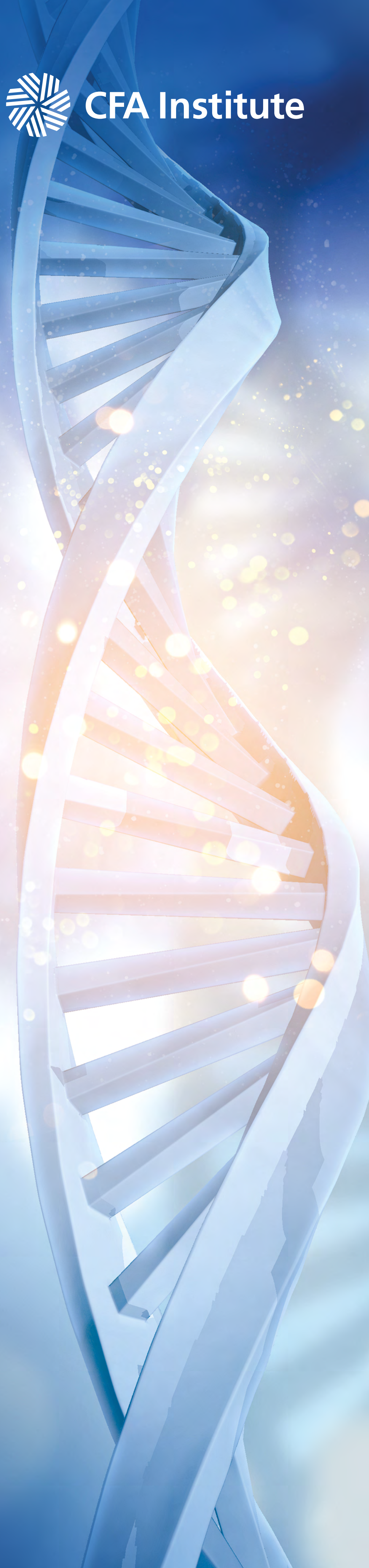
ESG IN EQUITY ANALYSIS AND CREDIT ANALYSIS

AN OVERVIEW



ESG INTEGRATION EXPLAINED: AN ALPHA-GENERATING AND RISK-REDUCING TOOL

The term "ESG integration" is often used when talking about ESG investing. Practitioners new to ESG investing are sometimes uncertain what ESG integration is and how it is performed—so much so that they may not realize they are already performing integration techniques informally.

One definition of ESG integration is "the explicit and systematic inclusion of ESG issues in investment analysis and investment decisions." Put another way, ESG integration is the analysis of all material factors in investment analysis and investment decisions, including environmental, social, and governance (ESG) factors.

What does that mean? It means that leading practitioners are:

- analyzing financial information and ESG information;
- identifying material financial factors and ESG factors;
- assessing the potential impact of material financial factors and ESG factors on economic, country, sector, and company performance; and
- making investment decisions that include considerations of all material factors, including ESG factors.

What does that *not* mean? It does not mean that:

- certain sectors, countries, and companies are prohibited from investing;
- traditional financial factors are ignored (e.g., interest risk is still a significant part of credit analysis);
- every ESG issue for every company/issuer must be assessed and valued;
- every investment decision is affected by ESG issues;
- major changes to your investment process are necessary; and, finally and most importantly,
- portfolio returns are sacrificed to perform ESG integration techniques.

A key component of ESG integration is lowering risk and/or generating returns. Many investors have turned to ESG factors as another way to spot and attempt to avoid risk in an individual company or sector. Practitioners can also use ESG data to look for investment opportunities. For example, some practitioners analyze automotive companies to see how they are reacting to trends in car electrification and factor this assessment into their revenue forecasts. Another example is practitioners who invest in companies with strong ESG management that are likely to outperform in the long run.

Another key component of ESG integration is materiality. ESG integration involves integrating only the material ESG issues that are considered highly likely to affect corporate performance and investment performance:

- If ESG issues are considered material, an assessment of their impact is carried out.
- If ESG issues are analyzed and found not to be material, an assessment is not carried out.

The assessment of materiality requires an understanding of the top ESG issues affecting a particular country or sector. Practitioners collate ESG information from various sources—company reports, filings and websites, the internet, ESG research providers, and so on—to determine the most material ESG issues per company or sector. They then refer to and assess the list of material ESG issues for each investment, periodically reviewing the list for changes in material ESG issues.

Figure 1: SASB Table of Material ESG Issues

		AIRLINES	TELECOMMUNICATIONS	ELECTRIC UTILITIES
Environment	GHG emissions			
	Air quality			
	Energy management			
	Fuel management			
	Water and wastewater management			
	Waste and hazardous materials management			See example
	Biodiversity impacts			
Social Capital	Human rights and community relations			
	Access and affordability			
	Customer welfare			
	Data security and customer privacy			
	Fair disclosure and labeling			
	Fair marketing and advertising			
Human Capital	Labor relations			
	Fair labor practices			
	Employee health, safety, and well-being			
	Diversity and inclusion			
	Compensation and benefits			
	Recruitment, development, and retention			
Business Model & Innovation	Life-cycle impacts of products and services			
	Innovation			
	Product packaging			
	Product quality and safety			
Leadership & Governance	Systemic risk management			
	Accident and safety management			
	Business ethics and transparency of payments			
	Competitive behavior			
	Regulatory capture and political influence			
	Materials sourcing			
	Supply chain management			

Figure 1: SASB Table of Material ESG Issues

Electric Utilities	Prev | Next 1 of 2
Waste and hazardous materials management	Prev | Next 4 of 10

Disclosure Topic: **Coal Ash Management**

Evidence of Materiality

Interest - **High**	Financial Impact - **Medium**	Forward Impact - **Yes**
HM Score: 75%	☑ Revenue/Cost	☐ Probability / Magnitude
IWG Score: 86%	☑ Asset/Liabilities	☐ Externalities
	☐ Cost of Capital	

Accounting Metrics

- IF0101-08: Amount of coal combustion residuals (CCR) generated, percentage recycled
- IF0101-09: Total number of coal combustion residual (CCR) impoundments and number by EPA Hazard Potential Classification, broken down by EPA structural integrity assessment

This table is extracted from the SASB Materiality Map™, an interactive tool that highlights ESG issues likely to be material across all industries. Three industries are included in this table, as well as an example of how financial impacts are characterized for an ESG issue in the electric utilities industry and the relevant performance metrics for this issue.

Created by the Sustainability Accounting Standards Board (SASB), the SASB Materiality Map identifies and compares ESG issues likely to be material across industries. The SASB maintains provisional standards for 79 industries and is overseeing the codification of the standards (expected in Q1 2018). The standards are designed to improve the effectiveness and comparability of corporate disclosures regarding ESG factors on an industry-specific basis. Institutional investors are actively engaged through the SASB Investor Advisory Group and the SASB Alliance and are providing input throughout the standards development process.

ESG integration is a useful complement to practitioners' current investment process and practices. The main change to practitioners' investment process and practices is the sourcing and analyzing of ESG information. As mentioned earlier, major changes to investment analysis and valuation models are not necessary, although some investors develop new valuation models to include ESG information. Others feed ESG information into their existing models.

ESG issues predominantly affect equity analysis and credit analysis through qualitative analysis. But investors are increasingly quantifying and integrating ESG factors into their company/issuer valuations.

QUANTIFYING ESG ISSUES

IN EQUITY ANALYSIS

ESG factors are being quantified through a range of integration techniques.

Both buy-side fundamental investors and sell-side brokers integrate ESG factors, together with all other material factors, into their absolute valuation models. They indicate their views on the impact of ESG factors and traditional financial factors on company valuations by making adjustments to future revenue growth rates, future operating costs, future capital expenditures, discount rates, and terminal value.

Managers of systematic strategies adjust their portfolio construction models to include ESG factors alongside other factors, such as value, size, momentum, growth, and volatility. They feed ESG data and ratings into their models, which can result in managers' adjusting the weights of securities up or down—including all the way to zero.

Case Study: Buy-Side Investor (LionTrust Investments)

IMPACT OF ESG INVESTMENT OPPORTUNITIES ON REVENUE FORECASTS

Portfolio managers and analysts at LionTrust Investments believed that the exposure of a food company's ingredients-and-flavors division to trends in healthier eating would result in volumes growing at an average rate of 5%. As a result of integrating these social factors, as well as other investment drivers, the top-line revenue forecast was approximately 150 bps above the consensus estimates.

Case Study: Sell-Side Analyst (Kepler-Cheuvreux)

IMPACT OF ESG RISKS AND OPPORTUNITIES ON FOOD & BEVERAGE COMPANIES

Company	Type of Risk/ Opportunity	Risk/Opportunity Characteristics	Integration Technique/Variable
ABF, exposed to unhealthy food trends through its grocery business	Shift in customer preferences and demand	Already ongoing trend with long-term implications; severity and probability known and significant	Revenue growth rates for the specific cash flows (DCF model) and terminal growth rate to reflect long-term exposure
Coca-Cola European Partners, exposed to sugar taxes being passed in several jurisdictions	Shift in regulations (sugar tax)	Known event and known tax levels that will materialize through a shock at a specific point in time and increased volatility	Modeled through cost implications in the specific cash flows (DCF model), taking into account product portfolio, geographic exposure, demand elasticity, pricing power, and cross-product elasticity
Benchmark, exposed to weather variability and its impact on artemia production	Market risk through the sourcing of raw materials	Unknown timing but potential severity and impact known, based on past weather events	Modeled through growth rates for revenue and an increase in the discount rate to capture the relatively high-risk profile with unknown timing
Monsanto, exposed to several reputational and litigation risks linked to GMOs	Multiple	Risks that are hard to quantity and predict in terms of probability and timing; more of an overall "sentiment"	Modeled through the discount rate used in Monsanto–BASF takeover valuation
Small- and mid-caps in food & beverage supply chain, with risks of employing undocumented workers	Regulatory risk and sentiment-driven reputational risk	Risks that are hard to predict in terms of probability and timing; driven by both sentiment and law enforcement in political environment	Cost elements that consider legal liability, staff replacement, loss of production, and contract losses—all estimated with respect to potential impact on net income

Case Study: Buy-Side Systematic Investor (Wells Fargo Asset Management–Analytic Investors)

IMPACT OF ESG INVESTMENT RISK ON PORTFOLIO WEIGHTINGS

In an analysis of the health care company Baxter International, portfolio managers on the Analytic Investors team used fundamental and statistical models to calculate a low fundamental risk for the company. Depending on how volatility is measured, its risk was approximately 20% lower than that of the average stock. The portfolio managers also discovered that Baxter International has encountered numerous product safety issues. Although the balance sheet and income statement make the company seem a low risk that warrants a position size of 3%, the weak ESG evaluations resulted in the models shrinking the maximum allowable position size to 1.9%.

IN CREDIT ANALYSIS

In fixed income, a key application of ESG data is to inform the analysis of issuer creditworthiness. Investors analyze ESG risks, together with financial and business risks, in their credit selection process. ESG issues, such as corruption and climate change, are assessed for their potential impact on macro factors that affect an issuer's ability to repay its debt.

Because of the long-term nature of ESG risks, combining ESG information with fundamental analysis particularly complements buy-and-hold strategies, with their concerns about bond liquidity and issuers' strategic and business risks. But ESG information is also being analyzed by portfolio managers of active strategies to inform their investment decisions. Active investment strategies that try to maximize the income or capital (price) appreciation of bonds assess ESG risks on the basis of their impact on financial performance.

Case Study: Insight Investment

ESG RISKS IN ASSESSMENT OF ISSUER'S ABILITY TO REPAY ITS DEBT IN BUY-AND-HOLD AND ACTIVE STRATEGIES

Insight Investment's credit selection process considers ESG risks alongside financial and business risks. Its analysts

- review a company's financial risk by examining various factors, including its earnings, balance sheet structure, future cash flow forecasts, debt burden, and credit metrics; and
- score key business risks using a checklist of "land mine risks"—factors that could lead to a sudden deterioration of credit quality and that may not be readily apparent from the company's financial performance. These factors include liquidity risk, regulatory risk, event risk, the risk of a leveraged buyout, and ESG factors.

Using this analysis, Insight Investment's analysts assign internal credit ratings and a trend indicator to each company they cover, providing portfolio managers with opinions on the creditworthiness of borrowers and bond issuers. The relative market pricing of an issuer's securities in relation to its perceived risk is an important part of Insight's investment analysis.

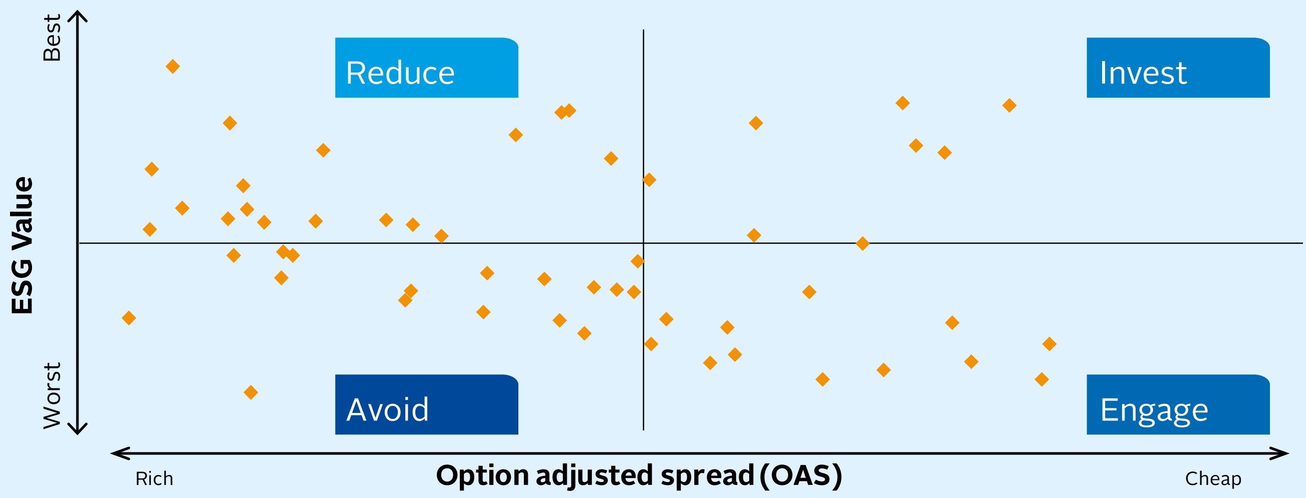
A Selection of Insight Investment's Fixed-Income Analysts' ESG Comments (2016)	Investment Recommendation
"[We are reducing performance expectations for the company] as many of the bonds are looking fully valued after outperforming, and headline risk is picking up around the ongoing [judicial] investigations." [Industrial]	Active accounts: Sell Buy and hold: Hold CDS: Hold
"[The company] has a [bad] overall score.... The poor social score is driven by product safety and quality concerns—and exposure to corruption and instability due to its significant emerging-market exposure. The company has recently experienced several product recalls. These are a further reasons supporting the [bad internal credit] rating." [Consumer, non-cyclical]	Active accounts: Avoid Buy and hold: Not suitable CDS: Short
"What happened at [the company] was bad, and management (and the board) lacked crisis management skills. This has destroyed a lot of the franchise value, but not enough to materially hurt its creditworthiness from here." [Financial]	Active accounts: Buy Buy and hold: Yes CDS: Not Applicable

Case Study: PIMCO

IMPACT OF ESG RISKS ON ISSUER'S ABILITY TO REPAY ITS DEBT

PIMCO's ESG assessments are considered in relation to financial performance. A portfolio manager may decide to switch between two companies on the basis of their ESG-relative values—companies with similar risk profiles that trade at comparable spread levels. This figure depicts how this process works in practice—with potential investments falling into four quadrants, each with an associated action.

Figure 2: ESG-Relative Valuation. Source: PIMCO



In addition to assessing an issuer's *ability* to repay its debt, investors are using ESG information to assess an issuer's *willingness* to repay, particularly in sovereign debt analysis. Governance factors, such as institutional strength and political risks, can affect a sovereign's ability and willingness to repay its debt on time. For example, Union Investment considers corruption a key indicator of sovereign credit strength in fundamental evaluations because of the strong correlations between corruption and number of sovereign defaults[1].

1 See https://institutional.union-investment.at/dms/institutional-com_EN/Download/studies/Corruption_and_the_risks_of_losses_on_government_bonds.pdf.

Case Study: CalPERS

IMPACT OF ESG RISKS ON ISSUER'S WILLINGNESS TO REPAY ITS DEBT

CalPERS conducts a credit analysis that evaluates both quantitative and qualitative factors:

- Quantitative factors include economic indicators to assess the country's ability to pay back and service its debt.
- Qualitative analysis is used to assess the country's willingness to meet creditor obligations. Willingness to repay debt is measured by many metrics, including policy continuity, governance, voice and accountability, freedom of the press, labor rights, the rule of law, judicial system's effectiveness and efficiency, women's rights, GINI indicator, corruption indicator, ease of doing business, freedom of association, human rights, human development index, and freedom of religion.

Case Study: Robeco

IMPACT OF ESG INVESTMENT RISK ON PORTFOLIO WEIGHTINGS

Robeco analysts integrate ESG factors into their sovereign investment process via the RobecoSAM Country Sustainability Ranking, which evaluates 62 countries on such ESG data as policies on greenhouse gas emissions, human rights, and corruption as well as investments in, for example, innovation, labor market unrest, and aging policy. By considering not only a country's score but also any changes in its ranking—and sometimes by investing in countries instead of avoiding them—Robeco can profit from investing in countries where improvements occur. This approach leads to better results than obtainable by waiting until such efforts lift the country to the level of "best in class."

For example, because the Brazilian economy had been engulfed by a deep recession, with the country's political climate polarized by corruption and the impeachment of its president, Robeco's emerging-debt strategy was modestly underweight Brazilian government bonds in the second half of 2015 and early 2016. In Q2 2016, Brazil's political risk score improved from its low in March, with much of the negative news already reflected in the prices of Brazilian bonds. Since then, Robeco has not been underweight Brazilian bonds.

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The Principles for Responsible Investment (PRI)

The PRI works with its international network of signatories to put the six Principles for Responsible Investment into practice. Its goals are to understand the investment implications of environmental, social and governance (ESG) issues and to support signatories in integrating these issues into investment and ownership decisions. The PRI acts in the long-term interests of its signatories, of the financial markets and economies in which they operate and ultimately of the environment and society as a whole.

The six Principles for Responsible Investment are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG issues into investment practice. The Principles were developed by investors, for investors. In implementing them, signatories contribute to developing a more sustainable global financial system.

More information: www.unpri.org

PRI Principles for Responsible Investment

CFA Institute

CFA Institute is the global association of investment professionals that sets the standards for professional excellence. We are a champion for ethical behavior in investment markets and a respected source of knowledge in the global financial community. Our mission is to lead the investment profession globally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of society

More information: www.cfainstitute.org

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