



# CHAPTER 1

## INTRODUCTION TO ESG INVESTING

There was a time when environmental, social and governance (ESG) issues were the niche concern of a select group of ethical or socially responsible investors. That time is long gone.

The consideration of ESG factors is becoming an integral part of investment management. Asset owners and investment managers are developing ways to incorporate ESG criteria into investment analysis and decision-making processes. The emergence of responsible investment proponents, such as the **United Nations Principles for Responsible Investment (PRI)**, has encouraged a fundamental change in investment practices whereby investors explicitly employ ESG factor analysis to enhance returns and better manage risks. Societal and client pressure – and the growing evidence of the direct financial benefits of incorporating ESG analysis – has led integration to become more mainstream.

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

ESG investing sits within a broader context of sustainability; this chapter also highlights a number of key initiatives in the business and investment communities that seek to assist all parties to navigate the associated challenges.

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# CHAPTER 1

## INTRODUCTION TO ESG INVESTING

### 1 WHAT IS ESG INVESTING?

|       |   |
|-------|---|
| 1.1.1 | Define ESG.   |
| 1.1.2 | Define the following sustainability-based concepts in terms of their strengths and limitations: corporate social responsibility; triple bottom line (TBL) accounting. |

**ESG investing** is an approach to managing assets where investors explicitly incorporate **environmental, social and governance (ESG)** factors in their investment decisions with the long-term return of an investment portfolio in mind.

In other words, ESG investing aims to correctly identify, evaluate and price social, environmental and economic risks and opportunities.

**Table 1.1: ESG FACTORS DEFINED**

|            | ENVIRONMENTAL FACTORS   | SOCIAL FACTORS  | GOVERNANCE FACTORS  |
|------------|---|---|---|
| Definition | Factors pertaining to the natural world. These include the use of, and interaction with, renewable and non-renewable resources (e.g. water, minerals, ecosystems and biodiversity). | Factors that affect the lives of humans. The category includes the management of human capital, non-human animals, local communities and clients. | Factors that involve issues tied to countries and/or jurisdictions, or are common practice in an industry; as well as the interest of broader stakeholder groups. |

### The definition and scope of ESG

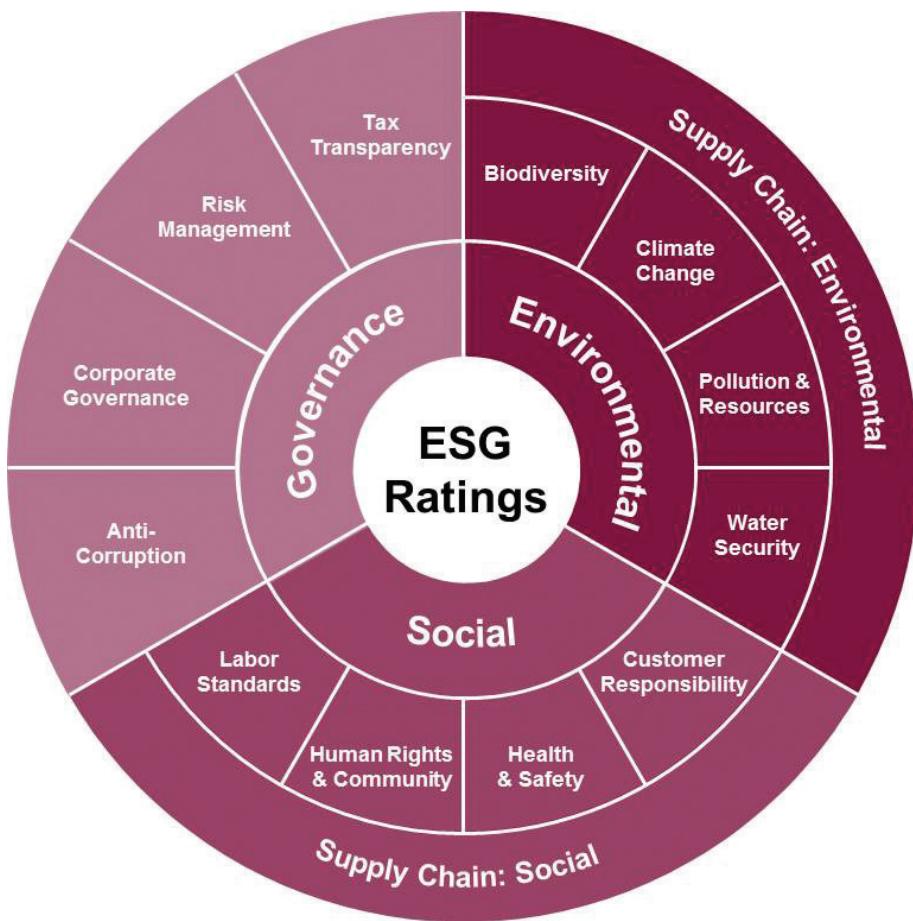
There is currently no universal standard for assigning E, S and G issues, and they may overlap with one another. The assignment of these issues depends on the specific properties of investors, businesses and their stakeholders. **Stakeholders** are members of groups without whose support an organisation would cease to exist,<sup>1</sup> as well as communities impacted by companies and regulators.

Examples of the definition and scope of ESG issues can be illustrated by the two widely-referenced organisations in **Table 1.2** and **Figure 1.1**.

**Table 1.2: EXAMPLES OF ESG ISSUES**

| ENVIRONMENTAL  | SOCIAL  | GOVERNANCE   |
|--|---|--|
| <ul style="list-style-type: none"> <li>• Climate change.</li> <li>• Resource depletion.</li> <li>• Waste.</li> <li>• Pollution.</li> <li>• Deforestation.</li> </ul> | <ul style="list-style-type: none"> <li>• Human rights.</li> <li>• Modern slavery.</li> <li>• Child labour.</li> <li>• Working conditions.</li> <li>• Employee relations.</li> </ul> | <ul style="list-style-type: none"> <li>• Bribery and corruption.</li> <li>• Executive pay.</li> <li>• Board diversity and structure.</li> <li>• Trade association, lobbying and donations.</li> <li>• Tax strategy.</li> </ul> |

Source: PRI.<sup>2</sup>

**Figure 1.1: YOUR GUIDE TO ESG REPORTING**

Source: FTSE Russell.<sup>3</sup>

ESG investing also recognises that the generation of long-term sustainable returns is dependent on stable, well-functioning and well-governed social, environmental and economic systems. This is the so-called **triple bottom line (TBL)** coined by business writer John Elkington. However, since its inception, the concept of TBL evolved from a holistic approach to sustainability, and further into an accounting tool to narrowly manage trade-offs. Because of this, Elkington ‘recalled’ the term in a 2018 Harvard Business Review article.<sup>4</sup>

Ultimately, ESG investing recognises the dynamic inter-relationship between social, environmental and governance issues and investment. It acknowledges that:

- ▶ social and environmental as well as 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 negative impact on society and the environment.

## Corporate social responsibility

The concept of ESG investing is closely related to the concept of investees’ **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.<sup>5</sup> Related to this, **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 this may indeed have a positive impact on communities, modern understanding of CSR recognises that a principles-based behaviour approach can play a strategic role in a firm’s business model. This led to the theory of TBL.

The TBL accounting theory expands the traditional accounting framework focused only on profit to include two other performance areas: the social and environmental impacts of a company. These three bottom lines are often referred to as the **three Ps**:

1. people;
2. planet; and
3. profit.

While the term and concept are useful to know, including for historical reasons, they have been replaced in the industry with a broader framework of sustainability that is not restricted to accounting.

Effective management of the company's sustainability can:

- ▶ reaffirm the company's license to operate in the eyes of governments and civil society;
- ▶ increase efficiency;
- ▶ 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 recognises these benefits and aims to consider them in the context of security/asset selection and portfolio construction.

There are many organisations 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, portfolio construction and engaging with companies.

## 2. TYPES OF RESPONSIBLE INVESTMENT

|       |  |
|-------|--|
| 1.1.3 | Define different approaches to ESG investing, their characteristics and the role that ESG plays in each of them: responsible investment; socially responsible investment (SRI); sustainable investment; best-in-class investment; ethical/values-driven investment; thematic investment; impact investment; green investment; social investment; shareholder engagement. |
|-------|--|

ESG investing is part of a group of approaches collectively referred to as **responsible investment**. While ESG investing is concerned with how ESG issues can impact the long-term return of assets and securities, other responsible investment approaches can also take into account non-financial value creation and reflects stakeholder values in an investment strategy. While there is no standard set of criteria for identifying responsible investment, the main investment approaches are presented in this section to demonstrate the wide spectrum of different types of responsible investment.

Responsible investment is an umbrella term for the various ways in which investors can consider ESG within security selection and portfolio construction. As such, it may combine financial with non-financial outcomes and complements traditional financial analysis and portfolio construction techniques.

All forms of responsible investment, except for engagement, are ultimately related to portfolio construction (in other words, which securities a fund holds). Engagement, both by equity owners and bond holders, concerns whether and how an investor tries to encourage and influence an issuer's behaviour on ESG matters. There is no standard classification in the industry; the types of responsible investment overlap and evolve over time.

**Figure 1.2** illustrates some of the conceptual differences between these approaches and how they range from strictly 'finance-only' investment, with no consideration of ESG factors, to the other end of the spectrum, where

the investor may be prepared to accept returns below market in exchange for the high positive impact the projects and companies in the portfolio deliver. As investors move towards the right-hand side of the spectrum, they are increasingly interested in aligning their capital with ESG-related investment opportunities, in order to capture associated financial returns, and/or to have a positive impact by financing solutions to societal challenges.

**Figure 1.2 A SPECTRUM OF CAPITAL**

| PHILANTHROPY              |   | SOCIAL IMPACT INVESTING  |   | SUSTAINABLE AND RESPONSIBLE INVESTING   | CONVENTIONAL FINANCIAL INVESTING   |
|---------------------------|---|--|---|---|--|
|                           |   | Social investing   | Impact investment   | ESG investing   | Fully commercial investment  |
|                           |   |  |   |   |  |
| <b>Focus</b>              | Address societal challenges through the provision of grants | Address societal challenges with venture investment approaches | Investment with a focus on social and/or environmental outcome and some expected financial return | Investment with an intent to have a measurable environmental and/or social return | Enhance long-term value by using ESG factors to mitigate risks and identify growth opportunities |
|                           |   |  | <b>Use of ESG metrics and methodologies</b>   |   |  |
| <b>Return expectation</b> | Social return only  | Social return focused  | Social return and sub-market financial return   | Social return and adequate financial market rate                                  | Financial market return focused on long-term value   |
|                           | Social impact   | ↔  | Social and financial  | ↔   | Financial returns  |

Source: Stylised adaptation from Organisation for Economic Co-operation and Development (OECD),<sup>6</sup> based on earlier versions from various organisations. For illustrative purposes only.

## Responsible investment

Responsible investment is a strategy and practice to incorporate ESG factors into investment decisions and active ownership.<sup>2</sup> It is sometimes used as an umbrella term for some (or all) of the investment approaches mentioned in the following sub-sections.

At a minimum, responsible investment consists of mitigating risky ESG practices in order to protect value. To this end, it considers both how ESG might influence the risk-adjusted return of an asset and the stability of an economy, as well as how investment in, and engagement with, assets and investees can impact society and the environment.

### 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** 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, though, that not all best-in-class funds are considered to be ‘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 similar profile to the parent market cap index while targeting companies with higher ESG rating. The tracking error for **MSCI World SRI**, which is designed to represent the performance of companies with high ESG rating and employs a best-in-class selection approach to target the top 25% companies in each sector, is only 1.79% (see **Table 1.3**).

**Table 1.3: CHARACTERISTICS OF AN SRI INDEX UTILISING A BEST-IN-CLASS APPROACH (NOT TESTED, FOR ILLUSTRATION ONLY)**

| SECTOR                 | PARENT INDEX (%) | SRI INDEX (%) | REGION | PARENT INDEX (%) | SRI INDEX (%) | ESG RATING | PARENT INDEX (%) | SRI INDEX (%) |
|------------------------|------------------|---------------|--------|------------------|---------------|------------|------------------|---------------|
| Information technology | 18.1             | 19.6          | USA    | 63.8             | 60.7          | Leader     | 24               | 67            |
| Financials             | 15.4             | 14.6          | Japan  | 8.1              | 7.5           | Average    | 65               | 33            |
| Healthcare             | 12.9             | 13.4          | UK     | 5.3              | –             | Laggard    | 10               | 0             |
| Industrials            | 11               | 11.1          | Canada | 3.4              | 3.8           |            |                  |               |
| Consumer discretionary | 10.3             | 10.9          | France | 3.7              | 4.3           |            |                  |               |
| Consumer staples       | 8.3              | 10.0          | Other  | 15.7             | 19.2          |            |                  |               |
| Communication services | 8.5              | 4.5           |        |                  |               |            |                  |               |
| Materials              | 4.2              | 4.9           |        |                  |               |            |                  |               |
| Energy                 | 4.5              | 4.4           |        |                  |               |            |                  |               |
| Utilities              | 3.6              | 3.2           |        |                  |               |            |                  |               |
| Real estate            | 3.3              | 3.6           |        |                  |               |            |                  |               |

Source: MSCI.<sup>7</sup>

## Sustainable investment

**Sustainable investment** refers to the selection of assets that contribute in some way to a sustainable economy, i.e. an asset that minimises natural and social resource depletion.

- ▶ It is a broad term, with a broad 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 companies with positive impact or companies that will benefit from sustainable macro-trends.

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

## Thematic investment

**Thematic investment** refers to selecting companies that fall under a sustainability-related theme, such as clean-tech, sustainable agriculture, healthcare or climate change mitigation.

Thematic funds pick companies within various sectors that are relevant to the theme. A smart city fund, for example, might invest in companies offering activities or products related to electric vehicles, public transportation, smart grid technology, renewable energy and/or green buildings.

Bear in mind, though, that not all thematic funds are considered to be responsible investments or best-in-class. Becoming one not only depends 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 sub-category 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 Chapter 3.

## 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. 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:

- ▶ micro-finance and micro-insurance;
- ▶ access to basic telecommunication;
- ▶ access to improved nutrition and healthcare; and
- ▶ access to (clean) energy.

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

**Impact investing** refers to investments made with the specific intent of generating positive, measurable social and/or environmental impact alongside a financial return (which differentiates it from philanthropy). These are usually associated with direct investments, such as in private debt, private equity and real estate. However, in recent years, impact investing has increasingly mainstreamed into the public markets.

Impact investments can be made in both emerging and developed markets. They provide capital to address the world's most pressing challenges by investing in projects and companies that may, for example:

- ▶ offer access to basic services, including housing, healthcare and education;
- ▶ promote availability of low-carbon energy;
- ▶ support minority-owned businesses; and
- ▶ conserve natural resources.

Measurement and tracking of the agreed-upon impact generally lies at the heart of the investment proposition.

Impact investors have diverse financial return expectations. Some intentionally invest for 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 US\$502 billion (£361bn); its 2019 annual survey indicated that 66% of investors in impact investing pursue competitive, market-rate returns.<sup>8</sup>

## Ethical (or value-driven) and faith-based investment

**Ethical** (also known as value-driven) **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 and voluntary agreements. Typical exclusions include:

- ▶ tobacco;
- ▶ alcohol;
- ▶ pornography;
- ▶ weapons;
- ▶ nuclear power; and
- ▶ significant breach of agreements, such as the **Universal Declaration of Human Rights** or the International Labour Organization (ILO)'s **Declaration on Fundamental Principles and Rights at Work**.

From religious individuals to large religious organisations, faith-based investors have a history of shareholder activism to improve 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.

In the following sections, we cover a few examples of faith-based negative screening.

### Christian

Investors wishing to put their money to work in a manner consistent with Christian values seek to avoid investing in firms that:

- ▶ facilitate abortion, contraceptives or embryonic stem-cell research; or
- ▶ are involved in the production and sales of weapons.

They often favour firms that support human rights, environmental responsibility and fair employment practices via the support of labour unions.

### Shariah

Investors seeking to follow Islamic religious principles cannot:

- ▶ invest in firms that profit from alcohol, pornography or gambling;
- ▶ invest in companies that carry heavy debt loans (and therefore pay interest);
- ▶ own investments that pay interest;
- ▶ liaise with firms that earn a substantial part of their revenue from interest; and
- ▶ invest in pork-related businesses.

**Table 1.4: NEGATIVE SCREENING STRATEGIES**

| NEGATIVE SCREENING                | CHRISTIAN FUNDS | ISLAMIC FUNDS | SRI FUNDS |
|-----------------------------------|-----------------|---------------|-----------|
| Alcohol                           | ✓               | ✓             | ✓         |
| Gambling                          | ✓               | ✓             | ✓         |
| Tobacco                           | ✓               |               | ✓         |
| Pornography                       | ✓               | ✓             |           |
| Pork products                     |                 | ✓             |           |
| Interest-based financial services |                 | ✓             |           |
| High leverage companies           |                 | ✓             |           |
| Anti-family entertainment         | ✓               |               |           |
| Marriage lifestyle                | ✓               |               |           |
| Abortion                          | ✓               |               |           |
| Human rights                      | ✓               |               | ✓         |
| Workers' rights                   | ✓               |               | ✓         |
| Bioethics                         | ✓               |               |           |
| Weapons                           | ✓               | ✓             | ✓         |

Source: Adapted from Inspire Investing.<sup>9</sup>

### Shareholder engagement

**Shareholder engagement** reflects active ownership by investors in which the investor seeks to influence a corporation's decisions on matters of ESG, either through dialogue with corporate officers or votes at a shareholder assembly (in the case of equity). It is seen as complementary to the before-mentioned approaches to responsible investment as a way to encouraging companies to act more responsibly. 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 Chapter 6.

### 3 WHY INTEGRATE ESG?

|       |  |
|-------|--|
| 1.1.4 | Describe the benefits to organisations of adhering to good practice in ESG, and the linkages between these practices and financial system stability: reduce costs and increase efficiency; reduce risk of fines; avoid costs from repercussions of investee's externalities; and improve ability to benefit from sustainability megatrends.  |
| 1.1.5 | Describe the challenges to organisations of adhering to good practice in ESG including: investment mandate interpretation and screening application; isolating the impact of ESG; strategy definition: risk management versus value creation/materiality; portfolio construction and management tools; disclosure of internal standards and practices; data quality, variability and interpretation; identifying material ESG factors. |
| 1.1.6 | Explain the materiality of ESG issues in terms of their key characteristics, risks and impact that they can cause.   |
| 1.1.7 | Explain different ESG megatrends, their systemic nature and potential impact on companies and company practices.   |

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. Some of the main reasons for integrating ESG are detailed in this section. It starts with an overview of some important perspectives in the debate on integrating ESG, financial materiality of integration and challenges in integrating ESG, and finishes with integration and financial performance.

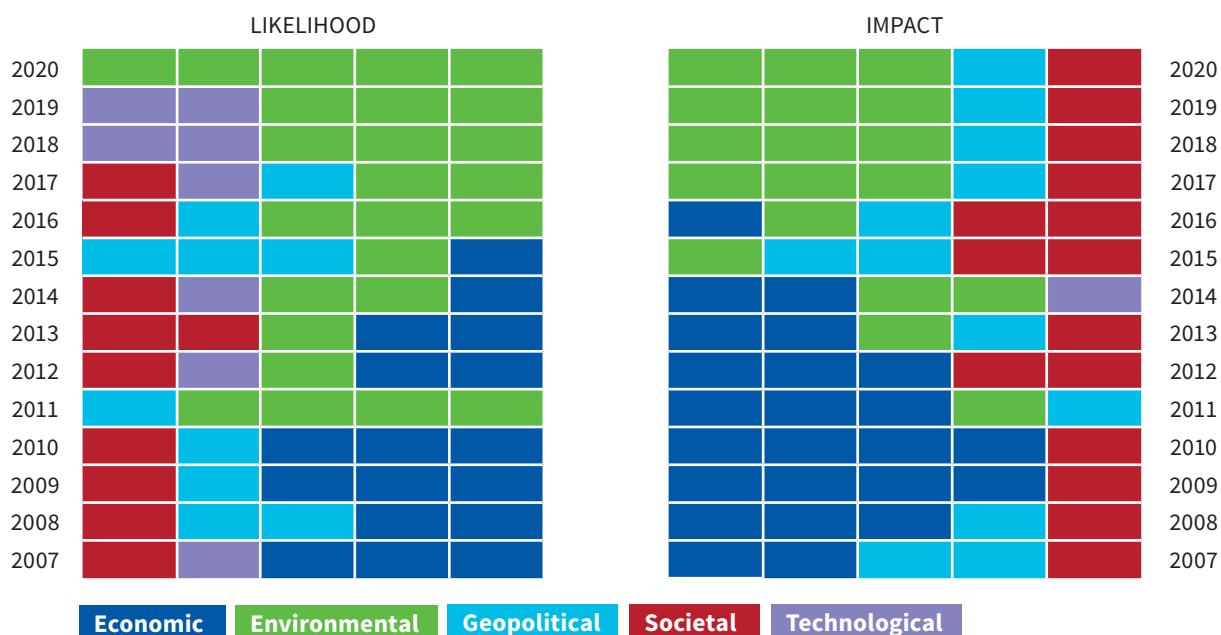
#### A. Macro-level debate on integrating ESG

The following section describes various perspectives from which, over the years, the debate on the purpose and value of integrating ESG has been held. These include perspectives of risk, fiduciary duty, economics, impact and ethics, client demand and regulation.

#### Risk perspective

**Figure 1.3: TOP GLOBAL RISKS**

From economic to environmental. Climate now tops the risks agenda, while the economy has disappeared from the top five.



Source: World Economic Forum.<sup>10</sup>

Evidence of the risks these megatrends carry is illustrated by the World Economic Forum's 2020 *Global Risk Report*, which for many years now has highlighted the growing likelihood and impact of extreme weather events and the failure to address climate change.<sup>10</sup> Note that Figure 1.3 highlights how risks related to the environment have been significantly increasing in importance in the past years. Environmental risks are high on the radar.

In 2015, Mark Carney, then Governor of the Bank of England and chairman of the Financial Stability Board, the international body set up by the G20 in 2009 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.

*"Climate change is the tragedy of the horizon. We don't need an army of actuaries to tell us that the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors – imposing a cost on future generations that the current generation has no direct incentive to fix... The horizon for monetary policy extends out to two to three years. For financial stability it is a bit longer, but typically only to the outer boundaries of the credit cycle – about a decade. In other words, once climate change becomes a defining issue for financial stability, it may already be too late."*<sup>11</sup>

In his annual letter to chief executives in 2020,<sup>12</sup> Larry Fink, the CEO of BlackRock, stated that the investment firm would step up its consideration of climate change in its investment considerations because it was reshaping the world's financial system. Concretely, in a parallel letter to its clients BlackRock committed to divesting from companies that generate more than 25% of their revenues from coal production from its actively managed portfolios, and required reporting from investee companies on their climate-related risks and plans for operating under the goals of the *Paris Agreement* to limit global warming to less than 2°C (3.6°F).<sup>13</sup> As the largest asset manager in the world, BlackRock's decision could represent a new paradigm in the investment industry in which the integration of material ESG factors is mainstream.

Prudent investors are engaging with companies to ask them to disclose not only what they are emitting today, but 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 over a longer timeframe than the usual quarterly or one-year time horizon, with the objective of understanding emerging risks and new demands so that they can convert these into above-market performance.

### Case studies

#### Water depletion

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 used inefficiently, but many companies are now experiencing the higher costs of using the resource, as well as suffering increasing frequency of extreme weather events.

**Pacific Gas and Electric Company (PG&E)**, a listed American utility, was driven to bankruptcy proceedings due to wildfire liabilities.<sup>14</sup> 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.

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## Case studies

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**Coca-Cola Company** faced a water shortage in India that forced it to shut down one of its plants in 2004. The company has since invested US\$2bn (£1.4bn) to reduce water use and improve water quality in the communities in which it operates. **SABMiller**, a multinational brewing and beverage company, has also invested heavily in water conservation, including US\$6m (£4.3bn) to improve equipment at a facility in Tanzania affected by deteriorating water quality.

In extreme cases, assets can become stranded, in other words, obsolete due to regulatory, environmental or market constraints. In Peru, for example, social conflict related to disruptions to water supplies resulted in the indefinite suspension of US\$21.5bn (£15.5bn) in mining projects since 2010.

There are many ways in which ESG factors can impact a company's bottom line. Nonetheless, identifying those issues which are genuinely material to a sector and company is one of the most active challenges within ESG investment. Each company is unique and faces its own challenges related to its culture, particular business model, supply chain structure, etc. So not only are there substantial differences between sectors, there are also differences between what is most material to individual companies within a single sector.

→ For further details on how to assess materiality and what tools are available, refer to Chapters 7 and 8.

## Fiduciary duty perspective

For many years, fiduciary duty was considered a barrier to considering ESG within investments. In the modern investment system, financial institutions or individuals, known as fiduciaries, manage money or other assets on behalf of beneficiaries and investors. Fiduciary duties exist to ensure that those who manage other people's money act in their beneficiaries' interests, rather than serving their own.

Beneficiaries and investors rely on these fiduciaries to act in their best interests, which are typically defined exclusively in financial terms. Due to the misconception that ESG factors are not financially material, some investors have used 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 the 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 report 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."<sup>15</sup> 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, increasing academic studies and work undertaken over the last decade by progressive investment associations, including the UNEP FI and **Principles for Responsible Investment (PRI)** on the topic have clarified that financially material ESG factors must be incorporated into investment decision-making. The 2005 UNEP FI report<sup>15</sup> and the more recent report published by the PRI in 2019<sup>16</sup> 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 2019 PRI report concludes that modern fiduciary duties require investors to:

- ▶ 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.

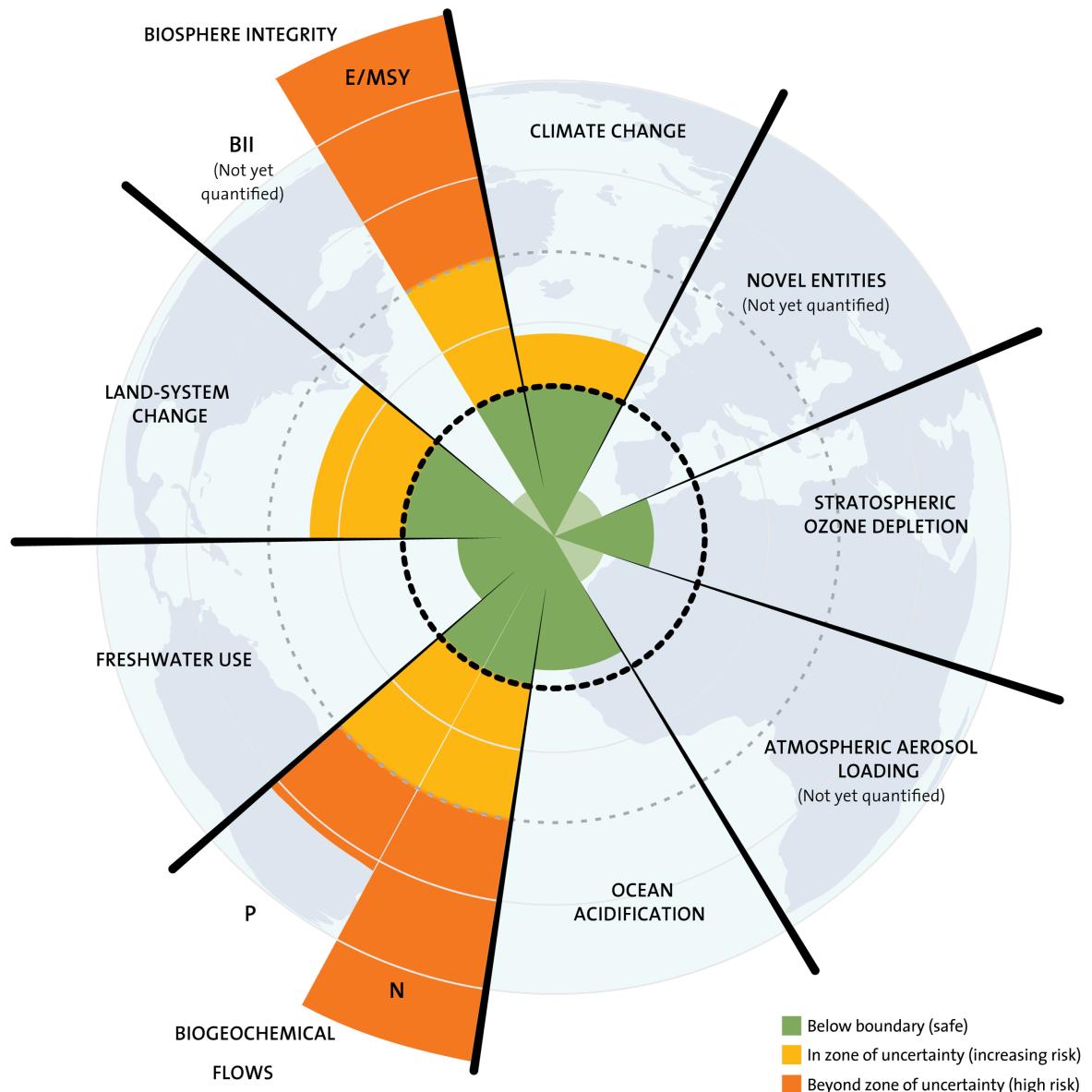
- ▶ Be active owners, encouraging high standards of ESG performance in the companies or other entities in which they are invested.
  - ▶ Support the stability and resilience of the financial system.
  - ▶ Disclose their investment approach in a clear and understandable manner, including how preferences are incorporated into the scheme's investment approach.
- *For further details on fiduciary duty, see Chapter 2.*

## Economics perspective

Another reason for implementing ESG stems from the recognition that negative megatrends will, over time, create drag on economic prosperity as basic inputs (such as water, energy and land) become increasingly scarce and expensive, and 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, the economies will be weakened, exposed to sustainability-led bubbles and spikes. While this may not have a significant impact on asset managers whose performance is judged by their ability to provide alpha, it may considerably impact asset owners, who depend on total returns in the long-term to pay out pensions and their liabilities.

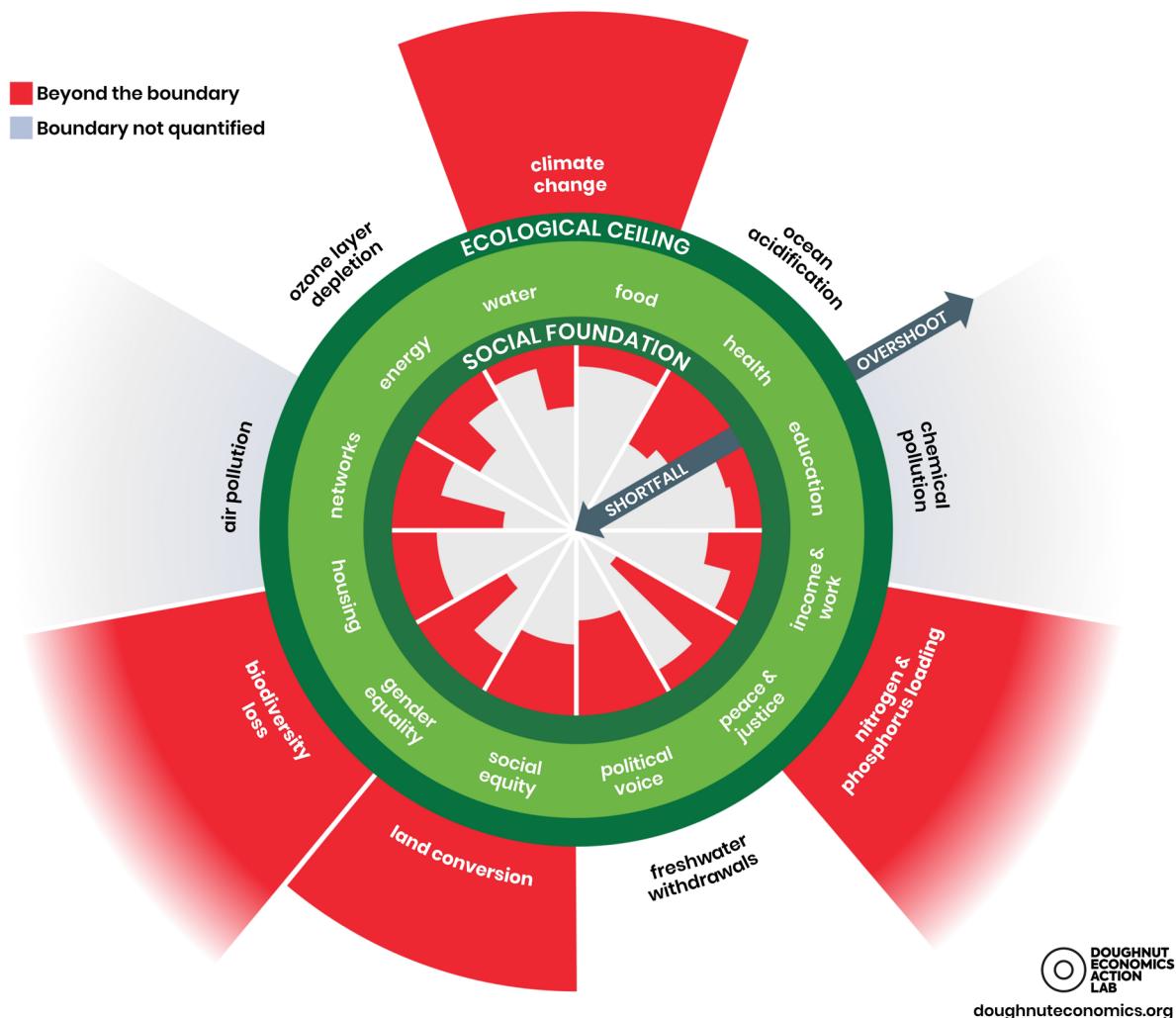
The **Financial Stability Board (FSB)**, an international body that monitors and makes recommendations about the global financial system, has already identified climate change as a potential systemic risk. This may also be the case for other issues. The economic implications of these environmental issues (such as climate change, resource scarcity, biodiversity loss and deforestation) and social challenges (such as poverty, income inequality and human rights) are increasingly being recognised.

In fact, the **Stockholm Resilience Centre** has identified nine ‘planetary boundaries’ within which humanity can continue to develop and thrive for generations to come,<sup>17</sup> but in 2015 found that four – climate change, loss of biosphere integrity, land-system change and altered biogeochemical cycles (phosphorus and nitrogen) – have been crossed. Two of these – climate change and biosphere integrity – are deemed ‘core boundaries’, for which significant alteration would ‘drive the Earth System into a new state’.

**Figure 1.4: STOCKHOLM RESILIENCE CENTRE'S NINE PLANETARY BOUNDARIES**

Source: J. Krantz/Azote based on Steffen et al (2015).<sup>18</sup>

A popular framework that builds on that of ‘planetary boundaries’ is the **doughnut economics**. Figure 1.5 shows this visual framework. It is a diagram developed by economist Kate Raworth that combines planetary boundaries with the complementary concept of social boundaries. The name comes from the shape of the diagram, a disc with a hole.

**Figure 1.5: DOUGHNUT ECONOMICS**

Source: K. Raworth (2017).<sup>19</sup>

Social issues are also having a significant impact in the wider economy. Income inequality in OECD countries is at its highest level for 30 years, and Oxfam estimates that 26 of the richest billionaires own as many assets as the 3.8bn people who make up the poorest half of the planet's population.<sup>20</sup> This significant level of income inequality is creating a number of social stresses, including security-related issues.<sup>21</sup> In 2014, the world spent 9.1% of its gross domestic product (GDP) on costs associated with violence. Undernutrition is also still common in developing economies and has severe economic consequences: the economic cost of undernutrition to Ethiopia alone is just under US\$70m (£50m) a year. While the number of undernourished people in the world has declined sharply, there are still one-in-eight suffering from chronic malnutrition.

Large institutional investors have holdings, which, due to their size, are highly diversified across all sectors, asset classes and regions. As a result, the portfolios of **universal owners**, as they are known, are sufficiently representative of global capital markets that they effectively hold a slice of the overall market. 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 and environment, and in 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 Sustainable Development Goals (SDGs)**,<sup>22</sup> an agreed framework for all UN member state governments to work towards in aligning with global priorities (such as the transition to a low-carbon economy and the elimination of human rights abuses in corporate supply chains), was welcomed by the investment community.

→ For further details on the SDGs, see Section 3 of this chapter.

## Impact and ethics perspective

Yet another reason for practising responsible investment is some investors' belief that investments can, or should, serve society alongside providing financial return. This 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. 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 (negative screening) from controversial sectors (such as arms, gambling, alcohol, tobacco and pornography).

## Client demand perspective

Clients and pension fund beneficiaries (defined in more detail in **Chapter 2**) are increasingly calling for greater transparency about how and where their money is invested. This is driven by:

- ▶ growing awareness that 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 (as defined in **Chapter 2**) are instrumental for responsible investment because they make the decisions about how their assets, representing on average around 34% of GDP in OECD countries, are managed.<sup>23</sup> The number of them that are integrating ESG continues to grow. In 2019/20, 89 further asset owners signed up to the PRI with debut signings made in Columbia, Singapore, Portugal, mainland China and Uruguay. In 2020, a group of asset owners launched the Net-Zero Asset Owner Alliance under the auspices of the UN, committing to transition their investment portfolios to net-zero greenhouse gas (GHG) emissions by 2050.

→ Further details on the demand for, and supply of, responsible investment, as well as the market more broadly, are discussed in Chapter 2.

## Regulatory perspective

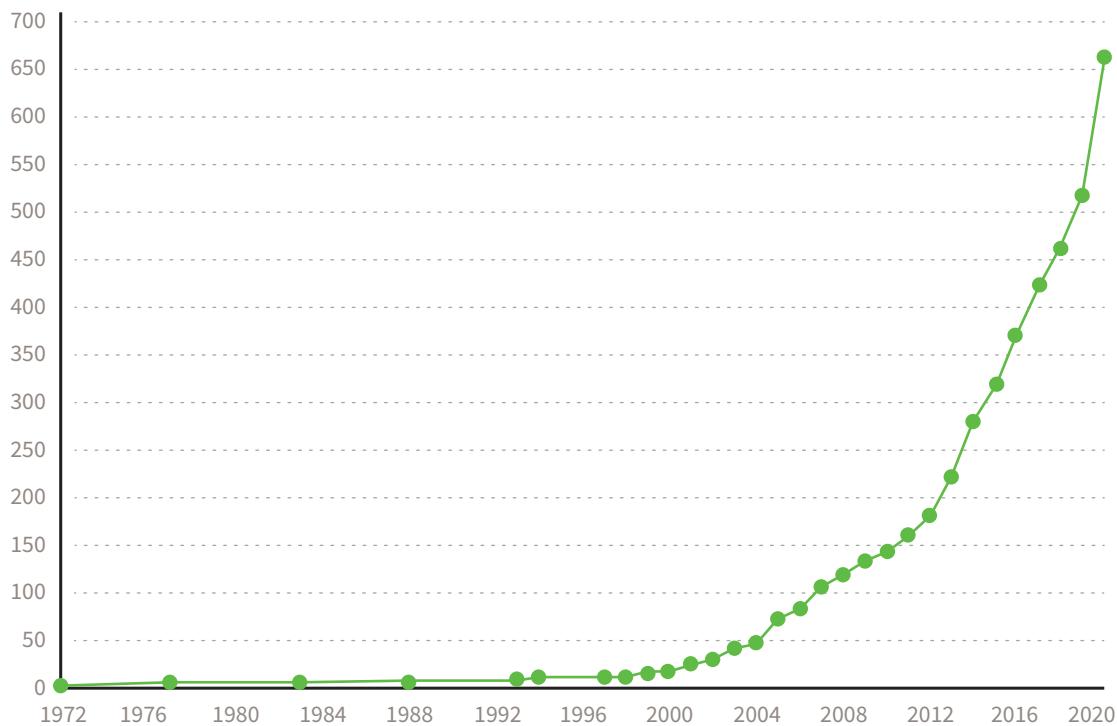
Finally, regardless of their views or beliefs, some investors are being required to increasingly consider ESG matters. Since the mid-1990s, responsible investment regulation has increased significantly, with a particular surge in policy interventions since the 2008 financial crisis. Regulatory change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

Across the world's 50 largest economies, the PRI found that 48 have some form of policy designed to help investors consider sustainability risks, opportunities or outcomes. In fact, across these economies, there have been over 730 hard and soft law policy revisions, which encourage or require investors to consider long-term

value drivers, including ESG factors. Hard law are actual binding legal instruments and laws. Soft law are quasi-legal instruments which do not have legally binding force, or whose binding force is somewhat weaker than the binding force of traditional law. Soft law over time may become hard law.

- For further details on how regulation has played a key role in increased demand for responsible investment, refer to Chapter 2.

**Figure 1.6: CUMULATIVE NUMBER OF POLICY INTERVENTIONS PER YEAR**



Source: PRI.<sup>24</sup>

## B. Financial materiality of integrating ESG

One of the main reasons for ESG integration is recognising that ESG investing can reduce risk and enhance returns, as it considers additional risks and injects new and forward-looking insights into the investment process. ESG integration may therefore lead to:

1. reduced cost and increased efficiency;
2. reduced risk of fines and state intervention;
3. reduced negative externalities; and
4. improved ability to benefit from sustainability megatrends.

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

### 1. 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 like water and energy, as well as from minimising waste.

Research conducted by McKinsey found that resource efficiency can affect operating profits by as much as 60%, and that more broadly, resource efficiency of companies across various sectors is significantly correlated with the companies' financial performance.<sup>25</sup> A study analysing data from the global climate database provided by CDP (formerly Climate Disclosure Project) estimated that companies experience an average internal rate of return of 27% to 80% on their low-carbon investments.<sup>26</sup>

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% to 3.8% higher stock returns a year than their peers over a greater than 25-year horizon.<sup>27</sup>

### Case studies

## Savings from efficiency measures

### Unilever

Since 2008, Unilever avoided over €733 million (£639m) of energy costs, saved over €122m (£106m) by improving water efficiency across their factories, and saved around €223m (£106m) by using less material and producing less waste. It achieved these results via its eco-efficiency programme.<sup>28</sup>

### The Dow Chemical Company

Between 1994 and 2010, The Dow Chemical Company invested nearly US\$2bn (£1.4bn) in improving resource efficiency, and saved US\$9.8bn (£7bn) from reduced energy and wastewater consumption in manufacturing.<sup>29</sup> The company's long-established focus on resource efficiency cost reductions enabled it to achieve savings of US\$31m (£22.3m) on its raw materials alone (compared to a net income of approximately US\$4bn (£2.9bn)) in 2018.

### General Electric

In 2013, General Electric reduced its GHG emissions by 32% and water use by 45% compared to the 2004 and 2006 baselines, respectively. This resulted in savings of US\$300m (£215.7m).<sup>30</sup>

### Aeon Group

Between 2015 and 2018, the Japanese retail group Aeon achieved a decrease of 9.7% in food waste, which was equal to 32.14 kg / ¥1 million (£6,826) in net sales.<sup>31</sup>

### Walmart

Within ten years, Walmart improved the fuel efficiency of its fleet by approximately 87% through better routing, cargo loading and driver training. In 2014 alone, these improvements resulted in avoiding 15,000 metric tons of CO<sub>2</sub> emissions and savings of nearly US\$11m (£7.9m).<sup>29</sup>

### Nike

Almost half (40%) of Nike's footwear manufacturing waste is generated by cutting scraps from materials such as textiles, leather, synthetic leather and foams. In 2018, modern cutting equipment, which can achieve smaller gaps between cut parts than traditional die-cutting can, were deployed to various factories. The estimated value of savings was US\$12m (£8.6m) (compared to their net income of US\$1.1bn (£0.8bn)) and nearly 1.2m kilograms of material for that fiscal year.<sup>32</sup>

## 2. 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. For example, a 2019 UN Environment Programme report found that there has been a 38-fold increase in environmental laws put in place since 1972.<sup>33</sup> It also found that enforcement remains weak today but that significant events are indeed fined. It concluded that the level of enforcement could quickly change with little notice to investors.

Analysis conducted by McKinsey calculated that, typically, one-third of corporate profits are at risk from state intervention (not only fines).<sup>25</sup> For pharmaceuticals, the profits at stake are about 25 to 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%.

**Table 1.5: ESTIMATED SHARE OF EBITDA AT STAKE**

| ESTIMATED SHARE OF EBITDA AT STAKE            | FOR EXAMPLE |
|---|-------------|
| Banks   | 50–60%      |
| Automotive, aerospace and defence, technology | 50–60%      |
| Transport, logistics, infrastructure          | 45–55%      |
| Telecom and media                             | 40–50%      |
| Energy and materials                          | 35–45%      |
| Resources                                     | 30–40%      |
| Consumer goods                                | 25–30%      |
| Pharmaceuticals and healthcare                | 25–30%      |

*Source: McKinsey Quarterly.<sup>25</sup>*

## Case studies

### Major fines

#### 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 US\$20.8bn (£15bn) in 2016;<sup>34</sup> total compensation ultimately paid out by the company reportedly exceeded US\$65bn (£46.7bn).

#### 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, US\$16.65bn (£12bn) fine paid by Bank of America in 2014<sup>35</sup> for its role in the subprime loan crisis. Just two years before that, the bank had agreed to a US\$11.8bn (£8.5bn) settlement with the US federal government over foreclosure abuses.

#### Volkswagen's emissions scandal

The third largest fine was paid by Volkswagen, which, in 2016, faced US\$14.7bn (£11.5bn) in civil and criminal penalties from the USA in the wake of its scandal over emissions cheating.<sup>36</sup> The scandal dampened the hype of diesel as a fuel for the future. Today, most major automotive companies are directing their current (and future) investments towards electric cars while striving to meet increasingly aggressive emissions targets.

### 3. Reduced negative externalities

The term **externalities** refers to situations where the production or consumption of goods and services creates costs or benefits to others that are not reflected in the prices charged for them. In other words, externalities include the consumption, production and investment decisions of firms (and individuals) that affect people not directly involved in the transactions. Externalities can either be 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 Cambridge Professor Arthur Pigou in his book *The Economics of Welfare*. Externalities often occur when the production or consumption of a product or service's private price equilibrium cannot reflect the true costs or benefits of that product or service for society as a whole.

#### Example

### Pollution

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 healthcare costs and forgone production opportunities, for example when pollution harms activities, such as tourism.

Professor William Nordhaus, who was recently 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 fail to pay a living wage or submit their employees to poor working conditions.

In short, when externalities are **negative**, private costs are lower than societal costs, resulting in market outcomes which may not be efficient or, in other words, leading to ‘market failures’.

For that reason, externalities are among the main reasons why governments intervene in the economic sphere.<sup>37</sup> Even back in the 1920s, British economist Arthur 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 **internalisation** of all costs by polluters. Internalisation refers to all measures (public or private) to ensure that externalities become reflected in the prices of commercial goods and services.<sup>38</sup> As environmental and social regulation and taxation rise, it is expected that an increasing proportion of this cost might be forced into companies’ accounts.

In the social sphere, recent developments in the interpretation of the **OECD Guidelines for Multinational Enterprises**<sup>39</sup> and the **UN Guiding Principles for Business and Human Rights**<sup>40</sup> – 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 internalisation of social costs in hard law.<sup>41</sup>

Internalisation can happen in various ways. Taking the transportation industry by way of example, internalisation can happen through:

- ▶ market-based instruments, e.g. charges, taxes and tradable permits;
- ▶ regulatory instruments, e.g. vehicle emission and safety standards, traffic restrictions; or
- ▶ voluntary instruments, e.g. agreements with the car industry to reduce CO<sub>2</sub> emissions from new passenger cars.

Understanding the risks posed by ‘externalised’ environmental and social costs in the real economy is central to the practice of investment, as the internalisation of these externalities could significantly impact the costs and profits of companies’ products and services, affecting their bottom line. The uncertainty surrounding the timing and extent of internalisation is a critical component of the overall risk landscape facing investors.

Beyond affecting companies’ financial performance, these externalities can also have a drag on the wider economy, potentially affecting the total return investors may achieve in the long term. A study by an environmental consulting company found that the top 3,000 publicly traded companies were responsible for US\$2.15 trillion (£1.6tn) worth of environmental damage in 2008, and that global environmental damage was set to cost an estimated US\$28tn (£20tn) by 2050.<sup>42</sup> Environmental harm was found to be a material risk that could significantly affect the value of capital markets and global economic growth.

### Case studies

#### Air travel and carbon emissions

Before the COVID-19 pandemic, air travel was the source of around 2.5% of global CO<sub>2</sub> and emissions, but it is estimated to grow by 300% by 2050. For that reason, the European Commission (EC) has been assessing and advocating for the internalisation of externalities associated with transportation for many years.

In 2010, the European Union (EU) expanded the scope of its **Emissions Trading System (ETS)** to include aviation.<sup>43</sup> The EU-ETS for aviation requires all non-commercial operators who travel into, out of and between EU and European Economic Area (EEA) Member States to monitor their CO<sub>2</sub> flight emissions, and purchase carbon allowances equal to the emissions on intra-EU flights when emitting more than 1,000 tonnes of CO<sub>2</sub> under the full scope (in, out and within the EU).

In 2019, the Ministers of Finance of the Netherlands, Germany, France, Sweden, Italy, Belgium, Luxembourg, Denmark and Bulgaria asked the EC to introduce a measure to offset the CO<sub>2</sub> emissions of planes.

A report<sup>44</sup> from the independent research and consultancy organisation CE Delft shows that tax exemptions for the aviation sector lead to:

**cont'd...**

## Case studies

...

- » higher passenger demand;
- » aviation sector growth (in terms of both jobs and value added); and
- » more flights.

The report also shows that a tax could result in a 10% increase in average ticket price and an 11% decline in passenger demand, but on the other hand, CO<sub>2</sub> emissions would decrease by 11%.

|   | Current situation | Abolition of ticket tax |        | Introducing VAT on all tickets (19%) |        | Introducing fuel excise duty |        |
|---|-------------------|-------------------------|--------|--------------------------------------|--------|------------------------------|--------|
| Impacts in the aviation sector              | Value             | Value                   | Change | Value                                | Change | Value                        | Change |
| Passenger demand (million)                  | 691.5             | 718.5                   | +4%    | 570.4                                | -18%   | 616.0                        | -11%   |
| Average ticket price (€)                    | 304               | 293                     | -4%    | 358                                  | +17%   | 333                          | +10%   |
| Number of flights and connectivity          |                   |                         | +4%    |                                      | -18%   |                              | -11%   |
| Employment (1,000 FTE)                      | 362               | 376                     | +4%    | 296                                  | -18%   | 321                          | -11%   |
| Value added (€ billion)                     | 43.4              | 45.1                    | +4%    | 35.6                                 | -18%   | 38.5                         | -11%   |
| CO <sub>2</sub> emissions (Mton)            | 149.5             | 155.3                   | +4%    | 123.3                                | -18%   | 133.1                        | -11%   |
| People affected by noise (1,000)            | 2,851.5           | 2,919.8                 | +2%    | 2,495.9                              | -12%   | 2,637.1                      | -8%    |
| Aviation-related fiscal revenue (€ billion) | 10.0              | 2.6                     | -74%   | 39.9                                 | +297%  | 26.9                         | +168%  |

Sweden and France have acted unilaterally:<sup>45</sup> Sweden introduced a SEK60 to SEK400 (£5 to £34) carbon tax for all airline passengers in April 2018, while France introduced a levy of €1.50 (£1.31) to be charged on domestic and intra-European flights. In addition, France will charge €3 (£2.62) on flights outside the EU. A business class seat on a flight in the EU will include a €9 (£7.85) eco-charge from 2020, while a longer flight in business class will be €18 (£15.70) more expensive. The French government estimates that the ‘eco-tax’ will raise €180m (£151m) a year from flights which will be invested in other forms of transport like trains, according to the transport ministry.

Air France has already said they expect the eco-tax to cost them an extra €60m (£52m) a year, which is believed to have encouraged them to buy more efficient planes in order to negotiate with the government.<sup>45</sup> Price sensitivity for passengers is relatively low, however, and the tax is deemed more of a symbolic first step. It has been a practice employed in the past by governments to start environment-related taxes low and get people used to the idea before increasing them.

For example, the UK’s landfill tax, introduced in 1996, started at £7 per tonne of waste deposited, but now stands at £91.35 per tonne, an effective deterrent.<sup>45</sup>

## 4. Improved ability to benefit from sustainability megatrends

There is a multitude of 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.

This is why business leaders, investors, economists and governments are increasingly recognising the economic implications of:

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

These factors have interacted with:

- ▶ the aftermath of the 2007-2008 financial crisis;
- ▶ ageing populations;
- ▶ the rise of emerging economies; and
- ▶ rapid technological changes.

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

There is no agreement about what these megatrends are and how many of them exist. Four, which are widely recognised across governments and businesses, are put forward.

### **Emerging markets and urbanisation**

The locus of economic activity and dynamism is shifting to emerging markets and to cities within those markets, which are going through industrial and urban revolutions simultaneously. While, until recently, 97% of the Fortune Global 500 were headquartered in developed economies, nearly half of the world's large companies are expected to be headquartered in emerging markets by 2025. Nearly half of global GDP growth between 2010 and 2025 will come from 440 cities in emerging markets – 95% of them small and medium-size cities.<sup>46</sup> That will impact not only where headquarters are, but also supply chains and their workforces, and the expectation of the local communities as well as where new consumers come from.

### **Technological innovation**

Technology has always had the power to change behaviour 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 has achieved the same in less than a decade.<sup>47</sup> Accelerated adoption invites accelerated innovation. By 2014, seven years after the iPhone's launch, the number of applications created had hit 1.2m, and users had downloaded more than 75bn total apps, more than ten for every person on the planet.<sup>48</sup>

Social media is the new social fabric, and acts as a platform for both crowd intelligence and influence. Its influence stretches far beyond its initial use as a means to stay connected with people, and reaches into corporate risk management and geopolitics. Both its capacity to mobilise online crowds as well as to lead people into narrow filter bubbles have had major repercussions in recent years, including civil strife. Furthermore, issues around human rights, including free speech, and tensions between big social media companies and sovereign nation states have led to headlines and point in the direction of a possible new ordering of societal power, the outcome of which remains to be seen.

Artificial intelligence – namely computer systems able to perform tasks normally requiring human intelligence – is poised to change and grow at an exponential speed beyond the power of human intuition to anticipate. It is being used by the health industry to track patients' data and medication intake, by businesses to automate customer service and robotise manufacturing, by energy companies' smart grids to forecast energy supply and demand, and by self-driving cars to optimise routes. Gartner (an IT research firm) estimates that one-third of jobs will soon be replaced by smart machines and robots, and Google estimates robots will attain the level of the human intelligence by 2029. It has significantly impacted most sectors.

### **Demographic changes and wealth inequality**

By 2030 the world's population is projected to rise by more than 1bn. At the same time, the population is getting older. Germany's population is expected to shrink by one-fifth, and the number of people of working age could fall from 54m in 2010 to 36m in 2060. China's labour force peaked in 2012. Today, about 60% of the world's population lives in countries with fertility rates below the replacement rate.<sup>49</sup>

A smaller workforce will place a greater onus on productivity for driving growth and may cause economists to rethink the 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 and stress on renewable and non-renewable resources. A growing global population is expected to demand 35% more food by 2030. Finally, increasing concentration of wealth and rising inequality have already led to increasing social strains. This increase in inequality happens across, and within, countries, contributing to depressed economic growth, criminal behaviour and undermined educational opportunities.<sup>48</sup>

### Climate change and resource scarcity

As the world becomes more populous, urbanised 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. Without significant 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 for energy by 50%.

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

## C. Challenges in integrating ESG

ESG investing has seen rapid development in recent years but challenges still remain to its further growth. Challenges to taking a more proactive approach to ESG investing exist across the whole of the investment decision process.

Prior to wishing to implement ESG:

- ▶ The perception that implementing ESG may have a negative impact on investment performance.
- ▶ The interpretation that fiduciary duty prevents investors from integrating ESG.
- ▶ The advice given by investment consultants and retail financial advisers, has many times not been supportive of products which integrate ESG.

Once the decision has been made to implement ESG:

- ▶ The lack of understanding of how to build an investment mandate that effectively promotes ESG or lack of understanding of what are the needs of asset owners regarding ESG.
- ▶ The impression that significant resources, which may be lacking in the market or may be expensive, are needed. These include human resources, technical capability, data and tools.
- ▶ The gap between marketing, commitment and delivery of funds regarding their ESG performance.

Some investors still question whether considering ESG issues can add value to investment decision-making despite wide dissemination of research that demonstrates that ESG integration can help limit volatility and enhance returns. Interviews conducted by the PRI note that investment professionals place a greater weight on experience from their own careers than they do on third-party evidence.<sup>49</sup> It can thus be helpful for an internal evidence base to be built, or to engage with direct peers on ESG processes and investment benefits.

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 ESG factors.

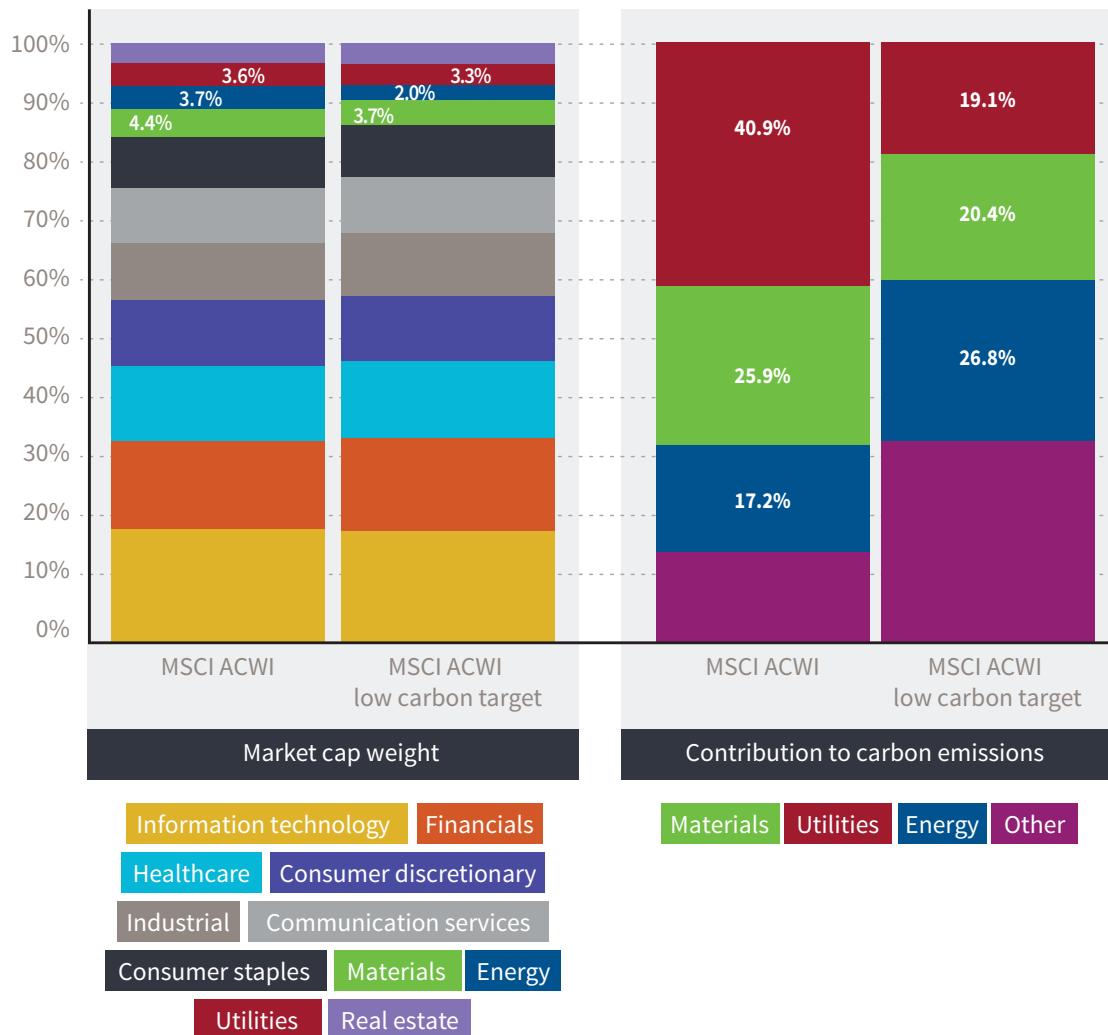
The challenge is not only regarding the impact of ESG investing in portfolio returns. Screening, divestment and thematic investment strategies involve 'tilting' the portfolio towards desired ESG characteristics by over- or underweighting sectors or companies that either perform well or poorly in those areas. Institutional investors

may feel that this conflicts with their obligation to invest prudently, as it involves straying from established market benchmarks. This increases the tracking error, a key measure of active risk widely used by the industry that is due to active management decisions versus the benchmark made by the portfolio manager.

An example is shown in [Figure 1.7](#), which illustrates the sector breakdown of MSCI All Country World Index (MSCI ACWI), a common benchmark for global equity funds, by market capitalisation and carbon emissions. The utilities, materials and energy sectors account for less than 15% of portfolio weight, but over 80% of the overall carbon footprint. One might think that reducing the emissions of the portfolio necessarily results in the reduction of the portfolio's exposure to these sectors. Addressing concern for tracking error might require some level of reassessment and redefinition of 'active risk', which may imply changes to, or new interpretations of, the existing principles in the investment industry. But, as [Figure 1.7](#) shows, it is also possible to maintain a low tracking error (MSCI ACWI Low Carbon targets a tracking error of 30 basis points). The MSCI ACWI Low Carbon Target reduces annual carbon emissions of the portfolio by approximately 75% by overweighting companies with low carbon emissions (relative to sales) and those with low potential carbon emissions (per dollar of market capitalisation).<sup>50</sup> Note that this analysis is conducted only with carbon emissions, which is a rudimentary proxy for a fund's resilience to climate risk, as well as a fund's contribution to a low-carbon economy. Nonetheless, the concept shows that ESG characteristics of a portfolio can be significantly different, while maintaining a limited tracking error.

→ For further details on the challenges of portfolio construction, refer to Chapter 8.

**Figure 1.7: MARKET CAP VS CARBON EMISSIONS**



Source: MSCI.<sup>51</sup>

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. What they perceive as a lack of interest by asset owners in responsible investment has also contributed to them being less willing to integrate ESG investing into their mainstream offerings. 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 together address barriers to its consideration in investment advice.

Even once an investor has decided to consider ESG within investment decision-making, various barriers remain. Some asset owners feel that they do not have the scale or capacity to influence the products offered by fund managers. Others are unsure of how to integrate ESG within requests for proposals or mandates. The absence of clear signals from asset owners that they are interested in ESG investing means that investment managers have limited understanding of what asset owners expect on that matter, and reduced incentive to develop such products. As a result, asset owners have fewer options of ESG investing products in the market to choose from. There are investor-led initiatives which hope to address this. The International Corporate Governance Network (ICGN) established a [Model Mandate Initiative](#); the University of Cambridge Institute for Sustainability Leadership developed a toolkit for establishing long-term, sustainable mandates; and the PRI has published numerous guidance documents to support asset owners in incorporating ESG into manager selection and investment mandates.

- *For further details on mandates, refer to Chapter 9.*

The challenge of resource is especially prominent for asset owners who have funding constraints, or investors who see ESG investing as separate from the core investment process (e.g. marketing or compliance). In addition to the costs of building or buying expertise in ESG, investors may face other costs for items such as research, data, monitoring and reporting. The European Fund and Asset Management Association estimated the average total price of external data for an investor to be €100,000 (£87,237).<sup>52</sup>

Even when financial resources are available, investors still have difficulties identifying or creating technical resources such as high-quality, standardised data sets, 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. This is because these risks and opportunities will be invisibly incorporated into the investee's overall financial performance, and therefore, before their materialisation, will be invisible in the investor's (non-ESG) financial models.

- ▶ Data availability: Although ESG data from investees is increasingly available from specialised providers, disclosure is still a significant challenge, especially in asset classes other than listed equities. Investment analysis thus remains limited by corporate disclosure, which varies in quality and scope. It is also limited by investors' understanding of that 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.
- ▶ Modelling: It can be challenging to integrate ESG factors into traditional financial models, as they do not always have a short-term financial impact. Furthermore, most financial analysts' models extrapolate from historical data, which may be less relevant for forecasting future ESG-related 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. Similarly, it is hard to estimate the viability or impact of a breakthrough technological innovation based on historic patterns. Notably, a lot of ESG models focus on risks, there are fewer tools for assessing positive ESG performance.

- ▶ Valuation techniques: Equity investors can adjust corporate valuations for ESG factors in a number of ways. Investors could vary the discount rate applied to future corporate cash flows – which raises the question of how much of a discount should be applied to various kinds of ESG risk. 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.

As a result of these difficulties, 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 metric risk are less respected by portfolio managers than financial analysis because quantifying the input and its impact is generally a challenge.

- *For further details on financial materiality, data suppliers and integrating ESG within valuation techniques, refer to Chapter 7.*

A growing challenge to the industry is greenwashing. Greenwashing originally described misleading claims about environmental practices, performance or product, but has been used more widely to incorporate ESG factors more broadly. 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. Asset owners, but also individual retail investors, have questioned why certain stocks, either involved in significant controversies or with controversial activities, are part of the top holdings of ESG funds, which has at times impacted the credibility of efforts in responsible investment. Part of the frustration comes from the lack of a greater standard in the industry to differentiate between an investment lens based on ESG integration, which is concerned with the financial materiality of ESG matters, with those based on impact or ethics. While a fund can incorporate both lenses, some funds incorporate only one or the other; effective disclosure and education are required in order to properly manage investors' expectations regarding these different approaches to responsible investment.

The EU has recently launched various initiatives to standardise claims around the green and ESG credential of funds and indices, which will contribute to a clampdown on 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.

## D. Financial performance

There is a growing recognition in the financial industry and in academia that ESG factors indeed influence financial performance. An analysis of over 2,000 academic studies on how ESG factors affect corporate financial performance found ‘an overwhelming share of positive results’, with just one in ten showing a negative relationship.<sup>53</sup> Various research also indicates 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.<sup>54</sup> These provide evidence that ESG issues can be financially material to companies’ performance and potentially to alpha.

Mounting evidence shows that sustainable business practices deliver higher positive financial performance. The topic has been the focus not only of various individual studies, but the subject of **meta-analysis**, which is a research process used to merge the findings of single, independent studies to reach an overall conclusion.

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. This provides 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 studies

### Meta-data studies

One of the first meta-data studies, in 2012, was conducted by the Deutsche Bank,<sup>55</sup> assessing over 100 studies. The vast majority (89%) of studies 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. Deutsche Bank found weaker results with respect to the influence of ESG on investment funds. They concluded that companies with good ESG factors outperform, but that investors were not always good at capturing that outperformance.

The University of Oxford and asset manager Arabesque in 2014 reviewed the academic literature on sustainability and corporate performance, and found that out of the 200 studies analysed:

- ▶ 90% conclude that good ESG standards lower the cost of capital;
- ▶ 88% show that good ESG practices result in better operational performance; and
- ▶ 80% show that stock price performance is positively correlated with good sustainability practices.<sup>56</sup>

Another study conducted in 2015 combined the findings of around 2,200 individual studies (35 times larger than the average sample of previous meta-analyses) and thus claimed to be the most exhaustive overview of the academic evidence on ESG and performance.<sup>57</sup> In this case, about 90% of studies demonstrate a relationship between ESG and financial performance that was not negative (i.e. positive or neutral performance), with the large majority showing positive correlation between ESG factors and performance across equity, fixed income and property, as well as in aggregate.

The meta-study shows a significant difference between the impact of ESG on corporate financial performance, at the asset class level and on investment fund performance:

- ▶ 15% of the studies on portfolio-level impact were positive; and
- ▶ 11% were negative.

The authors suggest three reasons why the results differ:

1. The alpha from ESG might be captured elsewhere in factors studies (and so is ‘drowned out by noise’).
2. The impact of different ESG approaches in the different studies might cancel each other out.
3. The costs of implementation consume the available alpha.

## Case studies

**Top 100 sustainable global companies**

Between 2006 and 2010, compared to control companies, the top 100 sustainable global companies experienced significantly higher:

- ▶ mean sales growth;
- ▶ return on assets;
- ▶ profit before taxation; and
- ▶ cash flows from operations in some sectors.

During the 2008 recession, companies with effective sustainability practices achieved above average performance in the financial markets. Additionally, companies with superior environmental performance experienced lower social cost of debt by 40 to 45 basis points. A study in 2015 found that companies with strong corporate responsibility reputations ‘experience no meaningful declines in share price compared to their industry peers during crises’, versus firms with poor CSR reputations whose stocks declined by ‘2.4–3%; a market capitalisation loss of US\$378m (£272m) per firm’.<sup>58</sup>

## 4 PUTTING ESG INTO PRACTICE

1.1.8 Explain how ESG investing is a strategy and a practice, and the three ways in which investors typically reflect ESG considerations.

ESG investing is a strategy and practice related to incorporating ESG factors in investment decisions and active ownership. Institutional investors typically reflect ESG considerations in three ways:

- A. incorporating ESG factors into investment decision-making;
- B. through corporate engagement; and
- C. through policy engagement.

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

### A. Investment decisions

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

- ▶ Asset owners:
  - » can include ESG factors in their request for proposal and consider them in their appointment process;
  - » are often supported by investment consultants, who can factor in asset managers’ ESG policy, implementation and outcomes in their selection process; and
  - » can reassure themselves that their views on ESG are implemented by integrating them into investment mandates and monitoring processes.
- ▶ Asset owners and some asset managers can embed ESG 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 risk appetite.

- ▶ Asset managers and asset owners who invest directly can incorporate ESG issues within their security selection 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 within their financial and risk analysis; or
  - » using ESG criteria to identify investment opportunities through a thematic approach (e.g. water fund, impact investing, etc.).

→ For further details on this process, see Chapters 7 and 8.

## B. Shareholder engagement

Investors can encourage investees to improve their ESG practices. This can happen via a company's annual general meeting (AGM) through formally expressing their views through voting on resolutions. Engagement can also happen outside of this process (with an investment firm, individually or through a collective initiative), discussing ESG issues with an investee company's board or management.

→ For further details on this process, see Chapter 6.

## C. Policy engagement

The proper functioning of the market, and thus public policy, such as for example the EU's taxonomy for sustainable activities, critically affect 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, stock exchanges, etc.) to design a financial system that:

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

Investors can:

- ▶ respond to policy consultations;
- ▶ participate in collective initiatives; and
- ▶ make recommendations to policy makers.

→ Further details on this process are discussed in Chapter 6.

## 5 KEY INITIATIVES

- 1.1.9 Explain the aims, elements and progress achieved by key supranational ESG initiatives and organisations: United Nations initiatives; reporting initiatives; other initiatives.

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

### United Nations initiatives

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

#### United Nations Global Compact

Chief amongst 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 ten 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 ten principles of the UNGC cover the areas of human rights, labour, 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)

The **United Nations Environment Programme Finance Initiative (UNEP FI)** is a partnership between UNEP and the global financial sector to mobilise private sector finance for sustainable development.

UNEP FI started in 1992 with a few banking institutions and today it works with over 300 members – banks insurers and investors – to catalyse integration of sustainability into financial market practice. The frameworks UNEP FI has established or cocreated include:

- ▶ **Principles for Responsible Investment (PRI)**, established in 2006 by UNEP FI and the UN Global Compact, now applied by more than half the world's institutional investors (US\$103.4tn (£74tn)).
- ▶ **Principles for Sustainable Insurance (PSI)**, established 2012 by UNEP FI and today applied by more than one-quarter of the world's insurers (more than 25% of world premium volume).
- ▶ **Principles for Responsible Banking (PRB)**, as of April 2021, more than 220 banks have signed up to the PRB, representing US\$57tn (£41tn) in total assets, or more than one-third of the global banking sector.

#### Principles for Responsible Investment (PRI)

The PRI comprises a UN-supported international network of investors – signatories, working together towards a common goal to understand the implications of ESG to investment and ownership decisions and ownership practices.

The PRI provide 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 also enables like-minded institutions to coordinate and take forward engagement with individual companies and sectors.

3. The PRI reviews, analyses 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 principles, which are voluntary, but provide overarching guidance on actions members can take to incorporating ESG issues into investment practice. The six principles are:

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

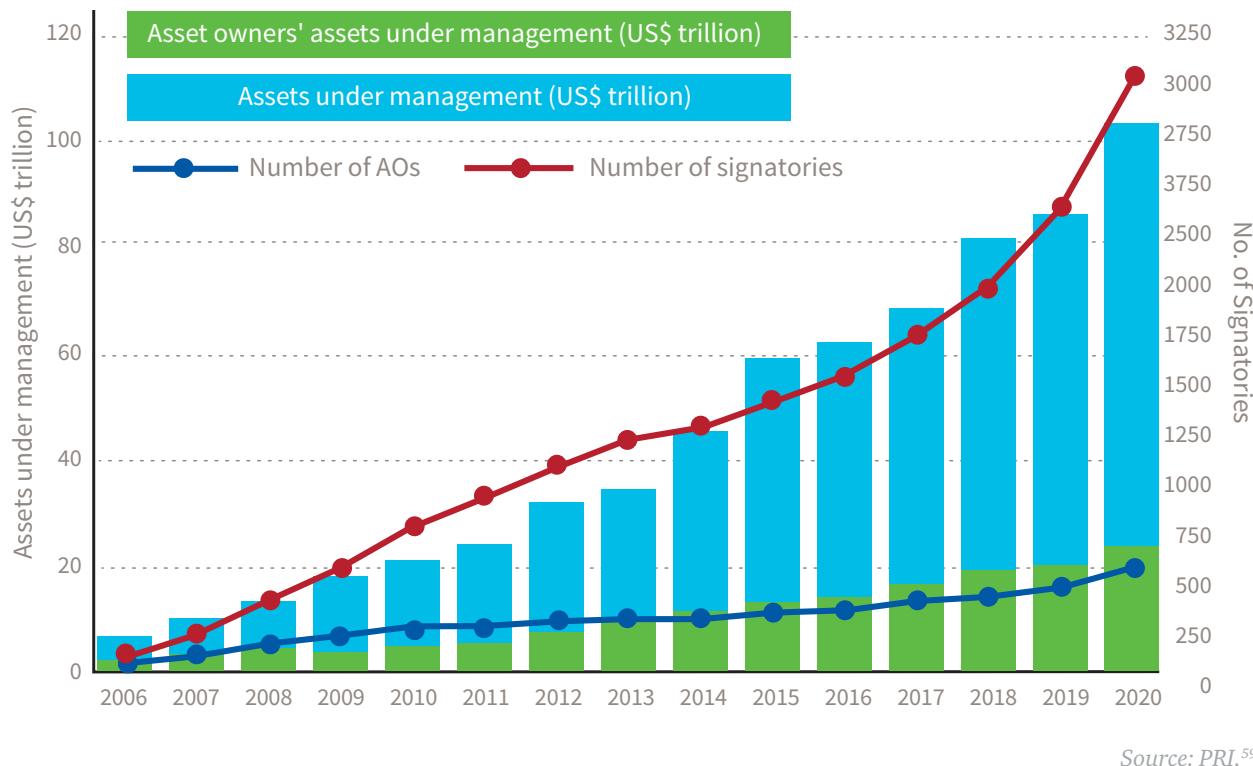
The PRI also leads or establishes partnerships with other organisations to develop initiatives, such as a review of fiduciary duty around the world, the establishment and implementation of the [Sustainable Stock Exchanges Initiative](#), etc. Many of its workstreams and initiatives are supported by committees made of members, which is a key way in which investors can 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 of the PRI has become a badge for being a responsible investor. The PRI does require 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, who can then decide whether, and with whom, they may wish to share it (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:

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

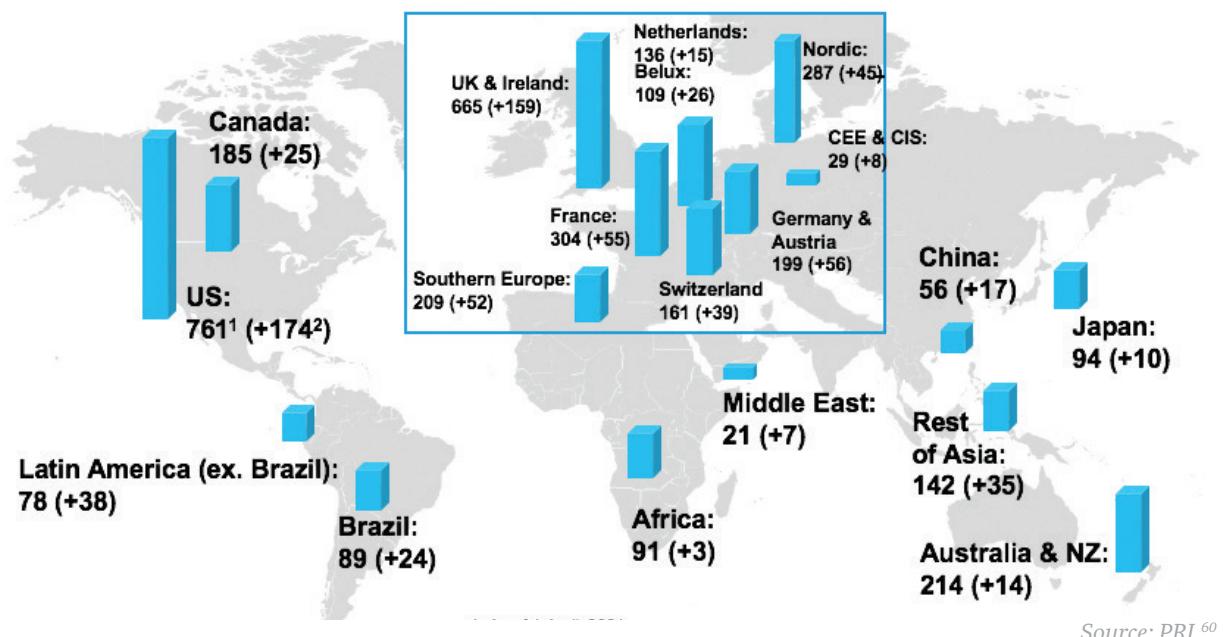
Over the recent years, the growth of the ESG market and the increased use of the term 'ESG' has been highly correlated to the growth in PRI membership. This relationship may be linked to the fact that the principles are designed to be compatible with a wide range of investment styles that operate within a traditional fiduciary framework. PRI signatories have grown circa 30% a year since 2006. This growth rate demonstrates the overall market opportunity for ESG.

[Figure 1.8](#) shows the growth in PRI signatories, in terms of both membership numbers and assets under management, for the period end of April 2006 to March 2020, inclusive.

**Figure 1.8: GROWTH IN NUMBER OF PRI SIGNATORIES AND SIZE OF ASSETS MANAGED****Figure 1.9: PRI SIGNATORIES WORLDWIDE**

## More than 3,800 investors worldwide

Have signed the Principles for Responsible Investment



In April 2021, PRI asset owner signatories numbered 606 and managed aggregate assets of over US\$31.2tn (£22.4tn); total number of signatories was 3,811 with assets circa US\$110tn (£79.1tn).

## United Nations Framework Convention on Climate Change (UNFCCC)

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

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

The two COPs of particular importance were:

1. The COP3 meeting in Kyoto in 1997, which created the **Kyoto Protocol**. This commits industrialised 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 the 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 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 organisations engaging with investors on the topic.

## UN Sustainable Development Goals (SDGs)

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

Figure 1.10: 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:* Sustainable Development Goals.<sup>22</sup>

## Reporting initiatives

Currently there is a lack of standardisation within sustainability reporting. This is due to the fact that there are multiple competing frameworks and methodologies. This situation has repercussions for the integrity of ESG data.

### Global Reporting Initiative (GRI)

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 organisations 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 contextualisation.

### Value Reporting Foundation (VRF)

The **Value Reporting Foundation (VRF)** was formed upon the merger of the **International Integrated Reporting Council (IIRC)** and the **Sustainability Accounting Standards Board (SASB)**, two well-known global reporting initiatives. The objective of the VRF is to provide investors and corporates with a comprehensive corporate reporting framework across the full range of enterprise value drivers and standards. Before the merger, the IIRC developed the **Integrated Reporting Framework (IRF)** and the SASB issued the SASB standards. IRF encouraged companies to integrate sustainability within their strategy and risk assessment by integrating it into the traditional annual report. The aim of the integrated report was to make it easier for investors to review such information as part of normal research processes and thus increase the likelihood that sustainability information is material to investment decisions. The SASB standards were focused on key material sustainability issues, which affect 70-plus industry categories and were developed along with the SASB materiality maps. The SASB products were particularly helpful for investors determining what is material for reporting, and aids more standardised benchmarking. The product suites of the two merging organisations are expected to be combined in one portfolio of offerings.

## CDP (former Carbon Disclosure Project)

CDP is a non-governmental organisation (NGO) which supports companies, financial institutions and cities to disclose and manage their environmental impact. It runs a global environmental disclosure system in which nearly 10,000 companies, cities, states and regions report on their risks and opportunities on climate change, water security and deforestation.

## Climate Disclosure Standards Board (CDSB)

The Climate Disclosure Standards Board (CDSB) is an international consortium of business and environmental NGOs with the mission to create the enabling conditions for material climate change and natural capital information to be integrated into mainstream reporting.

## Corporate Reporting Dialogue (CRD)

Corporate Reporting Dialogue (CRD) is a joint project led by the CDP, the CDSB, the GRI, the IIRC and the SASB. Its objective is to drive better alignment of sustainability reporting frameworks with frameworks that promote further integration of non-financial and financial information. Its **Better Alignment Project** is focused on driving better alignment in the corporate reporting landscape, to make it easier for companies to prepare effective and coherent disclosures that meet the information needs of capital markets and society.

## International Business Council ESG Disclosure Framework

The ESG Disclosure Framework (EDF) of the International Business Council (IBC) aims to bring greater consistency and comparability to sustainability reporting by establishing common metrics for company disclosure. The framework encourages disclosure on a ‘comply or explain’ basis, with materiality, confidentiality and legal constraints listed as acceptable reasons for not disclosing to a particular disclosure metric. Reporting is encouraged via annual reports or proxy statements to help ensure board oversight and participation of sustainability disclosure.

## Other initiatives

### Asia Investor Group on Climate Change (AIGCC)

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 practice and to collaborate on investment activity, credit analysis, risk management, engagement and policy.

AIGCC was founded to represent the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy.

### Global Impact Investing Network (GIIN)

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:

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

Of note are its databases IRIS+ (of metrics for measuring and managing impact) and ImpactBase (of impact investing funds).

## Global Sustainable Investment Alliance (GSIA)

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 organisations. 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 USA, Canada, Japan, Australia and New Zealand. The GSIA reports draw on the in-depth regional and national reports and work from GSIA members.

## The International Corporate Governance Network (ICGN)

The International Corporate Governance Network (ICGN) is an investor-led organisation 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 one on investment mandates.

## Task Force on Climate-related Financial disclosures (TCFD)

The Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD) takes the Paris Agreement's target of staying well under 2°C (3.6°F), with the ambition of staying under 1.5°C (2.7°F) and tries to operationalise it for the business world. Its *June 2017 Final Report* urges companies to disclose against the following:

- ▶ **governance:** the organisation's governance around climate-related risks and opportunities;
- ▶ **strategy:** the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning;
- ▶ **risk management:** the processes used by the organisation to identify, assess and manage climate-related risks; and
- ▶ **metrics and targets:** the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

The TCFD recommends that these disclosures are provided as part of the mainstream financial filings. For many, 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 to ensure that this crucial issue is actively considered at the top of organisations. It should also drive a substantial advance in disclosures by seeking transparency about realistic scenario planning, particularly around the physical impacts of climate change.

→ For more details, refer to Chapter 3.

## The EU's Sustainable Finance Disclosure Regulation (SFDR)

In March 2021, the European Union (EU)'s Sustainable Finance Disclosure Regulation (SFDR) came into force. The SFDR is designed to support institutional asset owners and retail clients to compare, select and monitor the sustainability characteristics of investment funds' by standardising sustainability disclosures. The disclosures are about the integration of sustainability risks, the consideration of adverse sustainability impacts, the promotion of environmental or social factors, and sustainable investment objectives. The SFDR is one of the building blocks of the EU's Sustainable Finance Action Plan. It applies to all financial advisors and financial market participants that construct financial products and/or provide investment advice or insurance advice in the European Economic Area (the EU member states plus Iceland, Liechtenstein, and Norway). SFDR stipulates areas of mandatory disclosure at two levels, that of the investment firm and that of the product. Further it introduces a new concept into the EU's regulatory environment: Principal Adverse Impacts (PAIs). PAIs are the negative effects from an investment on sustainability factors. These PAIs go into great detail and consist of 18 indicators for which disclosure is obligatory, and 46 voluntary disclosure indicators. Further, SFDR defines two categories of sustainable financial products: Article 8 products that *promote sustainability characteristics*, and the more strictly defined Article 9 products that have stringent, primary objectives for positive sustainability outcomes.

# KEY FACTS

1. ESG investing is an approach to managing assets where investors explicitly acknowledge the relevance of environmental, social and governance (ESG) factors in their investment decisions, as well as their own role as owners and creditors. ESG investing also recognises that the generation of long-term sustainable returns is dependent on stable, well-functioning and well-governed social, environmental and economic systems.
2. The concept of ESG investing is closely related to the concept of investees' corporate sustainability. Related to this, corporate social responsibility (CSR) is a broad business concept that describes a company's commitment to conducting its business in an ethical way.
3. All forms of responsible investment, except for engagement, are ultimately related to portfolio construction (in other words, which securities a fund holds). Some focus more on improving financial returns using financially-material ESG factors, while others combine robust returns with optimising the impact the investment has on society and the environment. Engagement, both by equity owners and bond holders, concerns whether and how a fund tries to encourage and influence an issuer's behaviour on ESG matters.
4. One of the main reasons for ESG integration is that responsible investment can reduce risk and enhance returns. Financial materiality can be due to:
  - a. reduced cost and increased efficiency;
  - b. reduced risk of fines;
  - c. reduced externalities; and
  - d. improved adaptability to sustainability megatrends.
5. Evidence of the risks that ESG megatrends carry is illustrated by the World Economic Forum's *Global Risks Report*,<sup>10</sup> which for many years now has highlighted the growing likelihood and impact of extreme weather events and the failure to address climate change.
6. For many years, fiduciary duty was considered a barrier to considering ESG within investments. The modern interpretation of fiduciary duty, put forward in the *Freshfields report*,<sup>15</sup> recognises that failing to consider long-term investment value drivers – which include ESG issues – in investment practice is a failure of fiduciary duty.
7. Large institutional investors, known as universal owners, have holdings that are highly diversified across all sectors, asset classes and regions. Their investment returns are thus dependent on the overall economy. A reason for implementing ESG stems from the recognition that negative megatrends will, over time, create drag on economic prosperity and may increase instability both within countries and between the 'global north and south'.
8. A reason for practicing responsible investment is the belief that some investors have that investments can, or even should, serve society alongside providing financial return. The UN *Sustainable Development Goals (SDGs)*, a framework agreed by all UN member state governments to work towards aligning with global priorities, has been adapted by some of the investment community to manage and improve the impact of their investments.

9. Client demand is instrumental for responsible investment because they make the decisions about how their assets, representing on average around 34% of gross domestic product (GDP) in Organisation for Economic Co-operation and Development (OECD) countries, are managed. The number of them that are integrating ESG continues to grow.
10. Institutional investors typically reflect ESG considerations by incorporating ESG factors into investment decision-making, through corporate and policy engagement. These factors can be included:
  - a. within their investment mandates;
  - b. within their strategic asset allocation process;
  - c. by applying a filter based on ratings;
  - d. by integrating ESG issue(s) into financial models; or
  - e. by using ESG factors to identify investment opportunities.
11. The financial materiality of ESG investment is driven by its ability to reduce risk and enhance returns, as it considers additional risks and injects new and forward-looking insights into the investment process.
12. The ability to integrate a response to sustainability megatrends into business operations can be a success factor for an investee firm.
13. ESG investing has seen rapid development in recent years, but challenges still remain to its further growth. These challenges manifest themselves prior to a firm wishing to implement ESG (perceptions about performance, old fiduciary duty interpretations or non-supportive advice) and also, once the decision has been made to implement ESG (a lack of understanding, the impression of resource-intensity or a gap between marketing-commitment-delivery).
14. There is a growing recognition in the financial industry and in academia that ESG factors influence financial performance. Various research indicates 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.
15. The UN hosts or sponsors various initiatives which drive sustainability and ESG investing. Of note is the **Principles for Responsible Investment (PRI)**, which comprises an international network of investors working together to understand the implications of ESG to investment and ownership decisions, and ownership practices. The PRI provides a broad range of tools and reports on best practice for the various actors in the investment value chain. Over the recent years, the growth of the ESG market and the increased use of the term ‘ESG’ has been highly correlated to the growth in PRI membership.
16. The **Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD)** takes the *Paris Agreement’s* 2°C (3.6°F) target and tries to operationalise it for the business world. It should also drive a substantial advance in disclosures by seeking transparency about realistic scenario planning, particularly around the physical impacts of climate change, including for investors.

**CHAPTER 1**

## SELF-ASSESSMENT

These self-assessment questions are provided only to enable you to test your understanding of the chapter content. They are not indicative of the types and standard of questions you may see in the examination.

### Questions

- 1. What is ESG investing?**
  - (a) an approach to managing companies that explicitly acknowledges the relevance of *environmental, social* and *governance* factors in corporate decision-making.
  - (b) an approach to managing assets where investors explicitly acknowledge the relevance of *environmental, social* and *economic* factors in investment decision-making.
  - (c) an approach to managing assets where investors explicitly acknowledge the relevance of *environmental, social* and *governance* factors in their investment decisions.
  - (d) an approach to managing assets where investors explicitly acknowledge the relevance of *environmental, social* and *economic* factors in corporate engagement.
- 2. Which of the following is not an example of a social factor?**
  - (a) Labour rights.
  - (b) Local communities.
  - (c) Product safety.
  - (d) Biodiversity.
- 3. In what sense are ESG considerations non-financial?**
  - (a) They are difficult to value precisely and difficult to time.
  - (b) They are issues that will never turn into financials.
  - (c) They sit in a different category of performance.
  - (d) They can only ever be measured qualitatively.
- 4. For which of the following sectors will the management of greenhouse gas emissions be most material?**
  - (a) Software.
  - (b) Recruitment.
  - (c) Power generation.
  - (d) Fund management.

5. Which of the following is not a typical method by which ESG is reflected in investment approaches?
  - (a) Integrating ESG into investment decision-making.
  - (b) Engaging actively with companies on ESG matters.
  - (c) Engaging in public policy debates on ESG issues.
  - (d) Disclosing the investor's corporate social responsibility activities.
6. Which of the following is not a form of ESG investment?
  - (a) Valuation investment.
  - (b) Ethical investment.
  - (c) Thematic investment.
  - (d) Impact investment.
7. What are the four broad groupings of issues covered by the UN Global Compact?
  - (a) Environmental, social, governance and impact.
  - (b) Human rights, labour, environment and anti-corruption.
  - (c) Poverty, diversity, sustainability and transparency.
  - (d) Education, development, fairness and independence.
8. What is not one of the three P's in the triple bottom line concept?
  - (a) People.
  - (b) Planet.
  - (c) Profit.
  - (d) Principle.
9. Which of the following statements is true about best-in-class investment?
  - (a) It involves selecting only the companies that overcome a defined ranking hurdle.
  - (b) It cannot be used to maintain key characteristics, such as regional and sectoral diversification of an index.
  - (c) It refers to selecting companies that fall under a sustainability-related theme.
  - (d) It refers to allocating capital to assets that best mitigate climate change.

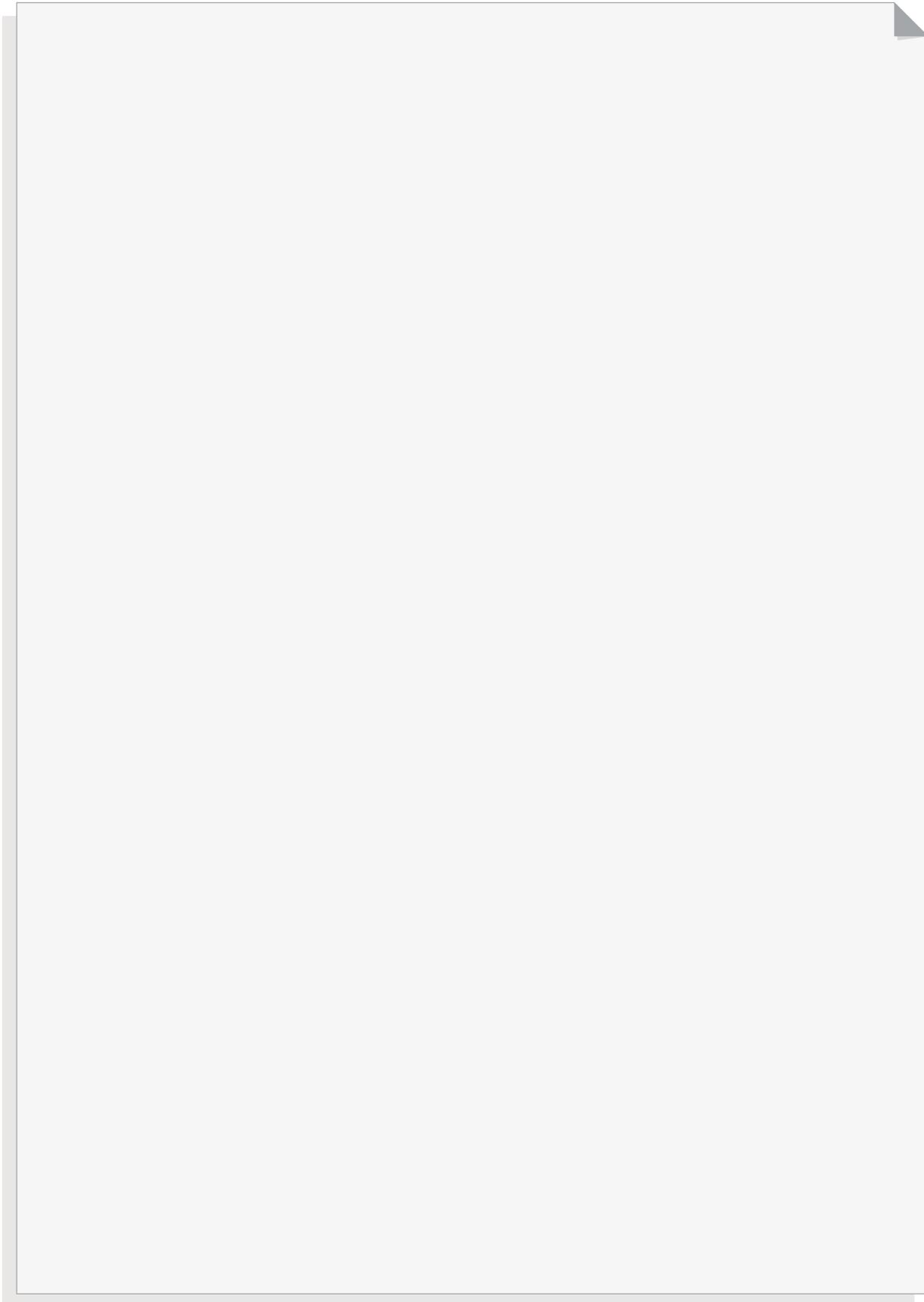
10. **Which of the following sectors is NOT typically excluded by ethical and faith-based investments?**
  - (a) Tobacco.
  - (b) Alcohol.
  - (c) Controversial weapons.
  - (d) Technology.
  
11. **The efficiency of shareholder engagement does NOT depend on...**
  - (a) ...the scale of ownership of the individual investor or the collective initiative.
  - (b) ...the quality of the engagement dialogue and method used.
  - (c) ...whether divestment is known to be a possible sanction.
  - (d) ...the amount of security in free float.
  
12. **In which way can ESG matters become financially material for a company, and contribute to reduced risk and enhanced return?**
  - (a) Increased cost and reduced efficiency.
  - (b) Increased externality.
  - (c) Increased risk of fines.
  - (d) Increased adaptability to sustainability megatrends.
  
13. **What kinds of situations does the term ‘negative externality’ best describe?**
  - (a) Situations where the production of goods induces costs to others that are not reflected in the prices charged for them.
  - (b) Situations where the consumption of services induces benefits to others that are not reflected in the prices charged for them.
  - (c) Situations where the production or consumption of a product or service's private price equilibrium cannot reflect the true costs of that product or service for society as a whole.
  - (d) Situations where the production or consumption of a product or service's private price equilibrium cannot reflect the true benefits of that product or service for society as a whole.

14. According to Oxfam, “reports show that the richest 1% in the world have more than double the wealth of 6.9 billion people”.<sup>20</sup> Which megatrend does this refer to?
- (a) Emerging and urban.
  - (b) Technological disruption.
  - (c) Demographic changes and wealth inequality.
  - (d) Climate change and resource scarcity.
15. What is the most probable reason why an investor would engage with policy makers on ESG?
- (a) The consideration of ESG-related matters can contribute to the proper functioning of the financial markets.
  - (b) Asset owners need regulators to level the playing field in order to be able to increase their percentage of ESG investments.
  - (c) Policy consultations on ESG investing are mandatory in order to ensure that all perspectives are taken into consideration.
  - (d) ESG investors require a sound and stable financial system in order to make alpha from ESG megatrends.

CHAPTER 1

## SELF-ASSESSMENT ANSWERS

1. c.
2. d.
3. a.
4. c.
5. d.
6. a.
7. b.
8. d.
9. a.
10. d.
11. d.
12. d.
13. c.
14. c.
15. a.



# FURTHER READING

Carney, M. (2015). "Breaking the Tragedy of the Horizon – climate change and financial stability". *Lloyd's of London*, 29 September 2015. Available at: [www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability](http://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability)

Eccles, R., Ioannou, I. and Serafeim, G. (2012). "The impact of corporate sustainability on organizational processes and performance". *National Bureau of Economic Research*, working paper 17950. Available at: [www.nber.org/papers/w17950](http://www.nber.org/papers/w17950)

International Corporate Governance Network (2016). *ICGN Global Stewardship Principles*. Available at: [www.icgn.org/policy/global-stewardship-principles](http://www.icgn.org/policy/global-stewardship-principles)

International Corporate Governance Network (2017). *ICGN Global Governance Principles*. Available at: [www.icgn.org/policy/global-governance-principles](http://www.icgn.org/policy/global-governance-principles)

International Corporate Governance Network (2012). *ICGN Global Stewardship Principles – ICGN Global Stewardship Principles & Endorsers*. Available at: [www.icgn.org/policy/icgn-global-stewardship-principles-endorsers](http://www.icgn.org/policy/icgn-global-stewardship-principles-endorsers)

Law Commission (2013). *Fiduciary Duties of Investment Intermediaries*. Available at: [www.lawcom.gov.uk/project/fiduciary-duties-of-investment-intermediaries](http://www.lawcom.gov.uk/project/fiduciary-duties-of-investment-intermediaries)

PRI (2015). *Fiduciary duty in the 21st century*. Available at: [www.unpri.org/fiduciary-duty/fiduciary-duty-in-the-21st-century/244.article](http://www.unpri.org/fiduciary-duty/fiduciary-duty-in-the-21st-century/244.article)

PRI (2016). *From Principles to Performance*. Available at: [http://10.unpri.org/wp-content/uploads/2016/04/PRI-final-report\\_-single-pages.pdf](http://10.unpri.org/wp-content/uploads/2016/04/PRI-final-report_-single-pages.pdf)

UNEP Finance Initiative (2005). *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment*. Available at: [www.unepfi.org/publications/investment-publications/a-legal-framework-for-the-integration-of-environmental-social-and-governance-issues-into-institutional-investment/](http://www.unepfi.org/publications/investment-publications/a-legal-framework-for-the-integration-of-environmental-social-and-governance-issues-into-institutional-investment/)

# END NOTES

<sup>1</sup> Freeman, R. Edward, Reed, David L. (1983). "Stockholders and Stakeholders: A new perspective on Corporate Governance". *California Management Review*. 25 (3): 88–106.

Available at: [www.researchgate.net/publication/238325277\\_Stockholders\\_and\\_Stakeholders\\_A\\_New\\_Perspective\\_on\\_Corporate\\_Governance](http://www.researchgate.net/publication/238325277_Stockholders_and_Stakeholders_A_New_Perspective_on_Corporate_Governance)

<sup>2</sup> PRI (2020). *What is responsible investment?*

Available at: [www.unpri.org/an-introduction-to-responsible-investment/what-is-responsible-investment/4780.article](http://www.unpri.org/an-introduction-to-responsible-investment/what-is-responsible-investment/4780.article)

<sup>3</sup> FTSE Russell (2018). *FTSE Russell Stewardship, Transition and Engagement Program for Change – 2018 STEP Change Report*.

Available at: [https://content.ftserussell.com/sites/default/files/research/ftse\\_russell\\_step\\_change\\_2018\\_report.pdf](https://content.ftserussell.com/sites/default/files/research/ftse_russell_step_change_2018_report.pdf)

<sup>4</sup> Elkington, J. "25 Years Ago I Coined the Phrase 'Triple Bottom Line.' Here's Why It's Time to Rethink It." *Harvard Business Review*. June 25, 2018.

Available at: <https://hbr.org/2018/06/25-years-ago-i-coined-the-phrase-triple-bottom-line-heres-why-im-giving-up-on-it>

<sup>5</sup> Ashrafi, M., Acciaro, M., et al.(2019). "Corporate sustainability in Canadian and US maritime ports." *Journal of Cleaner Production*. vol. 220, pp. 386–397.

Available at: <https://doi.org/10.1016/j.jclepro.2019.02.098>

<sup>6</sup> Boffo, R., and R. Patalano (2020). *ESG Investing: Practices, Progress and Challenges*. Available at: [www.oecd.org/finance/financial-markets/ESG-Investing-Practices-Progress-Challenges.pdf](http://www.oecd.org/finance/financial-markets/ESG-Investing-Practices-Progress-Challenges.pdf)

<sup>7</sup> MSCI (2020). *MSCI SRI Indexes*. Available at: [www.msci.com/msci-sri-indexes](http://www.msci.com/msci-sri-indexes)

<sup>8</sup> Mudaliar, A., Bass, R., et al. (2019). "2019 Annual Impact Investor Survey". *Global Impact Investing Network*, 19 June 2019. Available at: <https://thegiin.org/research/publication/impinv-survey-2019>

<sup>9</sup> Inspire Investing (2019). *Faith-based Investment and Sustainability*.

Available at: [www.inspireinvesting.com/2019/03/26/faith-based-investment-and-sustainability/](http://www.inspireinvesting.com/2019/03/26/faith-based-investment-and-sustainability/)

<sup>10</sup> World Economic Forum (2020). *The Global Risks Report 2020*.

Available at: [www.weforum.org/reports/the-global-risks-report-2020](http://www.weforum.org/reports/the-global-risks-report-2020)

<sup>11</sup> Carney, M. (2015). "Breaking the Tragedy of the Horizon – climate change and financial stability".

*Lloyd's of London*, 29 September 2015. Available at: [www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability](http://www.bankofengland.co.uk/speech/2015/breaking-the-tragedy-of-the-horizon-climate-change-and-financial-stability)

<sup>12</sup> Fink, L. (2020) "A Fundamental Reshaping of Finance". *BlackRock*.

Available at: [www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter](http://www.blackrock.com/corporate/investor-relations/2020-larry-fink-ceo-letter)

<sup>13</sup> BlackRock (2020). *Sustainability as BlackRock's New Standard for Investing*.

Available at: [www.blackrock.com/au/individual/blackrock-client-letter](http://www.blackrock.com/au/individual/blackrock-client-letter)

<sup>14</sup> McFall-Johnsen, M (2019). “Over 1,500 California fires in the past 6 years – including the deadliest ever – were caused by one company: PG&E. Here’s what it could have done but didn’t.” *Business Insider*, 3 Nov 2019. Available at: [www.businessinsider.com/pge-caused-california-wildfires-safety-measures-2019-10?r=US&lR=T](http://www.businessinsider.com/pge-caused-california-wildfires-safety-measures-2019-10?r=US&lR=T)

<sup>15</sup> UNEP Finance Initiative (2005). *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment*. Available at: [www.unepfi.org/publications/investment-publications/a-legal-framework-for-the-integration-of-environmental-social-and-governance-issues-into-institutional-investment](http://www.unepfi.org/publications/investment-publications/a-legal-framework-for-the-integration-of-environmental-social-and-governance-issues-into-institutional-investment)

<sup>16</sup> PRI (2019). *Fiduciary Duty in the 21st Century – Executive summary*. Available at: [www.unpri.org/fiduciary-duty/fiduciary-duty-in-the-21st-century/244.article](http://www.unpri.org/fiduciary-duty/fiduciary-duty-in-the-21st-century/244.article)

<sup>17</sup> Stockholm Resilience Centre (2015). *The nine planetary boundaries*. Available at: [www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html](http://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html)

<sup>18</sup> J. Lokrantz/Azote based on Steffen et al. (2015). “Planetary Boundaries: Guiding human development on a changing planet”. *Science*, volume 347, no. 6223. Available at: <https://science.sciencemag.org/content/347/6223/1259855.full>

<sup>19</sup> Raworth, K. (2017). “Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist”. *Random House*.

<sup>20</sup> Ratcliff, A. (2019). “Billionaire fortunes grew by \$2.5 billion a day last year as poorest saw their wealth fall.” *Oxfam International*, 21 Jan 2019. Available at: [www.oxfam.org/en/press-releases/billionaire-fortunes-grew-25-billion-day-last-year-poorest-saw-their-wealth-fall](http://www.oxfam.org/en/press-releases/billionaire-fortunes-grew-25-billion-day-last-year-poorest-saw-their-wealth-fall)

<sup>21</sup> PRI (2017). The SDG investment case. *Macro risks: Universal ownership*. Available at: [www.unpri.org/sdgs/the-sdgs-are-an-unavoidable-consideration-for-universal-owners/306.article](http://www.unpri.org/sdgs/the-sdgs-are-an-unavoidable-consideration-for-universal-owners/306.article)

<sup>22</sup> UN Sustainable Development Goals (2020). *Take Action for the Sustainable Development Goals*. Available at: [www.un.org/sustainabledevelopment/sustainable-development-goals/](http://www.un.org/sustainabledevelopment/sustainable-development-goals/)

<sup>23</sup> Sievänen, R., Rita, H. and Scholtens, B. (2012). “The Drivers of Responsible Investment: The Case of European Pension Funds”. *Journal of Business Ethics*, 117(1), 137–151. Available at: [www.researchgate.net/publication/236667333\\_The\\_Drivers\\_of\\_Responsible\\_Investment\\_The\\_Case\\_of\\_European\\_Pension\\_Funds](http://www.researchgate.net/publication/236667333_The_Drivers_of_Responsible_Investment_The_Case_of_European_Pension_Funds)

<sup>24</sup> PRI (2019). *Policy: Regulation database*. Available at: [www.unpri.org/sustainable-markets/regulation-map](http://www.unpri.org/sustainable-markets/regulation-map)

<sup>25</sup> Henisz, W., Koller, T. and Nuttall, R. (2019). “Five ways that ESG creates value”. *McKinsey Quarterly*, November 2019. Available at: [www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value?cid=soc-web](http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/five-ways-that-esg-creates-value?cid=soc-web)

<sup>26</sup> We Mean Business (2014). *The Climate Has Changed*. Available at: [www.wemeanbusinesscoalition.org/blog/the-climate-has-changed/](http://www.wemeanbusinesscoalition.org/blog/the-climate-has-changed/)

<sup>27</sup> Edmans, A. (2011). “Does the stock market fully value intangibles? Employee satisfaction and equity prices.” *Journal of Financial Economics*, vol. 101, no. 3, pp. 621–640. Available at: [www.sciencedirect.com/science/article/abs/pii/S0304405X11000869](http://www.sciencedirect.com/science/article/abs/pii/S0304405X11000869)

<sup>28</sup> Unilever (2021). *Planet & Society*. Available at: [www.unilever.com/planet-and-society](http://www.unilever.com/planet-and-society)

- <sup>29</sup> Whelan, T. and Fink, C. (2016). “The Comprehensive Business Case for Sustainability”. *Harvard Business Review*. Available at: <https://hbr.org/2016/10/the-comprehensive-business-case-for-sustainability>
- <sup>30</sup> GE Works (2013). *Annual Report*. Available at: [www.ge.com/jp/sites/www.ge.com.jp/files/GE\\_AR13.pdf](http://www.ge.com/jp/sites/www.ge.com.jp/files/GE_AR13.pdf)
- <sup>31</sup> Aeon (2019). *Aeon Sustainability Data Book 2019*. Available at: <https://discl.quick.co.jp/PDF/OT202002150005>
- <sup>32</sup> Parker, M. (2018). “Letter to shareholders”. *Nike Inc.* Available at: [https://s1.q4cdn.com/806093406/files/doc\\_financials/2018/ar/docs/nike-shareholders-letter-2018.pdf](https://s1.q4cdn.com/806093406/files/doc_financials/2018/ar/docs/nike-shareholders-letter-2018.pdf)
- <sup>33</sup> UN Environment Programme (2019). *Environmental Rule of Law: First Global Report*. Available at: [www.unenvironment.org/resources/assessment/environmental-rule-law-first-global-report](http://www.unenvironment.org/resources/assessment/environmental-rule-law-first-global-report)
- <sup>34</sup> Rushe, D. (2015). “BP set to pay largest environmental fine in US history for Gulf oil spill.” *The Guardian*, 2 July 2015. Available at: [www.theguardian.com/environment/2015/jul/02/bp-will-pay-largest-environmental-fine-in-us-history-for-gulf-oil-spill](http://www.theguardian.com/environment/2015/jul/02/bp-will-pay-largest-environmental-fine-in-us-history-for-gulf-oil-spill)
- <sup>35</sup> New York Times (2014). “Bank of America and the Financial Crisis.” *The New York Times*, 21 Aug 2014. Available at: [www.nytimes.com/interactive/2014/06/10/business/dealbook/11bank-timeline.html](http://www.nytimes.com/interactive/2014/06/10/business/dealbook/11bank-timeline.html)
- <sup>36</sup> Financial Times (2016). “VW in \$14.7bn US deal over rigged cars”. *Financial Times*, 27 June 2016. Available at: [www.ft.com/content/f45c2b30-3cbb-11e6-8716-a4a71e8140b0](http://www.ft.com/content/f45c2b30-3cbb-11e6-8716-a4a71e8140b0)
- <sup>37</sup> Helbling, T. (2010) “What are externalities?” *Finance & Development*, December 2010, vol. 47, no. 4. Available at: [www.imf.org/external/pubs/ft/fandd/2010/12/basics.htm](http://www.imf.org/external/pubs/ft/fandd/2010/12/basics.htm)
- <sup>38</sup> Ding, H., He, M. and Deng, C. (2014). “Lifecycle approach to assessing environmental friendly product project with internalizing environmental externality.” *Journal of Cleaner Production*, vol. 66, pp. 128–138. Available at: [www.sciencedirect.com/science/article/abs/pii/S0959652613006811](http://www.sciencedirect.com/science/article/abs/pii/S0959652613006811)
- <sup>39</sup> OECD (2018). *OECD Guidelines for Multinational Enterprises*. Available at: [www.oecd.org/corporate/mne/](http://www.oecd.org/corporate/mne/)
- <sup>40</sup> UNGC (2011). *Guiding Principles Business on Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework*. Available at: [www.unglobalcompact.org/library/2](http://www.unglobalcompact.org/library/2)
- <sup>41</sup> See for example:
- Marotta, F. (2013). *Subject: Request from the Chair of the OECD Working Party on Responsible Business Conduct*. Available at: [www.ohchr.org/Documents/Issues/Business/LetterOECD.pdf](http://www.ohchr.org/Documents/Issues/Business/LetterOECD.pdf)
  - The Norwegian National Contact Point for the OECD Guidelines for Multinational Enterprises (2013). *Final Statement: Complaint from Lok Shakti Abhiyan, Korean Transnational Corporations Watch, Fair Green and Global Alliance and Forum for Environment and Development Vs. Posco (South Korea), ABP/APG (Netherlands) and NBIM (Norway)*. Available at: [www.responsiblebusiness.no/files/2013/12/nbim\\_final.pdf](http://www.responsiblebusiness.no/files/2013/12/nbim_final.pdf)
- <sup>42</sup> Wainwright, S. (2010). “Putting a price on global environmental damage”. *Trucost News*, 5 Oct 2010. Available at: [www.trucost.com/trucost-news/putting-price-global-environmental-damage/](http://www.trucost.com/trucost-news/putting-price-global-environmental-damage/)
- <sup>43</sup> European Commission (2019). *Aircraft operators and their administering countries*. Available at: [https://ec.europa.eu/clima/policies/ets/monitoring/operators\\_en](https://ec.europa.eu/clima/policies/ets/monitoring/operators_en)

<sup>44</sup> CE Delft and Directorate-General for Mobility and Transport (2019). *Taxes in the field of aviation and their impact: Final report*. Available at: <https://op.europa.eu/s/oarR>

<sup>45</sup> Stokel-Walker, C. (2019). “Only extreme eco-taxes on flights will change our flying habits.” *Wired*, 12 July 2019. Available at: [www.wired.co.uk/article/plane-tax-eco-france-sweden](http://www.wired.co.uk/article/plane-tax-eco-france-sweden)

<sup>46</sup> McKinsey & Company (2017). *McKinsey Special Collections – Trends and global forces*. Available at: [www.mckinsey.com/~media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/Strategy%20and%20corporate%20finance%20special%20collection/Final%20PDFs/McKinsey-Special-Collections\\_Trends-and-global-forces.ashx](http://www.mckinsey.com/~media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/Strategy%20and%20corporate%20finance%20special%20collection/Final%20PDFs/McKinsey-Special-Collections_Trends-and-global-forces.ashx)

<sup>47</sup> PWC (2020). *Technological breakthroughs*. Available at: [www.pwc.co.uk/issues/megatrends/technological-breakthroughs.html](http://www.pwc.co.uk/issues/megatrends/technological-breakthroughs.html)

<sup>48</sup> Oxfam International (2020). *Time to care – unpaid and underpaid care work and the global inequality crisis*. Available at: [www.oxfam.org/en/research/time-care](http://www.oxfam.org/en/research/time-care)

<sup>49</sup> PRI (2016). *How asset owners can drive responsible investment – beliefs, strategies and mandates*. Available at: [www.unpri.org/download?ac=1398](http://www.unpri.org/download?ac=1398)

<sup>50</sup> MSCI (2015). *MSCI Portfolio Carbon Footprint Factsheet: Reducing a Portfolio’s Carbon Footprint Using the MSCI ACWI Low Carbon Target Index*. Available at: [www.msci.com/documents/1296102/0/MSCI\\_Portfolio+Carbon+Footprint+Factsheet\\_FINAL.pdf/9c4e82a5-9d4e-4d20-a7ab-976fa601415b](http://www.msci.com/documents/1296102/0/MSCI_Portfolio+Carbon+Footprint+Factsheet_FINAL.pdf/9c4e82a5-9d4e-4d20-a7ab-976fa601415b)

<sup>51</sup> MSCI (2015). *Carbon Footprinting 101 – A Practical Guide to Understanding and Applying Carbon Metrics*. Available at: [www.msci.com/documents/10199/2043ba37-c8e1-4773-8672-fae43e9e3fd0](http://www.msci.com/documents/10199/2043ba37-c8e1-4773-8672-fae43e9e3fd0)

MSCI (2015). *MSCI ACWI Low Carbon Target Index (USD)*. Available at: [www.msci.com/documents/10199/c64f0873-5818-4304-aaf2-df19d42ae47a](http://www.msci.com/documents/10199/c64f0873-5818-4304-aaf2-df19d42ae47a)

<sup>52</sup> EFAMA (2016). *EFAMA Reply to EC Consultation on long-term and sustainable investment*. Available at: [www.efama.org/newsroom/news/efama-reply-ec-consultation-long-term-and-sustainable-investment](http://www.efama.org/newsroom/news/efama-reply-ec-consultation-long-term-and-sustainable-investment)

<sup>53</sup> Global Research Institute (2018). *Digging Deeper Into the ESG-corporate financial-performance-relationship*. Available at: [www.responsible-investor.com/storage/inline/ESG%20Study%202018%20-%20Digging%20deeper%20-%20112018.pdf](http://www.responsible-investor.com/storage/inline/ESG%20Study%202018%20-%20Digging%20deeper%20-%20112018.pdf)

<sup>54</sup> PRI (2018). *How ESG engagement creates value for investors and companies*. Available at: [www.unpri.org/academic-research/how-esg-engagement-creates-value-for-investors-and-companies/3054.article](http://www.unpri.org/academic-research/how-esg-engagement-creates-value-for-investors-and-companies/3054.article)

PRI (2017). *RI Quarterly Vol. 12: Highlights from the Academic Network Conference and PRI in Person 2017*. Available at: [www.unpri.org/academic-research/local-leads-backed-by-global-scale-the-drivers-of-successful-engagement/537.article](http://www.unpri.org/academic-research/local-leads-backed-by-global-scale-the-drivers-of-successful-engagement/537.article)

<sup>55</sup> DB Climate Change Advisors (2012). *Sustainable Investing – Establishing Long-Term Value and Performance*. Available at: [www.db.com/cr/en/docs/Sustainable\\_Investing\\_2012.pdf](http://www.db.com/cr/en/docs/Sustainable_Investing_2012.pdf)

<sup>56</sup> Clark, G.L., Feiner, A. and Viehs, M. (2015). *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance*. Available at: <https://ssrn.com/abstract=2508281>

<sup>57</sup> Friede, G., Busch, T. and Bassen, A. (2015). “ESG and financial performance: aggregated evidence from more than 2000 empirical studies”. *Journal of Sustainable Finance & Investment*, 5(4), pp.210–233. Available at: <https://doi.org/10.1080/20430795.2015.1118917>

<sup>58</sup> Yaffe Kiser, C., Bliss, R. et al. (2015). *Project ROI Report: Defining the Competitive and Financial Advantages of Corporate Responsibility and Sustainability*. Available at: [www.ctphilanthropy.org/sites/default/files/resources/Project-ROI-Report.pdf](http://www.ctphilanthropy.org/sites/default/files/resources/Project-ROI-Report.pdf)

<sup>59</sup> PRI (2020). *About the PRI*. Available at: [www.unpri.org/pri/about-the-pri](http://www.unpri.org/pri/about-the-pri)

<sup>60</sup> PRI (2019). *Annual Report 2019*. Available at: [www.unpri.org/about-the-pri/annual-report-2019/4742.article](http://www.unpri.org/about-the-pri/annual-report-2019/4742.article)