
ACCA
understanding
responsible
investment.

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## Meet the academic team leading the academic research in this ACCA and academia collaboration.

### Dannielle Cerbone

*University of the Witwatersrand*

Dannielle Cerbone is an accomplished professional with a passion for excellence in academia and accounting. He currently serves as an Associate Professor at the University of the Witwatersrand, where he shares his knowledge and expertise with the next generation of accounting professionals. As a Chartered Accountant registered with SAICA, Dannielle brings a wealth of real-world experience to the classroom. He completed his articles at PricewaterhouseCoopers, where he also served as an Audit Manager.

Dannielle's research interests revolve around value creation, materiality determination, business model development, and integrated thinking. His work has been published in, *iter alia*, *Meditari Accountancy Research* and the *British Accounting Review*. His work is widely cited in the field.

### Joseph Clay

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Joseph Clay is a recent graduate of Leeds University Business School, having completed his undergraduate dissertation on responsible investment. Joseph was one of the top-performing scholars in the Accounting and Finance Department at Leeds University Business School.

**Dusan Ecim**
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Dusan Ecim is an Associate Professor at the School of Accountancy, University of the Witwatersrand. He previously served in different capacities at Deloitte South Africa and Deloitte Central Europe. Dusan is the author of multiple full-length academic papers and book chapters dealing with different aspects of accounting, assurance, corporate reporting, integrated thinking and sustainability. Dusan has also produced technical and practitioner-focused reports for the Chartered Institute of Management Accountants and the South African Institute of Chartered Accountants. Dusan is a Chartered Accountant and serves on the Audit Development Committee of the Independent Regulatory Board for Auditors.

**Warren Maroun**
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Warren Maroun is a Professor of Accounting and Auditing at the University of the Witwatersrand and Leeds University Business School. He consults widely on matters related to financial accounting, auditing and integrated reporting. Warren serves as the editor of *Meditari Accountancy Research* and is an Associate Editor of *Accounting, Auditing and Accountability Journal*, *The British Accounting Journal* and *Journal of Accounting and Public Policy*. He has published multiple academic and professional publications dealing with various aspects of corporate reporting and assurance.

Before joining academia, Warren served in different capacities at PricewaterhouseCoopers. He has served on different task forces, working groups and committees for the Integrated Reporting Committee of South Africa, the Independent Regulatory Board for Auditors and the Chartered Governance Institute of Southern Africa. Warren was a member of the IAASB from 2022-2024. He earned his Masters in Accountancy from the University of the Witwatersrand and a PhD from Kings' College London. He is a member of the South African Institute of Chartered Accountants and the Chartered Institute of Management Accountants.



# Contents.

# Executive summary.

**Environmental and social matters are fundamentally interconnected with an organisation's financial success – making sustainability considerations central to effective capital allocation. As climate change, biodiversity loss, and social inequities intensify, the financial implications of sustainability challenges have become increasingly material for both investors and investees.**

This report synthesises the expanding body of literature on **responsible investment** to establish a comprehensive framework for integrating sustainability considerations into investment decision-making. Drawing from academic research, industry standards, and professional texts – we identify eight core components of responsible investment for investors to focus on:

- **ESG integration:** Systematically incorporate material environmental, social and governance (ESG) factors into investment analysis and decision-making to improve risk-adjusted returns.
- **Sustainability frameworks:** Leverage established frameworks to identify, measure and report on material sustainability issues.
- **Screening methods:** Use avoidance and adaptive screening approaches to evaluate and assess environmental and social risks and opportunities.
- **Investor proactivity:** Exercise active ownership using stewardship actions, stakeholder engagement, and collaborative initiatives to influence positive sustainability outcomes.
- **Strategic purpose:** Define clear sustainability objectives and develop policies to formalise and ensure consistent application of the investor's sustainability strategy.
- **Selection of investment options:** Match appropriate financial instruments with specific sustainability goals and investment needs, ensuring alignment with the responsible investment strategy.
- **Regulatory compliance and standards:** Maintain awareness of evolving sustainability regulations, disclosure requirements, industry best practices, and existing sustainability standards to ensure compliance and strategic advantage.
- **Outcomes:** Develop, monitor and report comprehensive metrics that capture both financial returns and broader environmental and social value creation.

Together, these interconnected components form an integrated thinking model for responsible investment. This model builds on ACCA's previous research on sustainability reporting and connectivity of information[1]. At the model's core is the approach to integrating ESG issues into decision-making processes and policies developed to formalise the investor's sustainability strategy. Regulatory requirements and industry frameworks serve as calibration checks to ensure completeness and conformance. Operationalising the strategy requires rigorous screening and meaningful investor proactivity, while comprehensive reporting provides accountability to stakeholders.

This framework is not intended to relegate financial returns to a secondary consideration – but rather to ensure that the full spectrum of risks and opportunities is systematically incorporated into investment analysis and capital allocation.

Given the dynamic nature of responsible investment, the proposed framework should be viewed as a foundation as opposed to a static blueprint. The responsible investment space continues to evolve rapidly in response to:

- changing regulatory landscapes
- innovations in financial instruments
- advances in scientific understanding
- growing stakeholder expectations
- emerging technologies.

1 ACCA's work on sustainability reporting and making connections is housed within Sustainability reporting hub: creating and using decision-useful information | ACCA Global

# 1. Introduction[2].

**There is no generally accepted definition of 'responsible investment'. There are practical, technical and legal challenges still to be resolved before a global consensus can be achieved. In the interim, this report takes stock of the growing body of literature on the relevance of sustainability for the broader investment community. The core features or characteristics of 'responsible investment' are identified by synthesising mainstream sources and the latest academic research.**

A logical starting point is the term 'sustainable development'. This was formally defined in 1987 by the World Commission on Environment and Development (WCED) as progress that 'meets the needs of the present without compromising the ability of future generations to meet their own needs' [1]. This foundational concept has become central to global discussions about economic development, environmental protection, and social equity. Nevertheless, the environment continues to be damaged at an accelerated rate [2-4]. Alongside warnings from the scientific community, leading institutions such as the International Monetary Fund (IMF) [5], World Bank [6] and Financial Stability Board (FSB) [7] have highlighted the existential risks posed by unchecked environmental degradation.

Against this backdrop, responsible investment has emerged as a means of aligning economic activity with sustainability imperatives. This reflects a fundamental shift in how decisions are made by investors, asset managers, and asset owners in the private and public sectors – with each required to incorporate sustainability-related considerations into their strategic and operational processes [8]. Consequently, the integration of sustainability into investment decision-making has evolved from a niche concern to a mainstream consideration, driven by both recognition of systemic risks and growing stakeholder expectations [8-11].

At international policy level, the journey began with the Millennium Development Goals (MDGs) set in 2000, which provided the first global baseline on development priorities. Recognising limitations – including the need for a more comprehensive approach to tackle social and environmental challenges – the United Nations (UN) transitioned to the Sustainable Development Goals (SDGs) in 2015 [12][3]. These were intended to guide public policy and national investment priorities, but have increasingly influenced organisations' strategies and reporting as well as investors' capital allocations[4].

At the institutional level, the United Nations Principles for Responsible Investment (UNPRI)[5], launched in 2006, presents six principles specifically tailored for financial institutions. These have become widely adopted – with institutional investors managing over US$100 trillion in assets committing to incorporating ESG factors into their investment analysis and ownership practices.

Multiple guidelines have emerged to inform the accounting for and reporting on extra-financial issues[6]. The Equator Principles (EPs)[7] provide further guidance to assist financial institutions with incorporating ESG issues more effectively into their investment decision-making. Collectively, the EPs and various reporting frameworks provide the basis for describing the policies, processes and practices that constitute 'responsible investment'.

Reconciling and consolidating these sources, however, is no easy task. The remainder of this report outlines eight components that characterise responsible investment. The result is a comprehensive, yet relatively concise, reference that will be useful for investment practitioners, asset owners, and regulators who must navigate an increasingly complex field.

2 While this report is aimed at institutional and retail investors, it will also be applicable more generally. For example, investees, their governing bodies and other stakeholders may also find the report's assessment of responsible investment useful.

3 For a summary of the SDGs and a brief description of each goal refer to https://sdgs.un.org/goals.

4 The prior research notes that the measures and targets employed by organisations and providers of financial capital can vary. Even when this is not the case, each of the SDG goals can be interpreted and operationalised differently. Understanding how the SDGs macro-ambitions effect organisations' and investors' strategies is beyond the scope of the current report.

5 A description of the UNPRI principles is found here https://www.unpri.org/about-us/what-are-the-principles-for-responsible-investment.

6 A description of the UNPRI principles is found here https://www.unpri.org/about-us/what-are-the-principles-for-responsible-investment.

7. The Equator Principles were established in 2003 and have evolved over time to address new environmental and societal risks. The latest iteration was in 2020 with 'EP4' and this framework is widely respected within financial institutions. For more information see https://equator-principles.com/about-the-equator-principles/

# 2. The framework for responsible investment.

**The analysis of articles and professional texts – including frameworks, principles and standards related to sustainable finance – identifies eight core components of responsible investment. These components were identified using a type of cluster analysis. Academic papers were grouped based on their keywords[8], cross references and citations.**

This limited the possibility of bias when aggregating articles by theme/content. After the first grouping had been completed the authors complemented the analysis by incorporating non-academic sources including, for example, technical reports, professional standards, and codes of best practice. This involved the application of judgement but was guided by the groupings generated using the cluster analysis to reduce subjectivity. (Further details on this approach can be found in Appendix A.)

These components have been ranked by considering the frequency of mentions in the literature, citation counts of the respective sources, and the chronological development of the field. The ranking reflects both the historical importance of, and the current emphasis placed on, different aspects of responsible investment by researchers, practitioners and policymakers[9].

8 The keywords are determined by the authors of each article.

9 The eight components are broadly consistent with the UN PRI but do not correspond exactly to each of the PRI's principles. This is because the derivation of the eight components is based on a broad range of sources of which the UN PRI is an example.

**Figure 1:**
The components of responsible investment

- > **ESG integration.**
- > **Sustainability frameworks.**
- > **Screening methods.**
- > **Investor proactivity.**
- > **Strategic purpose.**
- > **Selection of investment options.**
- > **Regulatory frameworks.**
- > **Outcomes.**

The eight components described in this report form part of a comprehensive framework for responsible investments[10]. They are interconnected and, when applied holistically, enable investors to integrate sustainability considerations into their core decision-making. Given the dynamic nature of responsible investment, the eight components should not be interpreted as exhaustive. Investment professionals should view this framework as a dynamic foundation rather than a static blueprint – one that requires ongoing engagement with emerging research, standards and best practices. Before dealing with the interconnections between the components, each is considered individually below.

## 2.1. ESG integration

'ESG integration' is the 'ongoing consideration of ESG factors within an investment analysis and decision-making process with the aim to improve risk-adjusted returns' [13]. The first component is referred to extensively by multiple sources, including the UN PRI, and can be considered the foundation of responsible investment. It requires a systematic incorporation of sustainability-related considerations into each material part of investment analysis and capital allocation [14].

How the ESG dimensions are addressed by the investor are explained as part of its sustainability reporting. This complements details provided by the investee on how financial and extra-financial issues affect its operations (Section 2.7).

The nature and extent of reporting depend on context, materiality and the application of professional judgement. Ultimately, what is reported is a product of integrated thinking – how environmental, social and economic factors are managed concurrently to generate reliable and responsible returns for investees [9, 15]. At the of this is the investor's ability to identify extra-financial issues, related dependencies, the emerging risks, and associated financial outcomes [7].

### Environmental risk assessment

Environmental risks fall into two primary categories:

- **Physical risks** stem from environmental events such as floods, droughts and extreme weather conditions that can directly damage infrastructure and disrupt operations.
- **Transition risks** arise from the shift toward a low-carbon economy, including policy changes, technological innovations, and market preferences that can affect asset valuations [7, 8, 16].

### Social risk assessment

Social risks stem from public perception and societal trends, both of which can affect financial performance. These include issues such as cybersecurity breaches, labour disputes, and human rights concerns.

For example, Facebook's sharing of personal data from 87 million users with Cambridge Analytica in 2018 led to a £90.8bn drop in market capitalisation [18]. Similarly, a 2014 strike in South Africa's platinum mining sector, involving 70,000 workers, is estimated to have reduced the country's real GDP growth by at least 0.7% [19].

### Governance risk assessment

Strong governance structures are essential for managing environmental and social risks effectively. Governance factors include board composition, executive compensation, business ethics, transparency, and regulatory compliance (see Appendix B). Poor governance can lead to inadequate risk management, conflicts of interest, and reduced accountability – potentially resulting in significant financial losses and reputational damage [20].

10 The report is prepared from the perspective of an investor at the time when making an initial investment. Key principles can, however, be adapted to deal with the assessment/reassessment of existing investments. A detailed discussion on the difference between appraisals made at initial investment or subsequently is beyond the scope of this report.

## Implementing ESG integration

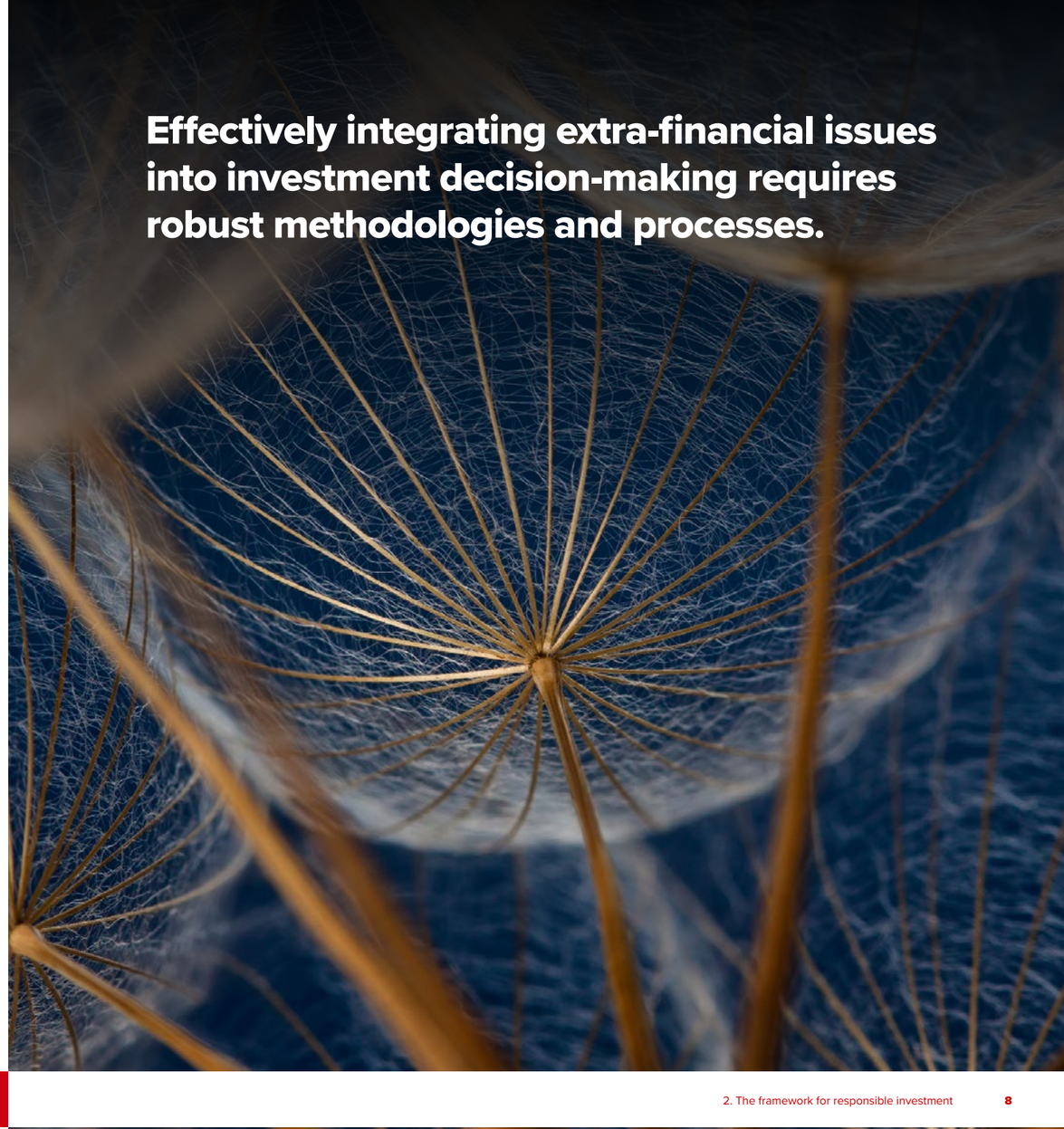
Determining which social and environmental issues are relevant in the context of an investment strategy is challenging – although some guidance has been developed. Investors need to consider the full range of extra-financial factors before ranking them by materiality – using a both of qualitative and quantitative indicators, such as:

- **Direct and indirect dependencies:** Which social environmental resources/capitals are the investor (direct) and investee (indirect) dependent on for the sound functioning of their business models and realisation of their strategic goals?
- **Stakeholder expectations:** Who are the primary stakeholders, and which social and environmental issues do they reasonably expect to be factored into investment decision- making processes?
- **Regulatory requirements:** Do laws, industry regulations, or generally accepted practices create legal or constructive obligations/expectations to integrate specific extra-financial issues into the investor's operations, strategies or risk assessments?
- **Timeframes:** Over what period do social or environmental risk/dependencies materialise?
- **Expected impacts:** What is the magnitude of the extra-financial impact on the amount and certainty of future cashflows – and how are these cashflows altered by the associated timeframe of the respective extra-financial issue?
  [7, 14, 21]

Effectively integrating extra-financial issues into investment decision-making requires robust methodologies and processes. Several key principles from the technical [22] and academic literature can be used to guide ESG integration. For example:

- **Extreme Value Theory (EVT)** and other scientific models can be used to forecast the effect of extraordinary environmental events and factor these into expected cash flows.
- **Discount rates** can be adjusted to reflect risk levels associated with future cash flows due to underlying ESG issues, using either quantitative techniques or industry-aligned heuristics.
- Similarly, the **beta of stocks** can be modified based on quantified or perceived levels of ESG risks.
  [23]

A detailed review of the practical application of each of these principles is beyond the scope of this report. The objective here is to develop a comprehensive framework to ensure ESG factors are consistently and comprehensively considered within risk assessment and management processes. This supports well-reasoned conclusions regarding the impact of ESG factors on financial stability and investment performance.



## 2.2. Sustainability frameworks

Sustainability frameworks provide structured approaches for addressing ESG challenges using standardised principles, metrics and reporting guidelines. The development of these frameworks represents a significant evolution in how organisations conceptualise and measure sustainability performance [24, 25]. For example:

- **United Nations Principles for Responsible Investment (UNPRI):** Launched in 2006, the UNPRI offers six principles specifically tailored for financial institutions [14].
- **Task Force on Climate-related Financial Disclosures (TCFD):** Established by the FSB, the TCFD provides recommendations for climate-related financial disclosure – helping organisations assess and report on climate-related risks and opportunities [26].
- **Task Force on Nature-related Financial Disclosures (TNFD):** Building on the TCFD model, the TNFD focuses on nature-related risks and opportunities – providing a framework for organisations to assess and disclose their dependencies and impacts on nature [7].
- **International Sustainability Standards Board (ISSB):** Established by the IFRS Foundation, the ISSB aims to develop a comprehensive global baseline of sustainability disclosure standards – promoting consistency and comparability in sustainability reporting.
- **Global Reporting Initiative (GRI):** Provides standardised sustainability reporting guidelines for organisations that cover a range of sustainability topics – with complementary industry and sector guidelines.

Collectively, these frameworks/standards provide a rich ecosystem of metrics, objectives and principles that responsible investors will find useful for two reasons.

Firstly, the frameworks set parameters for how investees report. This improves data collection and processing by enabling comparability and consistency in what and how investees in the same sectors disclose financial and extra-financial information [27, 28].

Secondly, the frameworks/standards encourage the responsible investor to assess their own credentials and guide the integration of ESG issues into its decision-making, as discussed in Section 2.1. For this purpose, these frameworks/standards should not be treated as a disclosure checklist exercise. Rather, they should serve as a starting point for a principles-based approach to incorporating all material ESG considerations into investment appraisals and capital allocations.

### Aligning investment strategies with sustainability frameworks

Responsible investment requires explicit consideration of how investment activities contribute to, or detract from, sustainability objectives. This alignment can take several forms:

- **Framework selection:** Identifying which sustainability frameworks are most relevant to specific investment strategies, sectors, or stakeholder expectations.
- **Target setting:** Establishing specific sustainability targets aligned with selected frameworks.
- **Impact measurement:** Developing metrics to quantify investment impacts using framework-defined indicators.
- **Reporting:** Communicating framework-aligned performance to stakeholders.
  [29]

Many institutional investors map their portfolios against multiple sustainability frameworks – using well-known indices or internally-generated scores. The objective is to identify areas where investments make positive contributions, and where improvements are needed [8, 30]. This approach provides a practical means for investors to demonstrate their commitment to sustainable development, identify opportunities aligned with global sustainability priorities, and highlight the relationship between financial returns and extra-financial objectives.

In some cases, pursuing an environmental or social objective directly contributes to higher financial returns. For example, through improved operational efficiencies, strategic positioning by the investee, better diversification of investor's portfolio, or access to preferential tax treatments. In other cases, the investor may accept a lower financial return (especially in the short-run) in exchange for mitigating negative social or environmental impacts.

Care must, however, be taken to ensure that any index or score used provides a valid and consistent measure of underlying sustainability performance – not only capturing the extent to which an investee is reporting/commenting on various ESG indicators [9].

**'In some cases, pursuing an environmental or social objective directly contributes to higher financial returns.'**

Responsible investors should recognise the strategic value of investees that prioritise the incorporation of principles from frameworks/standards into their core operations, rather than treating disclosure as a compliance exercise by the investor or the investee [31]. Mere compliance does not automatically lead to improved ESG performance. More important is integrating extra-financial indicators into investment appraisal and other decisions [30], as discussed in Section 2.1. Indicators that ESG issues are being addressed substantively rather than symbolically are:

- **Risk management:** Recognising how failure to address sustainability issues – as articulated by the applicable frameworks – can increase exposure to risk or cause missed opportunities for both the investee *and* the investor. A dual perspective is needed, including both:

  1. An **'inside-out'** approach – where the investor must be satisfied the investee has a comprehensive approach to managing sustainability-related issues as part of its business model.

  2. An **'outside-in**' approach – that addresses how the investor's systems, processes and methodologies integrate ESG issues into their decision-making.

- **Engagement:** Active collaboration between the investor and investees, researchers and NGOs to better understand sustainability related issues and improve ESG performance. (This is discussed in more detail under 'Investor proactivity' below.)
- **Materiality assessment:** Effective risk management and engagement enable the investee and/or investor to identify the most relevant sustainability issues. Issues prioritised by a specific investor may not be identical to those highlighted in the investee's official reports. This is because the applicable framework/standard may require broader reporting by the investee on sustainability-related matters to address the information needs of multiple stakeholders.
- **Long-term orientation:** The investee and/or investor must address operational and strategic issues over the short-, medium- and long-term.
- **Innovation focus:** The investee and/or investor employs the frameworks to explain how material risks are mitigated and how it plans to capitalise on significant opportunities.
- **Continuous improvement:** There is evidence of the investee and/or investor regularly reviewing and refining framework implementation – based on emerging best practices and evolving sustainability challenges.
- **Balance and completeness:** The investee's and/or investor's formal reports detail both positive and negative outcomes. The content of those reports is consistent with the investor's understanding of the investee and the broader industry.
- **Simplicity:** The sustainability report, or equivalent, explains the investee's and/or investor's financial and extra financial performance clearly and concisely. Immaterial details should be excluded to enable a balanced assessment by management and the governing body.
- **Sustainability assurance:** The investee and/or investor implements robust verification processes to ensure the accuracy, completeness and reliability of its sustainability reporting. This includes internal controls, third-party verification, and transparent methodologies that enhance stakeholder confidence in sustainability reporting.

  Effective assurance helps combat greenwashing, reduces information asymmetry, and enhances the value relevance of reporting. Consequently, leading investors recognise that credible sustainability performance will eventually require the same level of rigour and verification as financial reporting. [7, 13, 25, 28, 32-38]

Using sustainability frameworks/standards to inform responsible investment is not without its challenges. Most notable is the exponential increase in the number and complexity of reporting schematics – marked by inconsistent terminology, excessive use of metrics, and conflicting priorities. The administrative and compliance costs raise concerns about a possible disconnect between how sustainability is managed and reported on by investees. Even when the risk of green washing is low, sustainability reporting is seldom consistent over time and among entities in the same industry.

Efforts to address these challenges include the development of framework mapping tools, which identify overlaps and complementarities among different sustainability frameworks and initiatives to align reporting requirements. The establishment of the ISSB represents a significant step toward framework consolidation – aiming to develop a comprehensive global baseline for sustainability disclosure [39].

**'Using sustainability frameworks/standards to inform responsible investment is not without its challenges.'**

> **Responsible investors should conduct an adequate, accurate and objective evaluation and presentation of the environmental and social risks and impacts.**

## 2.3. Screening methods

Screening is defined as 'applying rules based on defined criteria that determine whether an investment is permissible' [13]. Responsible investors should conduct 'an adequate, accurate and objective evaluation and presentation of the environmental and social risks and impacts' [31] before committing funds. This requires comprehensive understanding of impact pathways [40] and doing so is a technical and time-consuming activity.

The LEAP Framework[11] has been developed by the FSB to help investors and asset owners with investment screening [21]. Although originally intended for nature-related issues, LEAP can be adapted to address ESG considerations more broadly. It can also be combined with recent academic work dealing with the accounting for, and reporting on, different environmental risks, eg habitat destruction and loss of species [21].

How screening would be operationalised is context-specific. Consequently, the remainder of this section addresses only with broader aspects – including the differences between avoidance and adaptive screening, and how these can be integrated into investment decision-making.

### Avoidance vs. adaptive screening

There are two primary approaches to screening: avoidance and adaptive.

**Avoidance screening** follows an 'outside-in' methodology – excluding investments that do not meet predetermined ESG thresholds. This approach is straightforward and can align with specific ethical guidelines, but may limit investment opportunities [41].

**Adaptive screening** employs an 'inside-out' approach – considering all possible investments unless negative externalities cannot be mitigated. This approach can take several forms:

1. **Transformative change:** Identifying stocks where transformative change can be enacted post-investment.
2. **Marginal change:** Investing in companies where negative impacts can be mitigated by making incremental modifications to the investee's operations, processes or systems over time.
3. **Offsetting:** Balancing investments with negative externalities against those with positive impacts.

[42, 43]

11 For further details on the applying LEAP refer to: https://tnfd.global/publication/additional-guidance-on-assessment-of-nature-related-issues-the-leap-approach/

While avoidance screening sits highest on the mitigation hierarchy, adaptive screening allows for a wider range of investment opportunities. Investors should follow the mitigation hierarchy while using professional judgment to determine the most appropriate approach based on their investment objectives, values and constraints.

While this report does not advocate for one type of screening over another, the technical and academic literature agrees that screening should be integrated throughout the investment process [44].

## 2.4. Investor proactivity

Active ownership is a cornerstone of responsible investment, surpassing passive investment to actively influence corporate behaviour [45]. The concept encompasses stewardship, engagement and the exercise of shareholder rights to promote sustainable business practices.

### Stewardship

Stewardship refers to 'the use of investor rights and influence to protect and enhance overall long-term value for clients and beneficiaries, including the common economic, social and environmental assets on which their interests depend' [13].

Active shareholder involvement can lead to more sustainable outcomes [46], and improving the well-being of all company stakeholders [47]. Key stewardship activities include:

- **Proxy voting:** Exercising voting rights on shareholder resolutions.
- **Board engagement:** Communicating with board members on strategic issues.
- **Shareholder resolutions:** Filing proposals to address specific ESG concerns. [48]

The nature and extent of the investor's stewardship activities should be guided by an overarching materiality assessment. This will take into consideration factors such as, the investor's financial exposure, the environmental and social risks at the investee level, the strength of the investee's governance systems, and the resources at the investor's disposal [49].

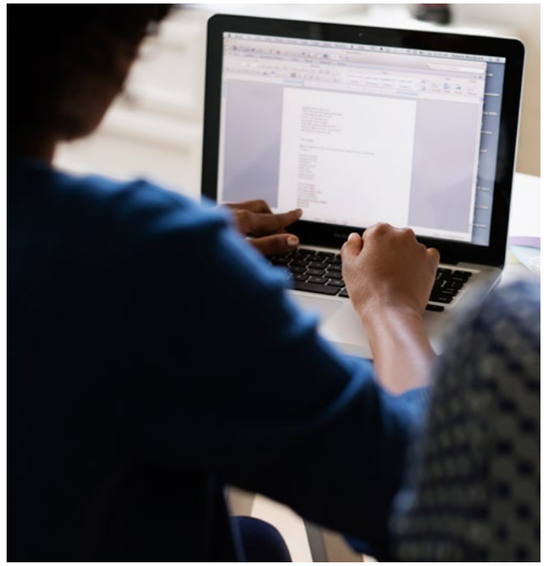
### Stakeholder engagement

The EPs advocate for effective stakeholder engagement [31], recognising that investment impacts extend beyond the value chain of the investee to broader social networks. Neglecting stakeholder networks can have significant financial consequences, as negative sentiment can lead to poor press coverage and increased regulatory scrutiny [50, 51].

Examples of how a responsible investor could mitigate risks resulting from the stakeholder network include:

- **Engaging** with indigenous groups, local communities, and affected stakeholders transparently and respectfully [52].
- **Employing** grievance mechanisms to promote positive stakeholder relations and accountability [20, 31].
- **Developing** metrics and monitoring systems in collaboration with stakeholders to build confidence and maintain accountability [52].

As with stewardship activities, stakeholder engagement should be appropriately scaled. The responsible investor is not relieved of their duty to generate a reasonable financial return; they must take reasonable steps to achieve its business objectives (see 'Financial performance' below). Consequently, the responsible investor cannot be expected to operate on behalf of every stakeholder, especially in cases where expectations conflict. The investor should, however, develop policies to guide how stakeholders' needs are identified and ranked to manage trade-offs appropriately [53].



### Collaborative initiatives

Collaboration among shareholders can transform impact pathways more effectively. Membership in organisations like UNPRI and adherence to the EPs facilitates connections with like-minded institutions.

Strategic partnerships can accelerate sustainability initiatives by enabling investors to pool resources, share knowledge, and exert greater influence than they could individually [54, 55]. This collaborative approach is particularly valuable when addressing systemic issues that require coordinated action [38].

## 2.5. Strategic purpose

Responsible investing should not be misunderstood as forsaking profit in favour of pursuing lofty environmental or social objectives. On the contrary, the guidance provided by, for example, the UN PRI and the TNFD offers practical means of managing the interconnections among environmental, economic and social objectives at the strategic level.

One approach is to leverage social and environmental risks and opportunities to generate superior financial returns. An alternative is to explore investments with a favourable social and/or environmental impacts. These may offer a lower financial return, especially in the short term, but provide strategic and other non-financial benefits. While not every investor will be interested in allocating funds to the respective projects, some may be prepared to accept a lower financial return in exchange for the longer-term benefits associated with improved environmental and social outcomes [56].

**‘Responsible investing should not be misunderstood as forsaking profit in favour of pursuing lofty environmental or social objectives.’**

Each approach to responsible investment will have advantages and disadvantages. The existing literature does not advocate for one strategic framing of investments over another – but agrees that appropriate policies should be developed to guide how the investor allocates funds. Key considerations include:

- **Setting impact objectives:** Defining the specific social or environmental outcomes sought.
- **Selecting metrics:** Identifying appropriate indicators to measure progress.
- **Collecting data**: Gathering information on impact performance.
- **Analysing results:** Assessing outcomes against objectives.
- **Reporting findings:** Communicating impact performance to stakeholders. [57]

The analysis of results and reporting of findings are discussed in Section 2.1 to 2.3. How data is collected and processed is an integral part of investor proactivity (Section 2.4) and financial performance considerations (Section 2.8). Frameworks such as the Impact Management Project (IMP) provide standardised approaches for assessing impact across five dimensions:

**What?**

Identifying changes in behaviour and/or outcomes being targeted.

**Who?**

Determining which stakeholders are affected by changes

**How much?**

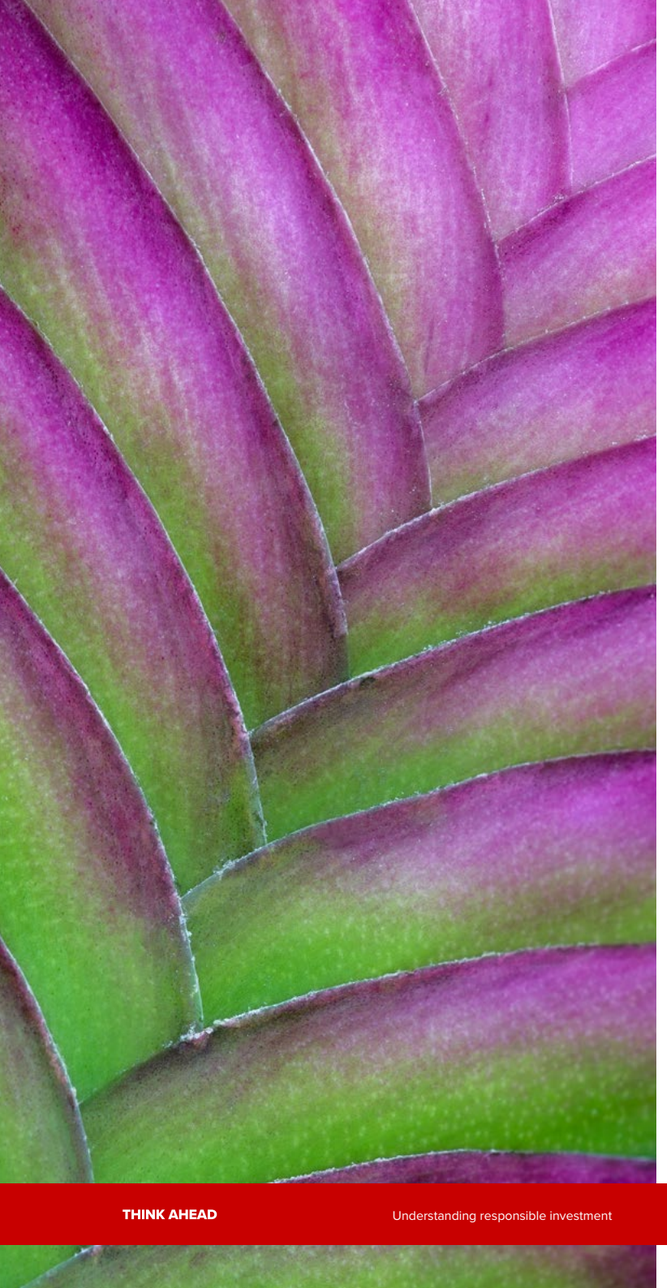
Measuring the scale and extent of the impact

**Contribution**

Articulating the financial and non-financial role in achieving the impact

**Risk**

Evaluating the likelihood of divergence between expected and actual results, and developing mitigation strategies. [58-62]



## 2.6. Selection of investment options

Section 2.5 is concerned with developing an overarching strategy for integrating ESG issues into investment decision-making. An additional, but related, 'node' of research examines the selection of specific types of investments to implement the strategic direction set by the investor's governing body.

There are two interrelated considerations; the classification of investments as environmentally or socially responsible, and how the different types of responsible investment are selected.

Common examples of investment classifications include green bonds, social bonds and sustainability bonds, sustainability-linked loans and bonds, transition finance and nature-based finance. The defining feature of each is that it is used to channel capital towards sustainability-related activities [63, 64].

**Table 1:**
Classification examples

| CLASSIFICATION | DESCRIPTION |
|---|---|
| **Green bonds** | Green bonds are fixed-income securities whose proceeds are exclusively applied to new and existing projects with environmental benefits. The Green Bond Principles (GBPs) provide voluntary guidelines for issuing green bonds, covering four key components:<br>**(1)** the use of proceeds<br>**(2)** the process to be followed for project evaluation and selection<br>**(3)** how proceeds are managed<br>**(4)** the nature, timing and extent of the information to be reported.<br>The green bond market has grown substantially since its inception – reflecting increasing demand for investments that support climate and other environmental objectives [60, 65]. |
| **Social bonds and sustainability bonds** | Social bonds are fixed-income securities whose proceeds fund projects with positive social outcomes, such as affordable housing, food security, or access to essential services. Sustainability bonds combine elements of both green and social bonds – funding projects with both environmental and social benefits [66]. |
| **Sustainability-linked loans and bonds** | Sustainability-linked loans and bonds connect the financial terms of the instrument to the borrower's achievement of sustainability targets. Unlike green bonds, which focus on the use of proceeds linked to specific environmental objectives, sustainability-linked instruments focus on the overall sustainability performance of the issuer. In other words, social and governance factors are considered as well as environmental ones [67]. The key features include:<br>> Selection of material KPIs<br>> Calibration of sustainability performance targets<br>> Loan/bond characteristics that vary based on target achievement<br>> Reporting on performance<br>> Verification of performance against targets.<br>This structure creates financial incentives for improved sustainability performance. It is intended to align financial returns with the achievement of environmental and social objectives [68]. |
| **Transition finance** | Transition finance supports organisations in carbon-intensive sectors to shift toward lower-carbon business models. This emerging area recognises that achieving climate goals requires not only investing in already-green activities, but also supporting the transition of carbon-intensive industries [69]. |
| **Nature-based finance** | Nature-based finance focuses on investments that support the conservation, restoration and sustainable management of natural ecosystems. This includes biodiversity offsets, payments for ecosystem services, and conservation finance mechanisms that recognise the economic value of natural capital [40]. |

The instruments discussed above are examples of the types of investments that can be funded to achieve the investor's strategic aims. Generally accepted criteria that must be satisfied for an investment to be classified as 'green', 'social' or 'sustainability-linked' are yet to be finalised [14].

In the interim, while it can be tempting to use bright lines to define 'responsible investment', this should be avoided. Instead, responsible investment is characterised by developing and implementing policies to ensure that the selection of specific investments aligns with the investor's strategic position on integrating social and environmental concerns into decision-making processes, as discussed in Sections 2.1 and 2.5 [7, 14, 21].

**'Responsible investment is characterised by developing and implementing policies to ensure that the selection of specific investments aligns with the investor's strategic position on integrating social and environmental concerns into decision-making processes.'**

Key considerations to guide investment houses and their governing bodies include:

- **Defining sustainability-related investments:** A clear definition should be developed that differentiates between various types/classes of instruments. Any internally developed definitions should, to a practical extent, be consistent with recommended best practices.
- **Identifying suitable indicators:** Relevant financial and non-financial indicators should be selected to evaluate available investments and classify them in accordance with internal definitions/classifications of sustainability-related definitions.
- **Adapting frameworks:** In the absence of detailed guidance to link specific indicators with certain types of responsible investment, the support provided by frameworks such as the TNFD and TCFD can be adapted accordingly. For example, an investment's social, economic and environmental impact pathways can be identified and assessed to assist with investment classification. In practical terms, this could be carried out as part of the investor's screening process (Section 2.3).
- **Engaging specialists and stakeholders:** Classifications can be tested using detailed reviews by subject matter experts and the investor's key stakeholders. The investor's governing body should assume ultimate responsibility for how investments are classified.
- **Developing allocation policies:** Policies should be developed to guide the allocation of funds to the different types/classifications of investments. These should align with the investor's strategic purpose/aim (Section 2.5), and cover issues such as how ESG concerns are integrated into risk assessments, the trade-off between financial return and extra-financial impact, and total exposure to types of investments.
- **Performance reviews:** Senior management and those charged with governance should regularly review both the financial and extra-financial performance measures for each material class of sustainability-related investment. ACCA's guide on green finance skills is a useful resource to consider [70].
- **Internal oversight:** Responsibilities of the internal audit function and charter of the audit and risk committee should be expanded to incorporate monitoring of the investment policy and review of material classes of sustainability-related investments.
- **Reporting consistency:** Investment selection and management of investment options should be aligned with how the related information is disclosed to stakeholders in annual, sustainability or integrated reports.
[7, 13, 63, 64, 70, 71]

**Regulatory frameworks vary by region – with some jurisdictions implementing mandatory sustainability disclosure requirements while others rely on voluntary approaches.**

## 2.7. Regulatory requirements and standards

The regulatory landscape for responsible investment has developed significantly in recent years – with increasing policy interventions aimed at promoting sustainable finance and improving ESG disclosure. This development reflects growing recognition of the financial materiality of sustainability factors and the need for standardised approaches to sustainability-related financial information.

Regulatory frameworks vary by region – with some jurisdictions implementing mandatory sustainability disclosure requirements while others rely on voluntary approaches. Commonly used frameworks/standards are discussed in Section 2.2. These should be evaluated in conjunction with the latest regional developments. For example:

- **The EU Sustainable Finance Action Plan** – including the EU Taxonomy, Sustainable Finance Disclosure Regulation (SFDR) and Corporate Sustainability Reporting Directive (CSRD) – provide a comprehensive regulatory framework for sustainability reporting and sustainable finance.
- **United Kingdom:** The UK has implemented mandatory TCFD-aligned disclosure requirements for certain organisations and developed a Green Finance Strategy to align financial flows with climate and environmental goals.
- **United States:** While federal regulation has been more limited, the Securities and Exchange Commission (SEC) in the USA has, at the time of writing, proposed rules on climate-related disclosure. In parallel, several state-level initiatives have advanced sustainable finance objectives.

These frameworks facilitate practical implementation of sustainability principles at the operational level of investment decision-making. Despite progress, challenges remain in the regulatory landscape for responsible investment [72]. As discussed in Section 2.2, these include:

- fragmentation of reporting requirements
- implementation challenges
- A rapidly evolving regulatory landscape that requires continuous adaptation by market participants.

Investors must remain alert to the continuously evolving regulatory context, including geopolitical and geoeconomic tensions. Opportunities for smaller investors to collaborate in the interests of regulatory compliance and the benefits of economies of scale should be explored.

## 2.8. Outcomes

Research suggests that responsible investment approaches can deliver competitive returns while potentially reducing certain types of risk [48]. These include:

- **Regulatory risks:** Anticipating regulatory changes related to environmental and social concerns.
- **Reputational risks:** Identifying potential controversies that could damage brand value.
- **Operational risks:** Recognising vulnerabilities in operations, supply chains, and resource dependencies.
- **Litigation risks:** Assessing exposure to legal challenges related to ESG issues.
- **Systemic risks:** Understanding exposure to broader environmental and social trends.

Effective ESG risk management can reduce volatility and bolster financial returns by allowing the responsible investor to more accurately predict the amount and timing of an investee's future cashflows. Beyond risk mitigation, integrating ESG into investment decision-making can lead to long-term value creation by enabling:

- **Innovation:** Companies addressing sustainability challenges often develop innovative products and services.
- **Operational efficiency:** Resource efficiency initiatives can reduce costs.
- **Talent attraction and retention:** Strong ESG performance can enhance ability to attract and retain skilled employees.
- **Customer loyalty:** Alignment with consumer values can strengthen brand loyalty.
- **Access to capital:** ESG leaders may benefit from lower cost of capital. [13, 26, 43].

To realise these benefits, investors must have access to a broad range of data [73]. Given the nature of different types of sustainability reporting, this includes both qualitative and quantitative information – comprising monetary and non-monetary measures [74]. The data applicable for each investor will vary according to circumstances – for example, the type of underlying investments, the frameworks/standards applied by the investee, and the prevailing regulatory regime (see also Section 2.2).

The responsible investor will have broad policies in place to guide the nature and scope of the data required, and how this data is organised to enable effective decision-making. The investor will require appropriate internal controls over the resulting 'chart of accounts'. This is to ensure that internal decision-making and reporting by the investor to its stakeholders is based on accurate, complete and reliable data [75, 76]. The most material data should be externally assured as an additional safeguard [31].

A comprehensive and reliable accounting infrastructure will allow the investor to develop appropriate performance metrics – capturing both traditional financial returns and broader value creation.

Key considerations include:

- **Establishing clear expectations** for investee companies regarding sustainability performance.
- **Measuring progress** against established objectives so that investees can be held accountable for financial and extra-financial outcomes.
- **Using a combination** of short- and long-term performance metrics aligned with sustainability objectives.
- **Complementing financial performance** metrics with indicators of environmental and social value change.
- **Ensuring alignment** between executive compensation structures and the investor's sustainability outcomes. [13, 34, 77]

Responsible investment does not require sacrificing financial returns for achieving social or environmental objectives (Section 2.5). Investors, however, should be aware of potential trade-offs and constraints. For example:

- Screening approaches may limit the investable universe (Section 2.3).
- ESG-linked portfolios may deviate from conventional benchmarks.
- ESG strategies could underperform alternatives, especially over the short-term [41, 78].

# 3. Conclusion.

**The eight components described in this report are part of a comprehensive framework for responsible investment. Each component was identified and defined based on the focal points of, and interconnections among, the latest academic research and professional literature.**

While the components are presented as distinct, they are interconnected. A responsible investor considers them holistically as part of a process of incorporating material sustainability considerations into their core decision-making.

How this might be done is illustrated by **Figure 2**.

**Figure 2:**
Application of integrated thinking to responsible investment

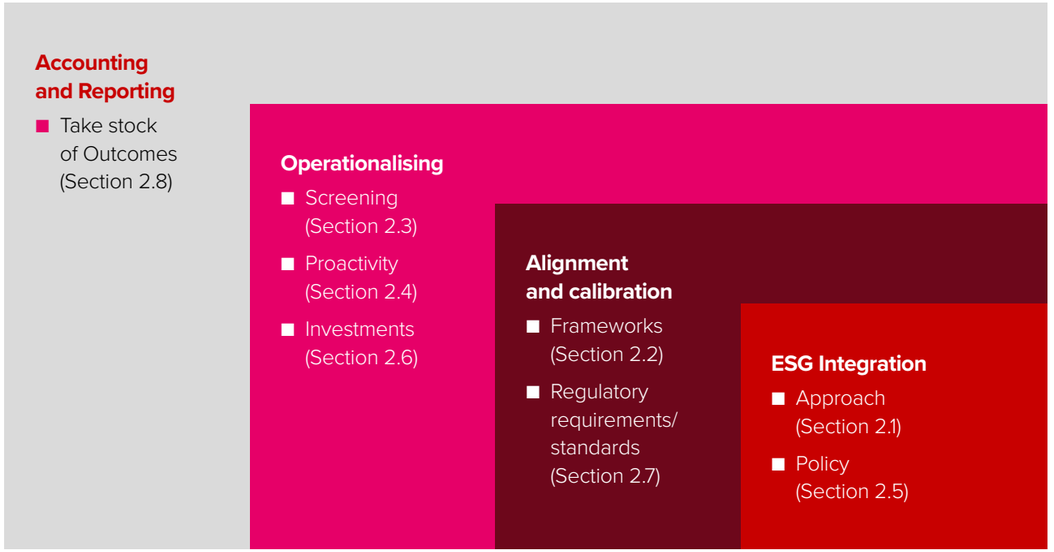


Figure 2 shows how the eight components can be organised to frame responsible investment as the product of integrated thinking. This is characterised by the innovative strategy development, the holistic management of risks/opportunities, operational considerations, and a commitment to accurate and complete reporting [9, 25, 70, 79]. [9, 25, 70, 79].

At the model's core is the approach to integrating ESG issues into the investment decision-making process (Section 2.1), and policies developed to formalise and ensure the consistent application of the investor's sustainability strategy (Section 2.5). Regulatory requirements, industry best practices, and existing sustainability standards (Sections 2.2 and 2.7) serve as calibration tools. These ensure that firm level policies are complete and aligned with regulatory requirements/ stakeholder expectations.

Operationalising the responsible investment strategy and related policies will require the selection of appropriate investments (Section 2.6), underpinned by rigorous screening (Section 2.3) and meaningful investor proactivity (Section 2.4). The aim is to move beyond compliance to embed sustainability into core operations, including how investors engage with their material investees.

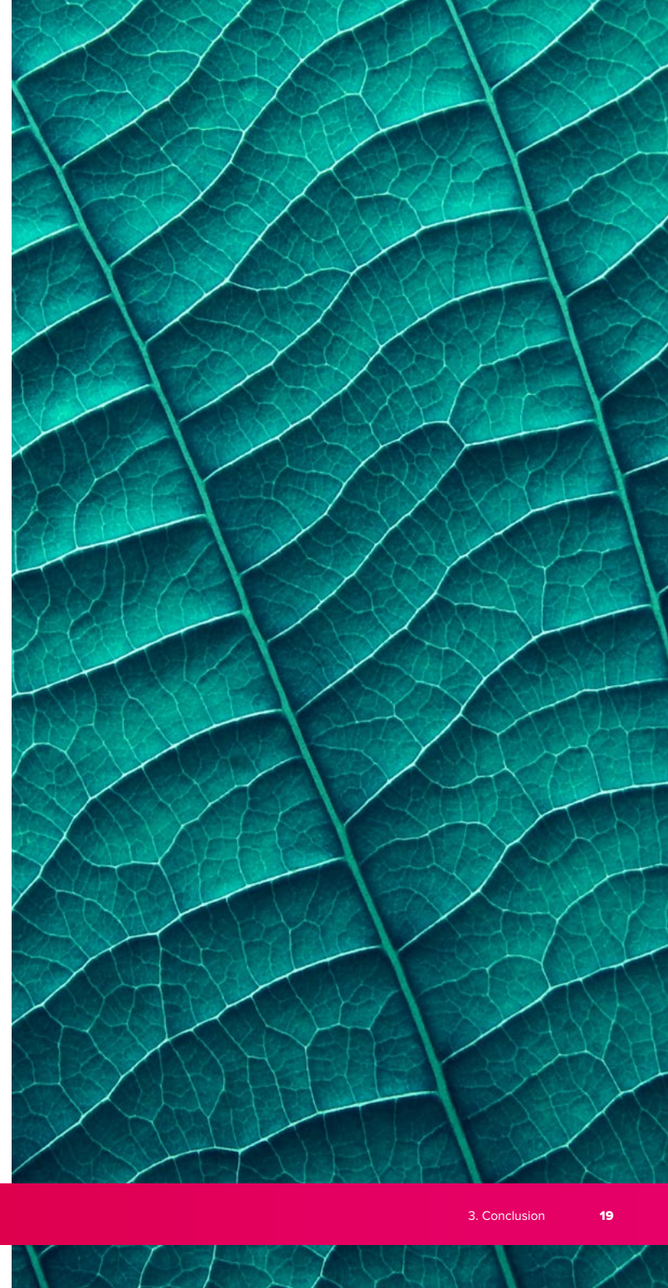
**'Operationalising the responsible investment strategy and related policies will require the selection of appropriate investments, underpinned by rigorous screening.'**

A close connection between policy-level considerations and investment practice culminates in comprehensive reporting to the investor's stakeholders. The investor uses its annual, integrated or sustainability report to provide an account of how its responsible investment strategy has, for example, contributed to competitive returns, altered its risk exposure, and driven operational revisions (Section 2.8). The policies, frameworks and regulatory requirements (Sections 2.2 and 2.7) used to calibrate firm-level policies are used as a type of sense-check and to ensure the completeness of information reported to stakeholders. As outlined in earlier ACCA reports [25, 35, 70] and related academic literature [80-82], this type of reporting reduces information asymmetry, enables accountability, and builds confidence in capital markets.

Finally, the responsible investment space continues to evolve rapidly. The components discussed in this report – and presented in Figure 2 – represent the current state of knowledge and practice, synthesised from extensive research and industry experience. It will be necessary to update the integrated thinking model in response to changing facts and circumstances. For example:

- **ESG Integration:** Evolving regulatory landscapes may introduce new requirements or standards that investment practices must incorporate.
- **Operationalisation:** Innovations in financial instruments and structures will create new opportunities for implementing responsible investment strategies. Advances in science continue to deepen our understanding of environmental and social impacts, potentially requiring new or modified investment approaches. This will have implications for how investors identify and respond to the impact of their capital allocations as part of their screening and investment selection processes.
- **Accounting and reporting:** Growing stakeholder expectations regarding transparency and impact will drive further developments in reporting and accountability mechanisms. Emerging technologies for data collection, verification and analysis will enhance the ability to measure, manage and report sustainability performance.

Given the dynamic nature of responsible investment, the components in the integrated thinking model should not be interpreted as exhaustive. Investment professionals should view this framework as a dynamic foundation rather than a static blueprint – one that requires ongoing engagement with emerging research, standards and best practices.



# 4. Appendix.

## Appendix A: Summary of resources used

- Provides an overview of the method followed to generate the report
- A visual map of the research is included

## Appendix B: Environmental metrics and KPIs

- Expands on the scope of KPIs which could be used by responsible investors
- Provides an example of how the characteristics of the KPIs could be mapped to the eight components in Section 2.



## Appendix A: Summary of resources used

### A1: Search protocol

The Scopus Database was used to obtain academic sources. This database was selected because of the quality of its filtering criteria and inclusion of reputable journals with robust peer-review processes in place [1, 2].

To begin, a search was performed for articles published in the Scopus Database with terms related to the concept of **responsible investment**[1] in their titles, keywords or abstracts. The subjects were filtered and limited to incorporate responsible investment in: business, finance, accounting, assurance, economics, risk, governance, ethics, policy, sustainability, capitals, strategy and management. The start date for the search was 1992 – the earliest date available for research published on this topic. All papers published between 1 January 1992 and 28 February 2025 were considered. The initial results consisted of 1,724 documents, indicating a substantial body of academic research dedicated to investigating responsible investment.

To refine the search, only academic articles addressing sustainability-related frameworks, regulations and guidelines were included[2]. This was to ensure that a practical focus was retained to bridge the academic and practitioner discourse – the result was 113 documents.

The researchers took additional steps to ensure the completeness of the responsible investment search. The search was re-run again after a month to ensure that no relevant papers were omitted. The papers were screened to ensure they did only address responsible investment in general – but examined how strategies and business models, operating processes, management practices, accounting systems and governance structures are being developed in response to the growing need for an integrated perspective on investment decisions.

Preliminary results were tabled at two informal meetings of a research and professional accounting group at the researchers' home institution to confirm that the coding process was accurate and complete. A bibliometric analysis was then performed.

1 The following specific search protocols were used: 'responsible investing' OR 'responsible investment' OR 'socially responsible investing' OR 'socially responsible investment' OR 'ESG investing' OR 'ESG investment' OR 'sustainable investing' OR 'sustainable investment' OR 'green investing' OR 'green investment' OR 'corporate socially responsible investing' OR 'corporate socially responsible investment' OR 'stewardship investing' OR 'stewardship investment'.

2 In addition to the search terms above, the following terms were included: AND 'PRI' OR'LEAP' OR 'GRI' OR 'Equator principles' OR 'Sustainable Development Goals' OR 'Millennium Development Goals' OR 'SDG' OR 'MDG' OR 'ESRS' OR 'integrated reporting framework' OR 'Natural Capital Collation' OR 'Task Force for Climate Related Financial Disclosures' OR 'Task Force for Nature Related Financial Disclosures'.

The bibliometric analysis provides an overview of the relationship, volume and impact of the research through various techniques, frequency analysis, citation analysis, authorship, and country affiliation analysis [3, 4]. Bibliometric tools including citation, co-citation, bibliographic-coupling, and keyword co-occurrence analyses are applied to the refined 113 academic sources [5].

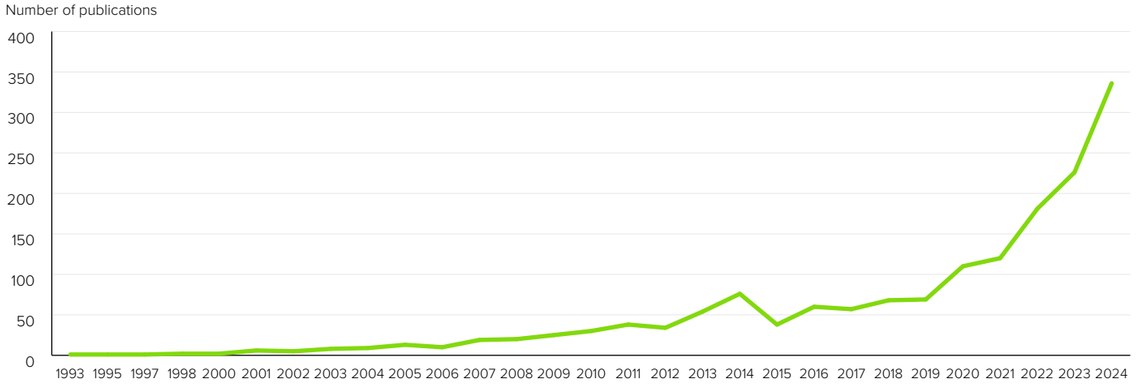
Bibliographic-coupling analysis measures the similarity between two documents based on the number of shared references and infers common themes from the sources they cite [4, 6]. Keyword co-occurrence analysis maps the frequency of articles with the same keywords [4] – indicative of articles which have connected themes [6]. This analysis allows for the research themes/components to be identified and developed. In line with other bibliometric studies [3, 7], VOSviewer software [see 5] is used to generate textual and graphic representations of the results.

## A2: Overview of responsible investment

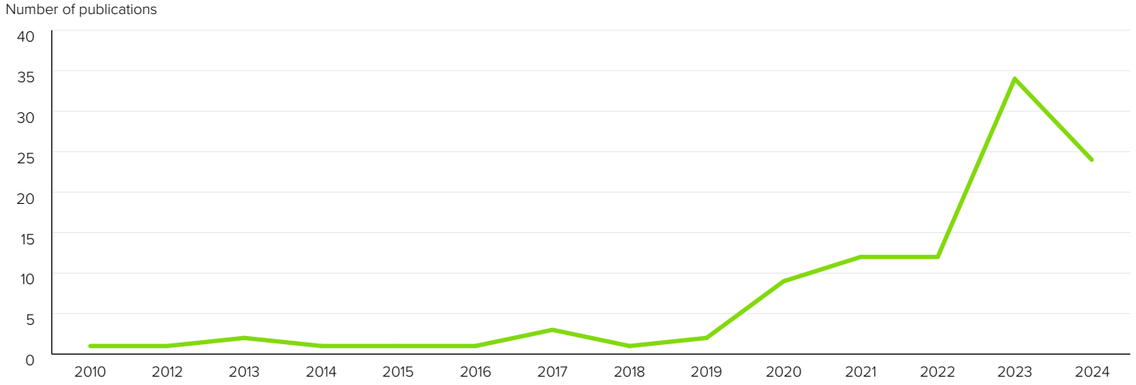
Figure A1 illustrates the growing interest in responsible investment research over time.

**Figure A1:**
Number of academic sources focusing on topics related to responsible investment

**Panel A: Total research on responsible investments**




**Panel B: Total research on responsible investments aligned with a focus on sustainability frameworks**




As shown in Panel A, in 1993 a seminal paper explored ethically and socially responsible investing during the 1980s and made an early link to improved financial performance [8]. The 'green investment' movement continued during the 1990s as environmental politics were used to frame accounting information as fundamentally intertwined with ethical, social and political decision-making, as well as policy evaluation in the context of investment decisions [9].

Academic research on responsible investment in the early 2000s focused on integrating ESG factors into investment decision-making [10]. Key studies debated the fiduciary duty of investors and whether ESG screening limited diversification [11, 12]. This period also saw a rise in institutional investor activism promoting more holistic business investments [13], partly in response to various corporate governance failures [14, 15]. Early frameworks, such as the United Nations Principles for Responsible Investment (2006) began to shape the landscape as research into responsible investment increased over the next 10 years.

Steady research output from 2010 to 2019 reflects growing interest from both academic and practitioner communities in expanding investment decision-making to address economic and environmental concerns, as well as assuring the quality of underlying information [16-18]. Core topics focused on, for example, investment risk assessment practices [19], broader stakeholder needs with regards to responsible investing [17], impact investment [18], and assessing the effect of assurance on investor assessments [20].

The notable increase in research from 2020 to 2024 can be attributed to two key developments. First, the COVID-19 pandemic iterated the importance of incorporating financial and extra-financial metrics into an organisation's investment decisions, operations, strategies, and performance evaluation [21]. Second, the formation of the ISSB and its release of two exposure drafts explaining how organisations should address the interconnections among economic, environmental and social issues [22] with the related assurance standard.

Similarly, from 2024, the EU's Corporate Sustainability Reporting Directive (CSRD), imposes mandatory reasonable or limited assurance on sustainability reports and a broader consideration of sustainability outputs and outcomes [23]. These developments contributed to the recent growth in responsible investment research, in line with evolving international sustainability agendas.

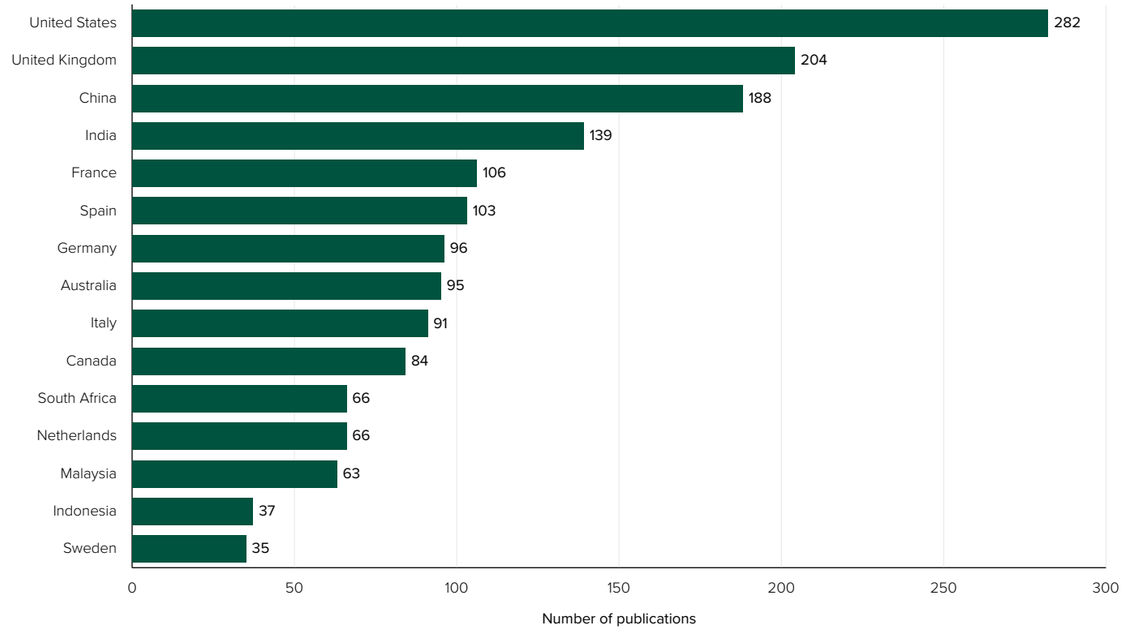
The highest impact academic paper – with over 4 600 citations – analyses over 2,200 studies and concludes that over 90% of academic research finds a positive relationship between ESG-related criteria for investment decisions and corporate financial performance [16]. This highlights that academic research is overwhelmingly in favour of an integrated approach to investments. However, how this is operationalised and evaluated still remains underdeveloped.

From the perspective of practitioner-focused research indicated in Panel B, early studies concentrated on the value proposition of the UN PRI [24, 25]. More recently, research has also incorporated broader sustainability-related guidelines such as the SDGs [26] and the GRI [27] from the perspective of incorporating these principles into investment decisions. Nevertheless, research remains relatively underdeveloped – particularly in light of the ongoing lack of harmonisation across sustainability-related frameworks and the need to ensure their interoperability [28]. Understanding how updated sustainability frameworks are used as part of broader investment decisions is a valuable area for future research.

As indicated in Figure A2, research is primarily conducted in the USA (16%) and UK (12%). Organisations operating in these regions will often have a more sophisticated accounting and management infrastructure to collect, analyse and report on data used to drive responsible investment decisions. These organisations also tend to have access to more diverse sources of funding, allowing them to incorporate a broader range of social and environmental considerations into their investment activities.

Although China (11%) features prominently, the economic environment more closely exhibits features of developed economies. Other developing or emerging economies contributing to responsible investment research include India (8%) and South Africa (4%). The limited volume of research from developing economies is a concern, given that responsible investing is intended to help organisations tackle pressing social and environmental challenges – many of which are having serious impacts on the developing world.

**Figure A2:**
Research per jurisdiction

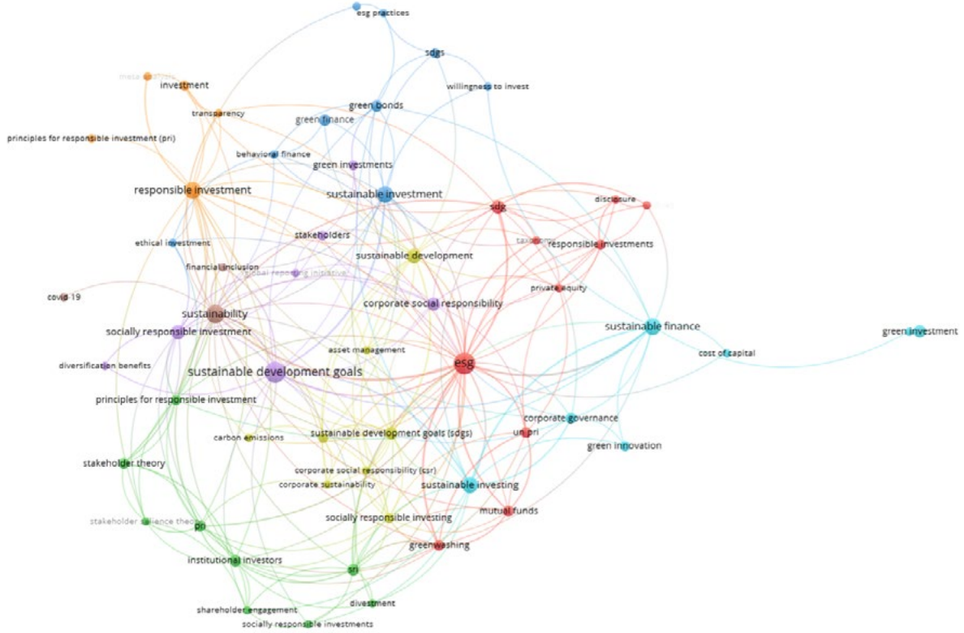


## A3: Components of responsible investment

Using a bibliometric analysis and VosViewer software, the core academic papers that intersected with practitioner-focused investment guidelines were consolidated to visualise the main themes covered by the sources under review [4]. The size of each node indicates its prominence in the prior research. Distances between the nodes capture the interconnections among them – with short distances indicating interconnected topics/themes/key words [6, 7]. Refer to Figure A3.

The components have been ordered from the most relevant to least based on the size of the nodes, citations of key papers and the prominence of the themes in the academic research. Each component is explored in more detail in the main body of the report. The delineation and explanation of each component per the main report was tested at two workshops attended by practitioners and hosted by the researchers' home institution.

**Figure A3:**
Network visualisation of responsible investment components




| COMPONENT | CLUSTER COLOUR | KEY CONCEPTS |
|---|---|---|
| 1: ESG integration | Red | This cluster focuses on ESG, corporate social responsibility and responsible investments – which involves embedding extra-financial factors into investment decisions. |
| 2: Sustainability frameworks | Yellow | This cluster includes themes such as sustainable development and corporate sustainability – and how these form part of objective setting by responsible investors. |
| 3: Screening methods | Green | Screening is a critical component of socially responsible investing. This cluster also includes stakeholder theory – which can be used to support screening methodologies. |
| 4: Investor proactivity | Orange | This cluster highlights responsible investment and ethical investment – which align with proactive investor engagement and stewardship strategies. |
| 5: Strategic purpose | Purple | How the interconnections among economic, social and environmental objectives are integrated at the strategic level – including the management of impact investing. |
| 6: Selection of investment options | Light blue | This cluster focuses on the considerations being integrated into investment decisions – including the classification of investments as 'green'. |
| 7: Regulatory frameworks | Red | Although less prominent, this cluster refers to disclosure principles that need to be considered in line with sustainability-related frameworks. The risk of greenwashing cannot be overlooked. |
| 8: Outcomes | Brown | This cluster, with some of the smallest nodes, considers financial imperatives for responsible investment decisions. |

## Appendix B: Environmental metrics and KPIs

The technical and academic literature suggest that traditional financial performance indicators be complemented by extra-financial measures. These integrated performance indicators are characterised by:

- Use of assurance over the underlying data (I1)
- Considering performance over the short-, medium- and long-term (I2)
- Alignment with the applicable Sustainable Development Goals (I3)
- Recognition of the interconnections among economic, environmental and social performance (I4)
- Clear assignment of responsibility for achieving objectives (I5)
- Broad range of stakeholder engagement in setting performance targets (I6)
- Application of an appropriate materiality threshold (I7)
- Incorporating controllable factors into the achievement of objectives (I8)
- Conducting post-implementation reviews (I9)
- Reporting and tracking performance over time (I10). [29-31].

Figure B1 provides an illustrative example of how the integrated performance indicators can be applied to the components of responsible investment. It also shows the relative importance of each indicator when structuring the performance incentive metric, along with relevant implementation steps.

**Figure B1:**
Integrated Performance Indicators for Responsible Investment Components

| | INTEGRATED PERFORMANCE INDICATORS (IPI) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Responsible investment components (ordered from most relevant to least relevant in terms of consideration)** | **I1: Assurance** | **I2: Timeframe** | **I3: SDGs** | **I4: Capitals** | **I5: Responsibility for application** | **I6: Stakeholder engagement** | **I7: Materiality** | **I8: Factors impacting achievement** | **I9: Post-implementation review** | **I10: Comparatives** |
| **1: ESG integration** | High | Medium | Medium | High | Medium | Medium | High | Medium | High | Medium |
| **2: Sustainability frameworks** | Medium | Medium | High | Medium | High | Medium | Medium | High | Medium | High |
| **3: Screening methods** | Medium | High | Low | Medium | Low | Medium | High | Medium | High | High |
| **4: Investor proactivity** | Medium | Medium | Low | Medium | High | High | Medium | High | High | Medium |
| **5: Impact investing** | High | High | High | High | Medium | Medium | Medium | Medium | Medium | Medium |
| **6: Green and sustainable finance** | High | Medium | Medium | High | Medium | Medium | High | High | Medium | Medium |
| **7: Regulatory frameworks** | High | Low | Low | Medium | High | High | Medium | Medium | Medium | High |
| **8: Financial performance** | High | High | Low | High | Medium | Low | Medium | High | Medium | High |

**Key**

- High relevance
- Medium relevance
- Low relevance

**Key implementation steps:**

1. Establish a governance structure with clear responsibilities
2. Develop data management system for all indicators
3. Create a balanced scorecard aligned with extra-financial objectives
4. Implement regular reporting post-implementation review cycles for stakeholders

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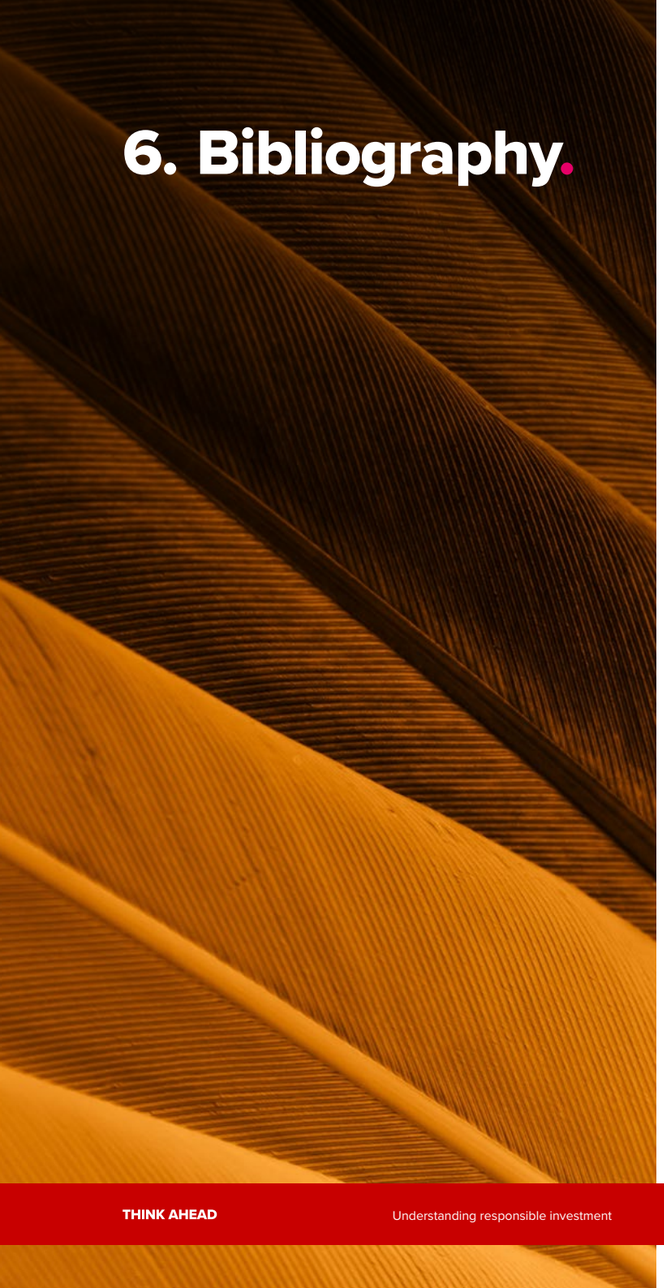

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