



CFA Institute

GUIDANCE FOR INTEGRATING ESG INFORMATION INTO EQUITY ANALYSIS AND RESEARCH REPORTS

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GUIDANCE FOR INTEGRATING ESG INFORMATION INTO EQUITY ANALYSIS AND RESEARCH REPORTS

The purpose of integrating environmental, social, and governance (ESG) information into the investment analysis process is to reduce the financial risks and/or enhance the financial returns of an investment by identifying and valuing risks or opportunities that are not typically identified and valued using traditional financial data. CFA Institute encourages all investment professionals to consider material ESG factors, where relevant, in their analytical and investment decision-making processes.¹

Integrating ESG information into investment analysis and valuation begins with identifying relevant ESG information for sector, industry, and company research and assessing the financial materiality of the ESG information in the context of the analysis. Financially material ESG information is then analyzed and integrated into the security analysis and valuation processes alongside traditional financial information to inform an analyst's recommendation to buy, hold, or sell a security. Just as with traditional equity analysis, a variety of tools and methods exist for integrating ESG information into the analytical process, and analysts must choose the ones they believe are most appropriate for their analysis. In many cases, the analytical process remains the same, but a broader set of inputs is used.

Identifying ESG Information

Dozens, or even hundreds, of ESG information data points may exist for a single company. ESG information may be quantitative or qualitative. Examples of ESG information include ESG observations, statistics, metrics, and measurements. ESG scores and ratings are also widely used in analysis and valuation. Scores and ratings may be determined for each pillar of ESG—environmental, social, and governance—or for an overall company. The line between ESG information and traditional data is not always clear, and overlap sometimes exists. Some governance data, for example, have long been considered in company analysis.

ESG Information Sources. Some investment teams assign dedicated ESG analysts to collect ESG information from company, industry, regulatory, and other sources. Other investment teams may purchase ESG data from data providers. Often, analysts use a combination of internally sourced data and purchased data.

Analysts can obtain ESG information from many sources, including the following:

- Company disclosures and publications, including annual reports, financial reports, regulatory filings, and corporate sustainability reports
- Meetings and correspondence with company representatives and management
- Site visits
- Industry trade organizations
- Government records
- Non-profit organizations
- ESG data providers
- Media sources

ESG Data Quality. It is important to assess the quality of the ESG information used in analysis and valuation. In many jurisdictions, ESG disclosures are not standardized or required.² Thus, the accuracy, consistency, and comparability of ESG information can vary widely. Using inaccurate, estimated or modeled data, stale data, or incomplete data sets can lead to faulty analysis. The *Global ESG Disclosure Standards for Investment Products Handbook*, issued by CFA Institute, states that the following factors should be considered when determining the risks and limitations of using ESG information:³

- the type of ESG information;
- the degree of skill and judgment required to collect, measure, and interpret the ESG information;

¹CFA Institute, "Positions on Environmental, Social, and Governance Integration" (2020). www.cfainstitute.org/en/advocacy/policy-positions/positions-on-environmental-social-governance-integration.

²In many jurisdictions, companies have few obligations to report ESG data in their regulatory filings. Industry organizations have been setting standards for voluntary ESG corporate reporting to increase data consistency and transparency. These organizations include the SASB and GRI, CDP, the Climate Disclosure Standards Board, and the International Integrated Reporting Council (IIRC)." Source: Rebecca Fender, Robert Stammers, Roger Urwin, and Rhodri G. Preece, "The Operating Model to Enable Sustainable Investing: Improving ESG Data Quality, Frameworks, & Measurement Tools," CFA Institute (10 November 2020). www.cfainstitute.org/en/research/industry-research/esg-operating-model.

³CFA Institute, *Global ESG Disclosure Standards for Investment Products Handbook* (2022, p. 71). www.cfainstitute.org/-/media/documents/ESG-standards/Global-ESG-Disclosure-Standards-for-Investment-Products-Handbook.pdf.

- timing lags between company disclosures and third-party data;
- the completeness of the ESG information dataset; and
- the reliance on estimated or modeled ESG information.

When assessing data quality, analysts should generally begin with considering the source of the information. Company-disclosed ESG information is the primary and most current source of ESG data. Analysts should take the same care in interpreting company-disclosed ESG information, such as in corporate sustainability reports, as they take when interpreting financial results. Companies may present ESG data as more favourable or more meaningful than they really are.

Third-party sources of ESG data include ESG data providers, industry organizations, not-for-profit organizations, and government/public records. ESG data vendors and organizations collect information directly from companies, often through extensive questionnaires requested at regular time intervals, such as quarterly or annually. The timing of data collection can cause third-party data sources to lag in providing up-to-date information. One method of checking third-party data quality is to cross-reference data samples with original source data and among data vendors. Data quality checks should be done on a regular basis.

Data quality checks should also be performed on third-party ESG scores and ratings. Rating providers differ in the data they collect, the research they conduct, the ESG issues they prioritize, and the models they use to score or rate companies. As a result, a company's ESG rating can vary widely among data providers. Analysts should understand the vendor's methodology and consider whether an ESG rating is consistent with the analyst's knowledge and opinion of the company; it is up to the analyst to determine the usefulness of an ESG score or rating.

The CFA Institute *Standards of Practice Handbook* provides the following checklist to use when determining whether third-party research is of sound quality:⁴

- Assumptions used
- Rigor of the analysis performed

- Date/timeliness of the research
- Evaluation of the objectivity and independence of the recommendations⁵

Once analysts have identified quality ESG information, they must decide which ESG information is material to their analysis and valuation.

Assessing Materiality of ESG Information

Analysts should assess material ESG data as part of the mosaic of all material data that they assess, including but not limited to financial data, regulatory data, and market data, to identify investment risks and opportunities that they believe are likely to affect a company's fair value or share price. ESG information that is determined to be immaterial should not be incorporated into analysis or valuation.

Both qualitative and quantitative data can be financially material to analysis and valuation. As an example of the impact of qualitative ESG data on analysis, a company's poor governance practices may lead to costly governance mistakes that could affect its future share price, even if the company's current financials are sound. Other examples of qualitative ESG data that may be material to analysis include a company history of violating environmental laws and regulations, headline and legal risks arising from the use of child labor in a company's supply chain, and shifting consumer preferences that favor a competitor's more sustainably produced products.

Quantitative data can be relatively straightforward to integrate into analysis, such as an estimated percentage increase in revenue or costs or the amount of an anticipated regulatory fine, or it may require interpretation and professional judgment. In many cases, it is unclear whether or how a metric, statistic, or measure is meaningful to analysis. For example, a corporate sustainability report may include statistics on employee turnover, but it can be difficult to determine the financial cost or benefit of the employee turnover. It is up to the analyst to make that determination. In another example, diversity and equality statistics for a company may indicate the company is well diversified by race and gender, but the analyst will need to decide whether or how those data affect the valuation of the company or

⁴For an example of due diligence on an ESG data provider, see Sample Disclosure 2 (p. 72) in the CFA Institute *Global ESG Disclosure Standards for Investment Products Handbook* (2022). www.cfainstitute.org/-/media/documents/ESG-standards/Global-ESG-Disclosure-Standards-for-Investment-Products-Handbook.pdf.

⁵CFA Institute, *Standards of Practice Handbook: Eleventh Edition* (2014, p. 157). www.cfainstitute.org/-/media/documents/code/code-ethics-standards/standards-practice-handbook-11th-ed-eff-july-2014-corr-sept-2014.pdf.

the analyst's opinion. For instance, the analyst might question whether the information reduces risk from lawsuits, increases worker productivity, or translates into higher-quality management and whether a financial adjustment should be made based on this information. The information may also be part of the overall summary opinion of the company in a way that contributes to the analyst's recommendation. It is also possible that the analyst will conclude that the data have no effect on valuation.

To determine materiality of ESG information, analysts might rely on a materiality framework developed by a third-party data provider or industry organization, their firm's proprietary framework, or their own judgment. Materiality frameworks are typically used to identify key ESG issues for an industry. When determining materiality, analysts should consider the following factors:

- Sector/industry
- Company-specific factors
- Location
- Governance
- Climate change
- Investment horizon

Sector and Industry. The sector and industry in which a company is classified are key factors in determining a company's primary ESG issues. Industry-specific ESG issues can be identified through materiality maps, frameworks, or standards from ESG data providers and industry organizations; a firm's proprietary materiality framework; or an analyst's professional judgment. Material ESG issues vary among data providers and organizations. Examples of industry-specific ESG issues include customer privacy and data security for health care companies, water and wastewater management for beverage companies, and labor practices for an auto parts manufacturer.

As a specific example, the Sustainability Accounting Standards Board (SASB) Standards were developed to determine industry-specific material ESG issues⁶ and corresponding ESG metrics that can affect enterprise value. To help investors better understand how material

ESG issues differ among industries, the SASB⁷ provides a comparison of material ESG risks and opportunities on its website⁸ for 6 of its 77 industries: Health Care Delivery, Non-Alcoholic Beverages, Electric Utilities & Power Generators, Advertising & Marketing, Auto Parts, and Metals & Mining.

Company-specific and Location. Company-specific factors include how a company manages its environmental and social resources, such as natural resource usage and carbon emissions, adherence to environmental laws and regulations, adherence to fair labor practices, and protection of human rights throughout its value chain. The location of a company may also be material to ESG risk. For example, a company may be located in a jurisdiction that is prone to stringent regulations or corrupt business practices or one that has a shortage of a particular natural resource.

Governance and Climate Change. Governance data that may factor into an analyst's assessment include but are not limited to policies related to board structure and independence, the selection and remuneration of directors and executives, shareholder rights and protections, use of inside information, conflicts of interest, and anti-corruption actions. Specific governance data may be required to be disclosed in a company's regulatory filings. Climate change factors include physical risks and transition risks. The Task Force on Climate-related Financial Disclosures (TCFD) recommends that companies disclose climate-related information on governance, strategy, risk management, and metrics and targets in their financial filings or other reports to help investors understand how a company identifies and manages its climate-related risks. For an in-depth discussion on climate risk analysis and case studies, see the CFA Institute publication "Climate Change Analysis in the Investment Process."⁹

Investment Horizon. Finally, the effect of the ESG information on analysis or valuation should be consistent with an analyst's investment horizon. An ESG risk or opportunity that is unlikely to materialize during an analyst's investment horizon for a security—such as when the risk or opportunity is long term but

⁶The [SASB] Standards address sustainability-related risks and opportunities reasonably likely to affect a company's financial condition (i.e., its balance sheet), operating performance (i.e., its income statement), or risk profile (i.e., its market valuation and cost of capital)." Source: Janine Guillot and Charles Tilley, "Strengthening an Integrated Report Using SASB Standards," SASB (9 March 2021). www.sasb.org/blog/strengthening-an-integrated-report-using-sasb-standards/.

⁷The SASB has merged into the IFRS Foundation to become the International Sustainability Standards Board (ISSB). The SASB Standards are being incorporated into global ESG standards related to general disclosure, climate, and potentially other disclosure standards.

⁸SASB Standards, "Materiality Finder." www.sasb.org/standards/materiality-finder/?lang=en-us.

⁹For more information on analyzing climate risks, see Matt Orsagh, "Climate Change Analysis in the Investment Process," CFA Institute (21 September 2020). www.cfainstitute.org/en/research/industry-research/climate-change-analysis.

the holding period is short term—may be irrelevant. For example, if a company's manufacturing facility is located in an area expected to sustain heavy flood damage in 10 years from warming global temperatures but the analyst's recommended holding period for the security is 1 year, the projected economic losses may not be a key determinant in the analysis.

Integrating ESG Information into Investment Analysis and Valuation

ESG information can be integrated into investment analysis and valuation in different ways and to different extents. ESG data may be analyzed by the sector or industry analyst or by a dedicated ESG analyst. No standard approach exists for integrating ESG information, so analysts must decide for themselves what the best approach is based on how they typically analyze and value investments.

CFA Institute and PRI developed the ESG Integration Framework to present best practice methods for integrating ESG information. The ESG Information Framework can be found in the CFA Institute publication, "Guidance and Case Studies in ESG Integration: Equities and Fixed Income."¹⁰ According to the ESG Integration Framework, methods for integrating ESG information into security valuation include making adjustments to the following:

- Forecasted financials
- Forecasted financial ratios
- Valuation multiples
- Valuation model variables
- Security sensitivity/scenario analyses

The ESG Integration Framework is not meant to be a definitive guide. Rather, it is a collection of techniques used to integrate ESG information into the investment process from practitioners around the world. The framework can serve as a resource for firms to reference when developing their own methods for integrating ESG information into their unique investment processes. The following valuation method descriptions and case study summaries are drawn from "Guidance and Case Studies in ESG Integration: Equities and Fixed Income."

Forecasted Financials. Analysts may adjust forecasted balance sheet, income statement, and statement of cash flow items—such as asset book values, liabilities,

capital expenditures, revenues, and operating costs—to incorporate expected financial effects of ESG information. Forecasted revenue growth, for example, can be adjusted upward or downward to reflect an ESG trend or risk, as demonstrated in the following case study.

Case Study 1: Adjusting Revenue and Margins

In "Evaluating ESG Impact on Revenue and Margins,"¹¹ AGF Investments Inc. illustrates how ESG information can be used to adjust forecasted financials. In this case study, Company A is a global leader in specialty chemicals that has positioned itself to profit from trending consumer preferences for sustainable products. Company A recently shifted from purchasing petrochemicals for use as a product base to manufacturing its own product base using naturally sourced, renewable raw materials. AGF analysts project that the shift to in-house manufacturing and use of renewable materials will reduce costs from purchasing petrochemicals and managing hazardous waste materials. Analysts also project that consumers will pay a premium for Company A's sustainable products versus competitors' petrochemical-based products, which will increase annual revenue growth by 30 bps. Analysts estimate that the cost savings plus increased revenue over the next five years will result in a 100 bp improvement to EBIT (earnings before interest and taxes).

Forecasted Financial Ratios. Forecasted financial ratios can be affected by adjustments made to financial statement items. For instance, if an analyst believes a company will incur a large regulatory fine in the upcoming year for excessive pollution, the analyst may lower forecasted net income by the amount of the projected fine. This adjustment, in turn, reduces the company's net profit margin and other ratios based on net income. When ratios are used in valuation, the effects of the ESG information will be reflected in the valuation.

Valuation Multiples. Analysts may directly adjust multiplier models—such as price/earnings, price/book, price/cash flow, and price/earnings to growth—based on their views of how a company might perform relative to its peers or to the industry average.

¹⁰CFA Institute and the PRI, "Guidance and Case Studies in ESG Integration: Equities and Fixed Income" (2018, p. 5). www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

¹¹The case study "Evaluating ESG Impact on Revenue and Margins" can be found on pages 26–29 of "Guidance and Case Studies for ESG Integration: Equities and Fixed Income." www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

In addition, when adjustments based on ESG information are made directly to financial statement items, the effect is carried through to the relevant valuation multiples. The following case study provides an example of a direct adjustment to P/E.

Case Study 2: Adjusting the P/E Multiple

The case study "Valuation Adjustment According to Environmental Regulations"¹² demonstrates the use of ESG information to adjust the P/E multiple. In this example, analysts at E Fund Management Co., Limited believed that new pollution regulations in China would be strictly enforced and developed a four-factor framework to score companies in affected industries on environmental protection factors. The case study compares the evaluation of Y Chemical and H Corporation. After scoring the companies, analysts concluded that H Corporation had a greater environmental risk than Y Chemical. Analysts were unable to estimate the projected environmental protection costs for the two companies, so they chose to discount the target P/E for H Corporation to a P/E of 20 versus the industry average P/E of 23.7 (trailing 12 months). Analysts believed that H Corporation was overpriced due to its environmental risks not being recognized by the market and thus would have a negative return.

Valuation Model Variables. In addition to multiplier models, ESG information can be integrated into other types of valuation models. An ESG score may be one factor of several that an analyst weights in a valuation model, as shown in the following case study. An analyst might also adjust the discount rate used in a dividend discount model or discounted cash flow model. An analyst may choose to increase a company's discount rate, for example, based on the view that the company's poor governance practices increase its risk. A company's perpetual growth rate or terminal value can also be adjusted for the estimated impact of ESG data. For instance, an analyst who projects that a company's carbon assets will become economically obsolete over the next 10 years may write down the value of the carbon assets and lower the enterprise value of the company for that time

horizon. The amount of adjustment to valuation model variables, such as the discount rate or constant growth rate, requires judgment on the part of the analyst; there are no common industry guidelines for making this determination.

Case Study 3: Using ESG Scores in a Valuation Model

Manulife Asset Management's "ESG Equity Analysis Case Study"¹³ illustrates the use of ESG scores in a valuation model. In this case study, analysts begin their analysis by evaluating companies on six proprietary ESG factors. Analysts calculate an ESG score for each company based on the firm's internally developed questionnaire, which relies on publicly disclosed company information that is used to assess a company's ESG factor performance. Analysts then calculate a target price for each company based on traditional financial factors and use the ESG score to apply a discount of up to 10% or a premium of up to 5% on the target price. For example, analysts estimated a target price for Company A of BRL21.80. Based on the calculated ESG score, an ESG premium of 2.39% was added, which increased the target price to BRL22.32.

Security Sensitivity/Scenario Analysis. ESG information also may be integrated into security sensitivity or scenario analyses. For example, company climate risk may be evaluated under various global temperature scenarios. The following case study is an example of using scenario analysis to compare a base case valuation with an ESG-integrated valuation.

Case Study 4: ESG Scenario Analysis

In "Case Study: Fundamental Material ESG Scenario Analysis"¹⁴ analysts at RBC Global Asset Management use a discounted cash flow scenario analysis to determine ESG-related impacts to sales growth and EBIT margins for a health care company. They compare an investment base case (non-ESG) analysis with an upside ESG scenario (ESG opportunity) that assumes revenue increases from the use of big data analytics to improve

¹²The case study "Valuation Adjustment According to Environmental Regulations" can be found on pages 42–44 of "Guidance and Case Studies for ESG Integration: Equities and Fixed Income." www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

¹³The "ESG Equity Analysis Case Study" can be found on pages 95–96 of "Guidance and Case Studies for ESG Integration: Equities and Fixed Income." www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

¹⁴"Case Study: Fundamental Material ESG Scenario Analysis" can be found on pages 92–94 of "Guidance and Case Studies for ESG Integration: Equities and Fixed Income." www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

patient health and welfare and a downside ESG scenario (ESG risk) that assumes a costly data privacy breach. A base case target growth rate of 44% is calculated. The upside ESG scenario adds 12% to the target growth rate based on a projected 1%–2% increase in sales in years 5–10 from the use of the big data analytics. The downside ESG scenario detracts 17% based on a 7% decline in sales in the year of the data breach and a 3% impact to EBIT margins over the following 10 years. In this scenario, analysts expect annual sales growth to average 5% and EBIT margins to remain 1%–2% lower than the base case.

Presenting ESG Information in Equity Research Reports

Analyst recommendations should be based on diligent, independent, and thorough analysis. Reasonable judgment should be used when determining which factors are important to analysis and recommendations, including ESG factors. For guidance on best practices for equity analysis and research reports, analysts may reference the CFA Institute *Standards of Practice Handbook: Eleventh Edition*, Standard V: Investment Analysis, Recommendations, and Actions.¹⁵

Disclosure of ESG Information in Investment Analysis and Valuation. Information that is key to an analyst's valuation and recommendation should be communicated in the analyst's equity research report. ESG information should be included in an equity research report to the extent that the information is material or significant to recent company developments, earnings forecasts, scenario analysis, valuation, or the analyst's opinion or recommendation. ESG information that is not material should not be presented in a research report. If the ESG information is used to inform a recommendation to buy, sell, or hold a security, the analyst should disclose how the ESG information factored into the recommendation. For instance, an analyst may compare a company's ESG rating with the analyst's valuation estimate to determine whether the ESG rating aligns with or contradicts the analyst's view of the company. The rating may provide useful ESG information that the analyst might consider in his or her opinion.

Disclosure of ESG Risks. Analysts should disclose any potential material ESG risks alongside other

material risks that could affect their security valuation estimate and recommendation over the investment time horizon, including risks that affect a company's operations, financial position, regulatory environment, or legal issues, as well as industry-related risks, such as trends, technology changes, or regulation. Although companies are required to disclose all material risks in their regulatory filings, the assessment of risk is often subjective. Therefore, analysts must use their own judgment to determine which ESG risks are material to their investment thesis.

Presentation of ESG Information and Analysis.

Material ESG information may be presented alongside other material information in an analyst report; a separate ESG section is not necessary. If ESG information is presented in a separate section of the research report, the analyst must not give the impression that the information is more important to the analysis or valuation estimate than it is. Analysts must always avoid material misrepresentations.

CFA Institute Resources

CFA Institute and the PRI. 2018. "Guidance and Case Studies for ESG Integration: Equities and Fixed Income." www.cfainstitute.org/-/media/documents/survey/guidance-case-studies-esg-integration.pdf.

CFA Institute. 2014. *Standards of Practice Handbook: Eleventh Edition*. www.cfainstitute.org/-/media/documents/code/code-ethics-standards/standards-practice-handbook-11th-ed-eff-July-2014-corr-sept-2014.pdf.

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¹⁵CFA Institute, *Standards of Practice Handbook: Eleventh Edition* (2014, pp. 155–83). www.cfainstitute.org/-/media/documents/code/code-ethics-standards/standards-practice-handbook-11th-ed-eff-July-2014-corr-sept-2014.pdf.

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