



Materiality – A Practical Approach to Integrating ESG

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ABSTRACT

This article explores the process of integrating ESG materiality into investment management, key challenges, and the importance of combining the use of structured materiality frameworks with bottom-up analysis.

ESG factors are material to financial performance

Environmental, Social and Governance (ESG) issues are now recognised as being important considerations for financial performance, and this correlation is underpinned by a growing set of research and data points:

- Firms with strong ratings on sustainability issues material to their sector tend to have significantly better future performance¹ than firms with inferior ratings
- Their outperformance was more marked over longer time horizons².
- They show better downside protection during times of economic and social crisis.

For an investor focused on long-term risk-adjusted returns, it is thus important to correctly identify the ESG issues that are material to a company and to incorporate them into investment decision-making.

Challenges in assessing materiality

The growing demand for corporate disclosures on ESG risks and performance has led to a **proliferation of ESG metrics and scores**, with over 600 different company ESG ratings identified in 2018 by a recent landscaping study³. While significant consolidation⁴ has taken place in the ESG data provider space in the last two years, the volume of ESG data collected on listed companies remains immense. Another review⁵ revealed that ESG data firms have amassed over

¹ Khan, Serafeim, Yoon (2016). *Corporate Sustainability: First Evidence on Materiality*.

² NYU Stern Center for Sustainable Business & Rockefeller Asset Management (2021) *ESG & Financial Performance - Uncovering the Relationship by Aggregating Evidence from 1,000 Plus Studies*

³ SustainAbility – *Rate the Raters 2020: Investor Survey and Interview Results*

⁴ S&P Global (2020). *Consolidation among ESG data providers continues amid COVID-19 pandemic*

⁵ *Refinitiv* collects over 450 data points, ratios and analytics on each issuer, distilling them into 186 measures for deriving ESG scores; *MSCI's* ESG Ratings methodology considers over 80 exposure metrics, and over 270 management and performance metrics per issuer; *Sustainalytics* uses 1,300 data points and over 350 indicators in its ESG ratings framework; *Miotech* leverages AI to scour public data sources to gather over 700 ESG data points for each company.

1,000 data points per issuer, and have translated these into 100 to 350 ESG metrics for clients to assess.

However, **most of the ESG data collected are not material** to the long-term financial performance of the company, while **not all ESG issues are of equal importance to every industry**. For example, one study⁶ cited that “for 66% of all securities in the Russell Global Large Cap Index Universe, less than 25% of the 100+ data items in the traditional (ESG) score are considered material.”

Even within a single sector, what is financially material could vary. For example, the Sustainability Accounting Standards Board (SASB)⁷ found that within the healthcare sector, ‘Greenhouse Gas Emissions’ matter more to healthcare distributors but less to other players such as biotechnology and pharmaceutical firms, or medical equipment manufacturers and suppliers. This is because healthcare distribution requires the transport of products which burns fossil fuels and exposes healthcare distributors to the risk of rising carbon and fuel prices. In contrast, ‘Product Quality & Safety’ is material to all within the healthcare sector.

The set of material factors will change over time as regulations increase and market externalities become more internalised. A company’s impact on biodiversity, for instance, may become more financially material across industries if regulators formally take action on nature-related risks. Being able to identify these trends early and monitor the relevant factors will help long-term investors pre-empt the negative impact on their portfolios, and facilitate timely engagement with companies.

Developing a materiality analysis framework

It helps to have a structured framework to provide comparability and specificity to analysis. While some investors have developed in-house approaches, SASB’s framework provides a useful starting point. It helps investors and

⁶ Russell Investments (2018). *Materiality Matters*.

⁷ Sustainability Accounting Standards Board. *SASB Materiality Map*.

companies focus on ESG issues that are generally common and thus comparable within a sector, which are then tied back to fundamental drivers of economic value such as revenue, cost and balance sheet quality.

SASB's standards cover 77 industries across 11 sectors (eg. Consumer Goods, Financials, Food & Beverage, Services, Technology & Communications), and organise the universe of sustainability risks and opportunities that companies might face into five broad sustainability dimensions: Environment; Social Capital; Human Capital; Business Model and Innovation; and Leadership and Governance. This allows SASB to narrow down the set of material sustainability metrics to the most financially material ones - a manageable six topics and 13 metrics per sector and company, on average⁸.

Figure 1: Overview of SASB Standards

SASB Standards Are Organized by Industry

SASB Standards identify the issues most likely to be financially material for each of the 77 industries



Source: SASB

⁸ Sustainability Accounting Standards Board (2021). *Future of Sustainability Disclosures: Where SASB May Fit In*

Adapting the SASB Standards for due diligence and active engagement

SASB's industry-specific standards provide a useful framework for investment due diligence and corporate engagement. Taking the technology sector as a case study, cybersecurity and data governance are generally considered material factors for most companies in the technology business, and for companies that are in possession of sensitive customer information. Losses from cybersecurity breaches, liabilities from litigation and regulatory fines can have a debilitating impact on a company's financials. In a McAfee report on the Hidden Costs of Cybercrime⁹, monetary loss from cybercrime was approximately US\$945 billion in 2020. IBM¹⁰ estimated the average total cost of a data breach to be US\$4.24 million in 2021, an increase of 11.9% since 2015.

As an actual example, it was reported¹¹ that Equifax's cybersecurity incident of data breaches in 2017 resulted in them incurring over US\$1.3 billion in related costs. Long-term investors should hence consider how the company is preparing itself to withstand or recover from future cybersecurity threats. SASB metrics that describe the company's approach to cybersecurity risk management would be relevant for investors to include in their due diligence and asset valuation.

However, there are several limitations to using SASB Standards:

- **Lack of readily available data as not all companies disclose SASB-recommended metrics.**

Notwithstanding, as the number of companies reporting on SASB Standards is growing rapidly (it rose by 50% to around 1,000 companies in 2021¹²), this issue may diminish over time. Even where standardised disclosures are available, the conclusions that can be drawn from the data would differ based on each

⁹ McAfee (2020), *The Hidden Costs of Cybercrime 2020*.

¹⁰ IBM (2021), *Cost of a Data Breach Report 2021*.

¹¹ US Securities and Exchange Commission (SEC) (2019), *Current Report, Equifax Inc*

¹² SASB, *Companies Reporting with SASB Standards*

company's operating context, geography, and growth stage, among other variables.

- **Bottom-up analysis remains critical in identifying financially material metrics**, as not all of SASB's metrics may be material. For example, GIC's Futures Unit conducted cross-sectional regression analyses to quantify the extent of financial materiality for certain SASB metrics. The study¹³ identified just a handful of metrics that had measurable positive correlations with equity returns. For those metrics, the linkage to returns was strong – every 10% of improvement in score was correlated with higher annualised returns in the future (controlling for company-level variables such as sector, valuation, size and profitability) ranging from 2.2 to 6.0 percentage points. That said, company-level analysis is still required to determine if the performance on the material metric is causal to the improvement in returns, or vice versa. On the other hand, metrics that did not show an impact on returns over the time horizon of the analysis could still be important for companies to track and disclose, and to demonstrate ESG effort so as to secure a social license to operate over the longer term.
- **Potential need to augment SASB's standards with additional, forward-looking analysis**, notably when examining sectors that are evolving fast, or are at the cusp of being disrupted. For example, when assessing a company's cyber resilience in the technology sector, investors could examine the company's track record in taking remedial action on breaches, the speed and frequency of their disclosures on cybersecurity incidents, the existence of a Chief Information Security Officer, and the number of layers between that C-level executive and the board.

¹³ The GIC Futures Unit collaborated with students from the Wealth Management Institute (WMI) of Nanyang Technological University (NTU) to examine the relationship between SASB-identified social issues and investment returns. This research won the WMI Chairman's award for the best project in 2019/20.

Standardisation in ESG reporting to increase over time

There is a growing desire by all industry players – companies, investors, regulators and standard-setting bodies – to standardise ESG reporting into a more streamlined yet meaningful set of metrics. However, the process of obtaining ESG metrics and data remains very challenging. Lack of consistency is often cited¹⁴ as one of the biggest reporting issues for both corporates and investors as the latter is unable to make fair comparisons or get an accurate read on how companies are thinking about and managing ESG issues.

Hence, convergence in sustainability accounting standards, and access to comparable disclosures on material metrics via market data providers would be a win for investors. Already, regulation and industry-wide initiatives are moving towards this – the establishment of the International Sustainability Standards Board by the International Financial Reporting Standards Foundation (IFRS), with support by IOSCO¹⁵, and the merger of SASB and the International Integrated Reporting Council (IIRC) to form the Value Reporting Foundation are encouraging developments.

At the regional level, the EU taxonomy¹⁶ was introduced earlier this year as the industry strives to create standardised classification systems for sustainable economic activities. This could also offer a valuable reference point for other regions in the process of developing their own taxonomies, such as ASEAN.

At the country level, these include the UK requiring companies to make climate-related financial disclosures by 2025¹⁷, and the US Securities and Exchange Commission planning a series of new disclosure requirements for companies by the end of 2021¹⁸. (Appendix A outlines some of the recently announced or proposed regulatory frameworks globally.)

Over the next few years, we can expect significant advancement in standardisation for ESG reporting, making it easier to report, identify, monitor and compare material factors for individual companies.

| GIC's approach to materiality

We seek to assess the strength of a company's sustainability practices on factors that are financially material to that company. This is grounded in our belief that companies with strong sustainability practices offer prospects of better risk-adjusted returns over the long term, and that this relationship

¹⁴ McKinsey & Company (2021). [Accounting for values and valuation.](#)

¹⁵ International Organization of Securities Commissions (IOSCO)

¹⁶ European Commission. [EU taxonomy for sustainable activities.](#)

¹⁷ The Wall Street Journey (2020). [U.K. Requires Companies to Report on Climate Change by 2025.](#)

¹⁸ Bloomberg (2021). [SEC takes a different route than Europe on climate disclosures.](#)

will strengthen over time as market externalities get priced in through the actions of regulators, businesses and consumers. We integrate sustainability into our investment processes¹⁹ in a way that recognises the diversity of the industries and markets in which we operate, and the trade-offs between different sustainability objectives that may arise in the shorter term.

In practice, GIC has used SASB as a reference to guide investment analysis, but deep research into each sector and company is still required. Some of the steps taken by the investment teams include:

- Validate each set of metrics with internal research and analysts' perspectives, and capture these in engagement guides that investment groups across GIC may use.
- Sector-focused workshops with external industry specialists may be conducted to expose analysts to issues on the ground, and to enhance appreciation of the materiality of the factors considered and how they should be incorporated into asset valuation.
- Where possible, data acquired on material ESG metrics are also used in portfolio reporting and analytics as part of ongoing investment monitoring.
- For material indicators where data gaps are evident, or where data is not readily available, analysts would leverage their regular meetings with company management to better understand how those issues are being managed, and insights gained would inform the assumptions in their financial models.

The focus on materiality has enhanced our investment teams' underwriting of opportunities and portfolio companies, and enriched our portfolio managers' dialogues with company management. By considering where companies are leading or lagging on material metrics against peers in the sector, we can customise our engagement agenda for each company. An understanding of drivers material to a company's performance, such as exposure to green revenue or dependency on external

¹⁹ Please refer to "[Investing sustainably by GIC](#)" on ThinkSpace

voluntary carbon credits, also helps our teams identify opportunities for potential investment.

For example, we have, on occasion, advised companies on how disclosures of targeted, material metrics could amplify their stakeholder communications. In the case of a European specialty chemicals company, which is a supplier to the industrial and consumer sectors, we encouraged the company to enhance its reporting of the full product life cycle carbon footprint of its innovative, low carbon products and carbon-efficient operations. This benefited the company through its wider recognition as a provider of effective solutions in the global effort to reduce carbon emissions.

A structured approach to materiality assessment allows our investment teams to identify and evaluate the ESG issues most relevant to a company in a more targeted way, enabling them to go beyond superficial, 'check-the-box-type' discussions on ESG with their investee companies. In addition, being aware of upcoming regulatory requirements or regulatory direction, and hence identifying factors that could become material over time, can help investment teams make better pre-emptive risk assessments of companies. All these allow us to better manage longer-term portfolio risks, as well as engage and support companies in their transition towards more sustainable outcomes.

Conclusion

Integrating the concept of ESG materiality into every stage of the investment process helps to ensure potential ESG risks are factored into investment valuations, and to equip investors and company leaders to take pre-emptive steps on gaps in material ESG areas to avoid long-term impairment losses.

However, it is important to undertake bottom-up research and assessment, and adjust the material indicators to each company's sector and specific context, as a one-size-fits-all approach will dilute impact. This makes implementation challenging, particularly with regards to scale and comparison across sectors. Notwithstanding, a structured materiality framework helps to provide a constructive platform for both

parties to engage on ESG issues that could affect long-term investment value.

While this will be an ongoing journey for all asset owners and managers, we can benefit from working together to sharpen the set of material indicators companies should monitor and disclose, based on the sustainability risks and opportunities most relevant to each industry and sector, and accelerate the adoption of a materiality framework by the industry.

Appendix A

Examples of key ESG disclosure regulations announced in the last two years (as at September 2021) *

Country	Title	Effective from	Details
China	Revision of the Listed Companies Information Disclosure Regulation ²⁰	June 2021	Mandatory disclosure of environmental penalties for all listed companies, and additional disclosure obligations for “key polluting entities”
EU	EU Taxonomy Climate Delegated Act (EU Taxonomy Regulation) ²¹	Jan 2022	Classification system for environmentally sustainable financial products or activities, and disclosure obligations by large EU-listed issuers and financial institutions
	Corporate Sustainability Reporting Directive ²²	Jan 2023	Extension of sustainability reporting rules introduced by the Non-Financial Reporting Directive
	Sustainable Finance Disclosure Regulation (SFDR) ²³	March 2021	Mandatory sustainability due diligence and reporting obligations for EU financial market participants and financial advisers, including EU-domiciled asset managers and funds, and non-EU firms who market their funds in the EU
Hong Kong SAR	HKEX ESG Reporting Guide ²⁴	2015 (most recently updated in 2020)	Mandatory and “comply or explain” ESG reporting requirements for issuers
	Amendment to the Fund Manager Code of Conduct (FMCC) ²⁵	August 2022 (large fund managers) / November 2022	Disclosure and integration of climate-related risks into investment and risk management processes by fund managers of collective investment schemes (CIS)
India	Business Responsibility and Sustainability Reporting by Listed Entities	2021	Sustainability reporting requirements for the top 1,000 listed companies - voluntary for FY2021-22 and mandatory from FY2022-23 onwards
Japan	Revisions of Japan’s Corporate Governance Code and Guidelines for Investor and Company Engagement ²⁶	April 2021	Disclosure and engagement guidelines related to ESG/sustainability, diversity and board independence

²⁰ Lexology (2021). *China refines ESG disclosure rules for listed companies.*

²¹ European Commission. *EU taxonomy for sustainable activities.*

²² European Commission. *Corporate sustainability reporting.*

²³ European Commission. *Sustainability-related disclosure in the financial services sector.*

²⁴ Hong Kong Stock Exchange (HKEX) (2015). *ESG Reporting Guide.*

²⁵ Securities and Futures Commission (SFC) (2021). *Circular to licensed corporations: Management and disclosure of climate-related risks by fund managers.*

²⁶ Financial Services Agency (2021). *Revisions of Japan’s Corporate Governance Code and Guidelines for Investor and Company Engagement (2021).*

Singapore	MAS Guidelines on Environmental Risk Management ²⁷	June 2022	The guidelines which apply to banks, asset managers and insurers include a requirement for annual environmental risk disclosures
South Korea	Guidance on Disclosure of ESG Information ²⁸	2025/2030	Voluntary ESG disclosures by listed companies by 2025, mandatory ESG disclosures by companies with at least KRW 2 trillion in total assets between 2025-2030 and mandatory ESG disclosures for all listed companies from 2030
UK	Mandatory climate-related financial disclosures	2025	Mandatory disclosure of climate-related financial risks, in alignment with TCFD
	Improving Shareholder Engagement and Increasing Transparency Around Stewardship ²⁹	2019	Disclosure on a “comply or explain” basis of engagement and voting policies by asset owners and managers, including on ESG issues
	The UK Gender Pay Gap Reporting Act	April 2019	Disclosure of overall, mean and median gender pay gaps for companies with 250+ employees
US	Corporate Governance Improvement and Investor Protection Act ³⁰	2021	Requires issuers of securities in the US to annually disclose to shareholders certain ESG metrics and their connection to their long-term business strategy
	CLEAN Future Act ³¹	2021	Requires the SEC to announce rules for issuers to disclose (1) direct and indirect greenhouse gas emissions of the issuer and its affiliates, (2) fossil fuel-related assets owned or managed by the issuer, and (3) climate-related risks by industry or sector
	Climate Risk Disclosure Act of 2021 ³²	2021	Requires the SEC to announce rules for issuers to disclose (1) climate change-related physical and financial risks, (2) strategies and corporate governance processes to manage those risks, and (3) an analysis of social costs associated with the issuers’ greenhouse gas emissions.

*The above table focuses on some of the key regulatory and policy frameworks introduced in the last two years but is not an exhaustive summary of sustainable finance regulations globally. For a more comprehensive list, please refer to the UNPRI Regulation Database³³.

²⁷ Monetary Authority of Singapore (2020). [Guidelines on Environmental Risk Management](#).

²⁸ Regulation Asia (2021). [Korea to require ESG disclosures from listed companies](#).

²⁹ Financial Conduct Authority (FSA) (2019). [Improving shareholder engagement and increasing transparency around stewardship](#).

³⁰ [Corporate Governance Improvement and Investor Protection Act \(2021\)](#).

³¹ [CLEAN Future Act \(2021\)](#).

³² [Climate Disclosure Act of 2021 \(2021\)](#).

³³ UN Principles for Responsible Investment (UNPRI). [Regulation database](#).



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