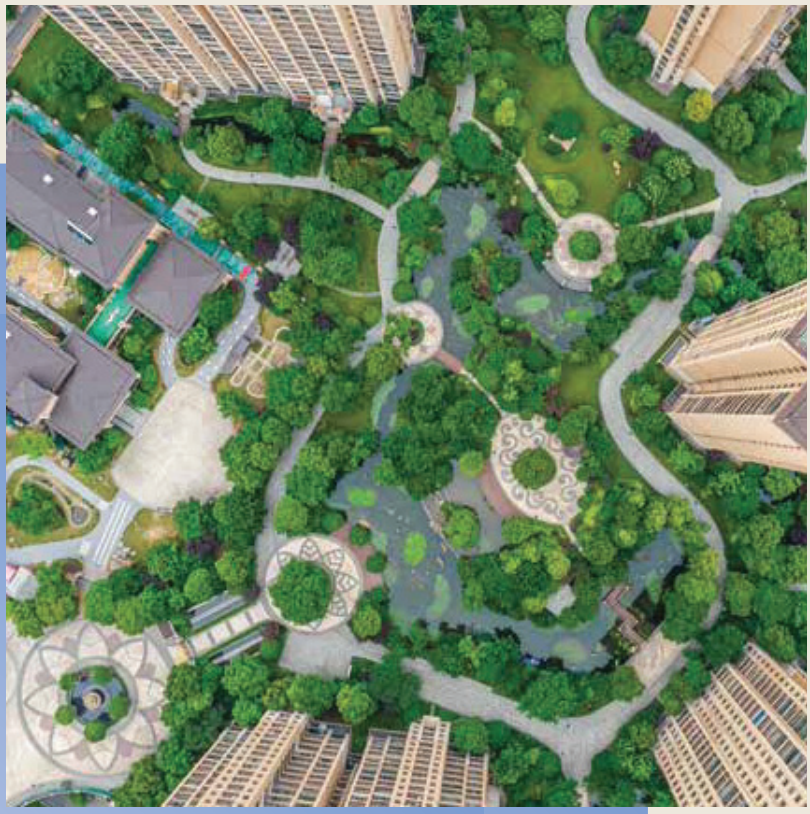
CFA Institute®

CURRICULUM 2026

Sustainable Investing Certificate



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INTRODUCTION

This curriculum provides essential reading for candidates of the Sustainable Investing Certificate, including examples, key facts, and self-assessment questions.

Content is valid for examinations taken beginning 1 January 2026. Candidates must confirm that the version of the curriculum they are preparing from corresponds to and is valid for the period when they intend to take the examination.

Exam Structure

The exam is made up of one unit, covering the following topic areas:

1. Introduction to Sustainable Investing
2. Environmental Factors
3. Social Factors
4. Governance Factors
5. Engagement and Stewardship
6. ESG Analysis, Valuation, and Integration
7. Integrated Portfolio Construction and Management
8. Investment Mandates, Portfolio Analytics, and Client Reporting

The curriculum provides broad coverage and excellent preparation for the examinations.

The Sustainable Investing Certificate is developed, administered and awarded by CFA Institute.

Errata and Feedback

At CFA Institute, we are committed to delivering ESG study materials that are timely, relevant, and globally applicable for those working in the field. We are dedicated to delivering study tools that are easy to use and effective, and we appreciate your feedback to improve our products.

Reporting Errata

We strive for an error-free course, and we encourage you to share any potential errata you've identified with us. If you think there may be an issue, we want to hear from you!

- You can find the current list of errata for this course here: https://www.cfainstitute.org/programs/candidate-resources/submit-errata.
- To contribute new potential errata, please provide the information requested at http://www.cfainst.is/errata to help us quickly locate and resolve the issue.

Sharing Other Feedback

Do you have other ideas to share? We welcome and value your contributions to help improve future programs.

- Please send your comments to: info@cfainstitute.org

Thank you for your thoughtful suggestions about how we can enhance our course.

FOREWORD BY MARG FRANKLIN

Welcome to the Sustainable Investing Certificate. I commend you as you embark on your learning journey to deepen your expertise in this dynamic and fascinating area of the market.

CFA Institute has long recognized the impact that sustainability factors may have on investor preferences, goals, and mindsets. In April 2025, we renamed our Certificate in ESG Investing to the Sustainable Investing Certificate to acknowledge that sustainable investing more accurately captures the broader, long-term impact and investing goals of clients that the certificate aims to support.

We remain steadfast in our commitment to arming investment professionals with the information and tools they need: developing research; curating and promoting the knowledge, skills, practices, and abilities needed to analyze and act on the financial risks and opportunities of sustainability considerations; leveraging the convening power of CFA Institute to facilitate conversations that promote engagement, knowledge sharing, and collaboration on these complex issues; and advocating for policies in the regulatory environment that support the needs of investors and promote healthy capital markets.

The Sustainable Investing Certificate is a globally recognized program. While the name of the certificate has changed, the curriculum remains robust and will continue to evolve, covering the wide variety of factors within each of the environmental, social, and governance areas of sustainable investing. Many of the world's most influential financial institutions have underscored the value of this certificate by offering it to their staff, understanding the importance of having their employees educated on the sustainability landscape. These institutions turn to CFA Institute because of our proven track record of educating investment professionals on the latest evolutions in the investment industry. To date, more than 34,900 professionals can proudly report that they have earned the Sustainable Investing Certificate.

We recognize that the sustainable investing landscape is constantly evolving, just as the investment profession is. We therefore invest considerable time and effort in ensuring the course materials capture the latest insights, innovations, and information that investment professionals need to know on the subject matter. We do this by collaborating with industry professionals who work in the field daily and can see past the horizon in terms of what comes next in the world of sustainable investing. We are grateful to the members of our Advisory Panel around the globe who play a critical role in this process. I would also like to thank the members of our Education team, who work closely across our network to ensure our standards of excellence remain as high as ever. Our focus goes beyond the curriculum itself; we are also continuously elevating the learning experience of our certificates by improving aspects such as enhanced accessibility, improved visual representation of the educational content, tailored practice questions, and more.

While discussions around sustainable investing vary widely based on jurisdiction and investor sentiment, the fact remains that these factors will continue to be considerations that investment professionals are expected to understand in order to cater to their clients' needs and preferences. As such, we remain committed to the creation of educational opportunities and resources that equip investment professionals with the tools necessary to navigate this complex and evolving landscape.

Margaret Franklin, CFA
President and CEO, CFA Institute

LEARNING MODULE

1

Introduction to Sustainable Investing

LEARNING OUTCOMES

Mastery	*The candidate should be able to:*	
☐	**1.1**	define sustainable investment, ESG integration, and impact investment and their relationship to financial materiality
☐	**1.2**	describe the benefits and challenges of incorporating ESG factors in decision making and the relationship between ESG investment and financial system stability
☐	**1.3**	explain the concepts of the financial materiality, double materiality, and dynamic materiality and how they relate to sustainable investing and integration of ESG factors
☐	**1.4**	explain different sustainability megatrends, their systemic nature, and their potential impact on companies and company practices
☐	**1.5**	explain the three ways in which investors typically reflect sustainability considerations in their investment process
☐	**1.6**	explain the aims of key supranational ESG initiatives and organizations and the progress achieved to date
☐	**1.7**	explain the size and scope of sustainable investing in relation to geography, strategy, investor type, and asset class
☐	**1.8**	explain key market drivers of ESG integration: investor demand/intergenerational wealth transfer, regulation and policy, public awareness, and data sourcing and processing improvements
☐	**1.9**	explain the key drivers and challenges for ESG integration among key stakeholders: asset owners, asset managers, fund promoters, financial services, policymakers and regulators, investees, government, civil society, and academia

1 INTRODUCTION TO SUSTAINABLE INVESTING

☐ **1.1** define sustainable investment, ESG integration, and impact investment and their relationship to financial materiality

Sustainable investing combines consideration of an investment's financial risks and returns and its "sustainability." While sustainability can be interpreted in a variety of ways, the United Nations Brundtland Commission offered a practical definition: "meeting the needs of the present without compromising the ability of future generations to meet their own needs."

In practice, "sustainable investment" refers to the selection of assets that contribute in some way to a sustainable economy—that is, an asset that minimizes natural and social resource depletion. It is a broad term that may be used for the consideration of typical environmental, social, and governance (ESG) issues and may include best-in-class approaches (positive screening). It may also consider how ESG factors impact the risk and return profile of securities and other investments. Sustainable investment can also be used to mean a strategy that screens out activities considered to be contrary to long-term environmental and social sustainability.

The consideration of ESG factors has become an integral part of investment management. Asset owners and investment managers have developed and continue to refine ways to incorporate sustainability and ESG criteria into investment analysis and decision-making processes. The influence of responsible investment proponents, such as the **Principles for Responsible Investment (PRI)**, has encouraged a fundamental change in investment practices. Societal, regulatory, and client pressures and evidence of the direct financial benefits of incorporating sustainable investing practices have led integration to become more mainstream.

This learning module provides an overview of the concept of sustainable investing, as well as the different types of responsible investment approaches and their implications. It highlights the main benefits of integrating ESG factors and identifies ways in which ESG investing is implemented in practice.

Because ESG investing falls within the broader context of sustainability, this learning module also highlights a number of initiatives in the global investment community that seek to assist all parties to navigate the associated challenges.

2 WHAT IS SUSTAINABLE INVESTING?

☐ **1.1** define sustainable investment, ESG integration, and impact investment and their relationship to financial materiality

Sustainable investing is part of a group of approaches collectively referred to as **responsible investment**. Responsible investment is an umbrella term for the various ways in which **investors** can consider ESG factors within security selection and portfolio construction.

Sustainable investing concerns how sustainability issues can impact the long-term return of assets and securities, whereas other responsible investment approaches can also take into account non-financial value creation and reflect stakeholder values in an investment strategy.

ESG investing is an approach to managing assets where investors explicitly incorporate ESG factors in their investment decisions with the long-term risk-adjusted return of an investment portfolio in mind. The concept of financial materiality refers to how ESG factors relate to or influence the financial performance of a firm or investment.

Impact investing refers to investments made with the specific intent of generating positive, measurable social or environmental impact alongside a financial return (which differentiates it from philanthropy). It is a relatively smaller segment of the broader responsible investing market. Impact investing is usually associated with direct investments, such as investments in private debt, private equity, and real estate. In recent years, however, there has been increasing demand from investors seeking impact investing products in public markets.

ESG Definition and Scope

There is no universal standard for which factors are included under the "E," "S," and "G" definitions, and they may overlap with one another. For example, animals and animal well-being may be considered in both environmental and social factors. How these factors are split among themselves varies depending on who is defining them (for example, for an ESG framework) and their stakeholders. Stakeholders are members of groups without whose support an organization would cease to exist (Freeman and Reed 1983), as well as communities impacted by companies and regulators.

Examples of the definition and scope of ESG issues are shown in Exhibit 1.

Exhibit 1: Examples of ESG Topics

Environmental	Social	Governance
▸ Climate change	▸ Human rights	▸ Bribery and corruption
▸ Resource depletion	▸ Modern slavery	▸ Executive pay
▸ Waste	▸ Health and safety	▸ Board diversity and structure
▸ Pollution	▸ Working conditions	▸ Trade association, lobbying, and donations
▸ Deforestation	▸ Employee relations	▸ Tax strategy

Source: PRI (2020).

Investing with a Long-Term Perspective

Many investment industry stakeholders, including finance regulators, have recognized the shortfalls of short-termism in investment practice and have sought to increase awareness of the value of long-termism and encourage this approach.

Short-termism covers a wide range of activities. For the purpose of this topic, the two most relevant ones are

- trading practices, where investors trade based on anticipation of short-term price movements rather than long-term value, and
- investors engaging with investee companies in a way that prioritizes maximizing near-term financial results over long-term value creation.

These short-term strategies might offer rewards but may have adverse long-term consequences. With its disproportionate focus on immediate returns, short-termism may leave companies less willing to take on projects (such as research and development)

that may take multiple years—and patient capital—to develop. This was indeed confirmed by a review conducted on the UK equity market and long-term decision making by Professor John Kay (2012) for the UK government. Instead of productive investment in the real economy, short-termism may promote bubbles, financial instability, and general economic underperformance. Furthermore, short-term investment strategies tend to ignore factors that are generally considered more long term, such as ESG factors.

Due to these adverse effects, regulators intervened. The European Union (EU) introduced the Shareholder Rights Directive (SRD) in 2007, encouraging investors to take a more active ownership role with a long-term perspective. Over time, its provisions were updated and strengthened, incorporating requirements on shareholder identification, information transmission, director remuneration, and enhanced transparency for investors, asset managers, and advisers. These updates culminated in the issuance of SRD II in 2020.

KNOWLEDGE CHECK

1. The original Shareholder Rights Directive (SRD) is a regulatory initiative to:
   A. counter short-termism.
   B. reduce the use of proxies by management.
   C. protect minority shareholders' interests.

   Solution:

   A is correct. The original SRD was issued by the EU in 2007, requiring investors to be active owners and to act with a more long-term focus. The SRD is not related to proxies or protecting minority shareholders.

ESG factors are defined in Exhibit 2.

Exhibit 2: ESG Factors Defined

	Environmental Factors	Social Factors	Governance Factors
Definition	Pertain to the natural world. These include the use of and interaction with renewable and non-renewable resources (e.g., water, minerals, ecosystems, and biodiversity).	Affect the lives of humans. The category includes the management of human capital, non-human animals, local communities, and clients.	Involve issues tied to countries and/or jurisdictions or are common practice in an industry, as well as the interests of broader stakeholder groups.

3 TYPES OF RESPONSIBLE INVESTMENT

☐ **1.1** define sustainable investment, ESG integration, and impact investment and their relationship to financial materiality

All forms of responsible investment (except for engagement) are ultimately related to portfolio construction (which securities a fund holds). In the case of engagement (both by equity owners and bond holders), the focus is trying to influence a security issuer's behavior on ESG matters.

Exhibit 3 illustrates some of the conceptual differences between these approaches and how they range from strictly "finance-only" investment, with limited or no consideration of ESG factors, to the other end of the spectrum, where the investor may be prepared to accept below-market returns in exchange for the high positive impact the projects and companies in the portfolio can deliver. As investors move toward the left-hand side of the table, they are increasingly interested in aligning their capital with contributing to positive environmental and/or social outcomes. There is no standard or universal classification of these approaches in the industry; the types of responsible investment overlap and evolve over time.

Exhibit 3: A Spectrum of Capital

Investment Approaches	Philanthropy	Impact Investing	Sustainable and Responsible Investing	Traditional Financial Investing
Approach	Traditional/venture philanthropy	Social investing/impact investing	ESG investing (screening/ thematic/integration/ stewardship)	Conventional investing
Focus	Focus on societal challenges through donations/grants	Investment with an intent to have a measurable environmental and/or social outcome	Enhance long-term value via ESG factors considerations for risk mitigation and/ or identifying investment opportunities	Maximizing financial returns subject to risk constraints. No explicit focus on social or environmental factors
ESG metrics	None	Use of systematic ESG metrics and methodologies	Use of systematic ESG metrics and methodologies	None
Return expectations	Social return expectations only—no financial market return expectations	Social and financial market return expectations	ESG risk-adjusted financial market return expectations with focus on long-term value	Financial market return expectations only
Challenges	Very specific social expectations	Reduced opportunity set/ measuring impact	Proprietary research can provide a limited perspective, potentially leading to incomplete or misfocused analysis	May miss ESG risk factors

Investment Approaches	Philanthropy	Impact Investing	Sustainable and Responsible Investing	Traditional Financial Investing
Advantages	Not adherent to meeting return expectations	Very specific investment impact objective	Fewer constraints relative to other ESG strategies and less likely to be rule based. May inform, in conjunction with ESG ratings, the investment decision-making process. Integration approaches may be more rigorous and systematic.	No change to existing investment process

Responsible Investment

Responsible investment is a strategy and practice to incorporate ESG factors into investment decisions and active ownership (PRI 2020). It is sometimes used as a catch-all term for some (or all) of the investment approaches mentioned in the following subsections.

At a minimum, responsible investment consists of mitigating risky ESG practices in order to protect value. To this end, responsible investment encompasses how ESG factors might influence the risk-adjusted return of an asset. Responsible investment also considers the stability of an economy and how investment in and engagement with assets and investees can impact society and the environment. The key investment approaches falling under responsible investment are discussed next. These approaches are not mutually exclusive, and they can be combined into a single portfolio.

Socially Responsible Investment

Socially responsible investment (SRI) refers to approaches that apply social and environmental criteria in evaluating companies. Investors implementing SRI generally score companies using a chosen set of criteria, usually in conjunction with sector-specific weightings. A hurdle is established for qualification within the investment universe, based either on the full universe or sector by sector. This information serves as a first screen to create a list of SRI-qualified companies.

SRI ranking can be used in combination with best-in-class investment, thematic funds, high-conviction funds, or quantitative investment strategies.

Best-in-Class Investment

Best-in-class investment (also known as "positive screening") involves selecting only the companies that overcome a defined ranking hurdle, established using ESG criteria within each sector or industry.

- Typically, companies are scored on a variety of factors that are weighted according to the sector.
- The portfolio is then assembled from the list of qualified companies.

Bear in mind, however, that not all best-in-class funds are considered "responsible investments."

Due to its all-sector approach, best-in-class investment is commonly used in investment strategies that try to maintain certain characteristics of an index. In these cases, security selection seeks to maintain regional and sectorial diversification along with a profile similar to that of the benchmark or target market-cap index while targeting companies with higher ESG ratings. As an example, the MSCI World SRI Index,

which is designed to represent the performance of companies with high ESG ratings and uses a best-in-class selection approach to target the top 25% companies in each sector, has characteristics similar but not identical to those of the MSCI World Index.

Sustainable Investment

As noted at the start of this learning module, sustainable investment refers to the selection of assets that contribute in some way to a sustainable economy—that is, an asset that minimizes natural and social resource depletion.

- It is a broad term, with a wide range of interpretations that may be used for the consideration of typical ESG issues.
- It may include best-in-class and/or ESG integration, which considers how ESG issues impact a security's risk and return profile.
- It is further used to describe the prioritization of the selection of companies with positive impact or companies that will benefit from sustainable macro-trends.

Sustainable investment can also be used to mean a strategy that screens out activities considered contrary to long-term environmental and social sustainability, such as mining or burning coal or exploring for oil in the Arctic regions.

Thematic Investment

The **thematic investment** approach in an ESG context is often based on needs arising from environmental or social challenges. Two common investment themes focus on (1) access to low-carbon energy and (2) access to and efficient use of water. Global economic development has raised the demand for energy at the same time as increasing greenhouse gas emissions are negatively affecting the Earth's climate. Similarly, rising global living standards and industrial needs have created greater demand for water and electricity and the need to prevent drought or increase access to clean drinking water in certain regions of the world. While these themes are based on trends related to environmental issues (refer to the following subsection), social issues—such as access to affordable health care and nutrition, especially in the poorest countries in the world—are also of great interest to thematic investors (refer to the subsequent "Social Investment" subsection.

Note, however, that not all thematic funds are considered responsible investments or best-in-class. Becoming such a fund depends not only on the theme of the fund but also on the ESG characteristics of the investee companies.

Green Investment

Green investment refers to allocating capital to assets that mitigate

- climate change,
- biodiversity loss,
- resource inefficiency, and
- other environmental challenges.

These can include

- low-carbon power generation and vehicles,
- smart grids,
- energy efficiency,
- pollution control,
- recycling,
- waste management and waste of energy, and

- other technologies and processes that contribute to solving particular environmental problems.

Green investment can thus be considered a broad subcategory of thematic investing and/or impact investing. Green bonds, a type of fixed-income instrument that is specifically earmarked to raise money for climate and environmental projects, are commonly used in green investing.

Further details on green investing and green bonds can be found in Learning Module 2.

Social Investment

Social investment refers to allocating capital to assets that address social challenges. These can be products that address the bottom of the pyramid (BOP). "BOP" refers to the poorest two-thirds of the economic human pyramid, a group of more than four billion people living in poverty. For some asset owners, this has also come to imply exclusions based on concerns around modern slavery in the United Kingdom and Australia or child labor and a focus on investments in companies that prioritize the health and safety of their products and workers. More broadly, BOP refers to a market-based model of economic development that seeks to simultaneously alleviate poverty while providing growth and profits for businesses serving these communities. Examples include

- microfinance and microinsurance,
- access to basic telecommunication,
- access to improved nutrition and health care,
- access to education, and
- access to clean drinking water.

Social investing can also include social impact bonds, which are a mechanism to contract with the public sector. This sector pays for better social outcomes in certain services and passes on part of the savings achieved to investors.

Impact Investment

As noted earlier, impact investing refers to investments made with the specific intent of generating positive, measurable social or environmental impact alongside a financial return (which differentiates it from philanthropy). It is a relatively smaller segment of the broader responsible investing market. Impact investing is usually associated with direct investments, such as in private debt, private equity, and real estate. However, in recent years, there is increasing demand from investors on impact investing products in public markets.

Impact investments can be made in both emerging and developed markets. They provide capital to address the world's most pressing challenges. Impact investing in many instances has traditionally been associated with blended finance, and while it is not the exclusive domain of blended finance alone, there are some asset classes, such as trade finance, private credit, and equity, for which the intentionality and the ability to greatly influence outcomes lends itself more favorably to impact investing. This is not to suggest that impact investing is not possible within public equities and fixed income. However, adherence to jurisdictional regulations and asset owner expectations on impact investing is crucial.

An example is investing in products or services that help achieve one (or more) of the 17 Sustainable Development Goals (SDGs) launched by the United Nations in 2015, such as the following:

- "SDG 6: Clean Water and Sanitation—Ensure availability and sustainable management of water and sanitation for all"

- "SDG 11: Sustainable Cities and Communities—Make cities and human settlements inclusive, safe, resilient and sustainable" (United Nations 2015)

Measurement and tracking of the agreed-on impact are generally central to the investment proposition.

When making investments aligned with SDGs, it is important to demonstrate the outcome achieved based on individual SDG KPIs or metrics.

Impact investors have diverse financial return expectations. Some intentionally invest in below-market-rate returns in line with their strategic objectives. Others pursue market-competitive and market-beating returns, sometimes required by fiduciary responsibility. The Global Impact Investing Network (GIIN) estimated the size of the global impact investing market to be USD1.571 trillion its 2024 annual survey (Hand, Ulanow, Pan, and Xiao 2024).

Ethical (or Values-Driven) and Faith-Based Investment

Ethical and faith-based investment refers to investing in line with certain principles, often using negative screening to avoid investing in companies whose products and services are deemed morally objectionable by the investor or certain religions, international declarations, conventions, or voluntary agreements. Typical exclusions include

- tobacco,
- alcohol,
- pornography,
- embryonic stem cell research,
- weapons, and
- significant breach of agreements, such as the Universal Declaration of Human Rights or the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.

From religious individuals to large religious organizations, faith-based investors have a history of shareholder activism to change the conduct of investee companies. Another popular strategy is portfolio building with a focus on screening out the negative—in other words, avoiding "sin stocks" or other assets at odds with their beliefs.

Faith-based investing is covered in greater depth in Learning Module 3.

Shareholder Engagement

Shareholder engagement reflects active ownership by investors in which the investor seeks to influence a corporation's decisions, such as those on ESG matters, either through dialogue with corporate officers or votes at a shareholder assembly (in the case of equity). It is seen as complementary to the previously mentioned approaches to responsible investment to encourage companies to act in the best interest of stakeholders. Its efficacy usually depends on

- the scale of ownership (of the individual investor or the collective initiative),
- the quality of the engagement dialogue and method used, and
- whether the company has been informed by the investor that divestment is a possible sanction.

For further details on the process of engagement, see Learning Module 5.

Ultimately, ESG investing recognizes the dynamic interrelationship between social, environmental, and governance issues and investment. It acknowledges that

- social, environmental, and governance issues may impact the risk, volatility, and long-term return of securities (as well as markets) and

- investments can have both a positive and a negative impact on society and the environment.

Corporate Social Responsibility

The concept of ESG investing is closely related to the concept of *corporate sustainability*. Corporate sustainability is an approach aiming to create long-term stakeholder value through the implementation of a business strategy that focuses on the ethical, social, environmental, cultural, and economic dimensions of doing business (Ashrafi, Acciaro, Walker, Magnan, and Adams 2019). Related to this approach, corporate social responsibility (CSR) is a broad business concept that describes a company's commitment to conducting its business in an ethical way. Throughout the 20th century and until recently, many companies implemented CSR by contributing to society through philanthropy. While such philanthropy may indeed have a positive impact on communities, modern understanding of CSR recognizes that a principles-based behavior approach can play a strategic role in a firm's business model.

Effective management of the company's sustainability can

- incorporate financially material considerations into valuations
- reaffirm the company's license to operate in the eyes of governments and civil society,
- attend to increasing regulatory requirements,
- reduce the probability of fines,
- improve employee satisfaction and productivity, and
- drive innovation and introduce new product lines.

ESG investing recognizes these benefits and aims to consider them in the context of security/asset selection and portfolio construction.

There are many organizations and institutions contributing to the further exploration of interactions between society, environment, governance, and investment. This curriculum focuses on how professionals in the investment industry can better understand, assess, and integrate ESG issues when conducting stock selection, carrying out portfolio construction, and engaging with companies.

4 MACRO-LEVEL DEBATE ON ESG INCORPORATION

☐ **1.2** describe the benefits and challenges of incorporating ESG factors in decision making and the relationship between ESG investment and financial system stability

There is a range of beliefs about the purpose and value, both to investors and to society more broadly, of integrating ESG considerations into investment decisions. We provide details on some of the main reasons for integrating ESG factors. We start with an overview of some important perspectives in the debate on integrating ESG considerations, financial materiality, and challenges in integrating ESG issues and then discuss integration and financial performance.

As we begin this discussion, it is important to acknowledge that the topic of ESG investing has grown more politically controversial in recent years. Shifting politics, negative headlines, and market returns that can lag non-ESG investments have led

some investments (particularly in the mutual fund and ESG space) to experience asset outflows. At the same time, many asset owners and institutional investors globally remain fully committed to sustainable investing for the long run.

Macro-Level Debate on Integrating ESG Considerations

This subsection describes various perspectives from which, over the years, the debate on the purpose and value of integrating ESG factors has been held. These include perspectives of inclusion of financially material risks, fiduciary duty, economics, impact and ethics, client demand, and regulation.

Risk Perspective

Evidence of the risks current megatrends carry is illustrated by "The Global Risks Report 2024" (World Economic Forum 2024). For many years, the Global Risks Report series has highlighted the growing likelihood and impact of extreme weather events and the failure to address climate change. The report highlights how risks related to the environment have been significantly increasing in importance in recent years while classic economic risks, such as asset bubbles, financial failures, and fiscal crises, have disappeared from the top five risks. Among all global risks, climate now tops the agenda.

Recognizing the change in profile of key risks to the economy, in 2015, Mark Carney, then governor of the Bank of England and chairman of the Financial Stability Board (FSB)—the international body set up by the G20 to monitor risks to the financial system—referred to this challenge in a speech that became a cornerstone for the integration of climate change to financial regulators (Carney 2015). The following is a list of financial regulators' responses to the FSB chairman's challenge:

- The European Central Bank recommended incorporation of climate change into its monetary policy framework.
- The Bank of England was one of the earliest to incorporate climate risks as part of its biennial climate scenario analysis.
- The Bank of Japan's strategy on climate change includes fund provisioning mechanisms within monetary policy and support for alleviating climate-related financial risks for banks.
- The Australian Prudential Regulation Authority has in the past published the results of a Climate Vulnerability Assessment (CVA) of Australia's five largest banks. Additionally, multiple superannuation funds require managers to incorporate climate risks in their assessment.
- The Monetary Authority of Singapore (MAS) has mandated incorporation of TCFD metrics for corporates (increasingly, asset owners in Southeast Asia are taking a closer look at the implications of climate risks).

Note that it is not just central banks or asset owners from developed markets that urge the incorporation of climate change–related risks into the financial system or climate scenario analysis.

There is variation in how climate risks or opportunities are assessed and capitalized across various countries. The following are notable emerging market central banks that have made efforts in this area:

1. The Reserve Bank of India launched a climate data portal to allow financial institutions in India to stress test their balance sheets as part of the assessment on financial stability.

2. The People's Bank of China has launched a carbon emission reduction facility, which provides loans to banks subject to the funds being lent to projects with credible decarbonization goals.
3. The Central Bank of Mexico recently published a paper that posits that the inability to mitigate climate risks will cause a decrease in GDP.

The consideration of macro factors when integrating ESG factors has direct implications in security selection. Prudent investors are engaging with companies to ask them to disclose not only what they are emitting today but also how they plan to achieve their transition to the net-zero world of the future. There is value in being able to spot winners and losers in a rapidly changing risk landscape. Investors that are attempting to take advantage of this usually operate with a longer time frame than the quarterly or one-year time horizon typical for many investors, with the objective of understanding emerging risks and new demands so that they can convert these into above-market performance.

CASE STUDY

Climate-Driven Hazards for Companies

Companies are already experiencing risks in their manufacturing due to water depletion, which has been aggravated by acute impacts of climate change. Water has largely been considered a free raw material and therefore is used inefficiently, but many companies are now experiencing the higher costs of using the resource, as well as suffering an increasing frequency of extreme weather events.

Pacific Gas and Electric Company (PG&E), a listed US utility, was driven to bankruptcy proceedings due to wildfire liabilities (McFall-Johnsen 2019). The company's equipment led to more than 1,500 fires between 2014 and 2017. As low humidity and strong winds worsen due to climate change, the fire hazard increases. In 2018, a problem with PG&E equipment was deemed to have led to fires that killed at least 85 people, forced about 180,000 to evacuate from their homes, and razed more than 18,800 structures.

The Brazilian Aluminium Company (CBA) estimated that the water crisis in the second half of 2021 caused a reduction in its EBITDA of between USD27 million and USD33 million. Hydropower accounts for around 55% of electricity generation in Brazil. Water scarcity in the country resulted in shortfalls in hydropower generation, leading to energy shortages and price increases. Although CBA generally has the capacity to generate 100% of electricity from its own hydroelectric plants, its reservoirs were also low, requiring it to purchase electricity from the grid at high prices (CBA 2022).

In extreme cases, assets can become stranded—in other words, obsolete due to regulatory, environmental, or market constraints.

There are many ways in which ESG factors can impact a company's financial results. Nonetheless, identifying those issues that are genuinely material to a sector and company is one of the largest challenges in ESG investment. Each company is unique and faces its own challenges related to its culture, business model, supply chain, and so on. So not only are there substantial differences between sectors, but there are also differences between what is material to individual companies in a single sector. There are also other factors to consider, such as the growth stage of the company and the geographic location of the operations.

For further details on how to assess materiality and what tools are available, refer to Learning Modules 6 and 7.

Fiduciary Duty Perspective

For many years, fiduciary duty was considered a barrier to considering ESG factors in investments. In the modern investment system, financial institutions or individuals, known as fiduciaries, manage money or other assets on behalf of beneficiaries and investors and have a duty to ensure that they act in their beneficiaries' interests, rather than serving their own. These best interests are typically defined exclusively in financial terms. The misconception that ESG factors are not financially material has led some investors and regulators to use the concept of fiduciary duty as a reason not to incorporate ESG issues.

In 2005, the **United Nations Environment Programme Finance Initiative (UNEP FI)** commissioned the law firm Freshfields Bruckhaus Deringer to publish a report titled "A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment" (commonly referred to as the Freshfields report). The authors argued that "integrating ESG considerations into an investment analysis so as to more reliably predict financial performance is clearly permissible and is arguably required in all jurisdictions" (Freshfields Bruckhaus Deringer 2005, p. 13). Despite the conclusions of the report, many investors continue to point to their fiduciary duties and the need to deliver financial returns to their beneficiaries as reasons why they cannot do more in terms of responsible investment.

However, an increasing number of academic studies, along with work undertaken on the topic by progressive investment associations, including UNEP FI and the PRI, have clarified that financially material ESG factors must be incorporated into investment decision making. The Freshfields report (Freshfields Bruckhaus Deringer 2005) and a more recent report published by the PRI (2019a) both argue that failing to consider long-term investment value drivers—which include ESG issues—in investment practice is a failure of fiduciary duty. The PRI report concluded that modern fiduciary duties require investors to do the following:

- Incorporate financially material ESG factors into their investment decision making, consistent with the time frame of the obligation.
- Understand and incorporate into their decision making the sustainability preferences of beneficiaries or clients, regardless of whether these preferences are financially material.
- Be active owners, encouraging high standards of ESG performance in the companies or other entities in which they are invested.
- Support the stability and resilience of the financial system.
- Disclose their investment approach in a clear and understandable manner, including how preferences are incorporated into the scheme's investment approach.

Additional aspects of fiduciary duty follow later in this learning module.

Economic Perspective

Another reason for considering ESG issues stems from the recognition that negative megatrends will, over time, create a drag on economic prosperity as basic inputs (such as water, energy, and land) become increasingly scarce and expensive and that the prevalence of health and income inequalities increase instability both within countries and between the "global north and south." There is an understanding that unless these trends are reversed, economies will be weakened. While this may not have a significant impact on asset managers whose performance is judged by their ability to provide above-market returns, it may considerably affect asset owners, who depend on market returns to pay out pensions and meet their liabilities.

As mentioned previously, the FSB has already identified climate change as a potential systemic risk, which may also be the case for other environmental megatrends. The economic implications of these environmental issues (such as climate change, resource scarcity, biodiversity loss, and deforestation) and social challenges (such as poverty, income inequality, and human rights) are increasingly being recognized.

Social issues are also having a significant impact on the wider economy. Income inequality in OECD countries is at its highest level in over 30 years. High levels of income inequality can create social stresses, including security-related issues (PRI 2017b). The World Economic Forum estimates that conflict and violence cost the world more than USD14 trillion a year. Undernutrition is still common in developing economies and has severe economic consequences. While the number of undernourished people in the world has declined sharply, about 1 out of 11 people suffer from chronic malnutrition (FAO 2020).

Large institutional investors have holdings that, due to their size, are highly diversified across all asset classes, sectors, and regions. Their investment returns are thus dependent on the continuing good health of the overall economy. Inefficiently allocating capital to companies with high negative **externalities** can damage the profitability of other portfolio companies and the overall market return. It is in their interests to act to reduce the economic risk presented by sustainability challenges to improve their total, long-term financial performance. There is therefore a growing school of thought that investors should integrate the price of externalities into the investment process and take into account the wider effects of investments by considering the impact on society, the environment, and, ultimately, the economy as a whole.

For that reason, investors increasingly call for governments to set policies in line with the fundamental challenges to our future. The UN's Sustainable Development Goals (SDGs), an agreed framework for all UN member state governments to work toward aligning with global priorities (such as the transition to a low-carbon economy and the elimination of human rights abuses in corporate supply chains), were welcomed by the investment community.

Impact and Ethics Perspective

Yet another reason for practicing responsible investment is some investors' belief that investments can or should serve society alongside providing financial return. This belief translates into focusing on investments with a positive impact and/or avoiding those with a negative impact.

- Those investing for *positive impact* see investment as a means of tackling the world's social and environmental problems through effective deployment of capital and/or stewardship activities. The aim is to put beneficiaries' money to good use rather than to invest it in any activity that could be construed as doing harm—essentially a moral argument. This idea is giving rise to the growing area of impact investment, itself a response to the limits of philanthropy and a recognition of the potential to align returns with positive impacts.
- Those avoiding *negative impact*, at times for religious reasons, usually do not invest in securities from controversial sectors (negative screening), such as arms, gambling, alcohol, tobacco, and pornography. Negative screening can also consider other factors—for example, environmental factors, such as avoiding fossil fuel companies, or governance factors, such as avoiding companies that are in breach of certain business practices.

Client Demand Perspective

Clients are increasingly calling for greater transparency about how and where their money is invested. This effort is driven by the following:

- Growing awareness that financially material ESG factors influence
  - company value,
  - returns, and
  - reputation
- Increasing focus on the environmental and social impacts of the companies they are invested in

Asset owners, such as pension funds and insurers, are instrumental for responsible investment because they make the decisions about how their assets are managed. The number of them that are integrating financially material ESG considerations and sustainable guidelines into their portfolio mandates continues to grow.

Regulatory Perspective

Finally, regardless of their views or beliefs, some investors are required to increasingly consider the implications of ESG matters on issuer election and sector allocation and the implications of sustainable guidelines on overall investment objectives. Since the mid-1990s, responsible investment regulation has increased significantly, with a particular surge in policy interventions since the 2008 financial crisis. Regulatory change has also been driven by a realization among regulators that the financial sector can play an important role in meeting global challenges, such as combating climate change, modern slavery, and tax avoidance.

FINANCIAL MATERIALITY OF ESG INTEGRATION 5

☐ **1.3** explain the concepts of the financial materiality, double materiality, and dynamic materiality and how they relate to sustainable investing and integration of ESG factors

☐ **1.4** explain different sustainability megatrends, their systemic nature, and their potential impact on companies and company practices

One of the main reasons for financially material **ESG integration** comes from understanding that incorporating ESG issues can reduce risk or enhance returns because it considers additional risks and injects new and forward-looking insights into the investment process. ESG integration may therefore lead to

- reduced cost and increased efficiency,
- reduced risk of fines and state intervention,
- reduced negative externalities, and
- improved ability to benefit from sustainability megatrends.

Each of these outcomes is described in greater detail in the following subsections.

Efficiency and Productivity

Sustainable business practices build efficiencies by

- conserving resources,
- reducing costs, and
- enhancing productivity.

Sustainability was once perceived by businesses and investors as requiring sacrifices, but the perception today is very different. Significant cost reductions can result from improving operational efficiency through better management of natural resources, such as water and energy, as well as from minimizing waste.

A strong ESG proposition can help companies attract and retain quality employees and enhance employee motivation and productivity overall. Employee satisfaction is positively correlated with shareholder returns. The London Business School's Alex Edmans found that the companies that made Fortune's 100 Best Companies to Work For list generated 2.3%–3.8% higher stock returns a year than their peers over a horizon of longer than 25 years (Edmans 2011).

CASE STUDY

Savings from Efficiency Measures

Apple

Apple estimated that in 2023 its environmental programs avoided 31 million metric tons (mt) of emissions across all scopes, while noting that its 2024 total GHG emissions totaled 15.6 million mt. Contributing to the reduction were improved supplier energy efficiency (1.7 million mt avoided), use of lower carbon materials (5.8 million mt avoided), supplier clean energy (18.5 million mt avoided), and direct emission abatement (2.7 million mt avoided). The firm noted, "While our revenue has grown by more than 64 percent since 2015, our gross emissions have decreased by more than 55 percent" (Apple 2024).

The Dow Chemical Company

The Dow Chemical Company's long-established focus on cost reductions through resource efficiency enabled it to achieve savings of USD31 million on its raw materials alone in 2018, compared to a net income of approximately USD4 billion (Dow 2018).

Nike

Almost half (40%) of Nike's footwear manufacturing waste is generated by cutting scraps from such materials as textiles, leather, synthetic leather, and foam. In 2018, modern cutting equipment, which can achieve smaller gaps between cut parts than traditional die-cutting can, was deployed to various factories. The estimated value of savings was USD12 million, compared to its net income of USD1.1 billion, and nearly 1.2 million kilograms of material for that fiscal year (Parker 2018).

Reduced Risk of Fines and State Intervention

With all the discussion regarding climate change, dwindling energy resources, and environmental impact, it is no surprise that state and federal government agencies are enacting regulations to protect the environment. Integrating sustainability into a business will position it to anticipate changing regulations in a timely manner.

There are significant risks to firms' operations and profitability from ignoring evolving regulatory conditions. An analysis conducted by McKinsey & Company showed that typically one-third of corporate profits are at risk from state intervention (not only fines; Henisz, Koller, and Nuttall 2019). For pharmaceuticals, the profits at stake are about 25%–30%, and for the automotive, banking, and technology sectors, where government subsidies (among other forms of intervention) are prevalent, the value at stake can reach 60% (see Exhibit 4).

Exhibit 4: Estimated Share of EBITDA at Stake

Industry	Estimated Share of EBITDA at Stake	Examples
Automotive, aerospace and defense, technology	50%–60%	Government subsidies, renewable regulation, carbon emission regulation
Transport, logistics, infrastructure	45%–55%	Pricing regulation, liberalization of sector
Telecom and media	40%–50%	Tariff regulation, interconnection, fiber deployment, data privacy
Energy and materials	35%–45%	Tariff regulation, renewables subsidies, interconnection, access rights
Resources	30%–40%	Resource nationalism, mineral taxes, land access rights, community reach and reputation
Consumer goods	25%–30%	Obesity, sustainability, food safety, health and wellness, labeling
Pharmaceuticals and health care	25%–30%	Market access, regulation of generic drugs, pricing, innovation funding, clinical trials

Source: Henisz et al. (2019).

CASE STUDY

Three of the Highest ESG-Related Fines in History

BP and Deepwater Horizon

The biggest corporate fine to date was levied against BP in the wake of the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, the largest in history. BP settled with the US Department of Justice for USD20.8 billion in 2016 (Rushe 2015); total compensation ultimately paid out by the company reportedly exceeded USD65 billion.

Financial Crisis and the Bank of America

Several of the largest fines have hit the financial services industry, a direct result of the scrutiny facing banks in the wake of the financial crisis. These include the second highest fine (USD16.65 billion), which was paid by Bank of America in 2014 for its role in the subprime loan crisis ("Bank of America and the Financial Crisis" 2014). Just two years before that, the bank agreed to a USD11.8 billion settlement with the US federal government over mortgage foreclosure abuses.

Volkswagen's Emission Scandal

The third largest fine was paid by Volkswagen, which in 2016 faced USD14.7 billion in civil and criminal penalties from the United States in the wake of its scandal over emission cheating (McGee 2016). The scandal dampened the hype of diesel as a fuel for environmental efficiency. Today, most major automotive companies are directing their current investments toward electric vehicles while striving to meet increasingly aggressive emission targets.

Reduced Negative Externalities

The term *externalities* refers to situations where the production or consumption of goods and services creates costs or benefits for others that are not reflected in the prices charged for them. In other words, externalities affect people not directly involved in the transactions. Externalities can be either negative or positive.

The concept of externality, though central to the concept of sustainability and responsible investment, dates back to 1920, having been introduced by University of Cambridge professor Arthur Pigou in his book *The Economics of Welfare*. Externalities often occur when the production or consumption of a product's or service's private price equilibrium cannot reflect the true costs or benefits of that product or service for society as a whole.

In the case of pollution, a polluter makes decisions based only on the direct cost and profit opportunity associated with production and does not consider the indirect costs to those harmed by the pollution. These indirect costs—which are not borne by the producer or user—may include decreased quality of life, higher health care costs, and forgone production opportunities (for example, when pollution harms activities, such as tourism).

Professor William Nordhaus, who was awarded the Nobel Prize for his work on the externality of climate change, developed a model to measure the impact of environmental degradation on economic growth and thus created a price for carbon pollution. However, externalities can also be due to social factors—for example, when companies submit their employees to poor working conditions or from the health impacts of smoking or junk food.

In short, when externalities are *negative*, private costs are lower than societal costs, resulting in market outcomes that may not be efficient or, in other words, leading to "market failures" through excessive production of the good or service.

For that reason, externalities are among the main reasons why governments intervene in markets (Helbling 2010). As far back as the 1920s, Pigou suggested that governments should tax polluters an amount equivalent to the cost of the harm incurred by others. Such a tax would yield the market outcome that would have prevailed with adequate internalization of all costs by polluters. Internalization refers to all measures (public or private) to ensure that externalities become reflected in the prices of commercial goods and services (Ding, He, and Deng 2014). As environmental and social regulation and taxation become more common, an increasing proportion of this cost might be forced into companies' accounts.

In the social sphere, developments in the interpretation of the OECD Guidelines for Multinational Enterprises (OECD 2018) and the UN Guiding Principles for Business and Human Rights (UNGC 2011)—clarifying that these instruments apply to investors and give rise to responsibility for conducting human rights due diligence on investments—are in effect paving the way for more formal internalization of social costs in hard law (see, e.g., Marotta 2013; Norwegian National Contact Point for the OECD Guidelines for Multinational Enterprises 2013).

Internalization can happen in various ways. In the transportation industry, for example, internalization can happen through

- market-based instruments (e.g., charges, taxes, and tradable permits),
- regulation (e.g., vehicle emission and safety standards, traffic restrictions), or
- voluntary agreements (e.g., agreements with the car industry to reduce CO_2 emissions from new passenger cars).

Understanding the risks posed by "externalized" environmental and social costs in the real economy is central to the practice of investment because the internalization of these externalities could significantly impact the costs and profits of companies' products and services. The uncertainty surrounding the timing and extent of internalization is a critical component of the overall risk landscape facing investors.

A study of almost 15,000 public companies found that those companies produce so much corporate carbon damage that about 44% of their profits would be lost if they had to pay for it (Greenstone, Leuz, and Breuer 2023).

Improved Ability to Benefit from Sustainability Megatrends

There are many implications from the so-called sustainability megatrends. Being able to integrate a response to these trends into business operations can be a success factor for an investee firm. From the investor perspective, these megatrends can be part of a successful portfolio construction strategy.

For this reason, business leaders, investors, economists, and governments are increasingly recognizing the economic implications of

- social challenges (such as increasing income inequality, poverty, and human and labor rights abuses) and
- environmental issues (such as climate change, biodiversity loss, and resource scarcity).

These factors have interacted with

- aging populations,
- the rise of emerging economies,
- rapid technological changes,

This interaction increases the complexity and the impact that social and environmental challenges have on the growth and profitability of sectors and businesses.

Global Megatrends

Three widely recognized megatrends that affect everyone are technological innovation, demographic changes and wealth inequality, and climate change and resource scarcity.

Technological Innovation

Technology has always had the power to change behavior and expectations. What is new is the speed of change. It took 76 years for the telephone to penetrate half of all US households. The smartphone achieved the same in less than a decade (PWC 2020). Accelerated adoption invites accelerated innovation. Speed of adoption keeps increasing, with ChatGPT recently achieving 100 million users in two months.

Social media often acts as a platform for both crowd intelligence and influence. Its influence stretches far beyond its use as a means to stay connected with family and friends and now a common feature of corporate risk management and geopolitics. Its capacity both to mobilize online crowds and to lead people into narrow filter bubbles has had major repercussions in recent years, including civil strife. Furthermore, issues around human rights, including free speech, and tensions between social media companies and sovereign governments.

Artificial intelligence (AI)—computer systems able to perform tasks normally requiring human intelligence—has arrived and brought with it may benefits and challenges for sustainability and ESG integration. AI is already being used by the health industry to track patients' data and medication intake, by businesses to automate customer service and manufacturing, by energy companies' smart grids to forecast and manage energy supply and demand, and by self-driving cars to optimize routes. Gartner (an IT research firm) estimated that one-third of jobs will be replaced by smart machines and robots, and Google estimated that robots will attain the level of human intelligence by 2029. AI is discussed further in Learning Module 8.

Demographic Changes and Wealth Inequality

By 2030, the world's population is projected to rise by more than 1 billion. At the same time, the population is getting older. For example, Germany's population is expected to shrink by one-fifth, and the number of people of working age could fall from 54 million in 2010 to 36 million in 2060 (World Bank Group 2023).

A smaller, older workforce in some countries will place a greater onus on productivity for driving growth and may cause economists to rethink an economy's potential. Caring for large numbers of elderly people has already started to reshape industries and put severe pressure on government finances. At the same time, the rise in population overall will only increase the demand for and stress on scarce resources. A growing global population is expected to demand about 3.5% more food annually until 2030.

Finally, increasing wealth concentration and rising inequality have already led to growing social strains. This increase in inequality has happened both across and within countries, contributing to depressed economic growth, criminal behavior, and undermined educational opportunities (Lawson, Butt, Harvey, Sarosi, Coffey, Piaget, and Thekkudan 2020).

Climate Change and Resource Scarcity

As the world becomes more populous, urbanized, and prosperous, the demand for energy, food, and water will rise. But the Earth has a finite amount of natural resources to satisfy this demand. At the current pace of global action, average temperatures are predicted to increase by more than 1.5°C (2.7°F), a threshold at which scientists believe significant and potentially irreversible environmental changes will occur. The interconnectivity between trends in climate change and resource scarcity is amplifying the impact: Climate change could reduce agricultural productivity by up to a third across large parts of Africa over the next 60 years. Globally, demand for water will increase by 40% and demand for energy by 50%.

In short, the world's current economic model is pushing beyond the limits of the planet's ability to cope.

Evolution of Materiality: From Static to Dynamic

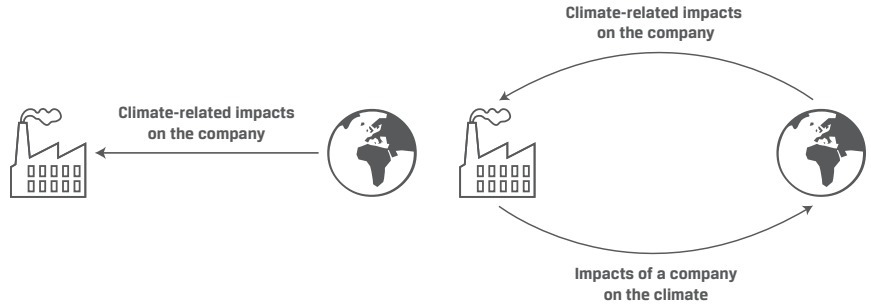
Movements (such as #MeToo and Black Lives Matter), events (such as the COVID-19 pandemic), and their implications, including regulation, highlight that priority issues can suddenly present new, previously unaccounted for risks for corporations and their investors. These require agile responses not only from businesses but also from capital providers to mitigate the risks that can impact a firm's financials. This concept—that what is financially material to a company not only can but most likely will change—has been defined as *dynamic materiality*. For investors, it means that the understanding of what is financially material for a company must be constantly reviewed to reflect the quickly evolving nature of sustainability factors.

Double Materiality

Double materiality is an extension of the accounting concept of financial materiality. Company information is material and should therefore be disclosed if a reasonable person would consider the information important. As illustrated previously, because sustainability factors, especially climate, can be material for a company, they have now been widely accepted in financial markets as potentially financially material, therefore requiring disclosure.

The concept of double materiality (see Exhibit 5) takes this notion one step further: It is not just climate-related impacts on the company that can be material but also impacts of a company on the climate—or any other sustainability factor. In 2019, the European Commission was the first to formally describe the concept of double materiality in the context of sustainability reporting and the need to get a full picture of a company's impacts. This means in practice that both companies and investors are increasingly identifying, monitoring, and managing the most significant impact that companies and investment portfolios have on society and the environment.

Exhibit 5: The Concept of Double Materiality



Source: Täger (2021).

CHALLENGES IN INTEGRATING FINANCIALLY MATERIAL ESG FACTORS

6

☐ **1.3** explain the concepts of the financial materiality, double materiality, and dynamic materiality and how they relate to sustainable investing and integration of ESG factors

Sustainability- and ESG-focused investing has grown and matured in the past two decades. While there is certainly room for further growth and evolution, challenges to its further growth remain. While investor support for sustainable investing is far from universal, sustainable investing practices have become common in many investment markets globally. Even so, challenges to taking a more proactive approach to sustainable investing exist across the whole of the investment decision-making process.

The following challenges are common prior to seeking to implement sustainable investing:

- The perception that implementing sustainable investing may have a negative impact on investment performance due to a reduced investment universe
- The interpretation that fiduciary duty prevents investors from integrating ESG or other sustainable factors
- The advice given by investment consultants and retail financial advisers many times not supporting products that integrate sustainability factors

Once the decision has been made to implement sustainable investing, the following challenges are typical:

- A lack of understanding of how to build an investment mandate that effectively combines sustainable and investment objectives of a client, particularly when there may be trade-offs between the two
- The impression that significant resources, which may be lacking in the market or may be expensive, are needed—including human resources, technical capability, data, and tools
- A gap between marketing, commitment, and delivery of investment mandates regarding their ESG performance

Some investors still question whether considering ESG or sustainability factors can add value to investment decision making despite wide dissemination of research that demonstrates that integration can help limit volatility or enhance risk-adjusted returns. A report from the EDHEC Climate Institute (Le Sourd 2025) notes that in equilibrium, a negative premium (lower expected performance) should be associated with ESG filters, in part because investment constraints often function to limit opportunities. The author notes, however, that a review of papers on risk-adjusted performance with ESG criteria shows contrasting results, including both positive and negative impacts. Moreover, outperformance of ESG investing can be shown to be largely driven by sector/factor biases, and a negative alpha is obtained after accounting/correcting for these biases. While the promoters of ESG investing often argue that this type of investment strategy makes it possible to obtain better performance with lower risk, the situation is not so simple either from a theoretical point of view or from an empirical perspective. The quest for better performance should not be the only reason for ESG investing. The report's author argues that ESG strategies should be valued for the unique benefits that they can provide, such as making a positive impact on the environment or society, as opposed to being promoted on the basis of disputable claims regarding their outperformance potential.

Interpretations of fiduciary duty are partially related to perception of the impact on ESG investing on risk-adjusted returns. Despite regulators in various jurisdictions clarifying a modern interpretation of fiduciary duty, contrasting views remain as to how ESG integration fits with institutional investors' duties. Some institutional investors remain reluctant to adapt their governance processes because they see a conflict between their responsibility to protect the financial interests of their beneficiaries and the consideration of financially material ESG factors or of explicit sustainable outcomes.

The challenge pertains not only to the impact of ESG investing on portfolio returns. Screening, divestment, and thematic investment strategies can involve "tilting" the portfolio toward desired ESG characteristics by over- or underweighting sectors or companies that perform either well or poorly in those areas. Institutional investors may feel that this conflicts with their obligation to invest prudently because it involves straying from established market benchmarks. This increases tracking error, a key measure of active risk widely used in the industry, which arises from active investment decisions versus the benchmark made by the portfolio manager. Furthermore, tilts may also result in concentration risks within some sectors that may not be suitable to the overall investment objectives.

As an example, many net-zero-related investment strategies based on Scope 1 and 2 emissions across public equity or public credit mandates tend to be underweight such sectors as energy, utilities, basic materials, and transportation while being overweight financials and technology. The mini banking crisis involving (but not limited to) Credit Suisse and Silicon Valley Bank meant an underperformance for the financials sector in Q1 2023.

For further details on the challenges of portfolio construction, refer to Learning Module 7.

The barriers mentioned earlier, together with other reasons, may explain why investment consultants and retail financial advisers have offered advice that is not seen as supportive of ESG investing. Consultants and advisers often base their advice on a very narrow interpretation of investment objectives. Asset owners and individual retail investors can ensure ESG factors are standing items in meetings and ask how consultants and advisers integrate ESG factors into their advice. Investor-led initiatives can also increase engagement with these actors to enhance their understanding of ESG investing and address barriers to its consideration in investment advice.

Even once an investor has decided to consider financially material ESG factors or sustainable guidelines in investment decision making, various barriers remain. Some asset owners believe they do not have the scale or capacity to influence the products offered by fund managers. In addition, there is a variation in asset owner expectations on sustainable guidelines across asset classes and investment strategies. Others are unsure of how to integrate ESG factors in requests for proposals or mandates. There are multiple investor-led initiatives that hope to address this problem.

For further details on mandates, refer to Learning Module 8.

The challenge of resources is especially prominent for asset owners who have funding constraints or investors who see financially material ESG investing as separate from the core investment process (e.g., as a marketing or compliance, rather than investment, issue). In addition to the costs of building or buying expertise in sustainability investing, investors may face other costs for items, such as research, data, monitoring, and reporting. A recent study showed that corporate issuers are currently spending an average of more than USD675,000 per year on climate-related disclosures, and institutional investors are spending nearly USD1.4 million on average to collect, analyze, and report climate data (Lee, Brock, and MacNair 2022).

Even when financial resources are available, investors still have difficulty identifying or creating technical resources, such as high-quality, standardized datasets, modelling capability, and valuation techniques. Without such resources, it is not always straightforward to understand the effects of ESG risks and opportunities at the investee company level. These risks and opportunities will be incorporated into the

investee's overall financial performance and, therefore, before their materialization, will be invisible in the investor's (non-ESG) financial models. Some common risks and opportunities include the following:

- *Data availability:* Although ESG data from investees are increasingly available from specialized providers, disclosure and data quality can vary in quality, frequency, and domicile. It can also vary by asset class, with large capitalization equities often supplying more and clearer disclosures. Investment analysis thus remains limited by corporate disclosure, which varies in quality and scope. It is also limited by investors' understanding of those data and which metrics are financially material. There is considerable effort by the private sector and policymakers to reach a consensus on what degree and type of corporate disclosure is needed, but no single standard is universally implemented. While data providers often provide estimates, it is important for portfolio managers to assess the veracity of the ESG metric being used in the analysis. This can take the form of assessing emissions based on company business activities and revenues. A comparison versus industry median scores on emissions could also be useful.
- *Modeling:* It can be challenging to integrate ESG factors into traditional financial models because they do not always have a short-term financial impact. ESG factors are not implemented consistently among managers, and hence the impact on market security price is inconsistent. Furthermore, most financial analysts' models extrapolate from historical data, which may be less relevant for forecasting future sustainable outcomes. For example, measuring a company's past and current carbon footprint does not give as much information about its future valuation as understanding its strategy for reducing its carbon intensity or the impact of evolving carbon legislation/markets. Similarly, it is hard to estimate the viability or impact of a breakthrough technological innovation based on historical patterns. Notably, often modeling of ESG factors focuses on risks, and there are fewer tools for assessing positive sustainability outcomes.
- *Valuation techniques:* Equity investors can adjust corporate valuations for financially material ESG risks in a number of ways. Investors could vary the discount rate applied to corporate cash flows, which raises the question of how much of a valuation discount should be applied for various ESG risks. Alternatively, they could apply higher or lower multiples to valuation ratios (such as price-to-earnings or book value), which might lead to double-counting if ESG factors are already partially priced by the market. Furthermore, expected revenues or costs could also be forecast to include the impact of ESG factors. Relevant sustainability-related controversies can affect cash flows and can be incorporated into valuations.

As a result of this lack of rigorous standardization in valuation techniques, ESG analysis often takes the form of a qualitative input that is used alongside traditional quantitative models. The portfolio manager might use the quality score just for information or might set a hurdle for a stock to be included in the portfolio. These types of risk metrics garner less respect from portfolio managers relative to financial analysis because quantifying the input and its impact is generally a challenge.

For further details on financial materiality, data suppliers, and integrating ESG factors in valuation techniques, refer to Learning Module 6.

A growing challenge for the industry is greenwashing. Greenwashing originally described misleading claims about environmental practices, performance, or products but has been used more widely to also consider social or governance factors.

The phenomenon is not restricted to the investment industry, but with the rise of a plethora of new ESG-type funds, including impact funds, the challenge of how to spot and avoid greenwashing has become more prevalent.

The EU has recently launched various initiatives to standardize claims around the green and ESG credentials of funds and indexes, which will help curb greenwashing. Further advancements from the governments of other jurisdictions, as well as voluntary action and initiatives of investors themselves, would contribute to maintaining and enhancing the implementation and credibility of responsible investment.

SUSTAINABILITY FACTORS' INFLUENCE ON FINANCIAL PERFORMANCE 7

☐ **1.4** explain different sustainability megatrends, their systemic nature, and their potential impact on companies and company practices

There is growing recognition in the financial industry and in academia that ESG factors indeed influence financial performance. A 2018 analysis of over 2,000 academic studies on how ESG factors affect corporate financial performance found "an overwhelming share of positive results," with just 1 in 10 showing a negative relationship (Global Research Institute 2018). Various studies also indicate that engaging with companies on ESG issues can create value for both investors and companies, by encouraging better ESG risk management and more sustainable business practices (PRI 2018; Dimson, Karakaş, and Li 2017). These studies support the notion that ESG issues can be financially material to companies' performance and potentially to investment performance.

Mounting evidence shows that sustainable business practices deliver better financial performance. The topic has not only been the focus of various individual studies but also the subject of meta-analysis.

In summary, these meta-studies suggest that in most research papers, there was a positive correlation between ESG performance and corporate financial performance, including stock prices. These findings provide academic evidence for the financial materiality of ESG factors. This correlation, however, does not hold for fund performance, suggesting that the asset management industry in general has not been consistently able to translate ESG analysis into alpha.

CASE STUDY

Meta-Data Studies

One of the first meta-data studies, in 2012, from Deutsche Bank (Fulton, Kahn, and Sharples 2012), assessed over 100 individual studies. The vast majority (89%) showed that companies highly rated for ESG factors outperformed the market, while 85% demonstrated outperformance in terms of business performance. These results were strongest over the medium to long term. The study found weaker results with respect to the influence of ESG factors on investment funds. The authors concluded that companies with good ESG factors outperform but that investors were not always good at capturing that outperformance.

In 2014, a review of the academic literature on sustainability and corporate performance found that out of 200 studies analyzed,

- 90% concluded that good ESG standards lower the cost of capital,
- 88% showed that good ESG practices result in better operational performance, and
- 80% showed that stock price performance is positively correlated with good sustainability practices (Clark, Feiner, and Viehs 2015).

More recently, a meta-study conducted by researchers at the NYU Stern Center for Sustainable Business and Rockefeller Asset Management examined the relationship between ESG factors and financial performance in more than 1,000 research papers from 2015 to 2020 (Whelan, Atz, Van Holt, and Clark 2021). They conducted the research differently from previous meta-studies. They divided the articles into those focused on corporate financial performance (e.g., operating metrics, such as ROE, ROA, or stock performance for a company or group of companies) and those focused on investment performance (from the perspective of an investor, generally measures of alpha or such metrics as the Sharpe ratio on a portfolio of stocks). They found a positive relationship between ESG factors and financial performance for 58% of the "corporate" studies focused on operational metrics, such as ROE, ROA, or stock price, with 13% showing neutral impact, 21% with mixed results—the same study finding more than one type of result (positive, neutral, or negative)—and only 8% showing only a negative relationship. For investment studies typically focused on risk-adjusted attributes, such as alpha or the Sharpe ratio of a portfolio of stocks, 59% showed similar or better performance relative to conventional investment approaches, while only 14% found negative results. The authors also found positive results when they reviewed 59 climate change or low-carbon studies related to financial performance. On the corporate side, 57% arrived at a positive conclusion, 29% found a neutral impact, 9% had mixed results, and 6% were negative. Looking at investor studies, 65% showed positive or neutral performance compared to conventional investments, with only 13% indicating negative findings.

8 PUTTING ESG INVESTING INTO PRACTICE

☐ **1.5** explain the three ways in which investors typically reflect sustainability considerations in their investment process

Institutional investors typically reflect sustainability considerations in three ways:

1. incorporating financially material ESG factors into investment decision making,
2. corporate engagement, and
3. policy engagement.

Different institutions take different approaches and blend these elements differently, reflecting their culture and investment style.

Investment Decisions

Incorporating financially material ESG factors into investment decision making can happen throughout the investment value chain:

Asset owners

- can include sustainable guidelines in their requests for proposal and consider them in their appointment process,
- are often supported by investment consultants, who can factor in asset managers' sustainable investment policy, implementation, and outcomes in their selection process, and
- can reassure themselves that their views on sustainability are implemented by integrating them into investment mandates and monitoring processes.

Asset owners and some asset managers can embed sustainability-related guidelines and outcomes into **strategic asset allocation (SAA)**. SAA is the process in which an investor chooses to allocate capital across asset classes, sectors, and regions based on their need for return and income and their risk appetite.

Asset managers and asset owners who invest directly can incorporate financially material ESG considerations into their security selection and asset owners' sustainable guidelines into the portfolio management process. This can be done by

- using ratings to apply a filter or threshold, which rules potential investments in or out of the investment universe,
- integrating ESG issues in their financial and risk analysis, or
- using ESG criteria to identify investment opportunities through a thematic approach (e.g., a water fund, impact investing).

For further details on this process, see Learning Modules 6 and 7.

Shareholder Engagement

Investors can either highlight financial risks of excluding material ESG considerations or encourage investees to incorporate sustainable practices in line with asset owner expectations. This typically takes the form of ad hoc or structured engagements. Structured engagements include formally expressing views through voting on resolutions at a company's annual general meeting (AGM). Ad hoc engagements happen outside this process (with an investment firm, individually, or through a collective initiative) through discussions of ESG issues with an investee company's board or management.

For further details on this process, see Learning Module 5.

Policy Engagement

The proper functioning of the market and thus public policy, such as the EU's taxonomy for sustainable activities, critically affects the ability of institutional investors to generate sustainable returns and create value. Policy engagement by institutional investors is therefore a natural extension of an investor's responsibilities and fiduciary duties to the interests of beneficiaries.

Investors can work with regulators, standard setters, and other parties (e.g., consultants and stock exchanges) to design a financial system that

- is more sound and stable,
- levels the playing field, and
- brings ESG factors more effectively into financial decision making.

Investors can

- respond to policy consultations,
- participate in collective initiatives, and
- make recommendations to policymakers.

Further details on this process are discussed in Learning Module 5.

9 KEY INITIATIVES: SUSTAINABILITY AND ESG INVESTING

☐ **1.6** explain the aims of key supranational ESG initiatives and organizations and the progress achieved to date

Various initiatives have contributed to increasing the investment industry's awareness of ESG issues, as well as enhancing its ability and capacity to integrate ESG factors into the investment process.

United Nations Initiatives

The United Nations (UN) has played a critical role in the advancement of sustainability and responsible investment in the past 30 years. Three of its initiatives are of particular interest to investors.

United Nations Global Compact

Chief among the supranational initiatives, the **United Nations Global Compact (UNGC)** was launched in 2000 as a collaboration between leading companies and the UN. It has since gained remarkable traction and now claims to be the largest corporate sustainability initiative in the world, with over 8,000 corporate signatories spanning the globe. These signatories agree to adhere to the 10 principles, derived from broader global standards, such as the Universal Declaration of Human Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. The 10 principles of the UNGC cover the areas of human rights, labor, environment, and anti-corruption. It has provided investors with a helpful set of principles to assess and engage with companies, as well as directly aided companies in becoming more sustainable.

United Nations Environment Programme Finance Initiative

UNEP FI is a partnership between UNEP and the global financial sector to mobilize private sector finance for sustainable development.

UNEP FI started in 1992 with a few banking institutions, and today it works with thousands of signatories—banks, insurers, and investors—to catalyze integration of sustainability into financial market practice. The frameworks UNEP FI has established include the following:

- The Principles for Responsible Investment, established in 2006 by UNEP FI and the UNGC, are widely applied by many of the world's institutional investors. As of December 2024, over 5,000 signatories from more than 80 countries, representing approximately USD128 trillion in assets under management, had committed to the PRI.
- The Principles for Sustainable Insurance (PSI) were established in 2012 by UNEP FI and have been applied by about one-quarter of the world's insurers and to 25% of global premium volume.
- The Principles for Responsible Banking (PRB): As of April 2024, more than 330 banks have signed up to the PRB, representing more than half of the global banking sector.

Principles for Responsible Investment

The PRI is a UN-supported international network of investors—signatories working together toward a common goal to understand the implications of ESG factors for investment and ownership decisions and ownership practices.

The PRI provides support in four main areas:

1. The PRI provides a broad range of tools and reports on best practices for asset owners, asset managers, consultants, and data suppliers, supporting the implementation of the principles across all asset classes and providing insights into ESG issues.
2. It hosts a collaborative engagement platform, by which it leads engagements and enables like-minded institutions to coordinate and take forward engagement with individual companies and sectors.
3. The PRI reviews, analyzes, and responds to responsible investment-related policies and consultations. It also provides a policy map to investors and facilitates communication between investors and their regulators on the topic of responsible investment.
4. The PRI Academy develops, aggregates, and disseminates academic studies on responsible investment-related themes.

The PRI developed six voluntary principles that provide overarching guidance on actions members can take to incorporate ESG issues into investment practice. The six principles are as follows:

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 toward implementing the principles (PRI 2016b).

The PRI also leads or establishes partnerships with other organizations to develop initiatives, such as a review of fiduciary duty around the world and the establishment and implementation of the Sustainable Stock Exchanges Initiative. Many of its workstreams and initiatives are supported by committees made of members, which is a key way for investors to gain further insight and contribute to the development of knowledge and the further implementation of responsible investment across the industry.

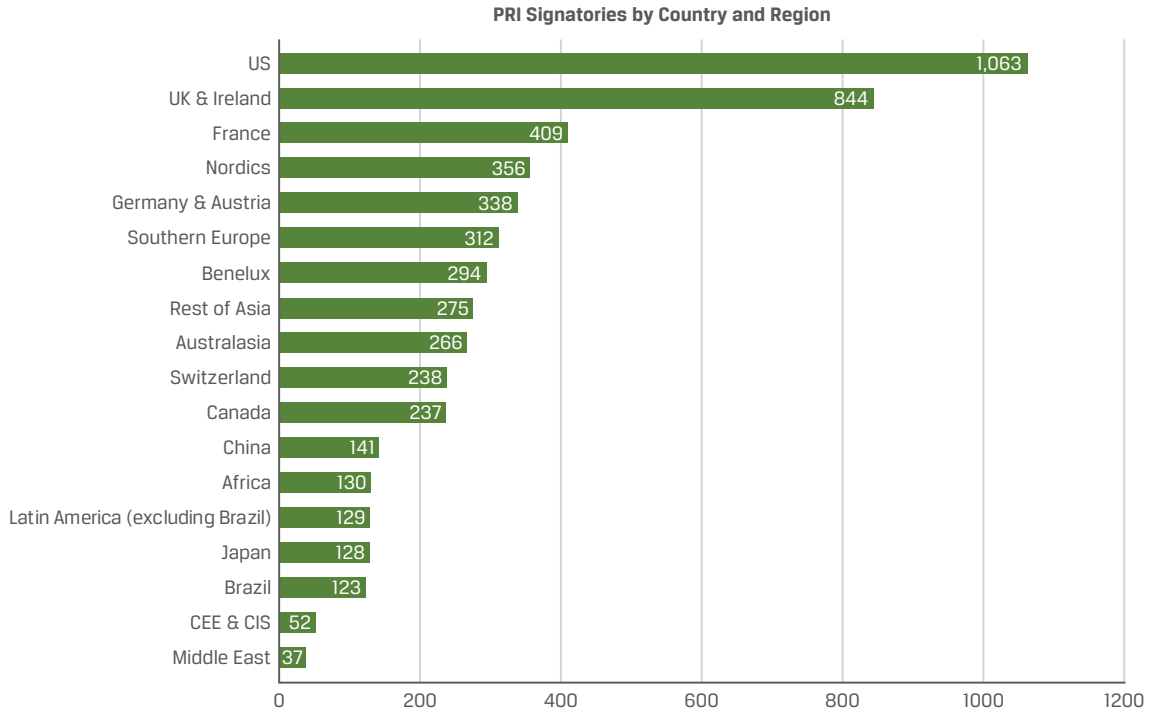
For some in the investment industry, membership in the PRI has become a badge for being a responsible investor. The PRI requires members to report annually on their responsible investment practices, which are assessed by the PRI. The report is made available to the public, while the assessment is private to the member, which can then decide whether and with whom it shares the assessment (e.g., asset managers share the report with an existing or prospective client asset owner). Amid criticism that despite the assessment, there were no minimum requirements to become a member beyond payment of the membership fees, the PRI implemented minimum requirements in 2018. The three requirements are as follows:

1. Investment policy that covers the firm's responsible investment approach, covering more than 50% of assets under management (AUM)
2. Internal or external staff responsibility for implementing responsible investment policy
3. Senior-level commitment and accountability mechanisms for responsible investment implementation

The principles are designed to be compatible with a wide range of investment styles that operate within a traditional fiduciary framework.

Exhibit 6 shows the number of PRI signatories by country and region. More than 5,300 signatories worldwide have signed the Principles for Responsible Investment as of 31 December 2023.

Exhibit 6: PRI Signatories by Country and Region



Source: PRI (2024).

United Nations Framework Convention on Climate Change

Climate change has been a focus of the UN and, more recently, of investors and key policy and regulatory bodies as well. The **United Nations Framework Convention on Climate Change (UNFCCC)**, launched at the Rio de Janeiro Earth Summit in 1992, aims to stabilize GHG concentrations to limit man-made climate change.

The UNFCCC hosts annual Conference of the Parties (COP) meetings, which seek to advance member states' voluntary agreements on limiting climate change.

The following are the two COPs of particular importance:

1. The COP3 meeting in Kyoto in 1997, which created the Kyoto Protocol. This commits industrialized countries to limit and reduce their GHG emissions in accordance with agreed individual targets.
2. The COP21 meeting in Paris in 2015, which led to the Paris Agreement. This commits developed and emerging economies to strengthen their response to the threat of climate change by keeping a global temperature rise this century well below 2°C (3.6°F) above pre-industrial levels.

The Paris Agreement had a significant impact on investors, including government and civil societies' expectations of them. This has led to investor-led initiatives to understand how to become aligned with the Paris Agreement, as well as various organizations engaging with investors on the topic.

UN Sustainable Development Goals

The **Sustainable Development Goals (SDGs)**, agreed to by all UN members in 2015, are the UN's blueprint to address key global challenges, including those related to poverty, inequality, climate change, environmental degradation, peace, and justice. The 17 goals are interconnected and particularly aimed at governments. The Paris Agreement, though negotiated in parallel to the SDGs, became one of the goals.

Despite the goals and subsequent targets not being directly applicable to businesses and investors, the SDGs have become a powerful framework for these groups, with some investors already reporting against their impact on the SDGs and allocating capital to contribute to their achievement. Exhibit 7 provides an illustration of the SDGs.

Exhibit 7: UN Sustainable Development Goals

Note from UN: The content of this publication has not been approved by the United Nations and does not reflect the views of the United Nations or its officials or member states.

Source: United Nations (2020).

Glasgow Financial Alliance for Net Zero (GFANZ)

GFANZ brings together existing and new net-zero finance initiatives across banking, insurance, and asset management in one sector-wide coalition. It provides a forum for its several hundred members in over 50 countries to accelerate the transition to a net-zero global economy. GFANZ was launched in 2021 by Mark Carney (UN Special Envoy for Climate Action and Finance and UK Prime Minister Johnson's Finance Adviser for COP26) and the COP26 Private Finance Hub in partnership with the UNFCCC Climate Action Champions, the Race to Zero campaign, and the COP26 Presidency.

Race to Zero is the UN-backed global campaign rallying non-state actors—including companies, cities, regions, and financial and educational institutions—to take rigorous and immediate action to halve global GHG emissions by 2030. All members are committed to the same overarching goal: reducing GHG emissions across all scopes swiftly and fairly in line with the Paris Agreement, with transparent action plans and robust near-term targets.

Reporting Initiatives

Currently, there is a lack of standardization in sustainability reporting because there are multiple competing frameworks and methodologies. This situation has repercussions for the integrity of ESG data.

ESG-Related Initiatives

Global Reporting Initiative

The **Global Reporting Initiative (GRI)** publishes the GRI Standards, which provide guidance on disclosure across environmental, social, and economic factors for all stakeholders, including investors, whereas the other major frameworks are primarily investor focused. Several thousand organizations worldwide use the GRI framework, which is among the most well known and is the standard for the United Nations Global Compact. The framework covers the most categories of sustainability activity and encourages anecdotes and further prose to help contextualization.

International Sustainability Standards Board (ISSB)

In 2021, the IFRS Foundation Trustees announced the creation of a new standard-setting board—the ISSB. The intention is for the ISSB to deliver a comprehensive global baseline of sustainability-related disclosure standards that provide capital market participants with information about companies' sustainability-related risks and opportunities to help them make informed decisions. The ISSB's proposals build on the work of the Climate Disclosure Standards Board, the International Accounting Standards Board, the Value Reporting Foundation (which houses Integrated Reporting and SASB Standards), the **Task Force on Climate-Related Financial Disclosures (TCFD)**, and the World Economic Forum. The ISSB reporting standards took effect on 1 January 2024. Individual jurisdictions are deciding whether and when to adopt the standards.

Climate-Related Initiatives

TCFD

Following its launch, the Financial Stability Board's Task Force on Climate-related Financial Disclosures helped businesses implement the Paris Agreement's goal of keeping global temperature rise well below 2°C (3.6°F), with an ambition of staying below 1.5°C (2.7°F). In its final report, published in June 2017, the TCFD urged companies to disclose information in the following categories:

Governance—the organization's governance around climate-related risks and opportunities

Strategy—the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Risk management—the processes used by the organization to identify, assess, and manage climate-related risks

Metrics and targets—the metrics and targets used to assess and manage relevant climate-related risks and opportunities

The TCFD recommended that these disclosures be provided as part of mainstream financial filings. For many observers, the emphasis that the TCFD puts on climate change as a board-level issue is its greatest contribution, both in terms of enhancing disclosure and in helping ensure that this crucial issue is actively considered at the top of organizations. It should also drive a substantial advance in disclosures by seeking transparency about realistic scenario planning, particularly around the physical impacts of climate change.

THE TCFD

The TCFD has been sunset as an independent organization, with its monitoring responsibilities transferred to the ISSB. However, the TCFD framework continues to be highly relevant because its recommendations are fully integrated into the new ISSB standards (IFRS S1 and S2). Moreover, many countries have incorporated TCFD principles into their own climate disclosure regulations, ensuring the framework's ongoing impact on global climate-related financial reporting.

Asia Investor Group on Climate Change

The Asia Investor Group on Climate Change (AIGCC) is an initiative to create awareness among Asia's asset owners and financial institutions about the risks and opportunities associated with climate change and low-carbon investing. AIGCC provides capacity for investors to share best practices and to collaborate on investment activity, credit analysis, risk management, engagement, and policy.

Other Initiatives

Global Impact Investing Network

The **Global Impact Investing Network (GIIN)** focuses on reducing barriers to impact investment by building critical infrastructure and developing activities, education, and research that help accelerate the development of a coherent impact investing industry. It does the following:

- facilitates knowledge exchange,
- highlights innovative investment approaches,
- builds the evidence base for impact investing, and
- produces tools and resources.

Of note are its IRIS+ database (of metrics for measuring and managing impact) and Impact Base database (of impact investing funds).

Global Sustainable Investment Alliance

Many countries have a national forum for responsible investment. The **Global Sustainable Investment Alliance (GSIA)** is an international collaboration of these membership-based sustainable investment organizations. It is a forum itself for advancing ESG investing across all regions and asset classes.

Core members of the GSIA include representatives from the regional responsible investment forums of Europe, the United States, Canada, Japan, Australia, and New Zealand. GSIA reports draw on in-depth regional and national reports and work from GSIA members.

International Corporate Governance Network

The **International Corporate Governance Network (ICGN)** is an investor-led organization established in 1995 to promote effective standards of corporate governance and investor stewardship to advance efficient markets. Of note, the ICGN developed two key guidance documents for investors: one on stewardship and another on investment mandates.

CFA Institute Global ESG Disclosure Standards for Investment Products

In 2021, CFA Institute published the Global ESG Disclosure Standards for Investment Products, the first global voluntary standards for disclosing how an investment product considers ESG issues in its objectives, investment process, and stewardship activities.

SUSTAINABLE INVESTING IN NUMBERS 10

☐ **1.7** explain the size and scope of sustainable investing in relation to geography, strategy, investor type, and asset class

Given the many definitions of responsible investment, there is a range of data regarding the responsible investment market. One of the most comprehensive market reviews is conducted by the Global Sustainable Investment Alliance (GSIA). The GSIA conducts research in the five major markets for responsible investment (Europe, the United States, Japan, Canada, and Australia/New Zealand) every two years. A recent edition covering 2022 data (GSIA 2023) showed that sustainable investing assets in the five major markets stood at USD30.3 trillion at the start of 2022, indicating an apparent 14% decline in two years based primarily on a change in the measurement methodology applied in the United States. In all regions other than the United States and Canada, the amount of ESG investing increased, as shown in Exhibit 8. In terms of where sustainable and responsible investing assets are domiciled globally, Europe (46%) and the United States (28%) continue to manage the highest proportions.

Exhibit 8: Growth of ESG Assets by Country and Region (USD billions)

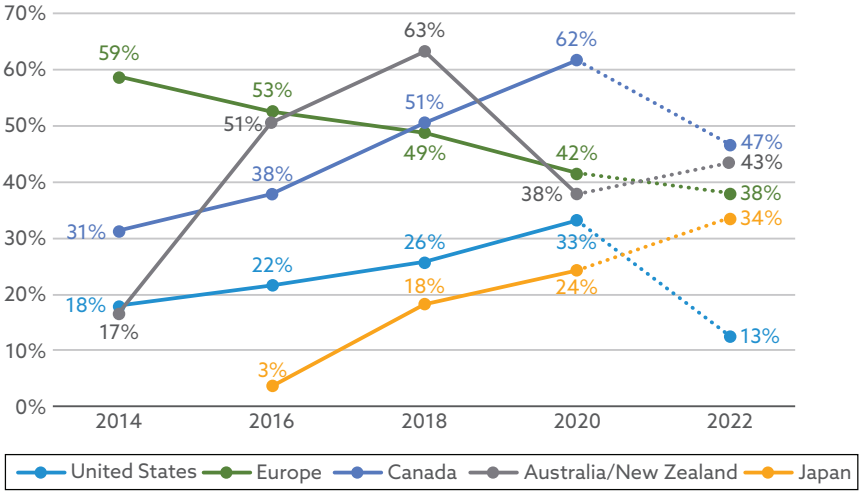
Region	2012	2014	2016	2018	2020	2022
Europe	8,758	10,775	12,040	14,075	12,017	14,054
United States	3,740	6,572	8,723	11,995	17,081	8,400
Japan	—	7	474	2,180	2,974	4,289
Asia excluding Japan	—	45	52	—	—	—
Asia including Japan	40	—	—	—	—	—
Canada	589	729	1,086	1,699	2,423	2,358
Australia/New Zealand	134	148	516	734	906	1,220
Total	13,261	18,276	22,891	30,683	35,301	30,321

Notes: Asia excluding Japan 2014 assets are represented in US dollars based on the exchange rates at year-end 2013. All other 2014 assets, as well as all 2016 assets, were converted to US dollars based on exchange rates at year-end 2015. All 2018 assets were converted to US dollars at the exchange rates

at the time of reporting. Assets for 2020 were reported as of 31 December 2019 for all regions except Japan, which reported as of 31 March 2020.
Sources: GSIA (2023, 2021, 2019, 2013).

Responsible investment directs a sizable share of managed assets in each region, as can be seen in Exhibit 9. This share of assets ranges from 13% in the United States to 47% in Canada. Clearly, sustainable investing constitutes a major force across global financial markets. However, the proportion of sustainable investing relative to total managed assets declined in the majority of regions, with the United States and Canada leading those declines due to changes in measurement methodologies. The exceptions to this recent trend are Europe, Australia/New Zealand, and Japan, where sustainable investing assets have increased relative to total managed assets since 2022.

Exhibit 9: Proportion of Sustainable Investing Relative to Total Managed Assets by Country and Region, 2014–2022



Note: Multiple countries/regions have implemented significant methodological changes in 2020 or 2022, making comparisons with previous reports particularly difficult.

Source: GSIA (2023).

As of 2022, the largest sustainable investment strategy per GSIA data (which excludes Europe, for which data were unavailable as of the preparation of the 2023 GSIA report) was corporate engagement and shareholder action, as shown in Exhibit 10, with a combined USD8.0 trillion in assets under management and representing the predominant strategy in both Japan (USD3.7 trillion) and the United States (USD2.9 trillion). This strategy is followed by ESG integration, with a combined USD5.6 trillion in AUM. Negative/exclusionary screening is the third-largest strategy among the four regions, with Japan reporting the highest AUM under this strategy (USD2.1 trillion). Sustainability-themed investing, norms-based screening, ESG integration, and corporate engagement and shareholder action command the most AUM in Japan.