## Integrating ESG into the Fixed-Income Portfolio

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The benefits of considering environmental, social, and governance (ESG) factors have propelled the strategy into mainstream investing. Integrating ESG factors into fixed-income analysis can reduce idiosyncratic and portfolio risk and improve portfolio performance by helping investors anticipate and avoid investments that may be prone to credit rating downgrades, widening credit spreads, and price volatility.

Now that mainstream equity investors have at last warmed up to the benefits of integrating environmental, social, and governance (ESG) factors into their investment strategies, it is time that fixed-income investors began perceiving the benefits of ESG factors in their strategies. I want to offer some specific reasons for why ESG investing (sometimes called "sustainable" or "responsible" investing) is not just a feel-good idea but a robust and practical addition to a fixed-income investment process.

I will begin by reviewing past and current trends in ESG investing, including its growing importance among investment professionals. I will then discuss the mission and goals of the United Nations (UN)–supported Principles for Responsible Investment (PRI) Fixed Income Work Stream, an initiative set up for investment professionals who practice ESG integration in fixed income. Finally, I will discuss the nature of ESG research, how it fits into the investment process, and the integration of ESG factors into fixed-income investments.

### **Trends in ESG Investing**

A sign that ESG investing is here to stay is the dramatic increase during the last 10 years in PRI signatories—including investors, asset managers, insurance companies, and pension funds. **Figure 1** shows that the number of signatories has grown from fewer than 200 in 2006 to almost 1,400 in 2015 and that assets under management have risen to more than \$57 trillion.

The old view of ESG investing was that sustainable investing sacrificed performance and increased portfolio volatility by narrowing the investment

universe and excluding companies based on ESG factors. ESG investing was believed to violate the fiduciary imperative of maximizing returns. Today, many institutional investors believe it is their fiduciary duty as trustees to include ESG factors not only in the investment process itself but also during the selection of investment managers because over the long term, ESG integration can have a positive impact on performance while reducing investment risks.

Eurosif did a survey in 2009<sup>1</sup> and found that motivations related to image were the main reasons underlying the demand for consulting services for responsible investing by institutional clients. Nearly 70% of asset owners surveyed indicated a desire to be branded as responsible asset owners. Nearly twothirds of respondents cited pressure from beneficiaries to invest responsibly, and about half felt political pressure. Fiduciary motivations were also cited as a main reason for investing responsibly. More than 60% of respondents believed that true fiduciary duty means considering all risks, including ESG risks. More than 40% sought responsible investment consulting services to learn how to implement the PRI. From a fiduciary perspective, it is important to see ESG factors as potential drivers of performance and risk.

Growth in the application of ESG investing is being fueled by institutional and individual investors. Institutions in particular are acknowledging the need for more comprehensive analysis that includes the "extra" financial factors, such as ESG key performance indicators (KPIs). Institutional investors are also demanding more detailed insights into manager processes. Almost every request for proposal (RFP)

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<sup>&</sup>lt;sup>1</sup>Eurosif, "Investment Consultants & Responsible Investment Study," European Social Investment Forum (2009): www. eurosif.org/wp-content/uploads/2014/06/eurosif\_investment\_consultants\_ri\_study.pdf.

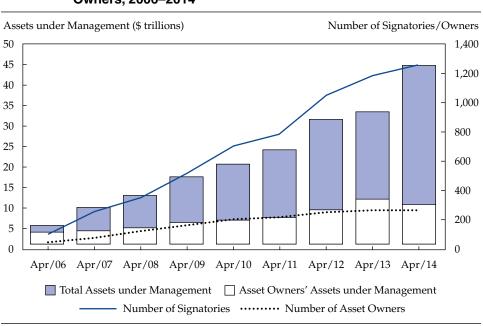


Figure 1. Amount of Assets and Asset Owners' Assets under Management, Number of PRI Signatories, and Number of Asset Owners, 2006–2014

Source: Data are from PRI, Corporate Bonds: Spotlight on ESG Risks, Principles for Responsible Investment (December 2013).

that Deutsche Asset & Wealth Management sees from large organizations includes detailed questions about internal ESG research and the implementation of ESG factors in the investment process. Although having an ESG process does not guarantee that a manager will win a mandate, not having one makes it likely that a manager will be dropped in the first round. The importance placed on ESG in the manager screening process has increased dramatically over the last two years.

## The PRI Fixed Income Work Stream

Asset owners and asset managers who sign the PRI make a formal and public pledge to support them. But just signing the PRI is not enough. For an organization to make a genuine commitment to responsible investing, it must implement all six principles:

- Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
- Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
- Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
- Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.

- Principle 5: We will work together to enhance our effectiveness in implementing the Principles.
- Principle 6: We will each report on our activities and progress toward implementing the Principles.

Principle 1—incorporating ESG issues into investment analysis and decision-making processes—is the main focus of this presentation. Regarding Principles 2 and 3, ESG integration is not only for ownership and equity investments; fixed-income investors can also use ESG insights and processes to have an impact on responsible investing. As for Principles 4 and 5, I am using this presentation to promote them and to extend an invitation to CFA Institute members to work together to advance socially responsible investing (SRI). Finally, Principle 6 will enhance transparency over time, which can only increase the impact of responsible investing initiatives.

The PRI Fixed Income Work Stream is a coalition of more than 40 asset managers who have come together to define the many terms associated with responsible investing—SRI, sustainable investing, and so on—and agree on the term "ESG." Many goals and visions for ESG investing exist, but a lack of clarity and transparency also exists. One of the most important goals of the working group is to formulate definitions and a common language.

**Performance Indicators for Responsible Investing.** There are approximately 200 ESG KPIs that have an impact on an issuers' creditworthiness.

These indicators or factors can be grouped into the three categories of ESG—environmental, social, and governance. **Exhibit 1** shows a partial list of some of the most important factors. The relevance and materiality of the different KPIs varies by industry sector and can change over time, which makes the weighting and aggregating of factor outcomes a rather difficult task. ESG KPIs are relevant and material to a company's economic health and profitability because they influence earnings, risk, and creditworthiness. Cost of capital and equity prices are also affected. Therefore, incorporating ESG factors enhances the traditional investment approach of focusing on "classic" economic factors and credit metrics. More and better integrated reporting will help analysts to see those connections. Because ESG qualities and issues have an impact on price, they also affect portfolio management and performance.

Imagine an industrial company with high emissions and high water usage in an area experiencing a drought, such as California. Such a company may also have environmental accidents. Poor environmental performance exposes the company to the risk of tightening regulations and forced reductions in emissions and water usage. These regulations will have serious effects on production costs and on a global scale will lead to a competitive disadvantage because high replacement costs and perhaps a shortage of raw materials may cause customers to shift their business. The company may also be faced with expensive cleanup and litigation costs.

Poor management of ESG factors can contribute to defaults, price volatility, credit rating downgrades, and widening credit default swap (CDS) spreads. The materiality of ESG factors is dependent on sector, region, timescale, and leverage. ESG factors can give investors greater insight into credit risks. It is important for fixed-income investors to focus on ESG downside risks rather than on opportunities. Measures of ESG factors can be leading indicators

for future risks, and buy-and-hold investors are more exposed to future risks. Poor management will damage reputation and can increase the probability of default. Which ESG factors matter most depends on industry sectors, which is why there are different weightings for KPIs in different sectors.

**The Learning Curve.** Investors who want to apply ESG factors in their analysis and investment process face a steep learning curve in developing the necessary expertise. But taking this step promotes a more forward-looking approach to risk assessment. Incorporating ESG factors into the investment process advances analysis far beyond the traditional Markowitz approach of focusing on only historical risk-and-return measures. For example, an indepth understanding of a company's ESG KPIs will allow a portfolio manager to react quickly to negative information and sell a security before its price moves in response to an impending adverse event. Furthermore, as increasing numbers of clients and investors are demanding ESG integration, its overall materiality will only increase over time.

The PRI Fixed Income Work Stream invites all interested industry participants to engage with the work stream, share experiences, and contribute to case studies. Some of these case studies are available for review online. The work stream is also reaching out to rating agencies and encouraging them to be more transparent about how they consider ESG in their credit rating assessments. These negotiations and discussions are undertaken in the spirit of service to the investing community.

# **ESG Approaches Fixed-Income Investors Can Use.** Investors can choose from among many approaches to integrate ESG factors into fixed-income investing. The approach chosen depends on the motivation of the investment manager or the asset owner. Motivations can be classified as value driven, institution driven, or ethics (or standards)

Exhibit 1. ESG Factors Linked to Corporate Creditworthiness

Environmental	Social	Governance
Climate change	Employee relations	Business integrity
Biodiversity	Human rights	Shareholder rights
Energy resources	Product responsibility	Incentives structure
Energy management	Health and safety	Audit practices
Biocapacity and ecosystem quality	Diversity	Board expertise
Air, water, and physical pollution	Consumer relations	Fiduciary duty
Renewable natural resources	Access to skilled labor	Transparency
Nonrenewable natural resources	Demographics	Accountability
		Financial policy

*Note*: This list is not exhaustive but includes some of the factors considered to be the most important to corporate financial performance.

Source: PRI, Corporate Bonds: Spotlight on ESG Risks, Principles for Responsible Investment (December 2013).

based. Value-driven motivations are based on identifying the impact of ESG trends on financial value by using ESG analysis as an information advantage to enhance asset allocation strategy as well as using ESG factors as a risk-flagging mechanism for events that could lead to downgrades.

For example, water scarcity in a particular region can affect the creditworthiness of companies in that region. Knowledge of such issues can yield an informational advantage that translates into a price advantage. In portfolio management, speed matters, and investors with the earliest access to information or the best forward-looking internal research have an advantage. ESG factors can also inform asset allocation, such as taking into account the concentration of ESG risks across all asset classes.

Institutional drivers include following regulation trends, wanting to implement the PRI, diversifying a client base, reducing reputational risk through the monitoring of portfolios for adverse ESG issues, and actively engaging issuers. Institutional drivers may also lead to behavioral changes and financial market transparency. Asset managers who practice ESG integration can diversify their client base. ESG client assets also tend to be stickier than non-ESG assets because clients value the workload and time spent on improving the investment process and their portfolios. For example, ESG asset owners appreciate the opportunity to avoid the reputational risk of owning companies that generate adverse headlines. The client relationship tends to be stronger and less dependent on performance, although competitive performance is still essential. As a defense strategy, ESG integration makes sense.

Ethical (standards-based) motivations include valuing investor missions and screening for social norms. Asset owners, such as endowments and faith-based organizations, have very specific needs and projects, and they may want a portfolio tilted toward certain biases and social norms to achieve a desired impact. Working with a client to define ESG criteria and minimum standards clearly enhances and improves the relationship.

## ESG Fixed-Income Strategies and the Investment Process

ESG investing is based on a combination of fundamental, relative-value analysis and ESG research. The investment process begins with analyzing a company and then assessing creditworthiness and producing internal credit rating forecasts. The ESG analysis is done along with the company analysis. A credit analysis includes examining balance sheets, profit and loss statements, cash flows, and ratios.

Such numbers tend to be backward looking, which is why qualitative factors are so important.

Investors need to meet company management, understand the regulatory environment, and assess specific industry and company risks. Relevant questions regarding ESG can be incorporated into this process. By asking management questions, an investor can glean whether it has an understanding of ESG shortcomings and if it is able and willing to address the issues, improve weak KPIs, and resolve controversial issues.

Every bond is different, so it is important to assess instrument-specific risks by reading a bond's prospectus; understanding its covenants, seniority, and structure; considering liquidity issues; and reviewing related documentation. This type of analysis may require quite a few external resources. For each issuer, KPIs must be assessed for relevancy with regard to sector and industry. Investors should ask themselves how the relevant KPIs will affect a company's earnings and future operating cash flows.

Case Study: BP and Deepwater Horizon. To illustrate why ESG factors matter, consider the impact of the explosion in 2010 aboard BP's Deepwater Horizon, an oil drilling platform located on the Macondo Prospect in the Gulf of Mexico, and the oil spill that followed. Prior to the event, BP's five-year CDS spreads were trading at about 50 bps, which is quite normal for an A rated, stable energy company. But after the spill, the CDS spread shot up to more than 600 bps, a remarkable widening that is rarely seen in investment-grade credit, outside of the financial crisis in 2008–2009.

On 20 April 2010, a devastating explosion and fire occurred on Deepwater Horizon, killing 11 contractors and seriously injuring 15 other people. After burning for almost two days, the platform sank, which precipitated an oil spill that continued for three months. The spill was the largest in US history as well as the largest accidental marine oil spill in the world. As of July 2012, BP had reported a \$38 billion bill for the Deepwater Horizon disaster. As of 2015, the estimate is now at about \$50 billion because new information has surfaced about the extent of the oil damage. Recovery and restoration may take even longer, and the full effect on fragile ecosystems is not yet known. The oil spill certainly had a huge impact on the region's biodiversity, tourism, economics, and fisheries. The damage to BP's reputation was also huge, and the losses—in equity and bond valuations—were quite material.

History of problems. Even before Deepwater Horizon, BP had a history of significant safety problems and large environmental accidents. In March 2005, an explosion at BP's Texas City refinery killed 15 people and injured 180 others. The next year, in

March 2006, a major oil spill occurred in the Prudhoe Bay oil field in Alaska. When meeting with management, investors should have been asking how BP was addressing its safety and environmental issues, what policies and training programs were being implemented, and how much of its capital expenditures were being spent on safety initiatives.

Sustainalytics, a major global ESG data provider and research company, did a case study for the PRI Association showing that in the years leading up to Deepwater Horizon, BP's performance in relevant rating topics indicated major risks to the company's operational performance (including health and safety and environmental incidents). In the years prior to the incident, BP's environmental risk was clearly higher than the oil and gas industry average. This above-average risk rating in this category was indeed one of the leading signals that analysts and portfolio managers could have used as a starting point to dig deeper. Talking with ESG researchers, such as Sustainalytics, may have shed some light on the likely triggering factors and why scores were so low. As a second step, investors could have asked BP management whether it was aware of the flagged risk issues and whether it was addressing them.

■ *BP since Deepwater.* BP's bond prices have recovered to pre-spill levels, but the resulting volatility from the disaster has adversely affected portfolio performance. Holding onto BP through the wake of Deepwater almost certainly had a negative effect on some portfolio performance metrics, such as the information ratio, and decreased the marketability of portfolios overweighted in BP bonds. Investors who had factored in BP's poor ESG track record would have had a performance advantage.

BP bond prices have recovered because BP's cash flow is so strong that it can afford to pay the \$50 billion in cleanup costs and fines. Few companies in the world could have withstood penalties and costs of this magnitude. BP will learn from this event and will invest in de-risking operations, research, and capital expenditures to engineer a safer environment going forward. The business of deep-water drilling is a risky one under normal circumstances, so a company's focus should be on how to manage risk and respond effectively and quickly to issues and events.

Using External Providers of ESG Data. ESG research requires a lot of work and presents a steep learning curve. It requires in-depth research into industries and companies to understand which factors are most relevant among the almost 200 KPIs and—depending on the universe—5,000 or more companies. Many managers choose to invest heavily in external ESG providers to supplement their

in-house research staff. The following is a partial list of external ESG research providers:

- Sustainalytics
- Bloomberg
- CDP (Carbon Disclosure Project)
- MSCI
- Oekom
- RepRisk
- RiskMetrics

When using external research providers, it is important to collect all of the relevant ESG data and to find methodologies to aggregate the data and make them comparable across assets and regions. The final step is to compare the portfolio with the benchmark. Aggregating and assimilating ESG data are major undertakings that require the support of an IT department.

External research is helpful but so is meeting issuers' management, asking constructive questions, and aggregating the data to make them available throughout the firm and thus avoid duplication of effort. When an ESG incident occurs, ESG data providers should notify users immediately. Speed matters. When an adverse event occurs, it is better to be the 1st or 2nd to sell rather than the 15th. By then, the price may have dropped five points and the market liquidity may have been reduced. No one ever has enough time to review all of a company's KPIs, so I recommend focusing on the weak KPIs and engaging the company in discussions. To achieve long-term change, be critical but constructive when actively engaging issuers.

**ESG and Quantitative Analysis.** Finally, incorporating ESG considerations into quantitative analysis can be helpful. Deutsche Asset & Wealth Management uses quantitative credit rating models based on discriminant analysis as part of the credit investment process. Metrics used in the industrial credit rating model include the ratio of free cash flow to total liabilities, the stability of operating cash flows (the mean of cash flow from operations divided by the standard deviation of cash flow from operations), retained earnings divided by total assets (reflecting the historical profitability but also a company's dividend and shareback policy, which can be a signal of aggressive shareholder value), and total market value size. This total market value calculation should be performed in US dollars; otherwise, the outcome is not comparable on a global basis. The result will be a score that can be calibrated to a rating, which can then be compared with other rating agencies' ratings. So, for example, the model gives a rating of A2 for a company. For that same company, Moody's rating is A3 and Standard & Poor's is A-, both of which indicate a solid credit quality. If the model is linked to a data provider, such as Bloomberg, historical data can be easily obtained and the internal quantitative credit ratings established by using carefully calculated discriminant functions.<sup>2</sup>

This analysis can be forward looking by involving stress testing and applying internal forecasts, including ESG considerations. An analyst can test the impact on the ratios if, for example, Company A buys Company B for \$5 billion or can assess the impact of the cost of an oil spill or water shortage. Inputs can be plugged in, and the effect on the credit rating can be seen. The point is that analysts can use established models as a framework for incorporating ESG factors into research to provide forward-looking analyses and forecasts.

#### Conclusion

I hope I have built a convincing case that ESG matters. For practical implementation, I see the following three approaches to integrating ESG in fixed-income portfolios.

1. The most common approach currently is to exclude companies with critical ESG incidents and/or controversial issues or to exclude whole sectors, such as alcohol or weapons. In the case of excluding whole sectors, unclear gray areas remain. What about a supermarket that sells alcohol? Why did an investor choose 5% as a limit for controversial turnover? Furthermore, there might be difficulties in portfolio construction when entire sectors or subsectors are excluded from the investment universe. This approach could result in unwanted biases and higher tracking errors.

- 2. Take a best-in-class approach by sorting ESG qualities within every sector. The sector is investable, but the investor chooses not to invest in very poor ESG issuers. With this approach, there can be the shortcoming that an investor tends to buy the best qualities at high prices with limited potential for further price increases.
- 3. Some investors take the best-in-class approach but moderate it by allowing the manager to invest in corporate bonds with poor ESG ratings if (1) the ESG risks (problems and critical incidents) are well known, (2) the credit spread is compensating for the ESG risks or better, and (3) there is confidence in future improvements of the issuer's KPIs and ESG ratings. The goal is to manage and avoid or limit critical incidents.

Despite the additional workload and complexity, I recommend the third approach: an ESG best-inclass approach that offers the flexibility of investing in poorly rated securities because it fully implements ESG considerations and leaves leeway for careful portfolio construction and active management versus all benchmarks. This process includes a dynamic forward-looking perspective. Best of all, engaging with the issuer and constructively challenging the issuer can yield ESG improvements and a have real impact.

I invite everyone to come together and share insights and knowledge on ESG investing. Collaboration can go a long way toward advancing the field. But what really matters is that investment managers can use ESG to achieve a triple win in their clients' portfolios—improving long-term performance, reducing risk by exercising fiduciary duty, and enhancing stakeholder value.



<sup>&</sup>lt;sup>2</sup>For more information about discriminant analysis, please see the following: Edward I. Altman, "Financial Ratios: Discriminant Analysis and the Prediction of Corporate Bankruptcy," *Journal of Finance*, vol. 23, no. 4 (September 1968): 589–609; Christoph Klein, "Analysis and Evaluation of Corporate Bonds," in *Handbook of Finance*, vol. 2, edited by F.J. Fabozzi (Hoboken, NJ: John Wiley & Sons, 2008): 447–454.

### **Question and Answer Session**

Christoph M. Klein, CFA

**Question:** Is the widespread pressure to adopt ESG mandates driven by ethical reasons or a desire to reduce portfolio risk?

**Klein:** Both are very important reasons to implement and integrate ESG in portfolio management. More sponsors demand a higher focus on ethics and reputation, and I believe this demand will continue to grow. Regarding the second motivation, various studies and examples show that ESG KPIs are relevant to assess single investment risks but also for overall portfolio risks.

**Question:** Is it possible to isolate the effect of ESG factors from the other factors that affect fixed-income performance?

**Klein:** KPIs can be sorted by materiality and relevance for different sectors. For example, consider a brewery based in drought-stricken Southern California that has issued a 10-year bond. This brewery may run into water shortage issues down the road. Generating an isolated sensitivity analysis might be difficult because extenuating factors may exist. The brewery may have large water reserves in San Francisco, for example, enabling it to survive a little bit longer. All factors need to be considered in an analysis. Isolating the impact of ESG factors is not that easy.

**Question:** Can ESG analysis be applied to sovereign bonds?

**Klein:** Yes, but the KPIs required for sovereign bond analysis differ from corporate analysis. Sovereign bond KPIs might include diversity, gender gap, existence of a death penalty, biodiversity, environmentally treated climate change, infrastructure, and labor force participation ratios. But although the factors to consider are somewhat different from those factors analyzed for a corporate bond, the investment process is similar.

**Question:** Does corporate governance have the same impact on fixed-income returns as it does on equity returns?

**Klein:** Yes. Petrobras is a recent example of how governance can have a huge impact on a company's credit spreads as well as on its equity price. The corruption allegations and unexpected writedowns led to a reduction in trust.

In Asia, where investors are very bullish on demographics and growth potential, governance is sometimes an issue because it has not been a focus of investor scrutiny in the past. Some Asian companies are still family owned with limited transparency. Ambiguity in bankruptcy laws may also exist.

Investors should always be cautious of regionspecific issues, which is another reason that meetings with management are helpful. If, for example, management promises to keep a stable credit rating, but three weeks later, it engages in a large acquisition and the rating moves down three notches, an investor has reason to be skeptical of future claims. Good research coupled with an understanding of management can give a clearer picture about a company's governance issues.

**Question:** Are the credit rating agencies that are signatories to the PRI mandated to report ESG risk factors in their credit rating reports?

**Klein:** Unfortunately, transparency regarding the integration of ESG factors into credit rating reports has not yet occurred among the rating agencies. Such transparency would be an important step in industry acceptance.

**Question:** Is it best to apply ESG factor analysis to equities, which have unlimited upside, rather than to fixed income?

**Klein:** Equities normally do have more upside potential than bonds, but bond investors are focused on downside protection and spend a lot of time thinking about potential risks—especially investment-grade fixed income, which has an asymmetrical return profile; an investor can earn 3% on the upside but lose 90% if something goes very wrong. The equity risk–return profile is more symmetrical. But overall, the inclusion of KPIs in an analytical framework to forecast potential risks is an important consideration not only for bond managers but also for all investors.

**Question:** Under the strong form of the efficient market hypothesis, why would a stock's price not reflect all available information, including ESG risk factors?

**Klein:** I am not a big believer in efficient markets. I know of many instances when information was not reflected in a stock's price for several weeks despite a new analytical framework or a new dataset becoming available. ESG investors need to be resilient and patient. Some ESG themes will be realized in time; others will be difficult to forecast.

I am optimistic that ESG investors will benefit and outperform.

**Question:** How can smaller investment firms integrate ESG factors into their investment process if they lack the necessary resources to do the required research?

**Klein:** Incorporating ESG factors is difficult for small investment firms that are already at a resource disadvantage for traditional analysis, such as having access to credit metrics. In Germany, asset managers are required to conduct plausibility checks versus rating agencies. Such a requirement is onerous for an asset manager with only a few people covering a credit universe of 500 European issuers. To incorporate ESG factors as well, and to assess the most important KPIs per company, would be extremely demanding without the efficient use of external ESG data.

**Question:** Do performance data exist that prove that ESG integration enhances performance in the long term?

**Klein:** Along with the performance of the Deutsche Bank pension fund, I would like to highlight one empirical study: "Corporate Environmental Management and Credit Risk," by Rob Bauer and Daniel Hann.<sup>3</sup> The study presents clear evidence that (1) environmental concerns are associated with a higher cost of debt financing and lower credit ratings and (2) proactive environmental practices are associated with a lower cost of debt.

**Question:** Is it true that some ESG researchers rated BP quite highly prior to the Deepwater Horizon accident?

**Klein:** Yes, and this type of rating is a big criticism of the ESG rating industry. The problem is that with 200 KPIs, the weighting of a single KPI is comparably small. Even if there had been three or four warning indicators for BP, their combined weighting might not have lowered the overall score enough for a sell recommendation to be triggered.

**Question:** Do shortcomings exist in the data quality of ESG indicators?

**Klein:** Yes. Extracting the data is difficult, and management teams are not always forthcoming with information. For example, a particular utility company in northern Germany is proficient in alternative energy technology, but it does not provide detailed reporting of its KPIs, so it is viewed in a negative light. Operationally, it is doing a good job, but it is not yet able to report KPIs in full detail.

**Question:** How do you evaluate the quality of an external source's ESG data?

**Klein:** If an investment firm is able to buy research from several ESG research entities, it can compare KPI ratings and identify discrepancies. Firms should then contact the providers with the best and worst scores and try to determine the source of the discrepancies.

**Question:** Is it possible to buy off-the-shelf ESG information?

**Klein:** Some investment firms do buy ESG research, and they incorporate the ESG score along with the credit rating according to their internal scaling mechanism. They may do a best-in-class sector analysis in weighting and ranking. But these efforts fall short of a more comprehensive analysis based on reading an issuer's ESG report, identifying its worst KPIs, and determining what it is doing to address any ESG issues. The reports themselves are fairly short, maybe three to seven pages on average, but the information they provide on an issuer's ESG issues is quite valuable.

**Question:** Is the focus on short-term performance one of the reasons institutional investors have been slow to adopt ESG?

**Klein:** Yes. It takes a lot of patience and resilience to be an ESG investor. Nonetheless, I believe strongly that ESG matters will become much more important going forward, even though it may take years or even decades to see the results. Some investors will argue that not everyone can wait a decade. But investment managers who do not underperform should not be adversely affected by the wait.

<sup>&</sup>lt;sup>3</sup>Rob Bauer and Daniel Hahn, "Corporate Environmental Management and Credit Risk," working paper (23 December 2010): http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1660470.