carbon Select Index	FTSE Developed Target Exposure Index
FTSE Emerging ESG Low Carbon Select	FTSE Emerging Target Exposure Index
FTSE UK ESG Low Carbon Select Index	FTSE UK Target Exposure Index

The FTSE Russell will exclude companies from the Underlying Target Exposure Index at each September review that meet the following criteria:

- Core weapons systems such as nuclear weapon, biological and chemical weapons: **any involvement**
- Conventional weapons: **over 10% of revenues**
- Manufacturing tobacco products: **any involvement**
- Distribution or retail sale of tobacco products: **over 10% of revenues**
- Producing or owns adult entertainment establishments: **over 5% of revenues**
- Distributing adult entertainment materials: **over 10% of revenues**
- Own/operate a gambling establishment: **over 5% of revenues**
- Manufacturing specialized equipment used exclusively for gambling: **over 10% of revenues**
- Providing supporting products/services to gambling operations: **over 10% of revenues**
- Thermal coal extraction: **over 10% revenues for thermal coal**
- Generating electricity from thermal coal: **over 10% revenues for thermal coal**
- Generating electricity from nuclear power: **25% of generating capacity**

Every quarter, FTSE Russell will apply the UN Global Compact (UNGC) controversial exclusion list to each Target Exposure Index: Companies involved in disputes over the UNGC principles - Human Rights, Labor, Environment, and Anti-Corruption.

St. James Place – UN PRI

St James Place is a wealth management adviser that provides a wide variety of services from investments to pensions to financial advice. It became a UN PRI signatory on 21 February 2018 under the category of Asset Owner. The principles of responsible investing are incorporated in the St James Place investment approach. SJP established a clear minimum requirement in January 2020 to guarantee that all its 39 external fund managers were PRI signatories by the end of 2020. It now has all its fund managers signed up to the UN PRI, aimed to align and promote worldwide responsible investing standards. This is a clear demonstration of their commitment to incorporating responsible investing into their decision-making and reporting processes. Responsible investing is embedded into their vision, strategy, fund range and ongoing monitoring of their fund managers. It includes ESG integration, engagement, sustainability, and reporting impact.

From their [2020 RI Transparency Report](#), that all PRI signatories are required to report publicly on their responsible investing each year, SJP has engaged in a variety of ESG strategies. They required active owners to be implemented via engaging with companies on ESG factors and voting on their behalf by external managers. External management selection, appointment, and/or monitoring processes all included ESG considerations. ESG concerns are an explicit input that must be considered when generating ideas and funding research. Before being appointed, managers must fulfil St James Place's basic ESG requirements. ESG concerns are also considered as part of regular fund manager evaluations. This is demonstrated through yearly Responsible Investing & ESG due diligence questionnaires and engagement sessions, as well as establishing a basic criterion for all managers. SJP engages in frequent discussion with fund managers through their in-house analyst team about decisions they've made and how ESG considerations were addressed.

The investing methodology is monitored by the Investment Committee, which ensures that the opinions of those who will ultimately be impacted by the performance of their funds are considered. They believe putting a larger focus on ESG factors as a risk mitigation strategy in the future may help them achieve their goal of providing superior, long-term value to their clients. The active investment strategies that are required for external managers to implement on SJP behalf are thematic and integration.

St. James's Place is actively expanding its approach to active ownership by partnering with Robeco, a company with world-class credentials in responsible investing. They have recognized that shareholders have a lot of power over firms when it comes to ESG concerns, and participation ensures that their opinions are heard. With over **£135 billion** AUM and **830,000** clients, SJP has the power to persuade corporations to adopt environmental goals for clients, such as net-zero carbon emissions. They then ensure that the companies fulfil their objectives through engagement activities such as site inspections, investor meetings, laying out suggestions and expectations, and voting at annual general meetings.

An example of SJP working towards a more sustainable future is their Sustainable & Responsible Equity fund is run by Impax Asset Management. The manager is focused on the long-term growth opportunity arising from the transition to a sustainable low-carbon economy.

Impax Environmental Markets – Green Sector Investing

The Impax Environment Markets was launched in 2002 by Impax Asset Management and is now the UK's largest environment investment trust. The company's goal is to generate long-term capital growth by investing in firms that provide solutions to environmental problems, in particular clean energy and energy efficiency, water treatment and pollution control, sustainable food, and waste technology and natural resource management. The London Stock Exchange awarded IEM plc the Green Economy Mark in 2019 in recognition of the company's revenues from goods and services that support the global green economy.

Impax invests globally in companies engaged in the expanding Resource Efficiency and Environmental Markets. Investments are made in 'pure-play' small and mid-cap firms that earn more than half of their underlying income from environmental goods or services in the energy efficiency, renewable energy, water, waste, and sustainable food and agricultural sectors. They believe is that these markets will provide investors with a compelling long-term chance to profit from better growth. The portfolio managers adopt a proactive strategy, looking for undervalued firms that will profit from the long-term trends such as energy security and environmental pollution. Investments are subjected to a rigorous investment process which includes integrated ESG risk analysis, as well as stewardship through active ESG involvement and proxy voting.

Impax Asset Management's investments are aligned to the transition to a more sustainable economy. Activities with lower sustainability risks and greater opportunities are well positioned to gain from the transition to a more sustainable, low-carbon economy in the long run. They are less likely to be impacted by new technology, shifting consumer tastes, or new regulations.

Integrating ESG analysis into the investment process:

- **Screening** – excluding companies that are engaged in numerous incidents involving human rights, labor, the environment, or corruption. Their source of information comes from external ESG research providers.
- **ESG analysis** – conducting a thorough, proprietary ESG analysis of new companies that are being evaluated for inclusion in the investable universe and reviewing the ESG research on a regular basis. Also analyzing companies' governance structures from a country-perspective, environmental and social policies, processes, and disclosures (identifying the most material risks) and past controversies.
- **Engagement** – engaging with companies when specific ESG issues are found to promote improvement in corporate ESG policies, practices, and disclosures. The investment team communicates with the broader investing community as part of regular meetings with corporate management teams, as well as through extra conference calls, meetings, and other means. They keep track of concerns, activities, timelines, and outcomes of engagements in a database.
- **Proxy Voting** – an important part of IAM's continuing discussions with the companies in which it invests. The aim is to improve the long-term value of their shareholdings, encourage corporate governance best practices, and promote sustainability, accountability, and transparency.

Hanetf Iclima – Green Sector Investing

A broad range of companies offering solutions to reduce global emissions are represented in the [*iClima Global Decarbonization Enablers UCITS ETF \(CLMA\)*](#). The ETF has a TER of 0.65% and tracks the iClima Global Decarbonization Enablers Index. CLMA was created by iClima Earth Ltd through a rigorous screening and vetting procedure to identify the Climate Champion companies included in the index. iClima Earth is a green fintech that provides investment solutions for companies that make significant contributions to the fight against climate change. It is the world's first ESG UCITS ETF fund that focuses on companies with products and services that directly enable CO₂e avoidance and climate change innovators. CLMA will be HANetf's first ESG-focused ETF, and it is domiciled in Ireland. The ETF also calculates this CO₂e mitigation impact of the 151 companies in its index, as well as the index's overall impact in meeting decarbonization targets. The focus is shifted from companies reducing their own emission, to companies

who provide products and services that help minimize CO₂e emissions. To avoid over-exposure to high cap firms, each company is capped at 2%.

CLMA index benefits from:

- Net-zero and Paris Agreement-aligned regulatory changes
- Consumer preference trends
- A balanced exposure to a diverse range of climate change solutions
- Exposure to high growth solutions
- A data-based approach

Investing in the CLMA index allows investors to diversify their portfolio across five industries: (1) Green Energy, (2) Green Transportation, (3) Water & Waste Improvements, (4) Decarbonization enabling Solutions and (5) Sustainable Products. The advantages of investing in the iClima ETF is that it's cost-efficient, tradable, transparent, liquid and diversified.

5.1.2 United States

ESG Indices, a Case Study

While ESG investing is conceptually appealing, there is not a universally accepted standard for defining exactly what qualifies as an ESG investment. Currently, there are over 1,000 various ESG indices maintained by various institutions, which reflect a wide spectrum of ESG investment definition. In this section, we compare and contrast the ESG index families maintained by MSCI and Standard & Poor's as a case study to illustrate the diversity in ESG methodologies.

History

The Domini 400 Social Index was launched by KLD Research & Analytics in 1990, and it is the world's first ESG index. The index was subsequently acquired by MSCI and became MSCI KLD 400 Social Index as a member of MSCI's ESG index family. Over the years, MSCI has developed or acquired a variety of ESG indices, as illustrated in the following chart, provided by MSCI Inc.⁷³



S&P Dow Jones Indices (S&P DJI) came to the ESG indexing business in 1999, when it launched the Dow Jones Sustainability World Index, in partnership with SAM. Since then, S&P has launched a total of 23 ESG indices.

Family of Indices

To meet varying client needs, both MSCI and S&P have adopted the concept of family of ESG indices. S&P's family of indices focus on equities and are most geographically defined. MSCI's

family of indices, on the other hand, cover both equities and fixed income assets. MSCI's family of indices are categorized by investment approaches. Below is a fully listing of MSCI and S&P's family of indices.

S&P Family of ESG Indices

- S&P 500 ESG
- S&P/ASX 200 ESG
- S&P Europe 350 ESG
- S&P Japan 500 ESG
- S&P Global 1200 ESG
- S&P United States LargeMidCap ESG
- S&P Canada LargeMidCap ESG
- S&P Korea LargeMidCap ESG
- S&P North America LargeMidCap ESG
- S&P Europe Developed LargeMidCap ESG
- S&P Mid-East and Africa Developed LargeMidCap ESG
- S&P Asia Pacific Developed LargeMidCap ESG
- S&P Developed LargeMidCap ESG
- S&P Europe Emerging LargeMidCap ESG
- S&P Latin America Emerging LargeMidCap ESG
- S&P Mid-East and Africa Emerging LargeMidCap ESG
- S&P Asia Pacific Emerging Large MidCap ESG
- S&P Emerging LargeMidCap ESG
- S&P Global LargeMidCap ESG
- S&P Asia Pacific Developed ex Korea ESG
- S&P Asia Pacific Emerging Plus LargeMidCap ESG
- S&P Developed BMI ex Korea LargeMidCap ESG
- S&P Emerging Plus LargeMidCap ESG

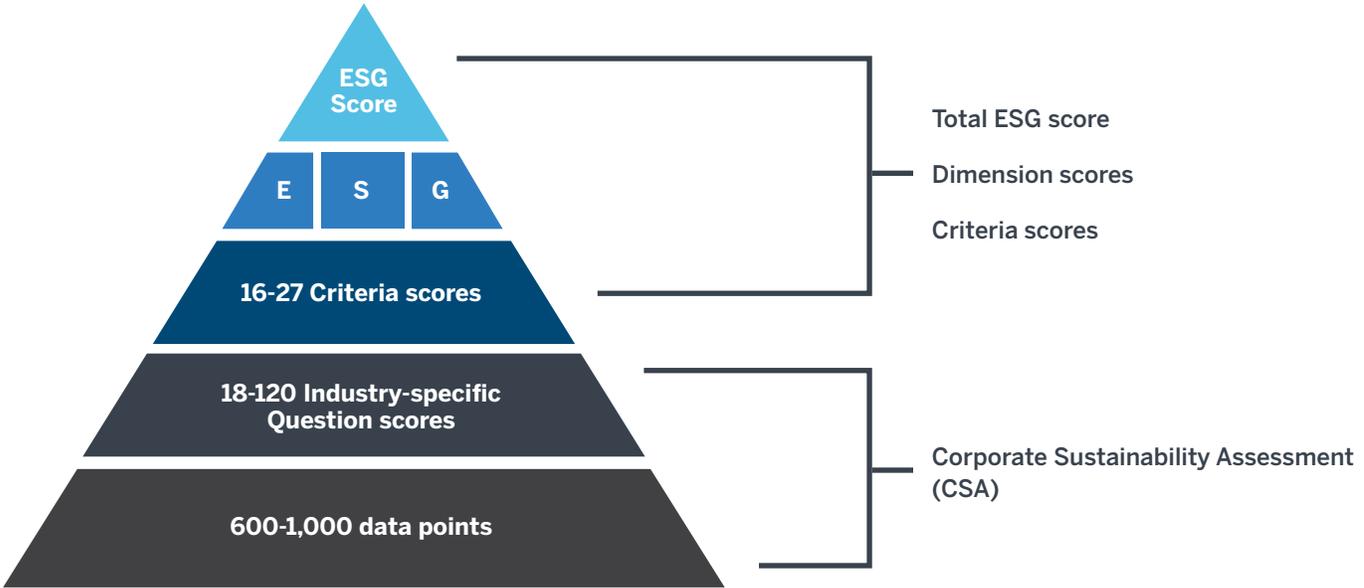
MSCI Family of ESG Indices⁷⁴

	MSCI ESG Equity	MSCI ESG Fixed Income & Bloomberg Barclays MSCI
Integration	<ul style="list-style-type: none"> • ESG Leaders • ESG Focus • ESG Universal • Low Carbon • Climate Change 	<p>MSCI</p> <ul style="list-style-type: none"> • ESG Universal • ESG Leaders • Climate <p>Bloomberg Barclays MSCI</p> <ul style="list-style-type: none"> • ESG Weighted • Sustainability
Values & Screens	<ul style="list-style-type: none"> • SRI • KLD 400 Social • ESG Screened • Ex Controversial Weapons • Ex Tobacco Involvement • Ex Fossil Fuel • Faith Based 	<p>Bloomberg Barclays MSCI</p> <ul style="list-style-type: none"> • Socially Responsible (SRI) • Faith based
Impact	<ul style="list-style-type: none"> • Sustainable Impact • Global Environment • Women's Leadership 	<p>Bloomberg Barclays MSCI</p> <ul style="list-style-type: none"> • Green Bonds

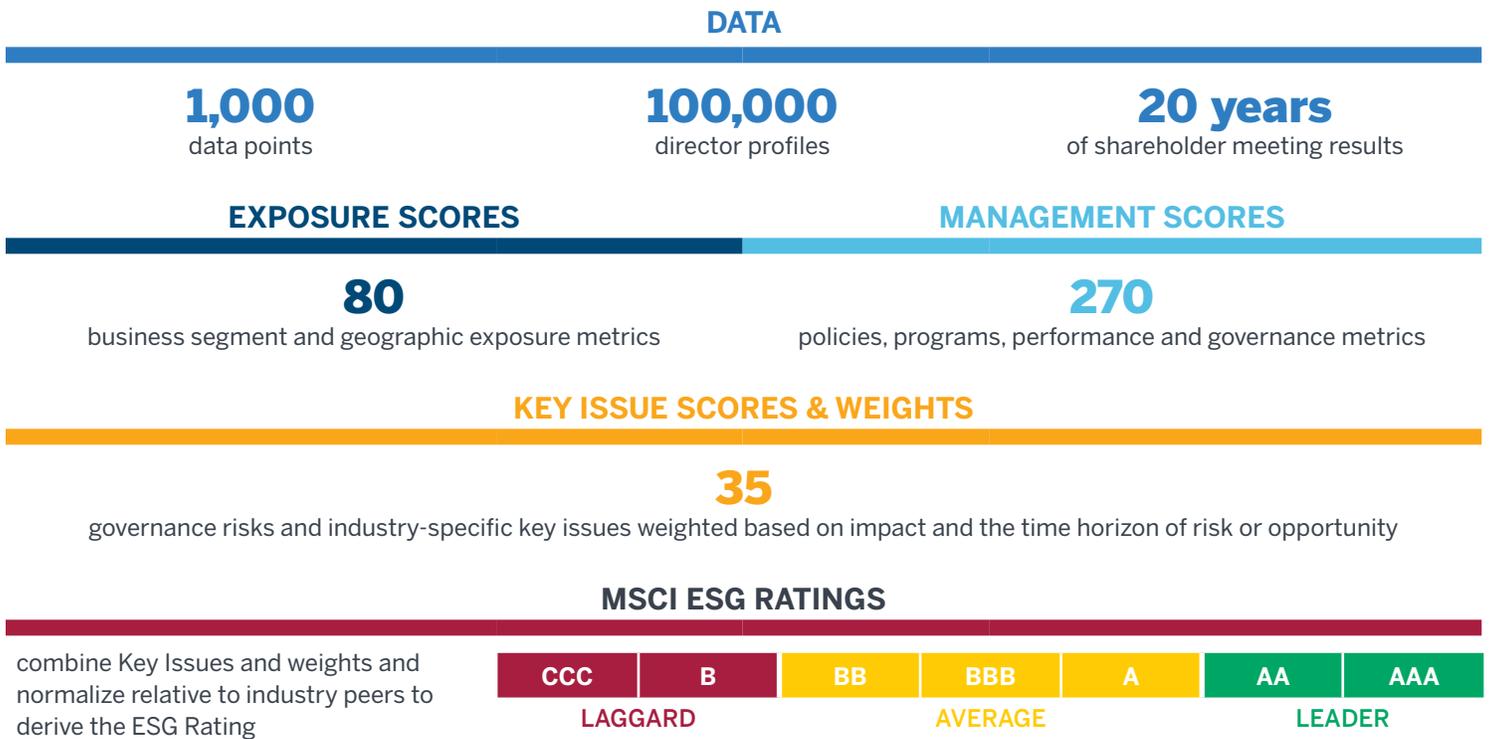
Methodology

Both MSCI and S&P have an internal ESG rating system, where a range of data is considered and weighed for a given company. The basic approach is questionnaire.

The chart below illustrates S&P’s ESG score process.⁷⁵



The chart below illustrates MSCI’s ESG rating process.⁷⁶



The ESG total score is the basis for inclusion in S&P’s family of ESG indices. On the other hand, MSCI’s ESG ratings can be the basis for both inclusion and exclusion within specific MSCI family of ESG indices.

6 Summary and Conclusion

ESG investing has seen tremendous growth in recent years, and as a result is a highly evolving theme. ESG is a term that covers a broad range of investment philosophies, strategies, techniques, and frameworks. Given the urgency of ambitions and goals from both the Paris COP in 2015 and the recent COP in Glasgow, the “E” of “ESG” has tended to dominate. However, given the importance and need for a ‘just transition’ to be able to effectively address climate change, the “S” and “G” are also intricately linked. Some market participants look to isolate and consider “S” and “G” in their own right too.

The frameworks that many institutions and companies have been developing to help guide investing towards net zero alignment, are a useful reference to set out the range of potential activities that could be involved in ESG investing – we provide our own infographic summary in Table 1 on page 2.

In this report, we have set out a number of case study examples of how organizations in the EU, UK, and US are approaching ESG investing, across a range of institutional markets. It is clear that the EU and UK appear more developed in many cases, towards embedding ESG investing into existing investment practice. This is in part driven by regulators and governments in these jurisdictions implementing a number of far-reaching measures. With this looking to build on momentum from the Paris Agreement in 2015, where finance was recognized to play a central role (in particular through Article 2.1(c)). The previous US government chose to withdraw from the Paris Agreement. As a result, US regulation didn’t experience similar momentum during recent years, and is now aiming to catch-up under the Biden administration.

However, that said given global interconnected markets, many US players such as the major index benchmark providers are already having to adapt, given the market needs in Europe and elsewhere where ESG is accelerating. The lesson from Europe, is that there is currently no single definition of what overall best practice ESG activity looks like. Although industry organizations have been setting out frameworks, to start guiding on best practice on key elements.

ESG Investing is something that is all encompassing, requiring the review and adaption of existing investment processes to incorporate non-financial aspects and long-term horizons, as well as considering new markets and activities where experience and expertise needs to be acquired. Disclosure and clear communication on ESG approach and performance is also an important factor. As the urgency of the need to act on climate change ratchets up and accelerates, in coming years we may see ESG investing continue to rapidly evolve. For example, there’ll start to be question marks over the current investor preferences for engagement with investee companies, if this does not lead to meaningful change in corporate strategies. Divestment may start to become a more widely used strategy, with potential implications for asset market volatility.

We hope this report has provided a useful overview. To provide information on the variety of important frameworks and initiatives to consider. As well as regulations that have been driving this, and which may become templates for regulators in other markets to implement similar measures. Finally, through discussing various case study examples, we hope this can provide some useful information and inspiration for thinking how ESG investing could be incorporated in your organization.

FOOTNOTES

1. See e.g. "Sustainable Finance Action Plan" (2018) and "Green Deal" (2020).
2. See e.g. "Green Finance Strategy" (2019).
3. E.g. exclusionary screening, positive screening, ESG data integration, impact investing etc.
4. See <https://www.impactinvest.org.uk/wp-content/uploads/2020/11/Spectrum-of-capital-general-version.pdf>
5. E.g. controversial weapons, fossil fuels.
6. E.g. regarding human rights, labor conditions, corruption.
7. See <https://www.unpri.org/investment-tools/thematic-and-impact-investing>.
8. Europe, United States, Canada, Australasia and Japan.
9. See <http://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf>.
10. See section 3.1.1.2 EU Action Plan (2018) for further details.
11. In this context the growth was measured in the respective local currency.
12. See <http://www.gsi-alliance.org/wp-content/uploads/2021/08/GSIR-20201.pdf>.
13. See <https://www.morningstar.com/lp/global-esg-flows>
14. See corresponding "Global Sustainable Fund Flow Reports", available under <https://www.morningstar.com/lp/global-esg-flows>.
15. See section 4.1.1.2 Sustainability related disclosures (2021) for further details.
16. See corresponding "Global Sustainable Fund Flow Reports" Q3 2021, available under <https://www.morningstar.com/lp/global-esg-flows>.
17. See <https://www.bloomberg.com/news/articles/2021-06-15/european-esg-funds-hit-record-1-4-trillion-in-assets-last-year>
18. See corresponding "Global Sustainable Fund Flow Reports" Q3 2021, available under <https://www.morningstar.com/lp/global-esg-flows>.
19. See www.morningstar.com for further information.
20. See <https://securities.cib.bnpparibas/the-esg-global-survey-2019/>.
21. Here, fiduciary duty is when an investment professional acts in the best interest of a client.
22. See <https://www.cfainstitute.org/-/media/documents/survey/future-of-sustainability.pdf>
23. About the PRI | PRI Web Page | PRI (unpri.org)
24. See <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0216&from=EN>.
25. See <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018DC0097&from=EN>.
26. See https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF.
27. Climate Change Act (2008): <https://www.legislation.gov.uk/ukpga/2008/27/section/1>
28. Green Finance Strategy (2019): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf
29. According to the Green Finance Strategy, the UK is the largest centre of asset management and insurance sectors in Europe.
30. <https://www.thepensionsregulator.gov.uk/en/trustees/managing-dc-benefits/investment-guide-for-dc-pension-schemes->
31. <https://www.fsb-tcfd.org/recommendations/>
32. Bank of England, Prudential Regulation Authority, Financial Conduct Authority, Department for Work and Pensions, The Pensions Regulator, and Department for Work & Pensions.
33. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933783/FINAL_TCFD_ROADMAP.pdf
34. FCA PS 20/17: <https://www.fca.org.uk/publications/policy-statements/ps20-17-proposals-enhance-climate-related-disclosures-listed-issuers-and-clarification-existing>
35. Consultation of mandatory disclosures by asset managers, life insurers and pension providers is undergoing at the time of writing: <https://www.fca.org.uk/publication/consultation/cp21-17.pdf>
36. Source: The HMT's roadmap.
37. See https://ec.europa.eu/finance/docs/level-2-measures/taxonomy-regulation-delegated-act-2021-2800_en.pdf.
38. See section 3.1.1.3 European Green Deal (2019) for further details.
39. See section 3.1.1.2 EU Action Plan (2018) for further details.
40. See <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R2088&from=EN>.
41. See [https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/649371/EPRS_BRI\(2020\)649371_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/649371/EPRS_BRI(2020)649371_EN.pdf).
42. See section 3.1.1.2 EU Action Plan (2018) for further details.
43. <https://www.bankofengland.co.uk/prudential-regulation/publication/2015/the-impact-of-climate-change-on-the-uk-insurance-sector>
44. <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss>
45. <https://www.fca.org.uk/publication/policy/ps19-30.pdf>
46. <https://www.fca.org.uk/publication/policy/ps20-17.pdf>
47. See <https://www.legislation.gov.uk/ukpga/2021/1/contents/enacted>.
48. See section 2.3.1 UN Principles for Responsible Investment.
49. See https://www.basf.com/global/de/documents/Ludwigshafen/working-at-the-site/pensionskasse/28_04_2021_pensionskasse/Grunds%C3%A4tze%20der%20Anlagepolitik%202021.pdf
50. See section 2.3.1 UN Principles for Responsible Investment.
51. See https://www.ipe.com/interviews/how-we-run-our-money-bayer-pensionskasse-10052334_article.
52. See https://www.allianz.com/content/dam/onemarketing/azcom/Allianz.com/sustainability/documents/Allianz_ESG_Integration_Framework.pdf
53. See <https://www.axa.com/en/about-us/investments#tab=responsible-investment>
54. See section 2.3.1 UN Principles for Responsible Investment.
55. See https://www.axa-com.cdn.axa-contento-118412.eu/www.axa-com%2Fdaadd8ce-58bf-4c1f-bd28-96890bdb51aa_axa_ri_+policy_march2020.pdf
56. See <https://www.generali.com/investors/Our-ESG-approach>, especially the Generali ESG Presentation 2021 as a PDF
57. See section 2.3.1 UN Principles for Responsible Investment.
58. See section 2.3.4 Net Zero Asset Owners Alliance.
59. See the above mentioned Generali ESG Presentation 2021.
60. See https://www.munichre.com/content/dam/munichre/contentlounge/website-pieces/documents/CR-Report-2020.pdf/_jcr_content/renditions/original/CR-Report-2020.pdf

61. See besides the above mentioned source also <https://www.munichre.com/content/dam/munichre/contentlounge/website-pieces/documents/HSBC-Conference-ESG-MunichRe.pdf> / [jcr_content/renditions/original/HSBC-Conference-ESG-MunichRe.pdf](https://www.munichre.com/content/dam/munichre/contentlounge/website-pieces/documents/CR-Report-2020.pdf)
62. See <https://www.munichre.com/content/dam/munichre/contentlounge/website-pieces/documents/CR-Report-2020.pdf> / [jcr_content/renditions/original/CR-Report-2020.pdf](https://www.munichre.com/content/dam/munichre/contentlounge/website-pieces/documents/CR-Report-2020.pdf)
63. See <https://www.scor.com/en/sustainable-investments>
64. See section 2.3.1 UN Principles for Responsible Investment.
65. See <https://www.scor.com/en/sustainable-investments>
66. See <https://www.scor.com/en/sustainable-investments>
67. Information from 'investing for a better future 2020 2021': <https://www.nestpensions.org.uk/schemeweb/dam/nestlibrary/investing-for-a-better-future-2020-2021.pdf>
68. Information from: [Railpen-Net-Zero-Plan.pdf](#)
69. Information from: [pic_esg20_final.pdf](#) (pensioncorporation.com)
70. Information from: [Aviva Investors targets £10 billion of investment into UK infrastructure & real estate over next three years - Aviva Investors](#)
71. Information from: [Responsible investment - Aviva plc](#)
72. Information from: [FTSE ESG Low Carbon Select Index Ground Rules.pdf](#) (ftserussell.com).
73. See <https://www.msci.com/our-solutions/indexes/esg-indexes>.
74. See the MSCI ESG Indexes Factsheet: <https://www.msci.com/documents/1296102/17835852/MSCI-ESG-Indexes-Factsheet.pdf/3b449b87-d470-977a-3b56-77095b8d8fc7>.
75. See the S&P DJI ESG Scores FAQs: <https://www.spglobal.com/spdji/en/documents/additional-material/faq-spdji-esg-scores.pdf>
76. See the MSCI ESG Ratings Brochure: <https://www.msci.com/documents/1296102/21901542/MSCI+ESG+Ratings+Brochure-cbr-en.pdf>



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