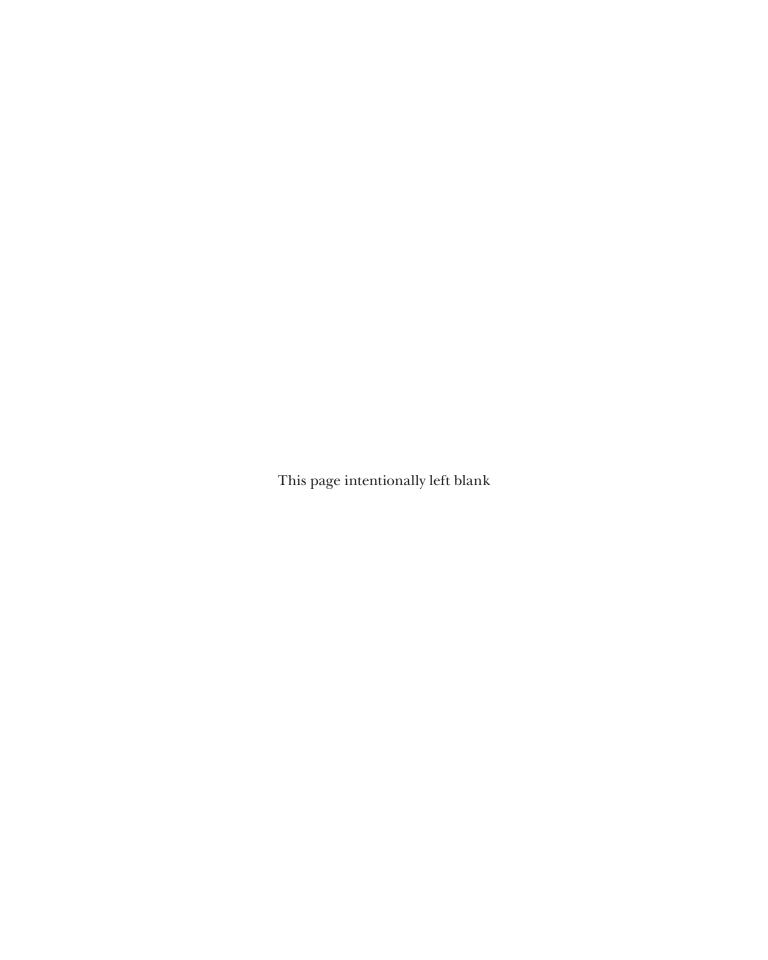




ESG INTEGRATION IN EUROPE, THE MIDDLE EAST, AND AFRICA: MARKETS, PRACTICES, AND DATA









ESG Integration in Europe, the Middle East, and Africa: Markets, Practices, and Data

CFA Institute is a global community of more than 150,000 investment professionals working to build an investment industry where investors' interests come first, financial markets function at their best, and economies grow.

The United Nations-supported Principles for Responsible Investment (PRI) Initiative is an international network of investors working together to put the six principles for responsible investment into practice. Its goal is to understand the implications of environmental, social, and governance issues (ESG) for investors and support signatories to incorporate these issues into their investment decision making and ownership practices. In implementing the principles, signatories contribute to the development of a more sustainable global financial system. There are currently more than 2,000 signatories to the PRI who collectively manage approximately US\$80 trillion in assets. Visit www.unpri.org.

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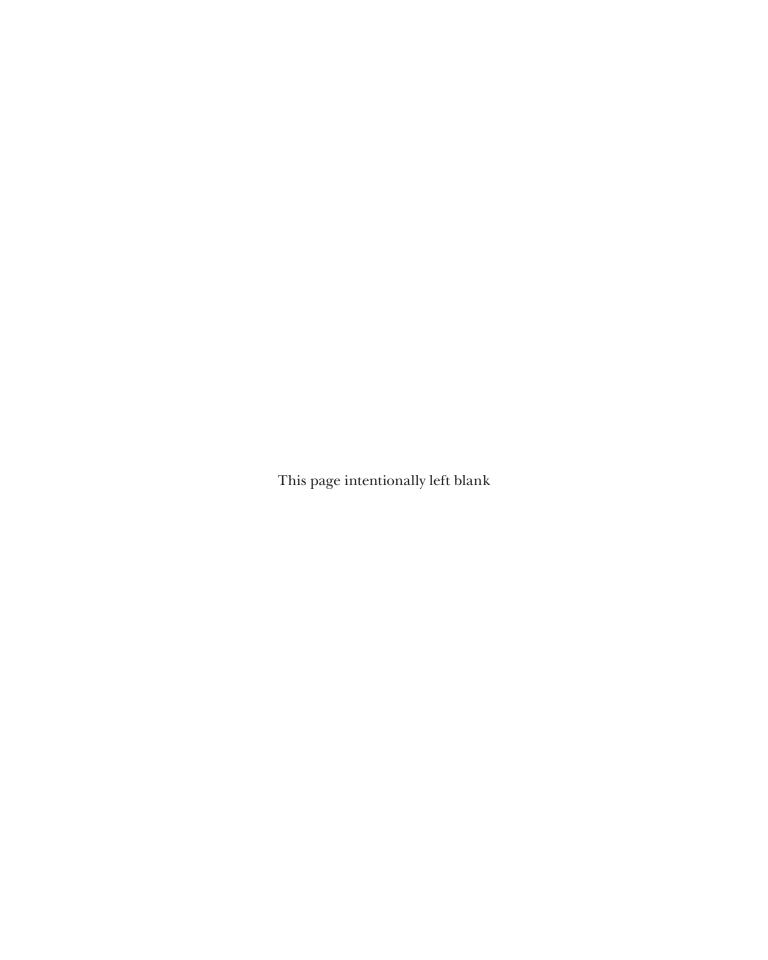
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EXECUTIVE SUMMARY

Portfolio managers and analysts are increasingly incorporating ESG factors in their investment analyses and processes. However, ESG integration remains in its relative infancy, with investors and analysts calling for more guidance on exactly "how" they can "do ESG" and integrate ESG data into their analysis.

CFA Institute and Principles for Responsible Investment (PRI) set out to create a best-practice report (*Guidance and Case Studies for ESG Integration: Equities and Fixed Income*) and three regional reports (one for the Americas [AMER], one for Asia Pacific [APAC], and one for Europe, the Middle East, and Africa [EMEA]) to help investors understand how they can better integrate ESG factors into their equity, corporate bond, and sovereign debt portfolios. We are able to achieve this goal by

- surveying 1,100 financial professionals, predominantly CFA members, around the world;
- running 23 workshops in 17 major markets;
- interviewing many practitioners and stakeholders;
- publishing more than 30 case studies written by equity and fixed-income practitioners;
- analyzing Bloomberg's ESG company disclosure scores; and
- reviewing data from the PRI reporting framework, the largest global database of information on investors' ESG practices.

The above-mentioned best-practice report contains guidance on ESG integration in equity and fixed-income investments and case studies on how ESG integration is "done" by leading practitioners.

This report focuses on the current state of ESG integration in EMEA. Other regional reports focus on the Americas and APAC regions. We hope that investors find this report and its companion reports useful and that these reports help investors learn how they can better integrate ESG data into their analysis and investment decision making.

FINDINGS

Our main findings include the following points:

- 1. There is no "one best way" to do ESG integration and no "silver bullet" to ESG integration.
- 2. Governance is the ESG factor most investors are integrating into their process.
- 3. Environmental and social factors are gaining acceptance, but from a low base.
- 4. ESG integration is farther along in the equity world than in fixed income.
- 5. Portfolio managers and analysts are more frequently integrating ESG into the investment process, but rarely adjusting their models based on ESG data.

THE 17 MARKETS WHERE THE 23 ESG WORKSHOPS WERE HELD

ESG WORKSHOPS ACROSS THE WORLD		
AMER	APAC	EMEA
Brazil	Australia	France
Canada	China	Germany
United States	Hong Kong	Netherlands
	India	Russia
	Japan	South Africa
	Singapore	Switzerland
		United Arab Emirates
		United Kingdom

Abbreviations: AMER, Americas; APAC, Asia Pacific; EMEA, Europe, Middle East, and Africa.

- 6. The main drivers of ESG integration are risk management and client demand.
- 7. The main barriers to ESG integration are a limited understanding of ESG issues and a lack of comparable ESG data.
- 8. Investors acknowledge that ESG data have come a long way, but advances in quality and comparability of data still have a long way to go.
- 9. It would be helpful for issuers and investors to agree upon a single ESG reporting standard that could streamline the data collection process and produce more quality data.
- 10. Many workshop participants were concerned that ESG mutual funds and ETFs offered to investors may be driven by marketing decisions and may not be true ESG investment products.

Our top regional findings follow.

The Arabian Gulf Region

1. Islamic finance and ESG investing are complementary capital-raising and investment approaches with many shared principles, such as being a good steward to society and the environment. With many more similarities than differences, both offer products that serve Muslim and non-Muslim investors alike, and both possess strong practices and policies that each can learn from the other.

- 2. Demand for ESG integration has largely come from outside the Arabian Gulf region. In terms of local investor demand for ESG, sovereign wealth funds were less focused on ESG compared to life insurance and pension investors.
- 3. Integration of ESG factors is predominantly happening in the equity space. ESG is not talked about much in the fixed-income space, with investors asking more questions about yields than about sustainability.

France

- 1. In France, corporate governance is currently the ESG issue most integrated into the investment process for both equities and bonds. However, survey responses suggest that by 2022, environmental factors will overtake governance as the issue most affecting equities and corporate bonds.
- 2. As is the case in most other markets, client demand and risk management are driving ESG integration, although respondents see regulation around ESG integration and reporting as a greater influence in France than in other markets.
- 3. Respondents see the limited understanding of ESG issues and concerns about the investment benefits of ESG integration as the main barriers to ESG integration in France.

Germany

- 1. Respondents see the impact of ESG issues on the prices of equities and bond yields as lower in Germany than in the other EMEA markets we visited, although these numbers increase substantially when we asked survey respondents how they feel ESG issues will affect share prices and bond yields by 2022.
- 2. Many firms in Germany are at the start of ESG integration. They have a relatively low level of ESG integration, but it is likely to grow. German firms often use screening as a form of integration.
- 3. The main barriers to ESG integration in Germany are a lack of comparable and historical data and a limited understanding of ESG issues.

The Netherlands

- 1. ESG integration is more developed in the Netherlands compared to most other markets, with the use of integration and of impact investing both growing.
- 2. Although nearly two-thirds of survey respondents in the Netherlands feel that governance issues often or always affect equity prices today, only about one-third believe the same of environmental and social issues. Over two-thirds of respondents feel that environmental and social factors will often or always impact equity prices by 2022.

3. Risk management is the top driver of ESG integration in the Netherlands for equities, but alpha generation is a close second, signaling the Dutch position as a leader in ESG integration.

Switzerland

- 1. Equity practitioners adjust their valuation models and tools for material ESG issues more frequently than do fixed-income practitioners. Equity practitioners integrate governance factors only slightly more frequently than environmental and social factors, while fixed-income practitioners integrate environmental, social, and governance factors with identical frequency.
- 2. Many Swiss workshop participants focused on the reality that the materiality of ESG issues is more likely to become evident over the long term. They look at ESG issues through a long-term investing lens.
- 3. Although the most-cited barrier to ESG integration is a limited understanding of ESG issues and ESG integration, a number of participants noted that it would be helpful to have a universal framework to understand what investors are calling "ESG factors" and "traditional factors." A lack of investment company culture around ESG integration is the second strongest barrier to ESG integration.

The United Kingdom

- 1. The United Kingdom is one of the most advanced markets concerning ESG integration in the investment process. However, survey respondents signaled that corporate governance issues are much more systematically included in the investment process than are environmental or social issues.
- 2. Survey respondents expect that environmental and social factors will be systematically incorporated into the investment process at about twice the current rate by 2022.
- 3. A lack of comparable historical data, a limited understanding of ESG issues, and a lack of company culture at investment firms are some of the main barriers to ESG integration in the United Kingdom.

Russia

- 1. Local investors consider ESG factors in their investment analysis. However, little knowledge is available in the Russian market about what ESG integration entails. ESG integration is often confused with screening out sectors, companies, or products.
- 2. Some Russian investors recently started to receive ESG questions from their foreign clients. Low client demand has been rated a top barrier to ESG integration by Russia-based survey respondents.

3. Stakeholders involved in this study were in consensus that in Russia, the promotion of ESG investing could only work from a top-down approach, that is, the regulator will need to support this direction.

South Africa

- 1. Governance issues are systematically incorporated into the investment process for equities and corporate bonds more than 50% of the time, but social and environmental issues are incorporated in similar ways only about 25% of the time. Survey respondents feel that environmental and social factors will be incorporated into equity values and bond yields more than 60% of the time by 2022.
- 2. Based on our survey and conversations with workshop participants, social factors appear to be incorporated into the investment process in South Africa more than in other markets we visited.
- 3. Regulation drives ESG integration in South Arica more than in other markets, as South Africa's listing standards and government regulations are more explicit about ESG disclosure requirements than are those in other markets.

CONSIDERATIONS FOR THOSE INTEGRATING ESG INTO THE INVESTMENT PROCESS

Based on our survey of global financial professionals, workshops with investors and analysts, and research for this report, CFA Institute and PRI wish to highlight a number of considerations financial professionals and investors should have in mind when integrating ESG factors into the investment process.

- There is no single agreed-upon definition of ESG or best practice for ESG integration. Therefore, integrating ESG analysis into the investment process should be done in a manner that best fits each individual firm, its resources, and its clients. However, a set of common best practices are beginning to emerge as professional investors increasingly integrate ESG factors into their analyses and investment processes.
- ESG integration looks at risks and opportunities revealed by the analysis of environmental (E), social (S), and/or governance (G) issues that are material for a company or country. It is often more complex than negative screening, though a not insignificant minority of those we spoke to still think of ESG investing as simply a negative screen.
- One of the main reasons firms undertake ESG analysis is to assess risk. However, the results of our survey and workshops show that few investors are looking at ESG analysis as a means of uncovering investing opportunities. Investors who can spot companies that are improving their E, S, or G profiles—before the larger market does—may be rewarded. Numerous examples are available of academic¹ and practitioner research that support the benefit of the inclusion of ESG analysis in traditional financial analysis.
- Investors should focus on ESG *analysis*, not ESG *investing*. ESG investing is often used as a marketing slogan, whereas ESG analysis is a fundamental part of investment analysis and requires a disciplined and tangible approach to be fully integrated into the investment process. In the long term, we expect the term "ESG investing" will fade away as ESG analysis becomes more accepted as simply a part of investment analysis.
- ESG integration is consistent with a manager's fiduciary duty to consider all relevant information and material risks in investment analysis and decision making. Some confusion arises at times when people assume ESG integration is only a negative screen in the investment process that limits one's investment universe. Most practitioners would agree (as do we) that ESG integration includes a more thorough application of traditional financial analysis.

¹ Gunnar Friede, Timo Busch, & Alexander Bassen, "ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies," *Journal of Sustainable Finance & Investment*, 5 (2015):4, 210–233, DOI:10.1080/20430795.2015.1118917.

- Buyers should beware of products that claim to be ESG investment products. Many products marketed as ESG compliant or sustainable will define ESG differently and make different assumptions about what investments to include and what not to include. Investors need to do research when investing in anything called "ESG" or "sustainable," to ensure they agree with the methodology behind those designations (see the companion report, *Guidance and Case Studies for ESG Integration: Equities and Fixed Income*).
- To date, one of the main drivers of ESG integration globally has been client demand, largely from institutional investors. Investors who want their asset managers to integrate ESG data into the investment process will have to demand it; when they do, asset managers are likely to respond. Likewise, investors who want better material ESG data from companies should also demand it.
- Asset owners and asset managers should strive to do a better job of educating each other about how and why they integrate ESG data into the investment process. Clear communication by investors to their clients about ESG integration could do much to reduce the confusion and misperceptions surrounding what ESG integration involves.
- Investors justifiably remain concerned with the quality, accuracy, and comparability of the ESG data they are using in their analyses. We are in the early days of ESG integration and few standards and little verification are available with regard to ESG disclosures and ESG data. Thus, investors need to understand how robust, accurate, and comparable the data they are using are and adjust their analyses accordingly. In addition, investors and companies need to work together to agree on the reporting of material ESG issues only and to promote the standardization of ESG data.

HOW TO USE THIS REPORT

This report is intended to help investors better understand how professional investors are integrating ESG factors into their analyses and investment processes. This understanding, in turn, can help investors determine *how* to integrate ESG analysis into their own investment processes, and how to do so in a manner that makes sense for them.

The first section, "Regional Analysis: Europe, the Middle East, and Africa," provides an overview of our survey results for the entire EMEA region. The sections that follow analyze ESG integration in these EMEA regions and countries:

- 1. The Arabian Gulf region
- 2. France
- 3. Germany
- 4. The Netherlands
- 5. Switzerland
- 6. The United Kingdom
- 7. Russia
- 8. South Africa

The country sections each have the following chapters, which analyze the current and future impact of ESG factors on capital markets and investment practices, drivers of and barriers to ESG integration, trends in ESG company data, and investment practices of local practitioners (see "Appendix: Methodology"):

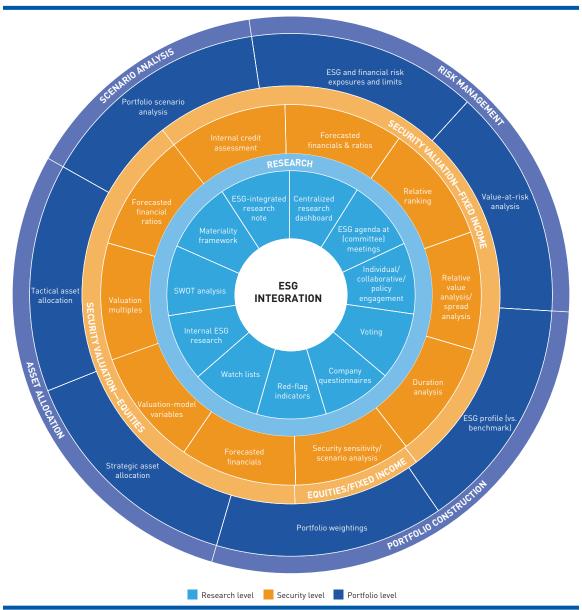
- a. Impact of ESG Factors on Capital Markets and Investment Practices: Survey Data. We convey and comment on the results of regional and market surveys that provide respondents' views of the current and future impact of ESG factors on share prices, corporate bond spreads, and sovereign debt yields in their country's capital markets. We analyze how investors in EMEA as a whole, as well as in France, Germany, the Netherlands, Switzerland, the United Kingdom, Russia, and South Africa, are and are not integrating ESG into the investment process. These chapters provide readers with a snapshot of current practices in ESG integration.
- b. **Drivers of and Barriers to ESG Integration: Survey Data and Workshop Feedback.** We held workshops in the Arabian Gulf region, France, Germany, the Netherlands, Switzerland, the United Kingdom, Russia, and South Africa to discuss with local practitioners the specific level and methods of ESG integration in each market. Our intent is to help readers better understand the unique context of ESG integration in their own markets as well as some of the universal drivers of and barriers to ESG integration.
- c. **Trends in ESG Company Data: Equities and Fixed Income.** These chapters highlight the level of ESG company disclosure in each market. We analyzed how the level of ESG data has changed over a five-year period across sectors and between listed companies of different sizes.

- d. **Investment Practices of Local Practitioners: Equities and Fixed Income.** These chapters provide readers with an overview of current investment practices in each market, creating a unique opportunity for practitioners to compare their ESG integration techniques and tools with those of their peers. In the sections on the Arabian Gulf region and Russia, case studies stand in for the chapter on investment practices.
- e. **Interviews with Major Market Players.** In each market, we interviewed at least one major market player to provide more detailed examples of the availability of ESG company data and how some practitioners integrate ESG data into the investment process. We strongly recommend that readers also review the guidance and case studies in the companion to this report, *Guidance and Case Studies for ESG Integration: Equities and Fixed Income*.

THE ESG INTEGRATION FRAMEWORK

After extensive analysis of the ESG integration techniques of direct investors across the globe, CFA Institute and PRI collated the many ESG integration techniques used by practitioners and developed the ESG Integration Framework (see **Figure 1**).

FIGURE 1: THE ESG INTEGRATION FRAMEWORK



The ESG Integration Framework is not meant to illustrate the perfect ESG-integrated investment process. Rather, the ESG Integration Framework is meant to be a reference so that practitioners can analyze their peers' ESG integration techniques and identify those techniques that are suitable for their own firms. We believe that this will be a useful resource and reference as you develop your ESG-integrated investment process over time. As every firm is unique, the ESG integration techniques of one firm are not necessarily the right techniques for all firms.

We recommend you refer to the ESG Integration Framework as you read the "Investment Practices of Local Practitioners" chapters of each country and the companion to this report, *Guidance and Case Studies for ESG Integration: Equities and Fixed Income.*

RESEARCH: THE INNER CIRCLE

Qualitative Analysis

- Company questionnaires: Questionnaires are sent to companies to collect more ESG data and information where the company's level of public ESG disclosure is inadequate. These questionnaires are also used in parallel with regular company meetings, where investors and companies will meet to discuss the most material ESG issues.
- **Red-flag indicators:** Securities with high ESG risk are flagged in lists, research notes, dashboards, and databases.
- Watch lists: Securities with high ESG risk are added to a watch list for regular monitoring.
- Internal ESG research: Based on a variety of data sources, proprietary ESG research/views/scores are created for all securities in the portfolio and investment universe.
- **SWOT analysis:** ESG factors are included in the traditional SWOT (strengths, weaknesses, opportunities, and threats) analysis.
- Materiality framework: A materiality/sustainability framework is created that includes all the key ESG risks and opportunities for each sector/country. This framework is referred to when making investment decisions and is regularly updated.
- **ESG-integrated research note:** Research notes/credit notes consist of traditional financial information and analysis and ESG information and analysis.
- **Centralized research dashboard:** Traditional financial data and ESG data are kept on one platform (dashboard/database) so practitioners can analyze concurrently traditional financial factors and ESG factors.
- **ESG** agenda at (committee) meetings: Investment teams (and possibly ESG teams/specialists) have a dedicated ESG item on all agendas of investment team meetings. Committees meet to discuss ESG strategy, ESG performance of portfolios, and/or controversial securities.

Active Ownership

- **Voting:** This structured process captures all voting rights and applies a rigorous analysis to management and shareholder resolutions before casting votes. As well as being used for voting, this process can be employed to submit resolutions on which other shareholders may vote.
- Individual/collaborative/policy engagement: Corporate engagement captures any interactions between the investor and current or potential investee companies on ESG issues and relevant strategies, with the goal of improving (or identifying the need to influence) ESG practices and/or improving ESG disclosure. Public policy engagement captures interactions between the investor and policymaker, regulator, or stakeholder group (e.g., an industry association or standard setter) on financial policy, regulation, and industry codes, with the goal of clarifying ESG requirements, including ESG integration, stewardship, and disclosure, and on ESG-specific topics, such as government commitments to action on climate change. Both corporate engagements and public policy engagements involve a structured process that includes dialogue and continuous monitoring of progress. These interactions might be conducted individually or jointly with other investors.

SECURITY LEVEL: THE MIDDLE CIRCLE

Security Valuation—Equities

- **Forecasted financials:** Adjustments are made to forecasted financials (e.g., revenue, operating cost, asset book value, capital expenditure) for the expected impact of ESG factors.
- Valuation-model variables: Adjustments are made to valuation-model variables (e.g., discount rates, perpetuity growth, terminal value) for the expected impact of ESG factors.
- Valuation multiples: Adjustments are made to valuation multiples to calculate "ESG-integrated" valuation multiples. These multiples are then used to calculate the value of securities.
- **Forecasted financial ratios:** Forecasted financials and future cash flow estimates are adjusted for ESG analysis and the effect on financial ratios is assessed.
- Security sensitivity/scenario analysis: Adjustments are made to variables (sensitivity analysis) and different ESG scenarios (scenario analysis) are applied to valuation models to compare the difference between the base-case security valuation and the ESG-integrated security valuation.

Security Valuation—Fixed Income

- Credit analysis
 - □ **Internal credit assessments:** ESG analysis is used to adjust the internal credit assessments of issuers.
 - □ **Forecasted financials and ratios:** Forecasted financials and future cash flow estimates are adjusted for ESG analysis and the effect on financial ratios is assessed.
 - □ **Relative ranking:** ESG analysis influences the ranking of an issuer relative to a chosen peer group.
- Relative value analysis/spread analysis: An issuer's ESG bond spreads and its relative value versus its sector peers are analyzed to find out if all risk factors are priced in.
- **Duration analysis:** The impact of ESG issues on bonds of an issuer with different durations/maturities is analyzed.
- Security sensitivity/scenario analysis: Adjustments to variables (sensitivity analysis) and different ESG scenarios (scenario analysis) are applied to valuation models to compare the difference between the base-case security valuation and the ESG-integrated security valuation.

PORTFOLIO LEVEL: THE OUTER CIRCLE

Risk Management

- ESG and financial risk exposures and limits: Companies, sectors, countries, and currency are regularly reviewed and monitored for changes in ESG risks and opportunities and for breaches of risk limits.
- Value-at-risk analysis: ESG analysis feeds into value-at-risk models.
- **Portfolio scenario analysis:** Different ESG scenarios are run to assess the impact of ESG factors on portfolio risk and return.

Portfolio Construction

- **ESG profile (versus benchmark):** The ESG profile of portfolios is examined for securities with high ESG risks and assessed relative to the ESG profile of a benchmark.
- **Portfolio weightings:** Adjustments are made to weightings of companies, sectors, countries, and/or currency in a portfolio to mitigate ESG risk exposures and avoid breaching ESG risk limits and other risk limits.
- **Portfolio scenario analysis:** Different ESG scenarios are run to assess the impact of ESG factors on portfolio risk and return.

Asset Allocation

- **Strategic asset allocation:** Strategic asset allocation (SAA) strategies factor in ESG objectives and analysis to progressively mitigate the ESG risks and enhance financial performance.
- **Tactical asset allocation:** Tactical asset allocation (TAA) strategies factor in ESG objectives and analysis to mitigate short-term ESG risks.
- **Portfolio scenario analysis:** Different ESG scenarios are run to assess the impact of ESG factors on SAA strategies and TAA strategies.

CASE STUDY TABLE

We collected more than 30 case studies to demonstrate many of the techniques found in the ESG integration framework. The case studies were written by leading practitioners across 13 markets in the Americas, EMEA, and APAC regions.

The case study table provided here will help you navigate the case studies found in the best-practice report, *Guidance and Case Studies for ESG Integration: Equities and Fixed Income.*

THE CASE STUDY TABLE

DOMICILE OF THE CASE STUDY AUTHOR	FIRM PROVIDING THE CASE STUDY	SECTOR/COUNTRY	ASSET CLASS
Australia	Alliance Bernstein L.P.	Healthcare	Equity
Brazil	Santander Asset Management	General	Equity
Canada	AGF Investments Inc.	Chemicals	Equity
Canada	Manulife Asset Management	Technology	Equity
Canada	RBC Global Asset Management	Healthcare	Equity
China	E Fund Management Co., Ltd.	Chemicals	Equity
China	Hwabao WP Fund Management Co., Ltd.	Chemicals	Equity
Hong Kong	The Goldman Sachs Group, Inc.	Semiconductor	Equity
India	Quantum Advisors Private Ltd.	Chemicals	Equity
India	SBI Funds Management Pvt. Ltd. India	Waste Management	Equity
Japan	Nissay Asset Management Corporation	Industrials	Equity
Netherlands	NN Investment Partners	Materials	Equity

(Continued)

THE CASE STUDY TABLE (CONTINUED)

DOMICILE OF THE CASE STUDY AUTHOR	FIRM PROVIDING THE CASE STUDY	SECTOR/COUNTRY	ASSET CLASS
Netherlands	Robeco	Telecoms	Corporate bond
Netherlands	Robeco	Turkey	Sovereign debt
Singapore	Arisaig Partners	Consumer Products	Equity
Singapore	AXA Investment Managers Asia (Singapore) Ltd.	Software	Equity
Singapore	Eastspring Investments	Automotive	Equity
South Africa	Momentum Investments	Property	Equity
South Africa	Old Mutual Investment Group	Mining	Equity
South Africa	Futuregrowth Asset Management (PTY) Ltd.	South African SOEs	Sovereign debt
Switzerland	UBS Asset Management	Multiple	Corporate bond/ Sovereign debt
United Kingdom	Inflection Point Capital Management	Chemicals	Equity
United Kingdom	Hermes Investment Management	Oil & Gas	Corporate bond
United Kingdom	Insight Investment	Technology	Corporate bond
United Kingdom	Man GLG	Food Retailer	Corporate bond
United Kingdom	Colchester Global Investors	Russia	Sovereign debt
United Kingdom	PIMCO	South Africa	Sovereign debt
United States	High Pointe Capital Management	General	Equity
United States	MFS Investment Management	IT Outsourcing	Equity
United States	Breckinridge Capital Advisors	Beverage	Corporate bond
United States	Sage Advisory Services, Ltd. Co.	Utilities	Municipal bond
United States	Angel Oak Capital Advisors, LLC	Financials	Structured credit
United States	PIMCO	Financials	Corporate bond

REGIONAL ANALYSIS: EUROPE, THE MIDDLE EAST, AND AFRICA

CHAPTER 1

REGIONAL ANALYSIS: EUROPE, THE MIDDLE EAST, AND AFRICA

IMPACT ON PRICES AND YIELDS

When asked how often ESG issues affect share prices, respondents from the Europe, Middle East, and Africa (EMEA) region answered "often" or "always" 60% of the time for governance issues and 24% of the time for environmental and social issues (**Figure 2**). This result was similar to what we found in our workshops with practitioners, where practitioners integrated governance more often than environmental or social issues into the investment process. In most of the EMEA markets, incorporation of environmental and social factors into the investment process was in its early stages. The pattern was similar for corporate bonds and sovereign debt, with governance being considered more often than environmental or social factors.

We also wanted to see whether survey respondents in EMEA believed that ESG data would become more important in the future or stay relatively the same. We asked them how often they expected ESG issues to affect share prices and bond yields/spreads in 2022. We found that respondents expected ESG issues to become more influential in the coming years—especially for corporate and sovereign debt (**Table 1**).

ESG RISKS AND OPPORTUNITIES

Respondents in EMEA were asked how they view risks and opportunities. Interestingly, whether we asked about share prices, corporate yields/spreads, or sovereign yields, survey respondents in EMEA always considered environmental, social, or governance risks more often than environmental, social, or governance opportunities, usually at a rate of about 2:1 (**Table 2**).

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

We asked how frequently portfolio managers and financial analysts include material ESG issues in equity and credit analysis, as well as how often they adjust their valuation models based on ESG information (**Table 3**). We found that in each case, respondents believe that less than 20% of portfolio managers and analysts systematically include material ESG issues in their analyses and that less than 15% adjust their models based on ESG information. In short, much of the ESG analysis that is being done seems to be on a more informal basis.

When adding in those who believe that portfolio managers and financial analysts are "sometimes" using this information in their initial analysis, these numbers exceed 70%

for equity analysis and are at nearly 60% for credit analysis. Respondents also believe that about half of (equities) portfolio managers and financial analysts are "sometimes," "often," or "always" adjusting valuation models for ESG information.

FIGURE 2: THE IMPACT OF ESG ISSUES ON SHARE PRICES, CORPORATE BOND YIELDS/ SPREADS, AND SOVEREIGN DEBT YIELDS

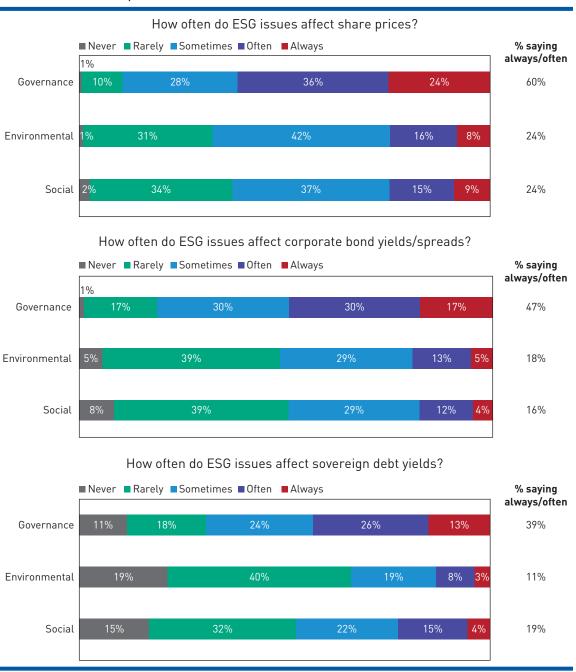


TABLE 1: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	60%	69%
Environmental	24%	54%
Social	24%	46%
ESG ISSUES IMPACT ON CORPORATE BO	OND YIELDS/SPREADS	
Governance	47%	58%
Environmental	18%	44%
Social	16%	36%
ESG ISSUES IMPACT ON SOVEREIGN DE	BT YIELDS	
Governance	39%	45%
Environmental	11%	28%
Social	19%	31%

TABLE 2: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	SHARE PRICES?
Environmental risks	29%
Environmental opportunities	19%
Social risks	26%
Social opportunities	17%
Governance risks	62%
Governance opportunities	37%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	CORPORATE BOND YIELDS/SPREADS?
Environmental risks	21%
Environmental opportunities	13%

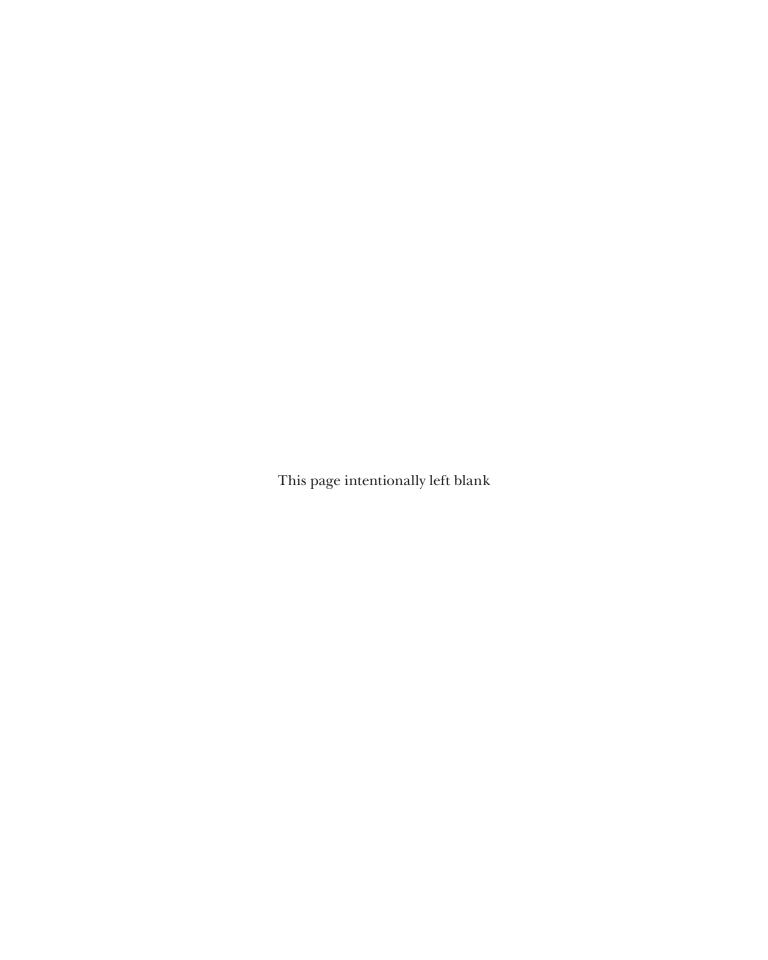
(Continued)

TABLE 2: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS (CONTINUED)

	AFFECT "OFTEN" OR "ALWAYS"
Social risks	21%
Social opportunities	15%
Governance risks	47%
Governance opportunities	30%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFE	CT SOVEREIGN DEBT YIELDS?
Environmental risks	14%
Environmental opportunities	9%
Social risks	22%
Social opportunities	14%
Governance risks	38%
Governance opportunities	28%

TABLE 3: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS AND VALUATION MODELS/TOOLS

	INCLUDE MATERIAL ESG ISSUES IN ANALYSIS	ADJUST MODELS BASED On ESG DATA
Equity analysis (often, always)	19%	14%
Credit analysis (often, always)	17%	12%
Equity analysis (often, always, sometimes)	71%	51%
Credit analysis (often, always, sometimes)	57%	44%



REGIONAL ANALYSIS: THE ARABIAN GULF REGION

CHAPTER 2

COMPLEMENTARY INVESTMENT APPROACHES: ISLAMIC FINANCE AND ESG INVESTING

Modern Islamic finance and environmental, social, and governance (ESG) investing both emerged in the 1970s with a history of practices that predate the 20th century. Currently, in the Arabian Gulf region, both investment approaches are growing separately and at different rates, although the potential for significant overlap across these product areas exists.

Islamic finance and ESG investing are complementary capital-raising and investment approaches with many shared principles, such as being a good steward to society and the environment. With many more similarities than differences, both offer products that serve Muslim and non-Muslim investors alike and both possess strong practices and policies that each can learn from the other. Some of their common practices extend as well to conventional investment products (**Figure 3**).

WHAT IS ISLAMIC FINANCE?

Islamic finance refers to the banking products and investment industry in which capital is raised and invested in accordance with *shariah*. The concepts of social justice and inclusion underpin Islamic finance. Its overarching principles are that interest-based transactions (*riba*) are prohibited, risk and reward are shared, and underlying assets related to transactions are owned (**Figure 4**).

Some Islamic investors view *riba* as negatively affecting society. As wealth and assets are required to generate *riba*, the poor are less likely to be able to earn *riba* and therefore accumulate wealth, while the rich can generate wealth on wealth through *riba*. It is also thought that *riba* is a disincentive to performing charitable deeds, as interest earners are more motivated by *riba* and wealth creation and less motivated by building a cohesive society that benefits all. In addition, a growing literature argues that interest based finance leads to several sorts of inefficiencies—significant amounts of debt and risk trading in financial markets expose economies to instability, and contagion and downturn in economies can affect jobs and societies.

Sharing risk and reward allows the parties to a transaction to minimize risk and to benefit mutually from profit. The premise is that all parties are exposed to the risk of default and therefore are likely to work toward a common goal of protecting each other's interests and capital. This protects the parties, and in turn, society, from fraudulent activities and social tensions.

FIGURE 3: COMPARISON OF THE LEVEL OF APPLICATION OF ESG, ISLAMIC, AND CONVENTIONAL FINANCE INVESTMENT PRACTICES

PRACTICE	ESG INVESTING	ISLAMIC FINANCE	CONVENTIONAL FINANCE
Systematic ESG integration	Medium levels	Low levels	Low levels
Screening	High levels based on client- specific/fund-specific screening policies	100% application based on shariah	Low levels
Company engagement on environmental and social issues	High levels	Low levels	Low levels
Voting	High levels	Low levels	Medium levels
Dividends	No restrictions	100% of dividends are subject to a "purification" process	No restrictions
Interest/ <i>riba</i> earned	No restrictions	No riba permitted	No restrictions
Security lending	High levels with leading practitioners applying rules that ensure they can vote	No security lending permitted, assets must be owned, and <i>riba</i> is prohibited	High levels
Shorting	Low levels	No shorting permitted and assets must be owned	Low levels
Restriction on high leverage	No restrictions	100% application to avoid earning <i>riba</i> directly and indirectly through exposure to high-interest earning companies	No restrictions

Note: Riba refers to interest-based transactions, which are prohibited within Islamic finance.

Shared Characteristic of Islamic Finance and ESG Investing: Screening

Another important pillar of Islamic finance is the prohibition of investments in certain industries, such as tobacco, alcohol, pork, pornography, weapons, gambling, human trafficking, and other products and activities that are deemed unlawful (haram). Shariah-compliant products are screened to avoid these industries, a practice that closely parallels ESG investing. Like investors in shariah-compliant products, investors using ESG investing strategies avoid certain activities and products so their portfolios align with the values of the beneficiaries/clients, align with the goal of developing a sustainable and fair society, and do no harm to people or damage to the environment. ESG products may employ a screening policy that contains one or more of the following criteria:

- 1. Apply absolute rules (e.g., exclude tobacco, cluster munitions, alcohol, pornography, weapons, gambling).
- 2. Apply relative rules (e.g., exclude companies that produce 10% or more of their revenues from tobacco).
- 3. Prohibit companies/issuers that violate international norms, such as the UN Guiding Principles on Business and Human Rights.
- 4. Exclude companies/issuers with poor ESG performance.

ESG investing strategies often assess the financial value of environmental, social, and governance factors and integrate that value into the investment analysis, decision, and process. Active ownership activities (i.e., company engagement and voting) may also be a part of ESG strategies, to mitigate risks, enhance returns, and improve ESG performance and disclosure of companies/issuers.

ESG integration and active ownership activities are less common in Islamic finance. Although a focus on social issues characterizes both Islamic and ESG investment approaches, environmental considerations currently seem to be less of a focus in the Islamic finance industry. However, ESG integration and active ownership practices complement Islamic finance practices, and environmental issues are consistent with the fundamental principles of *shariah*. As Islamic investors pursue sustainable risk-adjusted investment returns, more are likely to integrate ESG factors into their decision making and engage in active ownership activities to improve investment performance while aligning financial objectives with social and environmental goals. As an example of this direction toward more active ownership practices, some Islamic economists call for allowing investment account holders in banks to vote in the General Assembly and sit on boards in proportion to their share of total invested

FIGURE 4: THE PRINCIPLES OF ISLAMIC FINANCE

- 1. Transactions should promote equality, social justice and inclusion, and economic prosperity. They must demonstrate accountability, transparency, and legal protection for all parties.
- 2. Investment in certain industries, products, and services (*haram*) is prohibited.
- **3.** Interest (*riba*), uncertainty (*gharar*), and gambling (*maysir* and *qimar*) are prohibited.
 - **a.** The prohibition of *riba* stems from the notion that money is only a means of exchange with no intrinsic utility and that financial transactions should ultimately be tied to real assets and cater to the real economy.
 - **b.** *Gharar* is believed to feed fraudulent and antisocial behavior by encouraging excessive risk taking. This rule prohibits the finance of risk trade.
 - **c.** *Maysir* and *qimar* are transactions that involve gambling and are based on uncertainty. *Maysir* refers to the acquisition of assets by chance; *qimar* refers to a game of chance.
- 4. All parties are participants in the transaction and share the risk and reward.
- **5.** The underlying asset, project, or joint venture is owned by one or more of the parties to the transaction.

funds. This innovation is based on the fact that investment account holders face the same risks as bank shareholders.

Unique Characteristic of Islamic Finance: Contracts

To adhere to the overarching principles of *shariah*, Islamic products are constructed through the use of different types of contracts. These contracts ensure that the earning of interest is avoided, risk and reward are shared, and ownership in the underlying asset is present (i.e., no shorting or security lending is allowed).

Table 4 categorizes the different types of contracts as equity-based contracts and debt-based contracts. Islamic products that use equity-based contracts create partnerships among the parties and require the sharing of risk. In contrast, debt-based contracts are asset backed, transfer assets on initiation or on a future date, and have a predetermined price. These contracts can be applied to equity products and fixed-income products. Islamic unit trusts and mutual funds generally apply one of three contracts: *mudharabah*, *ijarah*, or *murabahah*.

ISLAMIC FINANCE ASSETS

As of the end of 2017, global Islamic finance assets reached \$2.05 trillion. Seventy-six percent of global Islamic finance assets are related to Islamic banking (**Table 5**). The second largest asset class is *sukuk*, which is 5.9 times bigger than the Islamic fund market. The most common Islamic investment funds are equity funds, which account for 42% of global Islamic fund assets. Islamic fixed-income funds account for 10% of global Islamic fund assets (**Table 6**).

The majority of global Islamic finance assets are located in Saudi Arabia and Malaysia (37.1% and 31.7%, respectively) (Table 7). A significant percentage of Islamic finance assets are also found outside of the Arabian Gulf region and Southeast Asia, specifically in Ireland (8.6%), the United States (5.3%), and Luxembourg (4.8%).

Equity Investing

Equity investment products that are *shariah*-compliant apply two screens that restrict the investment universe: 1) a business screen and 2) a capital structure screen.

The business screen relates to the area or core business of the securities in the investment universe. Securities that have been identified as exposed to *haram* products and activities are excluded from the portfolio and investment universe. The process is the same as the negative screening deployed by many ESG investors. Although the rationale underlying these choices might not stem from the same source (religion/ethics), both Islamic and ESG practices are seeking to avoid investing in businesses that are considered harmful

¹ Arno Maierbrugger, "Islamic Finance Industry Assets Surpass \$2tn-mark," *Gulf-Times*, last modified June 12, 2018, https://www.gulf-times.com/story/596054/Islamic-finance-industry-assets-surpass-2tn-mark.

TABLE 4: EQUITY-BASED AND DEBT-BASED CONTRACTS USED TO CONSTRUCT ISLAMIC FINANCE PRODUCTS

	DESCRIPTION
EQUITY-BASED C	ONTRACTS*
Mudharabah	 All partners to a project contribute capital and have the right to manage the project. Profit and loss are distributed based on a pre-agreed ratio. It is often used with mutual funds and structuring sukuk. It is used as a basis for investment accounts (deposits) with Islamic banks. Mudharabah is suitable for joint ventures and project financing.
Musharakah	 A partner (or partners) contributes all the capital while one partner manages the project. Profit distribution is based on a pre-agreed ratio. Losses are borne by the capital provider. Musharakah is suitable for joint ventures and project financing.
DEBT-BASED CON	ITRACTS**
 Murabahah (sale term) One party buys an asset and then sells it to another party for a predetermine higher price. The predetermined higher price is paid in regular instalments. Murabahah is often used for consumer credit and short- to medium-term financing. The resulting debt is not salable except at face value. It is also used with mutual funds and structuring sukuk. (Murabahah use in must be safeguarded against debt trading.) 	
<i>ljarah</i> (leasing)	 One party buys and owns an asset, then leases it to another party. The lease is equivalent to the sale of the right to use the good and is thus considered "asset-backed." The lessor charges a rental fee to the other party. Some contracts including the right of final purchase. Ijarah is often used for consumer credit and short- to medium-term financing. It is also used with mutual funds and structuring sukuk.
Istisna'a	 One party pays in advance for an asset under construction to be delivered on an agreed-upon date. Istisna'a is often used for consumer credit and short- to medium-term financing, and for structuring sukuk.

to society and the environment. In that sense, Islamic finance could be understood as a socially responsible paradigm rooted in religious tenets.

Islamic investors are concerned not only with the kinds of activities they finance but also with the manner in which those activities are financed. Thus, the second screen of equity investing in Islamic finance concerns the capital structure of companies. A company financed primarily through debt rather than equity may be problematic for

^{**} Non-PLS contracts (aka nonparticipatory financing or contracts of exchange).

TABLE 5: ISLAMIC FINANCE ASSETS BY ASSET CLASS (YEAR END 2017)

ASSET TYPE	PERCENTAGE OF GLOBAL ISLAMIC FINANCE ASSETS
Islamic banking	76%
Outstanding <i>sukuk</i>	19.5%
Islamic funds	3.3%
Takaful (insurance)	1.3%

Source: Marjan Muhammad and Ruslena Ramli, "Islamic Fund Management" (PowerPoint Presentation), COMCEC, last modified September 25, 2018, http://www.comcec.org/en/wp-content/uploads/2018/10/2-Islamic-Fund-Management-PART-1-25-Oct-2018-FINAL-RESENT-Revi....pdf.

TABLE 6: DISTRIBUTION OF GLOBAL ISLAMIC FUND ASSETS IN 2017, BY ASSET CLASS

INVESTMENT FUND	PERCENTAGE OF GLOBAL ISLAMIC FINANCE ASSETS
Equity	42%
Money market	26%
Commodity	14%
Fixed income/sukuk	10%
Mixed allocation	7%
Real estate	1%

Source: "Share of Global Islamic Fund Assets by Asset Class 2017 | Statistic," Statista, accessed January 9, 2019, https://www.statista.com/statistics/649329/distribution-of-global-islamic-fund-assets-2015-by-asset-class/.

TABLE 7: ISLAMIC FINANCE ASSETS BY COUNTRY (YEAR END 2017)

DOMICILE	PERCENTAGE OF GLOBAL ISLAMIC FINANCE ASSETS
Saudi Arabia	37.1%
Malaysia	31.66%
Ireland	8.62%
United States	5.25%
Luxembourg	4.76%
Indonesia	2.96%
Kuwait	2.49%
South Africa	2.4%
Pakistan	2.32%

Source: "Share of Global Islamic Fund Assets by Domicile 2017 | Statistic," Statista, accessed January 9, 2019, https://www.statista.com/statistics/649320/distribution-of-islamic-fund-assets-by-domicile/.

Islamic investors, insofar as debt in the capital structure of a company is interest based. Nevertheless, cognizant of the difficulty in finding businesses that are financed solely through equity, Islamic investors may set parameters and seek out for investment those companies in which the following financial ratios fall below a certain threshold:

- debt-to-equity ratio,
- accounts receivable to total assets ratio, and
- interest income from cash and interest-bearing securities to total income ratio.

The main concern of the Islamic "ethical" investor remains the source of the income and therefore the area or core business of the securities, that is, the securities' earnings must always come from *halal* sources. When *shariah*-compliant investments receive company dividends generated as part of a company's normal business operations, a purification process takes place. For example, a large diversified corporation may be *shariah* compliant but may own a small finance subsidiary deemed noncompliant; in such a case, any proportion of income received from noncompliant activities would be paid to charity and thereby "purified."

Shariah screens are distinguished from ESG responsible investment screens because of their assessment of capital structure. In addition, shariah-compliant products are generally certified by shariah boards to demonstrate compliance with shariah, an action that some Arabian Gulf countries (e.g., Bahrain, Oman) have made compulsory. Shariah boards are categorized as:

- international *shariah* boards, such as the Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), Islamic Financial Services Board, Islamic Development Bank, and International Development Bank;
- national shariah boards, which have overall authority of shariah governance in a country; and
- institutional *shariah* boards, also known as *shariah* supervisory boards, formed by financial institutions that offer Islamic products.

After Islamic investors screen the investment universe and exclude *haram* securities, some apply ESG integration techniques that assess the financial impact of ESG factors on securities in the portfolio and on the reduced investment universe. They may also engage with companies and vote at annual general meetings, including voting on shareholder resolutions related to environmental, social, and governance issues (see Chapter 5, "Case Study by SEDCO Capital").

Fixed-Income Investing and Sukuk

Conventional bonds are prohibited investments under Islamic finance due to their payment of *riba* and their use as instruments of debt trade, which amounts to trading present for future money. As an alternative to conventional bonds, corporate and sovereign issuers are issuing *sukuk*, a *shariah*-compliant Islamic bond option. *Sukuk* benefit issuers by providing access to a wider investor base; companies and countries often issue green bonds for similar reasons.

The Accounting and Auditing Organisation for Islamic Financial Institutions defines *sukuk* as "certificates of equal value representing undivided shares in ownership of tangible assets, usufructs, and services, or (in the ownership of) the assets of particular projects or special investment activity." A number of *sukuk* structures deploy equity-based contracts or debt-based contracts, including *mudharabah sukuk*, *musharakah sukuk*, *murabahah sukuk*, *ijarah sukuk*, and *istisna'a sukuk*.

As with Islamic equity products, investors apply a *shariah* screen to *sukuk* investing. This again demonstrates the similarity between ESG fixed-income products and *shariah*-compliant fixed-income products. Both can also apply ESG integration techniques to identify ESG risks that can affect the creditworthiness of issuers and therefore negatively influence bond yields and portfolio returns.

These complementary approaches and analyses have given rise to the creation of green *sukuk*. The growing demand for green bonds led to the issuance of the Middle East's first green bond in March 2017 by the National Bank of Abu Dhabi. A new market in green *sukuk* was created when Malaysia released the first green *sukuk* in 2016. Indonesia issued the first sovereign green *sukuk* in February 2018.

Both green bonds and green *sukuk* are asset-backed securities and derive income from green revenues. The capital is used to finance climate/green assets or projects, which addresses environmental protection concerns under *shariah*.

Prohibition of Security Lending and Shorting

A major difference separating Islamic finance from ESG investing (and conventional investments) is the former's prohibition of security lending and shorting. The principles of Islamic finance that prohibit *riba* and state that the security/asset/project/joint venture is owned by at least one partner to the transaction prevent the lending of securities to a third party. In the case of equities, this ensures that voting rights remain the responsibility of one or more partners to the transaction. Some investors running ESG investing strategies also will not partake in security lending and shorting, while others will apply rules that allow them to vote on shareholder resolutions (e.g., recalling all securities before annual general meetings or allowing the loaning of only a limited percentage of securities to a third party).

NARROWING THE GAP BETWEEN ISLAMIC FINANCE AND ESG INVESTING

Islamic finance and ESG investing are distinct approaches that have many similarities. The cultural and religious differences that separate Islamic finance and ESG investing require unique products and practices that reflect the faith and values of the investors in the products.

² "Investment in Sukuk Shares and Similar Instruments," Accounting and Auditing Organisation for Islamic Financial Institutions, http://aaoifi.com/investment-in-sukuk-shares-and-similar-instrutments/?lang=en, p. 8.

Although they will remain separate investment approaches, Islamic finance and ESG investing are converging. This is not surprising given the origins of each investment approach and their common underlying principles. A deeper understanding of Islamic finance and ESG investing by all investors and the increasing materiality of social and environmental issues will likely continue this trend toward the use of common techniques and analyses.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION: WORKSHOP FEEDBACK

CFA Institute and PRI thank Dubai Financial Market for its support in organizing our ESG Integration workshop in Dubai. With its assistance, we were able to work with investors and analysts to better understand the current state of ESG integration in the Arabian Gulf region and to conduct a panel discussion, "A Practitioner's View: ESG, Islamic Bonds, Green Bonds—What Investors Need to Know."



THE STATE OF ESG INTEGRATION

ESG integration in the Arabian Gulf region is in its early stages. Although several positive developments hint at an increased adoption of ESG integration practices by investors in the region, some challenges remain and will require the concurrence of different stakeholders to allow for a greater penetration of ESG in this market.

As in other regions, investors and companies are both still grappling with the concept of ESG integration, and the reporting of meaningful ESG data remains at an embryonic stage. Indeed, although pressing ESG issues have been identified for the entire region—notably water scarcity, climate change, governance reform, labor practices, and employment—the level of ESG uptake on the part of investors and regulators alike differs.

Of late, the focus of regulators has been on environmental issues. This might be due in part to the reform plans (e.g., UAE Energy Strategy 2050³ and Saudi Vision 2030⁴) launched by some of the region's governments, which have grown increasingly aware of the need to tackle climate change as the region is particularly vulnerable to its effects given its scarce water sources and aridity. These plans also stem from the need for countries that are heavily reliant on the export of natural resources (e.g., oil and gas) to diversify their economies. They have also turned to renewable energies to cope with predicted increases in local energy consumption.

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³ https://government.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/uae-energy-strategy-2050.

⁴ https://vision2030.gov.sa/en.

INTERNATIONAL CLIENTS DRIVE DEMAND FOR ESG IN THE REGION

In addition to the overarching political developments that should increasingly bring more investors to the region, local investors and practitioners highlighted a number of other elements that they consider to be driving ESG integration (**Table 8**). In particular, they highlighted increasing demand for ESG from international investors and clients as a pow-

erful driving force. Indeed, participants mentioned that this increase in demand, from international clients to local investors, contributed to raised awareness around ESG in the market and that it could ultimately enhance the spread of an ESG culture across the investment chain. They noted that Nordic investors are not only asking investment managers and companies in the region about ESG but are also providing guidance on ESG. However, participants also noted that regulation should follow suit to provide incentives to issuers and sustain that demand.

Participants mentioned that this increase in demand, from international clients to local investors, contributed to raised awareness around ESG in the market and that it could ultimately enhance the spread of an ESG culture across the investment chain.

In terms of local investor demand for ESG, participants felt that sovereign wealth funds were less

focused on ESG than were life insurance and pension investors. Participants also mentioned that integration of ESG factors was predominantly happening in the equity space and that ESG was not talked about much in the fixed-income space, where investors were asking more questions about yields than about sustainability.

Other drivers of ESG integration that workshop participants brought up included the growth in investment opportunities and the availability and quality of ESG data. However, although participants insisted that these drivers were and would be crucial in driving the uptake in ESG integration in the region, they also pointed out that progress has been slow and that better ESG education and increased awareness were needed to accelerate that progress. The lack of understanding of ESG was reflected most clearly in the lack of substantial and consistent ESG reporting on the part of companies.

TABLE 8: DRIVERS OF AND BARRIERS TO ESG INTEGRATION IN THE ARABIAN GULF REGION: FINDINGS FROM THE DUBAI WORKSHOP

DRIVERS	BARRIERS
Investor demand, especially international investors	Lack of standardization of ESG
Different ESG issues drive/impact different sectors	Lack of understanding of ESG
Investment opportunities	Limited understanding of how data are analyzed
Asset flows/client demands	Cost of ESG
Asset allocation	Lack of regulation/incentives
Regulation	

MORE TRANSPARENCY AND BETTER REPORTING OF ESG DATA NEEDED

Participants stressed that although securities markets in the region have made some progress in terms of corporate governance regulations and disclosure requirements, those trends have yet to translate into substantial improvements in terms of ESG reporting by companies. Participants believed that the lack of standardization and understanding of ESG still stand in the way of meaningful reporting. Although some companies in the region report on some ESG indicators, ESG reporting remains at an embryonic stage and more often than not derives from a company's desire to mitigate the reputational risk associated with poor ESG performance, notably in relation to adverse environmental impact. Workshop participants considered governance to be the most material pillar in terms of its impact on share prices, corporate bond prices, and sovereign debt prices.

As companies in the Arabian Gulf region expand their activities and look for capital on the global market, their exposure to international investors will increase. The demands of these investors for ESG data and consideration of environmental, social, and governance issues will likely contribute to both valuation and reputation. Large sectors in the market—infrastructure, energy, real estate, and banking—are well suited to ESG integration. Companies in these sectors could learn from their peers in other regions on how best to tackle ESG risks to attract the growing number of international investors that integrate ESG considerations into their investment decisions.

As companies in the Arabian Gulf region expand their activities and look for capital on the global market, their exposure to international investors will increase. The demands of these investors for ESG data and consideration of environmental, social, and governance issues will likely contribute to both valuation and reputation.

A CENTRAL ROLE FOR REGULATORS AND STOCK EXCHANGES

Workshop participants cited regulation as both a driver of and a barrier to ESG integration in the Arabian Gulf region and emphasized the need for it to be the former. They pointed out that although regulators in the Arabian Gulf region might not be able to provide the same types of incentives found in other markets (e.g., tax reduction), regulators should focus their efforts on reducing the cost of ESG integration for issuers and investors alike. That is, regulators should work on getting rid of the disincentives that constitute barriers to the adoption of ESG strategies and products in the market.

One participant cited the example of regulation and green *sukuk*. Although the knowledge gap regarding such assets remains a challenge, the lack of investor appetite and the lack of regulation are the main reason for the low numbers of green issuances. When coupled with the cost for issuers, issuers do not perceive any incentive to green *sukuk* issuances other than the reputational benefit. Provided that regulators cannot incentivize ESG products through traditional levers (i.e., tax incentives), they should try to remove disincentives

(i.e., the extra cost). For example, regulators in the Arabian Gulf region could look at Malaysia, where the cost of third-party checks for issuers of SRI green bonds is paid for by the government.

In relation to the lack of existing regulatory or economic incentives driving better practices in corporate ESG reporting in the region, participants noted that companies are slowly becoming more attuned to ESG requirements, particularly around the "E," and that this might stem from a moral imperative or be motivated by a reputational incentive. If the inclusion of sustainable development in national strategic plans were to translate into increasing disclosure requirements for issuers on ESG and into the removal of the

Provided that regulators cannot incentivize ESG products through traditional levers (i.e., tax incentives), they should try to remove disincentives (i.e., the extra cost). For example, regulators in the Arabian Gulf region could look at Malaysia, where the cost of third-party checks for issuers of SRI green bonds is paid for by the government.

disincentives mentioned earlier, it would contribute to the creation of more fertile ground for ESG integration on the part of local investors.

Another driving force may come from stock markets in the region that have signed up to become partner exchanges with the Sustainable Stock Exchange (SSE) initiative,⁵ including the Dubai Financial Market (DFM) in the United Arab Emirates and the MENA (Middle East North Africa) exchanges of Bahrain, Egypt, Jordan, Kuwait, Morocco, and Qatar. The stock exchanges play an important role in driving more and better reporting on the part of the companies listed on them, as they can issue guidance on ESG reporting and organize trainings and workshops to raise awareness among issuers. These actions, in turn, contribute to investors—both local and foreign—having access to more standardized ESG data. Companies in the Arabian Gulf region that demonstrate their commitment to ESG and comply with reporting requirements will surely gain greater attention from international investors as well as facilitated access to capital.

As well as developing reporting guidance, stock exchanges can create standards in listing requirements that cover ESG reporting. This approach has been taken by DFM, the first *shariah*-compliant exchange, which has updated its *DFM Shari'a Standards* to cater to investors' growing interest in sustainability and a green economy. Based on feedback from *shariah* scholars, bankers, legal advisors, and Islamic finance experts, as well as regulatory institutions, the DFM Fatwa and Shari'a Supervisory Board updated the *DFM Standards for Issuing, Acquiring and Trading Sukuk* on the terms, conditions, and characteristics for green sukuk, which finances projects that protect the environment, adapt to climatic impact, reduce energy costs, substitute solar energy for dependence on oil, or reduce carbon emissions. The DFM standards state that the issuance prospectus of green *sukuk* shall include

⁵ The SSE, launched in 2009 by the UN Secretary General, is a UN Partnership Programme of the UN Conference on Trade and Development, the UN Global Compact, the UN Environment Program Finance Initiative, and PRI. The SSE convenes Partner Exchanges from around the world who join the SSE by signing a voluntary public commitment. The SSE's mission is to build the capacity of stock exchanges and securities market regulators to promote responsible investment in sustainable development and advance corporate performance on environmental, social, and governance issues. More information about the SSE is available at http://www.sseinitiative.org/.

"Disclosure whether these *sukuk* will finance a green project/projects along with an annex to the objectives and specifications of these projects (if applicable)." 6

GREEN ISSUANCES: A PATHWAY TO GREATER ESG INTEGRATION

Some participants perceived an uptake in the issuance of green bonds and green *sukuk* in the Arabian Gulf region. The plans put forth by governments in the region, including goals to increase the contribution of clean energy in the total energy mix and to reduce the carbon footprint of power generation, provide substantial incentives to green issuers.

Given the number of infrastructure and investment targets set by the Arabian Gulf region countries in their plans, the local green bonds market will likely continue to develop. These developments could also potentially lead to a shift from green to sustainable bonds that would broaden the focus of these issuances from solely environmental sustainability to sustainable development, with the inclusion of socially responsible endeavors as well.

The plans put forth by governments in the region, including goals to increase the contribution of clean energy in the total energy mix and to reduce the carbon footprint of power generation, provide substantial incentives to green issuers.

Participants mentioned that although the requirements for green *sukuk* and green bonds differ, growth potential exists for both instruments. Attempting to conflate the two would not be helpful,

potential exists for both instruments. Attempting to conflate the two would not be helpful, as investors should be given as many options as possible.

⁶ DFM Fatwa and Shari'a Supervisory Board, *Dubai Financial Market Standards on Shari'a Compliance* | *Standard No. 2* | *Issuing, Acquiring and Trading Sukuk*, https://www.dfm.ae/docs/default-source/Sharia/standard-no-2-dfm-standard-for-issuing-acquiring-and-trading-sukuk-english76b2f0f7f6026339b0d9ff00009be840 .pdf?sfvrsn=0.

CASE STUDY BY HAWKAMAH: INCORPORATING ESG FACTORS INTO A PAN ARAB INDEX

Alec Aaltonen

Jointly developed by the Hawkamah Institute for Corporate Governance and S&P Dow Jones Indices, the S&P/Hawkamah ESG Pan Arab Index measures the performance of the 50 stocks with the highest score in the Middle East and North Africa region on environmental, social, and governance (ESG) factors. The index serves as an investment and benchmarking tool for both purely sustainable investors and for those who want to apply passive strategy with an ESG overlay.

The S&P/Hawkamah ESG Pan Arab Index was the first index of its kind in the Pan Arab region. Its ESG methodology is based primarily on quantitative factors, bringing in qualitative analysis as an overlay. The index extensively quantifies ESG factors and translates them into a series of scores measuring securities in the universe of publicly traded Pan Arab companies. It not only ensures a selection of companies with the highest ESG scores, but it is also designed to be efficiently representative of the Pan Arab equity markets by excluding small and illiquid securities. Screened annually, the index uses an innovative ESG score-weighting scheme to ensure that stocks with higher ESG scores have a greater influence on the index than those with lower ESG scores.

The index constituents are selected from a universe of the top 150 Pan Arab companies (based on total market capitalization) listed on the national exchanges of Bahrain, Egypt, Jordan, Lebanon, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates, subject to a liquidity screen.

The index comprises the 50 highest-scoring stocks, according to their composite ESG scores from the selection universe, subject to a maximum individual country representation of 15 stocks. As a first step, the scoring process assesses companies' levels of ESG transparency and disclosure on 197 indicators, including carbon emissions, water and energy consumption, employee health and safety, community investment, charitable giving, financial reporting, auditing, board independence, and executive remuneration. The scoring process includes looking at each company's actual sustainability performance characteristics, based on independent sources of information, news stories, websites, and Corporate Social Responsibility (CSR) reports. Weighting of items differs by sector based on their impact. As a result of the scoring process, each company is assigned a composite ESG score, and the company's weight in the index is determined as a function of its ESG score. **Table 9** provides the index's top 10 stocks and their weights. **Table 10** shows the performance of the S&P/Hawkamah ESG Pan Arab Index versus its benchmark, the S&P Pan Arab Composite Index.

TABLE 9: TOP 10 STOCKS IN THE S&P/HAWKAMAH ESG PAN ARAB INDEX (AS OF 23 NOVEMBER 2018)

COMPANY	COUNTRY	WEIGHT
DP World Ltd.	United Arab Emirates	2.983%
Saudi Basic Industries Corp.	Saudi Arabia	2.961%
Abu Dhabi Commercial Bank	United Arab Emirates	2.915%
Arab Bank	Jordan	2.687%
Saudi Investment Bank	Saudi Arabia	2.460%
Savola Group	Saudi Arabia	2.437%
Bank Audi S.A.L.	Lebanon	2.368%
Mobile Telecommunications Company	Kuwait	2.323%
Bank Muscat International	0man	2.323%
Saudi Arabian Mining Company	Saudi Arabia	2.164%

TABLE 10: RISK AND RETURN OF THE S&P/HAWKAMAH ESG PAN ARAB INDEX VERSUS THE S&P PAN ARAB COMPOSITE INDEX (AS OF 31 DECEMBER 2018)

PERIOD	S&P PAN ARAB COMPOSITE	S&P/HAWKAMAH ESG PAN ARAB INDEX				
	ANNUA	ANNUALIZED RETURN (%)				
1 year	10.34	3.51				
3 year	7.56	6.37				
5 year	1.63	3.44				
10 year	6.20	9.24				
	ANNU	ANNUALIZED RISK (%)				
3 year	11.08	9.54				
5 year	14.67	13.93				
10 year	14.98	15.59				
Source: S&P Dow Jone	es Indices LLC.					

CASE STUDY BY SEDCO CAPITAL: PRUDENT ETHICAL INVESTMENT—THE INTEGRATION OF RESPONSIBLE AND SHARIAH-COMPLIANT INVESTMENT IN SAUDI EQUITIES

Christian Gueckel and Khurram Shehzad

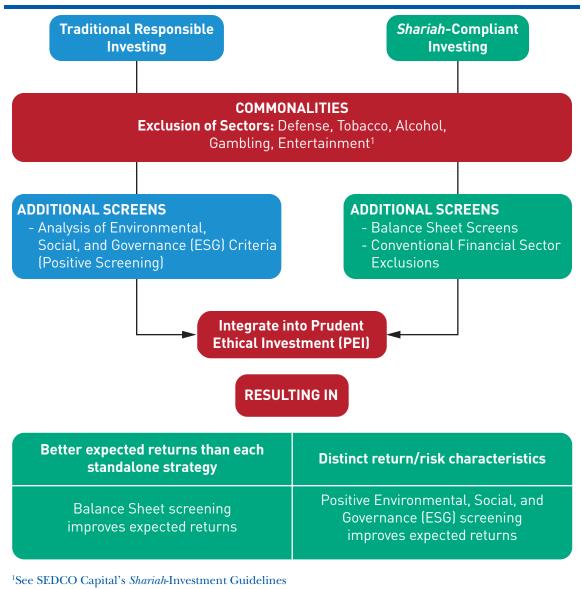
SEDCO Capital refers to its approach of integrating responsible and *shariah*-compliant investment as Prudent Ethical Investment (PEI). A common denominator between responsible investment and *shariah*-compliant strategies is the exclusion of so-called "sin sectors" (e.g., alcohol, tobacco, gambling, and so forth). Additionally, *shariah* compliance requires screening of balance sheet ratios such as leverage, cash and interest-bearing securities, and/or accounts receivable to market cap or total assets, whichever is greater. Further, PEI integrates assessment of environmental, social, and corporate governance (ESG) criteria (see **Figure 5**).

Research has shown that negative screens for sin stocks have led to a deterioration in expected performance. SEDCO Capital's research shows that the balance sheet constraints of Islamic investors can improve risk-adjusted returns of conventional and responsible investment portfolios. Thus, PEI can deliver distinct return/risk characteristics relative to conventional as well as responsible investment strategies. SEDCO Capital regards PEI as value added and an evolution of responsible investment approaches (see **Figure 6**). The lower financial leverage and better cash conversion result in a bias to quality and growth, which adds the prudence element to the PEI approach. In the last years, the quality and growth factors have generally enhanced risk-adjusted performance of PEI relative to conventional portfolios. PEI can be regarded as an investment style due to its portfolio biases to quality and growth characteristics.

⁷ See, for example, Harrison Hong and Marcin Kacperczyk, "The Price of Sin: The Effects of Social Norms on Markets," *Journal of Financial Economics* 93, no. 1 (2009): 15–36; Frank J. Fabozzi, K.C. Ma, and Becky J. Oliphant, "Sin Stock Returns," *The Journal of Portfolio Management* 35, no. 1 (2008): 82–94; and David Blitz and Frank J. Fabozzi, "Sin Stocks Revisited: Resolving the Sin Stock Anomaly," *The Journal of Portfolio Management* 44, no. 1 (2017): 105–111.

⁸ See Christian Gueckel, "How Can Responsible Investors Benefit from Islamic Criteria?" *SSRN Electronic Journal* (February 22, 2017), https://ssrn.com/abstract=2918849.

FIGURE 5: INTEGRATION OF TRADITIONAL RESPONSIBLE INVESTMENT AND SHARIAH-COMPLIANT INVESTING INTO PRUDENT ETHICAL INVESTMENT



For SEDCO Capital, being a prudent investor means avoiding undue risks and seeking sustainable investments with strong governance that comply with relevant regulation. PEI demands an understanding of the underlying risks, leverage, structure, and cash flows. SEDCO Capital believes that an ESG overlay can lead to long-term rewards in terms of risk reduction and potentially higher returns. SEDCO Capital aims to use the ESG assessment to incorporate nonfinancial information and to identify risk factors.

FIGURE 6: THE CONCEPT OF PEI AS AN EVOLUTION OF RESPONSIBLE INVESTMENT STRATEGIES

	EXCLUSION	INCLUSION & THEMATIC	ESG INTEGRATION	PEI STRATEGY
	TRADITIONAL	SECOND GENERATION	THIRD GENERATION	PRUDENT ETHICAL INVESTMENT (PEI)
OBJECTIVES	Avoid investments in companies that are not compatible with mission or values	 Finance positive impacts through capital allocation Combine ESG factors or thematic exposure with fundamental/risk factors 	 Exploit ESG information to improve the investment outcome 	 PEl avoids high financial risks and aims to enhance long-term risk- adjusted return Investment style that biases portfolios to better quality due to prudence element
INVESTMENT PROCESS	Exclusionary screening Typical exclusions of sectors such as defense, weapons, tobacco, gambling, alcohol, entertainment	Positive selection to desired exposures Optimize to gain exposure to ESG theme or minimize ESG risk Impact investing	Integrates ESG research into valuation Integrates ESG signal into alpha/factor model or portfolio construction Integrates ESG signal into alpha/factor model or portfolio	 Exclusionary screening on "sin" sectors and balance sheet ratios (typical responsible investment and shariah constraints) Integration of ESG signals for alpha generation
SEDCO CAPITAL'S APPROACH	All of SC's products apply negative screening	SC has sustainability- themed investment products	• ESG integration is an essential part of SC's investment process in internally managed strategies	The PEI investment process is used in all of SC's internally managed strategies

The key building blocks in the responsible investment process for SEDCO Capital's listed equities business work at five distinct levels: (1) negative screening, (2) environmental factors, (3) social factors, (4) governance factors, and (5) active ownership through proxy voting.

NEGATIVE SCREENING

SEDCO Capital considers *shariah* compliance as a subset of responsible investing. Therefore, we apply the same Islamic investment guidelines and seek to restrict nonpermissible activities. SEDCO Capital does not make additional a priori exclusions in the sense of refusing to invest in companies with predefined activities deemed unethical.

SEDCO Capital analyzes investments from an ESG perspective through its internal research as well as through external data and research providers. Our ESG analysis is integrated in the analysis of our target companies. We conduct ESG analysis focusing on the ultimate effect of quantitative and qualitative criteria on enterprise value. Thus, we analyze ESG considerations with regard to their effect on a company's competitive advantage (e.g., revenue generation, cost savings, innovation), risk reduction (e.g., cost of financing, reduced volatility) and reputation building (e.g., governance, compliance with regulation, customer and workforce loyalty).

SEDCO Capital quantifies and aggregates its ESG assessment into scores to devise portfolios that can reward or penalize companies through dynamic portfolio weights in a recurring manner. Our goal is to minimize the human bias in the scoring process, which we can achieve through better access to more reliable data.

ENVIRONMENTAL FACTORS

As they forecast cash flows for investee company valuations, our analysts break down the revenue by each product and service, depending upon its materiality. As an example, products or services that have environmental concerns attached to them might be assumed to be phased out over our forecast horizon and cash flows would be adjusted accordingly, even if the products/services depict historically growing profitability and volumetric sales. In certain cases, costs for the retreat from the activity or regulatory costs may be considered. This integrates environmental concerns for the investee company in forecasted cash flows.

Moreover, we assign an Environmental Score for a target company. This score aggregates multiple data points and weights that are specific to the target company's sector. Thus, the score allows comparison among sector peers as well as environmental performance across sectors. For example, a component of the Environmental Score is the Resource Efficiency Ratio—the cost per unit of production, which is not standardized across the industry. This helps us in rewarding those companies that ensure efficiency in resource utilization, thus championing the cause of conservation. Such companies also bear the potential of asymmetric expansion in margins that can help generate alpha.

SOCIAL FACTORS

Before we induct any company into our Conviction Stocks Inventory, one of the tasks the analyst completes is to assign a Social Score to the company. As with the Environmental Score, constituent data and weights are sector specific. For example, Corporate Social Responsibility Spending to Total Expenditure or R&D Expense to Total Expenditure are constituents of the Social Score. The information for these ratios is usually available from the company's board of directors' report and annual report.

GOVERNANCE FACTORS

The analyst assigns an idiosyncratic Governance Score that integrates factors such as number of board members and independent directors, the quality of and quantum of

disclosures in the board's report, the company's participation in analyst conferences, the responsiveness of the company's investor relation personnel, and the availability of qualitative data through regular quarterly investor presentations.

Finally, the three scores are combined with the Fundamental, Event, and Technical Scores of every stock with predetermined weights. The policy weights of Environmental, Social, and Governance Scores tend to be more stable, while dynamic market conditions can affect the weights assigned among the other three categories.

Although the quality of ESG disclosure is not yet up to our expectations, it has been consistently improving over the last few years.

ACTIVE OWNERSHIP THROUGH PROXY VOTING

Active ownership in the Arabian Gulf region markets is more difficult than in developed markets. Challenges include a less-developed infrastructure for proxy voting research and recommendation, the transparency of general meetings, and the execution of proxy votes and their ultimate impact, as many stocks have dominant shareholders. A key milestone in effective proxy voting is Saudi Arabia's *Tadawulaty* system, which enables shareholders to execute votes. SEDCO Capital aims for high coverage of executed votes for its portfolio. We also try to have a constructive dialogue with listed companies. The goal of this dialog is to enhance disclosure of ESG data and to create awareness of risks resulting from a company's respective ESG practices so that these risks can be abated.

GBSA ROUNDTABLE DISCUSSION ON ISLAMIC FINANCE AND ESG INVESTING IN THE ARABIAN GULF REGION

CFA Institute and PRI thank the Gulf Bond and Sukuk Association (GBSA) for supporting this study and organizing a conference call on "Islamic Finance and ESG in the Arabian Gulf Region." GBSA members who participated on the call provided the following views on this topic.



How prevalent is Islamic finance and ESG investing in the Arabian Gulf region?

Daniele Vecchi, Investcorp: What we are seeing here is not much traction for ESG investing, contrary to *shariah*-compliant products, with clients or competing firms. Investors tend to focus primarily on potential for higher returns, and the sensitivity to ESG topics is still limited as other issues, like geopolitics, are occupying their minds. Some Nordic investors are at the forefront of this trend; however, ESG is still a nascent discussion and embryonic.

The asset classes that we offer to our clients are private equity, real estate, and other institutional products in credit and absolute return. As mentioned above, currently, the specific demand for ESG investments with our regional client base is limited. However, the region is progressing on the topic and we would not be surprised if major regional institutional clients will soon request ESG-responsible investments.

Iza Kamaludin, Natixis: Coming from a debt capital market perspective and issuers' interest, *ESG* and *green* are key words coming up. People are talking about it and people are looking into it. From this region, there is interest in learning how to implement it.

Xuan Jin, White & Case: Whilst there is an active market for Islamic finance in the [Arabian] Gulf countries, ESG is less of a consideration in these jurisdictions compared to other regions of the world such as the United States, Europe, and China. There are a number of reasons for the nascent state of development of ESG investments, chief among them being that although stakeholders in the Gulf countries (such as banks, sovereigns, and corporates) are aware of and are becoming more attuned to ESG requirements and trends and recognize that ESG is growing in importance, the Gulf region currently lacks the regulatory incentives that have driven the growth of ESG investments in other jurisdictions (for example, tax deductions or beneficial regulatory treatment of ESG investments).

Is Islamic finance considered a form of ESG investing?

Xuan Jin, White & Case: There is certainly plenty of similarity and overlap between these product areas, particularly in respect of the underlying rationales that drive these financial products.

At the moment, we see a lot of synergy between green finance and Islamic finance, in particular in respect of the concept of "use of proceeds." Everything else being equal, ESG-compliant investments are also likely to be *shariah* compliant. For example, if you look at the Polish sovereign green bond, which was issued on the basis of a framework developed in line with International Capital Market Association's (ICMA) Green Bond Principles, the "use of proceeds" parameters for such issuance specified a list of projects to be funded from the proceeds of the issuance that are largely consistent with *shariah* principles. Moreover, they specifically excluded certain products and industries that are also considered *haram* from a *shariah* perspective, namely, alcohol, gambling, weapons, and adult entertainment.

Another similarity is if you look at an Islamic finance transaction. A *fatwa* is provided by *shariah* scholars or the relevant *shariah* advisory board or committee in certain jurisdictions. A green or ESG finance transaction also typically involves obtaining a green certification of green/ESG compliance from an independent third-party verifier.

Mohamed Damak, S&P Global Ratings: At this stage, Islamic finance is not perceived as a form of ESG investing. People are starting to realize the potential that Islamic finance offers from an ESG perspective. If you look at the intersection between ESG investing, the United Nation's Sustainable Development Goals, and Islamic finance, you can see a lot of commonality.

Abdullah Hidayat, Social Finance: Islamic finance overlaps a lot with ESG investing. With Islamic finance, you have to be *shariah* compliant, which also means you have to be ESG compliant. To be *shariah* compliant, you take the minimum standard that is required to adhere to ESG criteria. To be ESG-compliant, you have to meet additional ESG requirements. The question is, should Islamic finance be pushed up to the level of ESG investing or should we have intermediary endorsement of it?

The additional criteria to be met to be ESG compliant could impact the growth of Islamic finance. We have well-established governance around being *shariah* compliant, including committees in most of the banks that issue *sukuk*. To be ESG compliant, who is going to endorse that?

In Islamic finance, you would need to expand the *shariah* criteria to meet ESG criteria. It's not in the terms of reference of *shariah* committees to look at how the company treats the staff and how the company treats the environment. If we want to push for convergence, should we push Islamic finance to that level, with *shariah* committees having more power to assess transactions for *shariah* compliance and ESG compliance?

Mohamed Damak, S&P Global Ratings: *Shariah* goes beyond the principles of prohibition of interest and profit sharing. Islamic finance really goes to the foundation of PRI and ESG investing.

Is it better to promote ESG through Islamic finance or as a separate approach and product?

Mohamed Damak, S&P Global Ratings: An interesting trend is the green *sukuk*. In our opinion, the opportunities are significant. If you look at the governments' policies on energy mix—for example, Dubai's target to reach 75% of its energy to be generated from renewable energy by 2050—that would require a lot of investments. There will be a natural preference for the issuance of *sukuk* that would speak not only to the Islamic investors but also to ESG investors.

Xuan Jin, White & Case: Both approaches are feasible. It really depends on the jurisdiction in which the ESG or Islamic finance product is being marketed and the target investor base/audience. The key point is that the development and growth of both ESG and Islamic finance products are a function of supply and demand across jurisdictions. ESG investments can be both Islamic and non-Islamic. Similarly, Islamic finance products can be linked to ESG initiatives or not. The various permutations that exist (and that have the potential of being developed) are designed to cater to a variety of investors who may have a range of investment criteria (which will typically prioritize the following features: i] financial return; ii] ESG impact; or iii] *shariah* compliance). Additionally, for borrowers and issuers, these permutations broaden the sources of funding available to them.

It is also important to note that both ESG and Islamic products do not need to align perfectly across all jurisdictions. There doesn't have to be (nor is there) one agreed universal approach to define what is *shariah* compliant and/or what is ESG/green compliant. Although broadly accepted principles do exist, the specific interpretations of what constitutes an ESG- or *shariah*-compliant investment can and do vary from region to region and from investor to investor. For example, if you look at the fixed income issuances out of the Middle East, the types of *shariah* structures deemed *shariah* compliant are not always the same as the *shariah* structures adopted in Southeast Asian transactions.

Similarly, in the green bond space, different jurisdictions may apply different variations of the Green Bond Principles. A case in point is China, which has one of the largest green bond markets in the world, yet a large proportion of Chinese green bonds may not be considered sufficiently green by European investors' standards or by a strict interpretation of the Green Bond Principles. Crucially, both of these examples demonstrate that provided there is a sufficient critical mass of demand in any particular market for a particular permutation of ESG/Islamic finance products, then such products are capable of flourishing.

Rupert Cadbury, State Street Global Advisors: Over the last 12 months especially, we have seen a significant increase in the level of interest and commitment investors are making to integrate ESG into their fixed-income investments, particularly from large pension funds. Prior to this, much of the focus had been on equity allocations only. The move is underpinned by new technology, big data, regulatory and policymaker initiatives, and the launch of the European Commission's sustainable finance action plan.

When investors seek to incorporate ESG (aka Responsible Investing) options into their fixed-income investments, they often approach it from the perspective of a standard benchmark. This is because standard benchmarks are important for performance comparison, asset allocation decisions, security pricing transparency, risk monitoring, and so forth. Using the standard benchmark as a baseline universe, an investor can customize it to define a more ESG/responsible investment universe. Securities that are not included in common benchmarks (e.g., the Bloomberg Barclays Global Aggregate Bond Index or the J.P. Morgan Corporate EMBI Broad Diversified Composite) typically fall outside the scope for portfolio inclusion consideration.

Investment securities that remain within the eligible investment universe may then be further analyzed, scored, and ranked. For example, securities and issuers with a better ESG score may be allocated a greater weight than what they may have had in a standard market-weighted index. To ensure detailed and up-to-date analyses of ESG-related matters, data on the bond issuers from highly specialized ESG vendors such as Sustainalytics, ISS-Oekom, and Trucost must be available. Bond issuers not scored by companies such as the three mentioned here may also be removed from portfolios that require investments in bond issuers that monitor and control for ESG risks. Depending on the investment constraints, our research shows that it is possible to improve the ESG composition of a portfolio meaningfully while delivering a similar investment risk-return profile to that of a standard index relied on for financial risk and control-monitoring purposes.

The relatively recent inclusion of *sukuk* into standard benchmarks (e.g., the J.P. Morgan EMBI Global Diversified in October 2016), has helped raise their profile and potential for inclusion into ESG-focused portfolios. Likewise, as the investment community increasingly relies on big data, ensuring that a bond issuer is covered by ESG research and rating providers will also likely help raise the issuer's profile. As is the case with ESG investing, Islamic finance can be promoted through inclusion into conventional investment vehicles and investable benchmark indices.

What are the barriers to and drivers of ESG investing in the Arabian Gulf region?

Xuan Jin, White & Case: The ultimate driver for both ESG investments and Islamic finance in any jurisdiction, including the Arabian Gulf region, is demand. Currently, in the Arabian Gulf region, there is not yet the critical mass of demand for ESG products required to develop this into a mainstream product area, unlike Islamic finance, which has a more established market. The reasons for this include the lack of regulatory and/or tax incentives for investors to invest in ESG products. In other jurisdictions where ESG investment is more prevalent, incentives such as tax deductions and preferential regulatory treatment of green financial products exist that beneficially differentiate ESG investments from non-ESG investments. In the Arabian Gulf region, this is currently not the case, so investors are hard pressed to find sufficient commercial rationales to invest in ESG products. Moreover, whereas in Europe and the United States several dedicated ESG/green investment funds exist, no such funds have yet been established in the Middle East.

Additionally, implementing ESG products, such as green bond issuances, will typically be a little more time consuming and involve higher costs for borrowers/issuers as compared to non-ESG products, given the additional layers of work required (e.g., to establish a "green use of proceeds" framework or obtain an external verification/opinion of green compliance). In certain jurisdictions, such practical disincentives are mitigated (e.g., both Malaysia and Singapore have implemented subsidy systems to defray the additional costs of

obtaining external green verifications for the issuance of green bonds/sukuk), but no such systems are currently in place in the Arabian Gulf countries.

Related to the above, ESG/green investments as a product are at present less understood and standardized in the Arabian Gulf region when compared to other jurisdictions. The fact that there has to date only been one green bond transaction in the region (the NBAD transaction mentioned above) is both a consequence of the low level of penetration of ESG/green finance and an indication of the level of demand/recognition for the product. That being said, Rome wasn't built in a day. There's a starting point for everything and the Arabian Gulf ESG market, although nascent, has the potential to develop into a mainstream product capable of catering to both Islamic and conventional investors, particularly when considering the vast array of sustainable infrastructure projects that are capable of being developed in the region and that require funding.

Mohamed Damak, S&P Global Ratings: The growth potential is definitely there. The government policies and targets for their energy mix provide opportunities for the *sukuk* market.

Green is the low-hanging fruit. However, there is a lack of *shariah* governance of green in Islamic finance. We also lack a mapping exercise between ESG and *shariah* principles.

Abdullah Hidayat, Social Finance: We have talked about demand being a key driver. Regulators should also provide incentives to drive ESG investing. Tax incentives are one of the main reasons for the growth of *sukuk* in Malaysia.

Hadi Melki, S&P Global Ratings: The knowledge gap is there but it is not the main barrier to green *sukuk*. In my opinion, the main obstacle for green issuances in the Middle East is the lack of appetite.

From a regulatory perspective, we don't have the right regulations that promote green issuances. Green issuances can be more complex and costly than conventional ones, so without the right incentives, issuers may only value being labelled as caring or gaining reputational benefits. We will start seeing a growth in green issuances when issuers are really motivated to do so.

In addition, aligning investor views on what is "green" could be challenging. Improving the reporting standards for listed companies is a partial solution, as such reporting requirements won't apply to privately owned companies. This is why S&P Global Ratings has launched the green evaluation, a point-in-time assessment of the relative environmental impact of a financing transaction or portfolio, for example, in the case of a labelled green bond.

Iza Kamaludin, Natixis: Key questions from the issuers are how do I determine which investors are interested in these types of issuances and what are the benefits for issuers who obtain capital from ESG and green issuances? It is still unclear for issuers how to implement ESG criteria in their bonds.

If we can't show the additional benefits of ESG or green issuances, such as determination in pricing or additional liquidity, then it is always going to be a discussion.

INTERVIEW WITH SATURNA CAPITAL ON ESG INVESTING IN THE ARABIAN GULF REGION

Interview with Patrick Drum, CFA, Portfolio Manager at Saturna Capital, on the subject of ESG integration and Islamic finance.

Is there demand for ESG products and Islamic finance products in the Arabian Gulf region?

Yes, there is demand for these products, although the sustainability focus has only been on the dashboard of some Arabian Gulf-based investors in the past three to five years, with an emphasis on the last three years.

The drop in oil prices back in 2014—in conjunction with the rise in alternative energy solutions—has driven Arabian Gulf countries' governments to develop plans for 2030 to diversify the region's economic dependence from the hydrocarbon industries to renewables and other nonhydrocarbon infrastructure projects.

These policy shifts—in conjunction with the need to turn to the capital markets to offset growing deficits brought about by the low oil prices through debt and *sukuk* financing—opened the door for both Arabian Gulf region and foreign investors. The interactions of early adopters of ESG frameworks, such as European and North American institutional investors, have led the more attentive debt and *sukuk* issuers to think about how they engage their investors. For example, Malaysia corporations issued green *sukuk*, and Indonesia issued the first sovereign green *sukuk*—with both instruments complying with *shariah* and environmental requirements. Arabian Gulf region members turned to conventional nonfaith-focused offerings such as First Abu Dhabi Bank issuing the region's first green bond issue to finance housing/infrastructure cooling systems.

The example of the green bond issuance by First Abu Dhabi Bank can be considered best practice in the region, although it is still infrequent. If the oil price remains at a low/average, it will contribute to keeping the motivation going for actors in the region to look closer at green products, be it green bonds or green *sukuk*.

Would you say that Islamic finance is considered by Arabian Gulf-based investors as ESG investing or a form of ESG investing, or as a separate investment approach altogether?

To provide some broader context—in Malaysia, investors and other players see ESG and Islamic finance to be in a symbiotic relationship. In a lot of the conversations I have had in the country, people in the industry talk about responsible investment rather than Islamic finance because it has the potential to attract more foreign investors. There is an interest in structuring financial instruments that formalize ESG though an Islamic finance

lens. So, it remains Islamic finance, but it incorporates ESG and is being simply referred to as responsible investment.

In part, this can be explained by their willingness to grow their asset management business; using the term "responsible investment" is seen as an opportunity to do just that. And Malaysia has been forward thinking—for instance, they've created incentives in the form of tax credits for green *sukuk*.

In the Arabian Gulf countries, the knowledge of investors is expanding. Local investors are learning about ESG investing through their engagement with their European counterparts, where regulation on ESG disclosure and reporting is more stringent. They are trying to grow their knowledge and expertise around ESG because they want to expand their asset management business.

A lot of the younger investors are quite ESG aware, but their challenge is trying to elevate the conversation at the C-suite level and trying to make the business case and build the rationale for more ESG integration. Therefore, there is still considerable education and awareness raising that are needed.

Are environmental and social issues important for the region?

Environmental concerns are rising and will continue to gain greater attention and priority by all investors as the region's growing population faces considerable natural resource scarcity issues as it relates to potable water, irrigable land, and energy, this despite being tremendously rich in hydrocarbons. For example, in 2015, Saudi Electric Company—the largest utility company serving over 80% of Saudi Arabia's energy needs—has been expanding its energy infrastructure to accommodate a 30% increase in power demand over a five-year period.⁹

For the city of Dubai, which has experienced large population growth in conjunction with extraordinarily hot desert temperatures, issues such as air conditioning are not trivial as it represents over 70% of electricity consumption.¹⁰

What are the barriers to and drivers of ESG investing? How do they differ/match the barriers to and drivers of Islamic finance?

Reporting and disclosure are generally significantly different from that observed in North America and Europe as culture and context impart a significant influence on the investment management process in the region. It is not uncommon to receive little information on financial results, let alone a broader scope of issues as they relate to material broad stakeholder concerns, in a timely fashion. This is due in part to many of the sovereign governments having a significant ownership interest in the company, who are more often the largest shareholder.

Economies in Asia, the Middle East, and Latin America are becoming increasingly integrated, with Brazil, for instance, representing a sizeable trade partner for Arabian Gulf countries. The Middle East continues to be a very desirable market and will continue to be so due to its natural resources. While there are some challenges with regard to the tension

⁹ https://www.se.com.sa/en-us/Lists/AnnualReports/Attachments/15/Annual%20Report%202015%20EN.pdf.

 $^{^{10}} https://www.nbad.com/content/dam/NBAD/documents/investor-relations/fab-green-bond-2018/fab-green-bond-2018.pdf. \\$

between conservatism and modernization in the region, there is a tremendous need for that modernization to happen from an ESG perspective. ESG investing could really help players in the region to position themselves on the global stage and bring in investors to engage with them and get more knowledge around what best practice looks like, notably in terms of debt management.

Creating an ESG framework would be of great value for issuers and more importantly, future issuers, in the region, as it would provide them with a roadmap on how to issue and some guidelines around reporting requirements and expectations.

What is the growth potential of Islamic finance and ESG investing in the region and how can they feed each other's growth in the Arabian Gulf countries?

Interestingly, Islamic finance remains a small and underdeveloped market with tremendous opportunity when compared to conventional investing. At year-end 2016, it was estimated that total worldwide *shariah*-compliant assets were at US \$2.2 trillion—less than the total assets held by J.P. Morgan.¹¹ The large underinvestment in *shariah*-compliant investing by the Muslim community offers a meaningful opportunity.

This coupled with the Arabian Gulf region's priority to diversify its economy from its overreliance on hydrocarbons and to invest in alternative energy solutions presents a tremendous opportunity for infrastructure- and project-related finance through green Islamic products. By developing a framework that aligns *shariah* principles with broader ESG materiality considerations, the growth of Islamic finance could contribute to an increase in demand for ESG investing in the region.

 $^{^{11}} https://www.slideshare.net/EzzedineGHLAMALLAH/icd-thomson-reuters-islamic-finance-development-report-2017-84077231.$

SECTION 3 COUNTRY ANALYSIS: FRANCE

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often French investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the French capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. Respondents believe corporate governance is the ESG factor that impacts share prices and bond yields the most, but they also believe that this dynamic is set to change. According to the French financial professionals who responded to the survey, environmental factors are likely to impact share prices and bond yields just as much as corporate governance will by 2022 (**Table 11**).

TABLE 11: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	50%	53%
Environmental	22%	56%
Social	22%	41%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/	SPREADS	
Governance	48%	57%
Environmental	14%	57%
Social	14%	43%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	43%	48%
Environmental	14%	33%
Social	33%	38%

ESG RISKS AND OPPORTUNITIES

Respondents in France were asked how often ESG risks and opportunities affect share prices and bond yields in French capital markets (**Table 12**). As was the case in all of the markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for both shares and bonds. Environmental risks are seen as the second biggest threat to share prices while social factors are seen as the second biggest threat to bond yields.

TABLE 12: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	41%
Environmental opportunities	22%
Social risks	31%
Social opportunities	16%
Governance risks	59%
Governance opportunities	31%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	29%
Environmental opportunities	14%
Social risks	33%
Social opportunities	19%
Governance risks	57%
Governance opportunities	24%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	19%
Environmental opportunities	10%
Social risks	33%
Social opportunities	14%
Governance risks	52%
Governance opportunities	29%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of French practitioners, the survey asked how often French portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. As was the case globally, few survey respondents said that they "often" or "always" include ESG issues in their analyses (**Figure 7**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 8**).

FIGURE 7: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

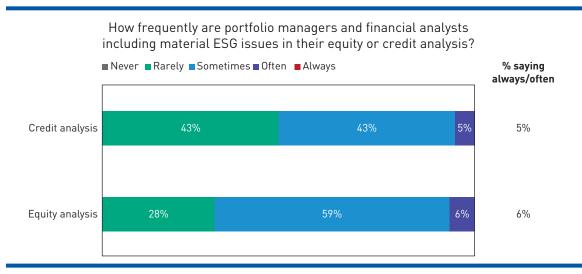
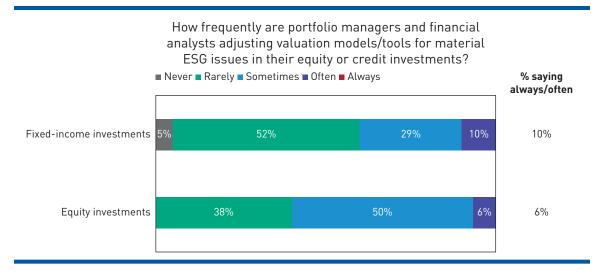


FIGURE 8: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

CFA Institute and PRI thank BNP Paribas Asset Management for its help in organizing our ESG Integration workshop in Paris. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.



THE STATE OF ESG INTEGRATION IN FRANCE

The group's perception was that ESG issues are more important for long-term investors with low portfolio turnover, as ESG factors are long-term, fundamental drivers, and ESG events are low-probability, large-impact events that are difficult to predict but increase in likelihood as the timeframe of the investor increases. Such extreme events, however, lend themselves to ESG analysis. Thus, ESG issues are material and can have large, one-off impacts. As a result, investors must analyze ESG issues as part of strong risk management.

French workshop participants, like their counterparts in other markets, were hopeful that the transparency and quality of data around ESG will improve to allow for better ESG analysis in the future.

Client demand for ESG could become a driver of increased ESG integration. As a growing number of clients ask their existing and future investment managers about their ESG integration practices, more money is likely to be invested in the shares of companies with good ESG performance and high ESG

Such extreme events, however, lend themselves to ESG analysis. Thus, ESG issues are material and can have large, one-off impacts. As a result, investors must analyze ESG issues as part of strong risk management.

scores. This trend can drive up share prices of companies with high ESG scores and drive down prices of companies with low ESG scores.

EQUITIES VERSUS FIXED INCOME

Participants disagreed about whether equity or fixed-income practitioners used ESG more in the investment process. Some thought more equity practitioners than fixed-income practitioners are applying ESG integration techniques; other believed the opposite to be true.

Traditionally, fixed-income investors have not been engaged on ESG and have not felt the need for ESG analysis due to a lack of client demand. Some participants believed that the bond markets rarely price-in ESG issues—those markets are relatively illiquid compared to equity markets and therefore bondholders are less likely to act on ESG events. As well, bonds are protected from ESG events (in bankruptcy, shareholders lose their capital before bondholders due to seniority), and limited upside potential prevents bondholders from benefiting from ESG megatrends.

In contrast, others in the group believed that ESG is a natural fit for credit, as fixed-income investors are long-term investors. Still others opposed the idea that fixed income is long-term investing and that it is easier to integrate ESG issues into credit analysis. They argued that equities have a longer investment horizon due to shares not having a maturity and having an indefinite existence except when bought out. They also suggested that Sovereign Wealth Funds and some institutional investors have investment horizons of 10 to 20 years, but other asset owners do not have such long-term investment horizons.

Some practitioners noted that it was hard to embed ESG factors in credit analysis, citing limited techniques for doing so.

The topic of green bonds was also discussed, with some participants expressing skepticism about just how green some green bonds are. They noted that, although these bonds must be backed by green projects, they could be issued by companies with poor ESG practices as a form of greenwashing.

A BENCHMARK PROBLEM

One practitioner noted that benchmarks are problematic. When mandates have benchmarks and limits on tracking errors, integrating ESG issues into investment decisions is difficult, especially if the benchmarks are based on an index that contains a large percentage of sin stocks and/or carbon-intensive stocks. Investors may be apprehensive about applying ESG integration practices that might cause the portfolio to deviate from the benchmark or increase tracking error—they are fearful that they will be penalized by or lose clients/mandates, who are predominantly motivated by returns.

DEFINITIONAL ISSUES

Participants were in consensus that an ESG definition problem exists—what do we mean by ESG? The many definitions of ESG integration vary among investors within the investment value chain and across the investment value chain.

Confusion around a definition prevents a number of practitioners from performing ESG integration techniques and makes it difficult to understand what practitioners are actually doing to integrate ESG analysis (e.g., the lack of a clear definition makes for an opaque practice). Definitional issues also hinder investors and companies from discussing ESG issues as they don't want to be seen as not understanding how these issues impact valuations and corporate performance. The multiple terms and definitions in use do not help. What would help is guidance or a framework on how to identify material issues to companies and investors, and on the threshold for materiality.

MATERIALITY

One workshop participant noted the difficulty in determining whether an ESG factor was material, asking, "What is the threshold for calling it material? Is it a price change of 1%,

2%, or more? Is it about the probability of impact or probability of default? Or is it a percentage difference between the intrinsic value and the market value?" Because investors have different *definitions* of materiality as well as different *thresholds* for materiality, knowing when to integrate ESG factors is difficult, which prevents some investors from practicing ESG integration.

One workshop participant noted the difficulty in determining whether an ESG factor was material, asking, "What is the threshold for calling it material?"

TIME HORIZONS

ESG integration and ESG issues are timeframe dependent, with ESG integration more applicable to long-term investors.

An investment's time horizon can affect the materiality of the ESG issues:

ESG integration and ESG issues are timeframe dependent, with ESG integration more applicable to long-term investors.

- For short-term investors, returns are less likely to be driven by long-term ESG factors and more likely to be driven by short-term factors, such as supply and demand, sentiment, financial news, quarterly results, broker recommendations, political factors (e.g., stability of government), economic indicators, and so forth. This makes ESG factors less material.
- For long-term investors, performance is affected by ESG factors. Research has shown that analyzing ESG issues and their impact on company valuations and investment performance can create long-term positive returns.

Participants suggested that ESG comes into play when the time horizon is five years, making it more relevant to medium-term and long-term investors than to short-term investors.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 13** and **14**.

As seen in most of the markets covered in this report, client demand and risk management were the two primary drivers of ESG integration. In France, ESG integration is being demanded and ESG products are being offered. The issue is that current demand is outweighing supply. More products and better marketing would balance out the supply/demand issue.

Regulation was seen as the third most likely driver of ESG integration. One workshop participant noted that regulation could redirect capital from investments with poor

TABLE 13: DRIVERS OF ESG INTEGRATION IN FRENCH CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Client demand	59%	Client demand	48%
Risk management	41%	Risk management	48%
Regulation	34%	Regulation	38%
Fiduciary responsibility	16%	Senior management buy-in	14%
Generate alpha	13%	Incentives	14%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 14: BARRIERS TO ESG INTEGRATION IN FRENCH CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues and ESG integration	47%	Limited understanding of ESG issues and ESG integration	43%
No evidence of investment benefits	34%	Concerns about negative returns	29%
Concerns about negative returns	34%	Limited amount of ESG research	29%
Lack of company culture	31%	Low client demand	29%
Low client demand	25%	No evidence of investment benefits	24%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

ESG performance and scores to investments with strong ESG performance and scores. This is more likely to happen than fundamentals redirecting capital. Regulation can also drive prices, as it would legislate that investors consider company/issuer ESG performance and factors in capital allocation decisions. One example is France's Article 173. Under Article 173 of France's law on "energy transition for green growth," a wide range of investors, including asset managers, insurance companies, and additional pension funds, are required to report on how they integrate environmental, social, and governance factors into their investment policies—and, where applicable, risk management—and also specifically how they incorporate climate change considerations. Article 173 encourages investors to measure their portfolios' carbon footprint, which has led investors to decarbonize their portfolios and direct capital away from carbon-intensive companies.

Alpha generation was noted as a potential driver of ESG integration. A perceived barrier to ESG integration is the belief by some that ESG integration means sacrificing

¹ In 2015, France became the first country to introduce mandatory climate change–related reporting for institutional investors on a "comply or explain" basis.

² See LOI n° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte—Article 173.

returns. Supporters of ESG need to be able to show that ESG integration increases returns. Alpha will help drive ESG integration, as asset managers live and breathe alpha.

A lack of quality data is seen as a barrier to ESG integration. Key performance indicators (KPIs) are necessary to integrate ESG factors successfully and to assess the impact of those factors on society and the environment. How will investors know a company is doing well with respect to ESG factors without KPIs? Which KPI is the right KPI to analyze?

Another perceived barrier is that companies report too much nonmaterial information. A company that issues a 200-page sustainability report makes it difficult for investors to find information on material ESG factors. Only four or five KPIs matter for ESG integration.

Finally, lack of culture was singled out by the participants as a barrier. ESG factors cannot just be "plugged in" to the investment process. Time, resources, and buy-in from senior management are needed for successful integration. Analysts cannot simply apply the same techniques as their peers, as each investment firm has a different culture, structure, strategies, and unique strengths. ESG integration can require trial and error to develop an effective process that works for a particular firm. To see the investment benefits of ESG, senior management needs to provide a sustained commitment and not pull ESG resources during bad times.

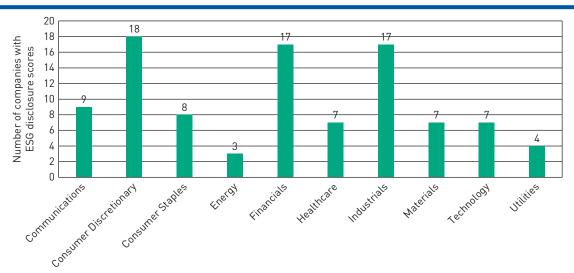
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

The French equity market (**Figure 9**) has the second most companies with an ESG disclosure score in Europe. In the energy and utilities sectors, only three and four companies, respectively, disclose, leaving them out of our analysis. Consumer discretionary (18), financials (17), and industrials (17) are the sectors with the most ESG disclosers, whereas communications, consumer staples, healthcare, materials, and technology all have seven to nine companies reporting on ESG factors.

Figure 10 shows the median ESG disclosure score across sectors in 2011 and 2016. Scores were much less varied in 2016 than in 2011—scores ranged from 29.75 to 46.90 in 2011 and from 45.87 to 54.13 in 2016. The technology sector saw the largest improvement

FIGURE 9: SECTORAL BREAKDOWN OF DATASET: FRENCH COMPANIES WITH LISTED EQUITY WITH ESG DISCLOSURE SCORES IN 2016



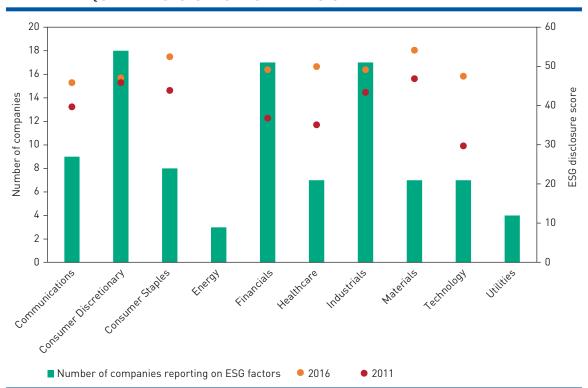


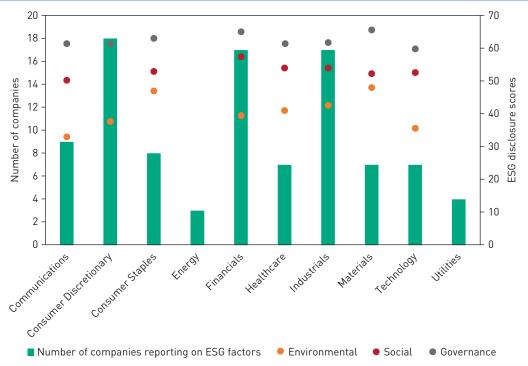
FIGURE 10: MEDIAN ESG DISCLOSURE SCORES FOR FRENCH COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2011 AND 2016

and has caught up to the other sectors, moving from a disclosure score of 29.75 in 2011 to a score of 47.52 in 2016. The highest-scoring sector in both years was materials, with disclosure scores of 46.90 in 2011 and 54.13 in 2016. The smallest change happened in consumer discretionary—the sector with the largest number of ESG-disclosing companies—where the change was marginal, moving from 45.87 to 47.11.

Figure 11 shows the breakdown of median environmental, social, and governance disclosure scores in 2016 across sectors. In all sectors, governance disclosure scores are the highest, social are the second highest, and environmental are the lowest. Governance disclosure scores are also the most consistent, and fall within a narrow range, from 60.71 (technology) to 66.07 (materials and financials); communications, consumer discretionary, healthcare, and industrials all have a governance disclosure score of 62.50. Social disclosure scores are also fairly consistent, ranging from 50.00 in consumer discretionary to 57.89 in the financials sector. Several sectors have identical scores: materials and technology both have a median social disclosure score of 52.63, and healthcare and industrials both have a median social disclosure score of 54.39. The similar scores across sectors indicate the presence of a high level of disclosure norms in governance and social disclosures.

Environmental disclosure scores are more varied and are a main driver of the combined ESG disclosure score. The three lowest median environmental disclosure scores





are in the communications (34.11), technology (35.66), and consumer discretionary (38.76) sectors. This translates into the three sectors with the lowest overall median ESG disclosure scores. At the other end of the spectrum, the materials (48.06) and consumer staples (47.29) sectors score highest both on environmental disclosure and on overall ESG disclosure.

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Overall, equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners (**Table 15**). For both equity and fixed-income practitioners, governance is the most frequently integrated ESG factor. Both groups of practitioners integrate environmental and social factors at the same rate (42% for equity and 29% for fixed income).
- Figure 12 highlights practices from the ESG Integration Framework that are applied in France. Equity practitioners frequently use ESG analysis to assess holistically the quality of business models. Many deploy advanced valuation techniques. Within the range of ESG factors they consider, climate-related risks and opportunities stand out as being prominently integrated across the board: in research, security valuation, portfolio construction, portfolio scenario analysis, and risk management.
- Corporate fixed-income practitioners integrate ESG factors slightly less frequently than equity practitioners. However, some of their practices can be equally advanced and their focus is typically on corporate governance. Sovereign debt practitioners are still developing their ESG integration practices; currently, they focus on qualitative assessments, including proprietary and third-party scores of sovereign issuers' exposure to ESG risks.

TABLE 15: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	54%	41%
Environmental	42%	29%
Social	42%	29%

Note: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.

SCENARIO ANALYSIS RISKMANAGENERT ESG and financial risk exposures and limits Portfolio scenario analysis Value-at-risk analysis Materiality framework (committee) **ESG** policy engagement Tactical asset SWOT analysis **INTEGRATION** Valuation allocation multiples Company questionnaires Duration Red-flag analysis benchmark) Strategic asset PORTFOLIO CONSTRUCTION allocation EQUITIES/FIXED Research level Security level Portfolio level

FIGURE 12: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY FRANCE-BASED INVESTORS

EQUITIES

Research

Many equity practitioners use ESG integration as a tool to systematically assess the extent to which companies/sectors strive to create long-term value by proactively managing risks

and seizing opportunities related to long-term trends in demographics, aging populations, healthcare, sustainable food or agriculture, climate change, and urbanization. On the environmental side, practitioners recognize that growing demands for energy, food, and other natural resources, compounded by the realities of climate change, create unprecedented challenges for businesses. On the social side, practitioners cite companies' stakeholders being bigger, more diverse, more demanding, and more knowledgeable than ever, all while being better equipped to communicate their complaints globally and instantaneously.

Through ESG integration, practitioners are seeking companies that have:

- forward-looking business models, such as those that anticipate and promote solutions to address climate change;
- support for local development in all regions, including constructive stakeholder dialogue and sustainable relationships with suppliers;
- sustainable management of human and environmental resources, including providing a healthy and stimulating work environment, safeguarding human rights, and actively reducing environmental impact; and
- responsible corporate governance, including a view on board organization, tax practices, and business ethics.

Companies perceived as performing favorably against these traits are seen to be able to deliver similar returns for lower overall levels of risk, making the exercise worthwhile for those practitioners looking to optimize their risk/return trade-offs.

The most popular approach taken by practitioners in France is to form a qualitative assessment of these traits that will influence buy/sell/hold decisions or overweight/underweight/neutral decisions. A significant number of practitioners collate ESG data and research from multiple sources to derive proprietary ESG scores or individual scores for environmental, social, and governance factors. Developing proprietary ESG scores from raw data appears to be increasingly preferable to using third-party scores, helping practitioners to avoid the "black box effect" of relying on external methodologies. For example, one proprietary ESG score methodology comprises an assessment of sector dynamics to identify specific issues and to determine a weighting for each ESG criterion, and a company analysis according to the respective sector. Proprietary ESG scores can also be developed using external ESG scores as a starting point, with internal ESG teams then adjusting the weight given to each factor to obtain the final ranking. ESG scores might be further refined with input from portfolio managers, who review the scores alongside a company's financials and their own valuation models before making an investment decision.

Access to proprietary ESG scores and third-party ESG scores can be through:

- internal ESG research/views/scores,
- ESG-integrated research notes/fact sheets,
- centralized research dashboards,
- watch lists, and
- red-flag indicators.

To ease the diffusion of ESG scores and metrics, many have developed proprietary internal front-office tools that enable portfolio managers to adjust the valuation metrics

of investee companies or identify areas of improvement and set targets to guide direct engagement with management. A core component of this strategy is the ability to track (and potentially attempt to influence) company performance over time.

Another approach by practitioners is analyzing a company's ESG score and its relative value versus its sector peers to determine if all risk factors are priced in. This can lead to a qualitative investment decision based on the unpriced ESG risk.

Security Valuation

As is true in most markets, the number of practitioners who adjust their security valuations is much lower than the number of practitioners who directly integrate ESG factors into their buy/sell/hold decisions. ESG factors explicitly and implicitly influence security valuations. For example, some practitioners are making explicit adjustments to forecasted financials by:

- increasing turnover, sales, and overall profitability for opportunities arising from sustainable products or services;
- reducing long-term sales growth and profitability to reflect deteriorating brand recognition, adjusted operating costs incurred for recurring fines, employee strikes, production facility closures, less reliable suppliers, or nonexistent/low energy efficiency program investments;
- considering climate-related risks and opportunities—some practitioners go to great lengths in their estimation of related financial impact, such as using expert consultancies or specialized due diligence on complex and specific topics (e.g., financial modelling of carbon impacts, site exposure to geoclimatic risks).

Practitioners who use ESG scores may adjust company financials or valuation-model variables. For example, based on an ESG score, a company-specific discount rate (which considers all ESG risk and opportunity elements identified) may be added to the initial discount rate given by a financial analyst based on country/market risk and business risk. Similarly, a company's beta may be adjusted according to the ESG score obtained, which has the effect of changing the risk premium (and ultimately affecting the target price).

Although scenario analysis of security sensitivity is not common, where it is applied, it can be very sophisticated. For example, forecasts in terms of operational margins, sales volume, capex, and assets can be adjusted to reflect climate energy scenarios set up by the International Energy Agency (IEA),³ or different scenarios can be used to assess the expected impact of regulatory changes to the European emissions quota trading system up to the year 2030.

Portfolio Construction

The use of ESG scores and an emphasis on climate can also affect portfolio construction for those practitioners seeking to reduce ESG risk exposure over time. Practitioners may

³ https://www.iea.org/topics/climatechange/scenarios/.

adjust a portfolio to comply with the need to attain a minimum ESG score, either by underweighting companies with the lowest ESG scores or by overweighting companies with the highest scores. Portfolio managers might use a carbon footprint calculator to understand the impact of their stock selection and sector allocation on their portfolio's final carbon footprint, with a goal of progressively making all investments compatible with a 2°C scenario. Structural underweight may occur in countries with inadequate corporate governance, or some funds may exclude coal-producing or oil and gas firms altogether for risk reasons. Many practitioners track their portfolios' ESG profiles against their benchmark, intending to outperform those indexes in terms of ESG score.

Asset Allocation

Where practiced, ESG integration in asset allocation is mostly implemented at the security level (between sectors or geographic markets) rather than at the portfolio level. Some practitioners report conducting studies to determine the extent to which this is relevant, with mixed conclusions, despite a growing recognition that because climate and carbon issues create a new paradigm by affecting the entire economic system, they have to be taken into account even transversally beyond individual investment decisions.

Portfolio Scenario Analysis

Analysis of IEA scenarios is enabling practitioners to identify long-term investment trends and implement sustainability investment themes into their portfolios. For example, practitioners may select investment themes that will benefit from strong drivers (e.g., renewable energies, energy-efficient technologies) applied to portfolios qualitatively rather than through predefined weightings.

Risk Management

ESG analysis can be applied by practitioners to avoid exposure to long-term underperforming or expiring business models, as well as to manage reputational risks better. Practitioners who quantify ESG risk based on externally or internally generated ESG scores may modify the total risk measure used for a portfolio, which would in turn affect the target price as well as minimum/maximum weights of equity holdings.

FIXED INCOME

Research

Although slightly fewer fixed-income practitioners compared to equity practitioners are integrating ESG factors into their investment analysis, some are deploying advanced techniques to assess the creditworthiness of corporate issuers. Within fixed income, ESG integration practices are less prevalent for sovereign debt investors.

Similar to their equity counterparts, fixed-income practitioners use a range of qualitative techniques to inform their research, including:

- internal ESG research/scores,
- materiality frameworks,
- centralized research dashboards,
- ESG agenda at (committee) meetings,
- red-flag indicators,
- watch lists, and
- individual/collaborative engagement.

Qualitative decision making is the most popular ESG integration approach for French corporate and sovereign debt investors. As with equities, proprietary or third-party ESG scores are commonly used. One implication of this practice is that ESG research is more focused on the issuer rather than the individual bond issuances.

Corporate bond practitioners often report using the same ESG research techniques regardless of the type of issue (e.g., equity, securitized, classical bonds, debt). Sometimes there is differentiation between equity and corporate fixed-income ESG research. For example, specific indicators for corporate (financial) issuers assessed by one practitioner include responsible marketing, green financing, audit and control, and financial inclusion.

Sovereign debt practitioners, on the other hand, use ESG research to help them measure and compare the extent to which sustainable development challenges are integrated into a country's institutional and political systems. Because of the different nature of the sovereign issuers, practitioners must develop ESG materiality frameworks from scratch or use those of external providers. Commonly cited indicators include:

- environmental factors (climate change, energy mix, use of natural resources),
- social factors (healthcare and demographics, wealth and social inclusion, labor market and education), and
- governance factors (democracy and government effectiveness; commitment to international conventions such as those on labor, human rights, biodiversity, and weapons).

Practitioners combine these factors with an assessment of the extent to which they currently affect a country's ability to meet payment obligations as well as how they may affect those obligations in the future. In recent years, practitioners report that they are also paying increased attention to electoral agendas and potential political instability.

ESG data may not necessarily be scored or aggregated—some fixed-income practitioners report providing raw ESG data access to all staff via internal platforms and leaving it to each fund manager to integrate ESG information on a discretionary basis. Watch lists, red-flag indicators, ESG portfolio footprints, and carbon data calculations are also commonly made available to all investment staff. For example, a framework can be set up specifically for emerging markets to flag high-risk countries on ESG practices.

In most cases, however, ESG research (whether internal or external) is sense-checked through weekly presentations and discussions with fund managers or via direct engagement

with issuers. Some of the most advanced practitioners have their credit risk committees meet monthly to gauge whether negative ESG news or evaluations of ESG performance impact previous issuer authorizations. In cases of a serious allegation or deep deterioration of an ESG score, the committee may reduce or forbid investments with a given issuer. For corporate issuers, one-to-one meetings or conference calls may be regularly conducted with each company to double check, verify, and discuss findings and data. When a company faces a relevant change or controversy, the company may be put under surveillance and a meeting set up with it, following which the analyst will consider adjusting the company's score. Sovereign debt practitioners also report addressing ESG issues with government officials and central bankers via engagements.

Security Valuation

Corporate fixed-income practitioners most frequently integrate ESG factors in credit analysis, including internal credit assessments, and forecasted financials and ratios, and to a lesser extent in their relative value/spread analysis. Advanced practitioners may deploy ESG analysis to detect inconsistencies between the price of bonds and the actual quality of the issuer's credit fundamentals. This latter approach is founded on a belief that markets are not fully integrating all ESG-related information, which in turn creates inefficiencies that can present attractive long-term opportunities for active investors focusing on these areas (e.g., considerable needs for energy transition that can be met through green bonds).

ESG risks deemed to have a significant impact on the probability of default are typically quantified. Major ESG shortcomings could expose issuers to capital destruction and ultimately default risk due, for example, to carbon-intensive profiles (vulnerable balance sheets), innovation/disruption challenges, and low-level business ethics (litigation risk). A more structured approach could involve a:

- business overview (review of the management structure, capital structure, and business description),
- sector overview (review of drivers, trends, competitive landscape, and risks), and
- financial analysis (review of the historical performances [P&L, cash generation] and debt/liquidity analysis/outlook, review of ongoing litigations, review of stock of provisions [environment purpose]).

Security valuation techniques are uncommon for sovereign debt. Where these techniques are practiced, practitioners strive to ensure that the choices made and the weight given to the various criteria account for possible fiscal effects, thus linking sustainable development policies with their effectiveness.

Where quantification is less feasible, ESG scores may be used to influence the forward rating assigned to an issuer. ESG analysis may also feed into the relative ranking of issuers within their peer group, on a sector-by-sector basis. Given the same level of duration risk or credit risk, ESG analysis can be a way to discriminate inside a range of different issuers.

Portfolio Construction and Risk Management

At the portfolio construction level, adjustments may be made to weightings of companies, sectors, countries, and/or currency in a portfolio to mitigate ESG risk exposures and avoid breaching ESG risk limits. An outright exclusion may be implemented for the lowest-rated issuers in terms of ESG, to protect clients from financial and reputational risk, or an average ESG score of a portfolio may be maintained in relation to the ESG score of the benchmark index.

Based on an ESG appraisal, portfolio managers may decide to increase/decrease the allocation on an issuer versus its peers in a given sector. In some cases, an ESG score may be used by the risk department to adjust issuer limits, without additional integration of ESG issues by fund managers.

Asset Allocation

ESG integration in asset allocation is mainly deployed within asset classes rather than across them, and is combined with macroeconomic and market analysis to define the model portfolio's systematic risk exposure. A country and sector allocation can be determined using scoring based on ESG-integrated credit risk assessment, following a macro (sector credit dynamic, historical valuation, cross-sector analysis) and micro (globalization and regional factors) approach. A geographical allocation considers country sensitivity (e.g., domestic revenues versus international diversification, specific regulation, issuer's correlation to sovereign debt). As a result, practitioners may decide, for example, to limit their exposure to certain carbon-intensive sectors (e.g., coal), or to countries judged to have inadequate governance practices.

Another approach is to identify and increase allocations to companies and sectors that offer solutions and innovations to challenges such as aging populations, urbanization, climate change, agriculture, and obesity- and overconsumption-related diseases (e.g., through the production and promotion of healthier products).

Portfolio Scenario Analysis

As is the case with equities, energy transition scenarios may be used to enable practitioners to identify long-term trends and establish sustainability-investment themes qualitatively, rather than through predefined weightings.

INTERVIEW WITH A FRENCH MAJOR MARKET PLAYER: IRCANTEC

Interview with Caroline Le Meaux, Head of Delegated Asset Management at Caisse des Dépôts, on the subject of ESG integration. Caisse des Dépôts is the fiduciary manager of the public pension fund Ircantec.

What does ESG integration mean to you and how your firm approaches it?

Taking ESG into account in asset management, you have to say whether you are doing it from a values perspective or from a strictly financial/risk perspective.

Many asset owners in Europe are governed by joint employer/employee boards that consider it their fiduciary duty to target either financial or extra-financial performances. Those schemes, while targeting a return, do not want to invest in areas that might negatively affect their beneficiaries in the long term. This could explain their motivation to include extra-financial factors (environmental, social, and governance) into the investment management process. Apart from the desire to be consistent with the long-term interests of their beneficiaries, some of them also want to include ESG in the investment process as they see it adding value from a risk perspective.

From a fiduciary point of view, the more information you have, the better investment decisions you can make. Looking at the environmental and social impact is normal here. It is not so strange to take environmental and social factors into account. Governance is also normally included. From a risk return point of view, ESG is a plus when you do your investment analysis.

It is hard to prove outperformance of a best-in-class company, whereas it is easier to see probability that a poorly ESG-managed company will underperform.

Apart from ESG, climate change might have a large impact on the risk/return profile of our portfolios. Climate change is a factor that will impact much more than just the "E" in "ESG." It has an impact on businesses operations and profitability. It even has a social dimension.

How do you integrate ESG into your investment processes? Into the manager selection and monitoring process?

We base our ESG framework around three pillars:

1. Socially Responsible Investment (SRI) charter: We went through the exercise of creating an SRI charter, determining what was most important for our beneficiaries and trustees. What companies do we want to avoid? Which do we want to favor? We ask managers to apply this charter to the investment process and check twice a year to make sure they are following this charter and if they are not we will engage with them.

- 2. **Proxy voting:** We oblige all asset managers to vote across all equity lines according to our internal rules.
- 3. **Engagement:** We have an engagement policy that defines three themes for shareholder engagement. We favor collaborative engagement.

On engagement, do you do engagement with companies or is it just left up to managers?

Engagement is primarily internally handled. Our asset managers may engage on their own and they may tell us what they hear, but we prefer to keep it internal. We think we get better feedback from companies doing it ourselves.

We have three different areas we want to work on:

- 1. Climate and climate transition issues
- 2. Workers' rights
- 3. Fair tax payments (In Europe, fair tax payments are becoming an issue—companies paying their fair share of taxes.)

We are managing engagements internally and with collaborative engagement. It is easier for us to do it because we can't be sure that asset managers can speak for us. They have other clients and their own interests, so we can't be sure they are representing our point of view.

We are doing collaborative engagement with other organizations, for example, with UNPRI or the local Eurosif chapter. We are leading on some engagements and collaborating on others.

Do you have any insight into the level of ESG integration in equities and fixed income?

From the investment side, it is definitely different between equities and fixed income because performance expectations are different. Fixed income is more focused than equity space on risk. Your duration is much lower. ESG integration is much newer in fixed income. Equity managers and analysts are ahead on ESG integration.

If a company has an ESG issue, you may have a hard time justifying holding it in your portfolio. Even for fixed income in some respects, where you might be a long-term holder waiting for a bond to get back to par value, pressure to sell might be high.

That is why fixed income is catching up. True believers are leading the way and creating best practices. When selecting managers, you must understand how people are marketing themselves and then see if their actions match this marketing.

What are the drivers of ESG integration?

Climate is something that is really being pushed by authorities and regulators, by the government in France but also by the European Union and the European Finance Commission as well as by the Financial Stability Board. Now you have the feeling that if you are not considering ESG you have to justify why. ESG is the new normal.

The Sustainable Development Goals (SDGs) are starting to be a big topic—but this is more about impact investing. It is starting to be larger. Asset owners are starting to announce big parts of their portfolios being dedicated to impact investing.

What are the barriers to ESG integration?

Currently, people are quite vocal about ESG integration, but more action is needed. There is much talk, but not enough action yet.

We have to do a lot of work on data. In the ESG space, we must get better at using data. Any time you decrease the breadth of the investment universe you lose some diversification potential—you have to improve data use to make sure you are not limiting your investment universe breadth for the wrong reason.

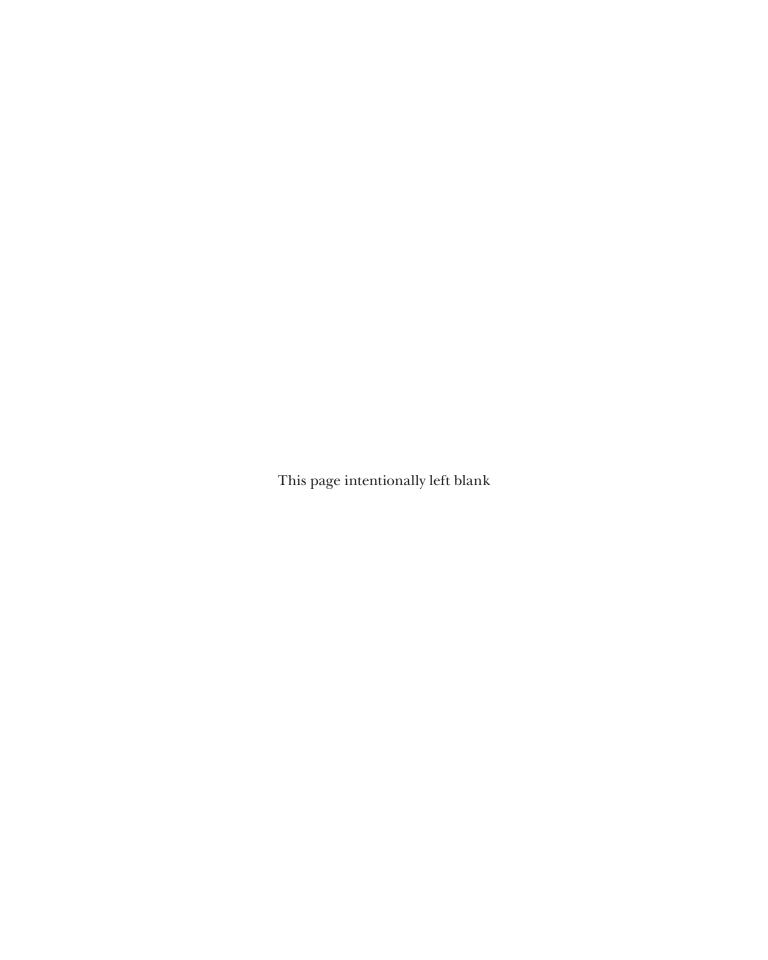
Is the current level of ESG data adequate?

Data need to improve. We need to invest a lot to get better data, more accurate and significant data, especially in the social space. We have to move from declarations made by companies into measurable results. We need to find better ways of collecting information, be more productive, and not only rely on the company for data. This is especially a problem with small- and mid-cap companies. Data providers have a natural large-cap bias because of resources companies and data providers could dedicate.

What do you see as the future of ESG in France over the next five years?

I think that climate will be an even bigger issue. What will be the 1.5° or 2° compatible portfolio? We need to develop these standards. I see SDGs incorporated more into the investment process. This will have a huge impact on real assets.

In France, you need to report annually on what you are doing. NGOs are recording what we are doing. If you don't follow through and deliver what you have announced, there will be controversies.



SECTION 4 COUNTRY ANALYSIS: GERMANY

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often German investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the German capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. Respondents are split about whether governance issues have the most impact on share prices or on bond yields, feeling that governance issues "always" or "often" impact both asset classes just under 40% of the time. However, respondents are uniform in predicting that governance and environmental issues will "always" or "often" impact both share prices and corporate bond yields over 50% of the time by 2022 (**Table 16**).

TABLE 16: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	39%	59%
Environmental	18%	51%
Social	13%	36%
ESG ISSUES IMPACT ON CORPORATE BOND Y	TELDS/SPREADS	
Governance	38%	55%
Environmental	22%	50%
Social	12%	35%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YI	ELDS	
Governance	27%	38%
Environmental	13%	30%
Social	13%	28%

ESG RISKS AND OPPORTUNITIES

Respondents in Germany were asked how often ESG risks and opportunities affect share prices and bond yields in German capital markets (**Table 17**). As was the case in all of the markets we visited, ESG risks were seen as more important than ESG opportunities. Governance opportunities were seen as "often" or "always" affecting share prices and sovereign debt yields about one-quarter of the time (26% and 23%, respectively).

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of German practitioners, the survey asked how often German portfolio managers and financial analysts are including material ESG issues

TABLE 17: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	SHARE PRICES?
Environmental risks	25%
Environmental opportunities	8%
Social risks	13%
Social opportunities	7%
Governance risks	43%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	CORPORATE BOND YIELDS/SPREADS?
Environmental risks	22%
Environmental opportunities	10%
Social risks	17%
Social opportunities	15%
Governance risks	37%
Governance opportunities	18%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	r sovereign debt yields?
Environmental risks	13%
Environmental opportunities	8%
Social risks	17%
Social opportunities	15%
Governance risks	22%
Governance opportunities	23%

in equity and credit analysis. As was the case globally, few survey respondents (about 20% to 25%) say that they "often" or "always" include ESG issues in their analyses in equity or credit analysis (**Figure 13**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 14**).

FIGURE 13: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

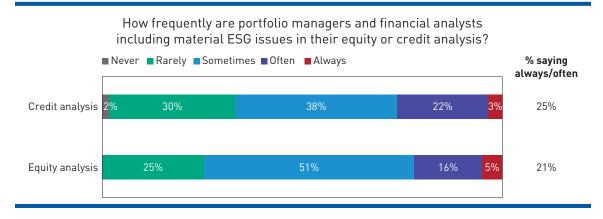
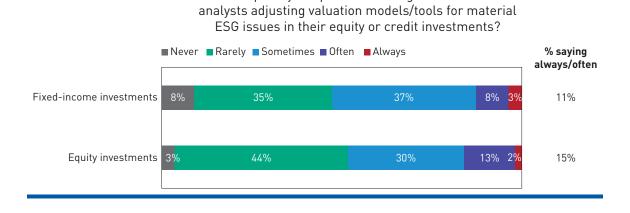


FIGURE 14: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



How frequently are portfolio managers and financial

DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

THE STATE OF ESG INTEGRATION IN GERMANY

Many German firms are at the start of ESG integration, thus, ESG integration levels are low but likely to grow. Although the use of screening is common, the trend is clearly toward more time spent on understanding the impact of ESG issues. ESG integration does not seem to be a fashion or a fad—workshop participants expect it to increase further in relevance.

German investors analyze ESG key performance indicators (KPIs) and require sustainability reports from companies. Participants were in consensus that ESG information can uncover additional investment risks and provide confidence in investment decisions. If traditional factors and valuations do not provide a clear view on whether to invest or not, ESG analysis can provide the additional confidence to make a decision as to which action to take. Participants note they check more than 10 ESG KPIs (the number varies by sector) for every analysis and use them for assessing ESG performance, discount rate, valuation multiples, and credit spread.

In Germany, governance issues are highly integrated into equity and fixed-income markets. Practitioners are only just beginning to look at social issues, although they are increasingly doing so. Participants expressed that the downside (risk) to ESG integration is usually more pronounced than the upside (opportunity). When ESG events and controversies affect assets, they tend to have large, one-off impacts on prices and volatility, sometimes resulting in defaults. ESG effects on the upside tend to provide incremental, long-term returns that are difficult to identify and prove.

The impact of ESG issues differs when comparing medium-term and long-term investment horizons

Governance issues are highly integrated into equity and fixed-income markets. Practitioners are only just beginning to look at social issues, although they are increasingly doing so. Participants expressed that the downside (risk) to ESG integration is usually more pronounced than the upside (opportunity).

to short-term investment horizons. For example, the impact of ESG issues over mediumterm to long-term investment horizons can materialize in small, incremental ways that drive outperformance/underperformance over the long term. Over short-term horizons, ESG issues can materialize as large, one-off movements.

EQUITIES VERSUS FIXED INCOME

For equities, investors often have the opportunity to vote on ESG issues at a company's annual general meeting. For bonds, however, no such opportunity exists. This difference between the two leads to more activity and engagement around ESG issues in equities.

One workshop participant noted that ESG issues affect share prices more often and faster than they do bond prices. Among bonds issued by a single company, ESG issues may affect some bond issuances but not others. ESG issues are long-term drivers of prices, which are more likely to impact long-term bonds than short-term bonds; the latter are influenced more by short-term drivers.

Concerning sovereign debt, participants thought that ESG integration works better on a company level rather than a country level. ESG issues are more material to companies as these factors can bring a competitive advantage or competitive disadvantage. German investors tend not to assess countries on ESG criteria.

DIFFICULT TO VALUE ESG

With so many ESG KPIs, practitioners are concerned over which ones to choose, a problem that standardization of data reporting would help. Which KPIs bring value and returns? ESG integration requires understanding the ESG issues and selecting those that are material. Including every KPI results in a tiny weighting of each, with the most relevant KPIs diluted.

Understanding is also lacking regarding how investors assess issuers on ESG criteria and what they consider as good ESG performance and bad ESG performance. For example, a group may not want exposure to tobacco and thus may exclude tobacco companies, but then invest in retailers that sell tobacco. Where is the line drawn? No uniform answer is available.

Valuing companies exposed to increasing climate change risk is difficult due to the question of timing. How and when will carbon be regulated and minimized? Markets will shift to renewables and clean

With so many ESG KPIs, practitioners are concerned over which ones to choose, a problem that standardization of data reporting would help. Which KPIs bring value and returns? ESG requires understanding the ESG issues and selecting those that are material.

tech, but when? Regulations for fossil fuel companies increase the risk of stranded assets, but what is the timing of these regulations and how stringent will they be? Environmental issues are more likely to negatively affect the operating performance and tighten margins of companies rather than boost operating performance and widen margins.

LARGE VERSUS SMALL

Large companies have an advantage over small companies in reporting ESG data. Investors need comparable data and a significant data history, which are not available with small-cap firms. As large companies have more resources in terms of personnel and budget, they can

spend more on ESG marketing, allocate more time to engaging with investors, and devote more resources to tracking ESG data.

Small markets have fewer options in which investments can be made, making it more difficult to avoid investing in bad ESG companies based on diversification grounds. Fewer options also lead to larger tracking errors when not investing in bad ESG companies (share prices and bond prices of companies are more influential on price movements of indices/benchmarks when the universe is small).

TIME HORIZONS

Depending on the investment horizon, ESG issues can have different impacts. For example, climate risk may materialize more frequently in a 10-year investment horizon but less frequently in a biannual investment horizon.

As one workshop participant pointed out, ESG is not relevant on a daily basis; however, the longer the investment horizon, the more ESG matters. Due to their rather longterm nature, ESG issues tend to be less relevant in times of crises (if it is not an ESG crisis) when facts matter more (except for some governance problems).

DEFINITIONAL ISSUES

How are ESG factors defined? Are they defined based on top ESG issues for a company, top ESG issues for an investor, impact on operating performance, impact on investment performance, magnitude of impact or probability of impact, or some other criteria?

DATA

Participants noted an issue with access to information and having the time to devote to data mining. Data are not readily available, and portfolio managers do not have time to source, analyze, and benchmark data against that of peers. Service providers collect ESG data, but those services come at a cost, and resource-constrained investors and asset owners cannot afford it (or it is the last thing on the list).

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 18** and **19**.

Participants believe that ESG issues do matter, are risk factors, and are affecting prices. ESG issues can damage the reputation of companies and countries. Client demand and risk management are nearly equal drivers of ESG integration in Germany (Table 18).

Institutional clients—not retail investors—are driving Germany's ESG demand. Institutional demand has also driven the focus to be on *value* and ESG integration rather than on *values*, as asset owners require positive returns to meet future liabilities. Why retail investors do not care or know about ESG integration is unclear.

TABLE 18: DRIVERS OF ESG INTEGRATION IN GERMAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENT	FIXED-INCOME INVESTMENTS		
Risk management	59%	Risk management	53%		
Client demand	59%	Client demand	50%		
Regulation	20%	Fiduciary responsibility	28%		
Fiduciary responsibility	16%	Regulation	22%		
Generate alpha	13%	Incentives	8%		

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 19: BARRIERS TO ESG INTEGRATION IN GERMAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	39%	Lack of comparable and historical data	38%
Limited understanding of ESG issues and ESG integration	36%	Limited understanding of ESG issues and ESG integration	33%
Lack of company culture	31%	Lack of company culture	32%
Too much nonmaterial information	30%	Too much nonmaterial information	30%
No evidence of investment benefits	25%	Limited amount of ESG research	23%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

Some investors still consider ESG as merely negative screening, feeding a negative reputation for it. Other investors believe that ESG integration is not about adding value, but about expressing one's values through investing; they believe it will bring negative returns. These barriers deter investors from engaging in ESG integration.

According to the German workshop participants, a lack of comparable and historical ESG data, a limited understanding of ESG issues, and a lack of a company culture around ESG integration are the top three barriers to ESG integration (Table 19).

Institutional clients—not retail investors—are driving Germany's ESG demand. Institutional demand has also driven the focus to be on value and ESG integration rather than on values, as asset owners require positive returns to meet future liabilities.

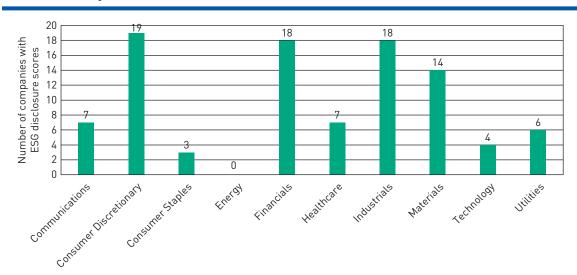
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 15 shows the German equity market and the number of companies disclosing ESG factors. It reveals that the consumer staples (3), technology (4), and utilities (6) sectors have too few companies to analyze. No companies in the energy sector disclose on ESG factors. At the other end, the consumer discretionary, financials, and industrials sectors have the most companies with ESG disclosure scores, at 19, 18, and 18, respectively.

Figure 16 shows the median ESG disclosure scores across sectors in 2011 and 2016. The lowest-scoring sector in both 2011 and 2016 was the communications sector at 9.09 in 2011 and 20.66 in 2016. The highest scorer in both years was the materials sector at 36.78 in 2011 and 45.45 in 2016. This means that the highest 2011 score was more than four times the lowest score in the same year. The gap between highest and lowest score

FIGURE 15: SECTORAL BREAKDOWN OF DATASET: GERMAN COMPANIES WITH LISTED EQUITY WITH ESG DISCLOSURE SCORES IN 2016



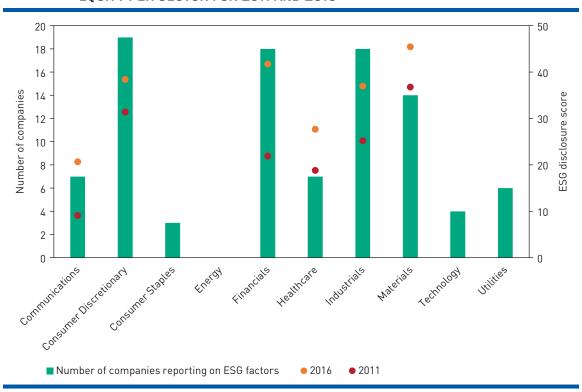


FIGURE 16: MEDIAN ESG DISCLOSURE SCORES FOR GERMAN COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2011 AND 2016

stayed at around 25 across both years. However, whereas in 2011, three sectors (apart from communications)—financials (21.90), healthcare (18.80), and industrials (25.21)—were more than 10 points below the materials sector, by 2016, this was true only for healthcare (27.69).

The financials sector had the largest increase in median ESG disclosure score, nearly doubling its disclosure score from 21.90 in 2011 to 41.74 in 2016. At the other end of the scale, the consumer discretionary sector ESG disclosure score increased only slightly, from 31.41 in 2011 to 38.43 in 2016; the sector dropped from the one with the second highest median ESG disclosure score in 2011 to third place in 2016.

Figure 17 illustrates the split between the median environmental, social, and governance disclosure scores in 2016 across sectors. Interestingly, the social disclosure score is the highest of the three in four out of the six sectors analyzed—consumer discretionary (46.49), financials (47.50), healthcare (48.25), and materials (55.26). In all four sectors, governance disclosure scores came second (41.07, 46.43, 41.07, and 46.43, respectively). Germany is the only country in EMEA in which this is the case. The communications and industrials have their highest disclosure scores in governance (42.86 and 41.96, respectively) and second highest in social (35.96 and 40.35, respectively). For all sectors, the environmental disclosure score is the lowest.

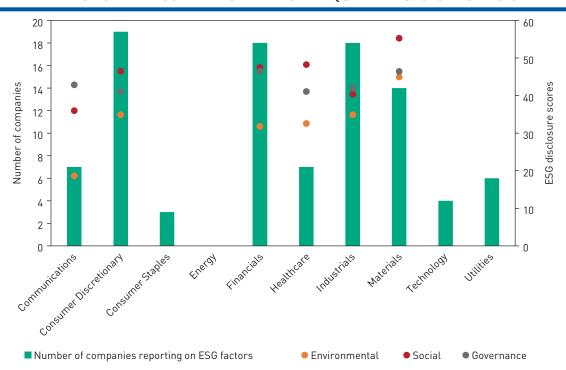


FIGURE 17: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR GERMAN COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2016

The variation in governance scores is relatively low, with the lowest score being 41.07 in consumer discretionary and healthcare and the highest being 46.43 in materials. The social disclosure scores vary a bit more, with the lowest being 35.96 in communications and the highest 55.26 in materials. Of these, only the communications (35.96) and industrials (40.35) sectors had median social disclosure scores below 45. As with the other European countries, the largest difference is between the highest and lowest median environmental disclosure score, with the lowest being 18.60 in communications and the highest being 44.96 in materials. However, these sectors are outliers, as the four other sectors lie between 31.78 (financials) and 34.88 (consumer discretionary and industrials).

As with the rest of Europe, the materials sector had the highest median ESG disclosure score. In Germany, the sector also had the highest environmental, social, and governance disclosure scores.

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners (**Table 20**).
- Both equity and fixed-income practitioners integrate governance factors most frequently, followed by environmental and social, respectively.
- **Figure 18** highlights practices from the ESG Integration Framework that are applied in Germany.

EQUITIES

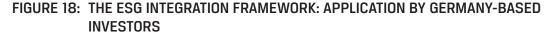
Research

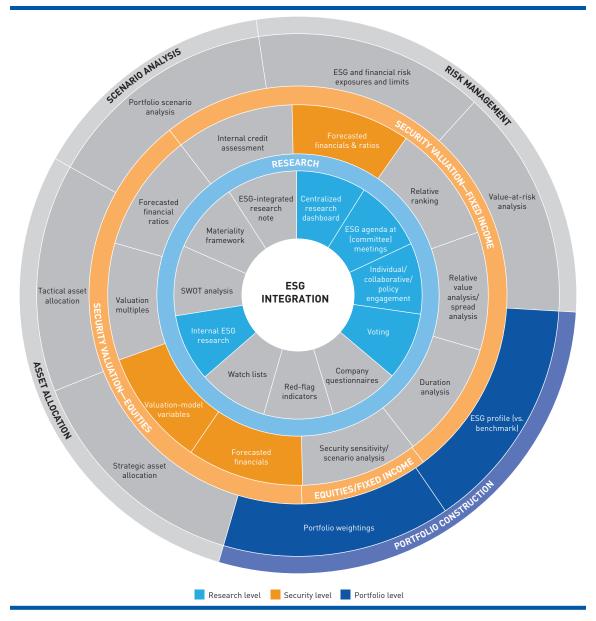
Most practitioners in Germany are still developing their ESG integration practices for their equity investments. Those that are integrating ESG base their approach on a conviction that ESG factors enable them to identify risks and opportunities that a traditional financial analysis would either miss or fail to address systematically, with potentially significant consequences for long-term investment performance. These practitioners make use of several qualitative techniques to inform their buy/sell/hold and overweight/underweight/neutral decisions, including:

TABLE 20: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	33%	21%
Environmental	24%	15%
Social	21%	12%

Note: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.





- centralized research dashboards,
- ESG agenda at (committee) meetings, and
- individual/collaborative engagement.

ESG research is typically sourced externally and made available via organizationwide research systems and platforms. However, because external research is assumed to be based on published disclosures rather than deep industry experience and access to management teams, it is frequently sense-checked through extensive internal discussions at internal investment and committee meetings.

Security Valuation

Few practitioners in Germany perform quantitative ESG integration techniques. Those that do primarily seek to determine how ESG factors may affect the growth rate of income and cash flows, based on a company's business model, quality of governance, strategy, and operational and competitive environments, as well as the industry and macroeconomic dynamics under which the company is operating and will have to operate. Where potential effects are less quantifiable, an internal positive or negative ESG opinion may lead portfolio managers to adjust the risk premium used in their discounted cash flow (DCF) valuations.

Portfolio Construction

Although portfolio construction techniques are not in widespread use among practitioners in Germany, those who use them tend to assess their portfolios in terms of their ESG profile versus a benchmark, frequently seeking to outperform their benchmark on ESG scores. Sector allocation within portfolios may also be influenced by sustainable ESG benchmarks.

FIXED INCOME

Research

Fixed-income practitioners in Germany are still developing their integration practices, with qualitative analysis being the practice used most prominently. ESG research/scores may be sourced externally but are frequently complemented or even adjusted by proprietary internal qualitative analysis. The focus is on those ESG factors that are seen to have the ability to influence credit spreads and ratings. ESG "committees" comprising investment and ESG staff are sometimes convened to debate and refine ESG research and to provide guidance with regard to ESG integration to the rest of the firm. The committee outputs are typically shared on internal research platforms available to all investment staff, who use their discretion to integrate ESG factors in buy/sell/hold and overweight/underweight/neutral decisions on the basis of the ESG issues impacting the outlook for and risk profile of an issuer.

Sovereign debt practitioners use ESG scores as a complementary signal to sovereign credit risk analysis. For example, the quality of the education system or level of R&D may help practitioners assess the ability of a government to generate revenues in the future, while corruption-level indicators or the organization of the judicial system may help them assess the ability of a government to conduct reforms and to run effective institutions. Issuers scoring low on ESG may be subject to increased scrutiny and due diligence by investment staff.

Security Valuation

Fixed-income practitioners rarely quantify the impact of ESG factors on corporate/sovereign issuers' debt securities. The few that do quantify ESG factors will focus on any factor(s) that may materially influence the growth rate of income and cash flows, which in turn influences valuation models and risk assessments.

Portfolio Construction

Fixed-income practitioners in Germany rarely integrate ESG factors into portfolio construction decisions. A common approach is to use ESG research/scores directly to "shift" portfolios toward superior ESG characteristics, or overweight portfolios toward issuers highly rated on ESG.

INTERVIEW WITH A GERMAN MAJOR MARKET PLAYER: ALLIANZ SE

Interview with Dr. Urs Bitterling, Senior Manager Climate Integration at Allianz SE, on the subject of ESG integration.

What does ESG integration mean to you?

We have two perspectives. First, you can see it as an additional risk lens in the analysis of assets or investments. ESG provides an additional perspective on a given asset. Second, it is an opportunity-driven perspective. That is, not only that you have attractive asset classes or themes—renewable energy, for example—but also when you understand ESG as sustainable development you can see what opportunities may arise. For example, in a transition to low carbon there are a lot of hurdles but there will also be many opportunities. The companies that are able to manage this are probably going to be the champions of the future.

How do you integrate ESG into your investment processes?

As an asset owner, we have integrated ESG into our investment manager and monitoring processes. We have a six-pillar approach to this process.

- 1. **ESG** in selection and monitoring: In a nutshell, if you want to manage our money you need to have an ESG approach. We have regular meetings on the ESG performance of our portfolio, and we want to understand what each manager is doing in terms of ESG.
- 2. **Exclusion:** We have exclusions. For example, we have a strategy on divestment from coal-based business models. We have preannounced when we will lower our thresholds, so we give energy or coal-based companies an early signal on when we will lower our thresholds as we move toward a near-zero coal future. We are sending a signal to an energy company, for example, that we would like to keep them in our portfolio and therefore hopefully spur the transition.
- 3. **Low carbon:** We have low carbon investments, such as green buildings, green bonds, and a sizeable renewable energy portfolio.
- 4. **Liquid assets:** For liquid asset classes, we apply the so-called ESG scoring. We have fully integrated datasets of ESG scores that we use as a global monitoring tool. Across all our businesses, we use these same data and speak the same ESG language. We have defined thresholds under which asset managers need to explain to us why they still want to hold an asset. What comes out of this ESG scoring are two things:
 - It gets ourselves in a concrete dialogue with our asset managers on the ESG performance of particular assets and ensuing, the overall ESG performance of a portfolio.

- We use it as an engagement trigger. By engaging companies, you can influence change and make them better on certain ESG metrics, so the impact goes beyond just the portfolio and drives real-world change.
- 5. **Engagement:** The next pillar is engagement. Engagement on a systematic basis can help companies improve their ESG performance.
- 6. **Industry collaboration:** The sixth pillar is industry collaboration. We are convinced that ESG requires a collaborative effort that should be pursued by the whole investment industry. It's not enough that there are lone leaders. Companies need to hear the same questions from many directions and we need to have similar goals as other firms considering ESG. Otherwise, we will not be able to reach the scale and momentum necessary.

On engagement, do you do engagement with companies or is it just left up to managers?

It is related to the scoring. We do direct engagements ourselves, but we also have our asset managers engage. In many cases, they are already engaged with or have relationships with the portfolio companies.

We take on part of the effort ourselves, because we think it is also important to be involved as an asset owner. Last year we engaged with 20+ companies that were below our threshold, irrespective of what the underlying issue was—be it an environmental issue or a governance issue or a supply chain issue.

Do you have any insight into the level of ESG integration in equities and fixed income?

Equities is theoretically a bit punchier because at the end of the day you have the right to vote on something. But we are mainly in fixed income, and maybe it is because of our size—we are very large—but people are willing to listen to us. I'm not aware that we have ever gotten the message back that "We aren't going to talk to you because you are a bondholder." We don't really differentiate that much.

And it is important to note, we are quite collaborative in our approach. In rare instances, companies don't want to talk. Generally, these conversations are quite constructive.

In Germany, do you feel more is happening in equities than in fixed income?

I can't really differentiate between asset classes. I think the German market understanding in ESG is picking up in the sense that they get explicit on ESG. I think it is driven from an asset manager perspective with large equity portfolios, but that is more a personal observation.

Where do you think Germany is in the grand scale of ESG integration?

I think we do have some hidden champions, but in general I think the market is not yet as outspoken on ESG as other regions might be. But I do note great momentum, especially when it comes to the integration of ESG in the analysis of assets.

What are the drivers of ESG integration?

The trend has been established and people are picking up ESG integration. I think culturally once people have picked something up they really go for it.

What are the barriers to ESG integration?

I think we need to go further in "owning" ESG integration—not only doing it because it might be the right thing to do, but also to be clear about what is in it for your customers and the organization as well.

What do you see as the future of ESG in Germany over the next five years?

I think ESG integration is a growing trend. I see ESG integration being more culturally accepted. Increasingly, investors are speaking up on ESG issues and becoming more comfortable taking a stance on a certain issue even if it is not fully in line with all of their constituents.

SECTION 5 COUNTRY ANALYSIS: THE NETHERLANDS

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

Through our global ESG integration survey, we wanted to understand how often Dutch investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the Dutch capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. Respondents view corporate governance as the most impactful factor when considering share prices and bond yields. By 2022, however, they believe that environmental and social factors will impact share prices at about twice the rate as they do currently. The increased impact on environmental and social factors on corporate bond and sovereign debt yields in 2022 is less pronounced, but still a large jump over five years (**Table 21**).

TABLE 21: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	67%	76%
Environmental	30%	70%
Social	35%	63%
ESG ISSUES IMPACT ON CORPORATE BO	ND YIELDS/SPREADS	
Governance	54%	59%
Environmental	28%	46%
Social	23%	38%
ESG ISSUES IMPACT ON SOVEREIGN DEI	BT YIELDS	
Governance	44%	51%
Environmental	15%	36%
Social	21%	33%

ESG RISKS AND OPPORTUNITIES

Respondents in the Netherlands were asked how often ESG risks and opportunities affect share prices and bond yields in Dutch capital markets (**Table 22**). They saw governance risks as having more of an impact than social and environmental risks both for shares and for bonds. The effect of governance opportunities ranked higher in the Netherlands than in other markets, reflecting the presence of large Dutch pension funds with a history of incorporating governance in the investment process. The survey results also show that environmental and social opportunities are "often" or "always" impacting share prices at the same frequency as environmental and social risks.

TABLE 22: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFEC	T SHARE PRICES?
Environmental risks	35%
Environmental opportunities	37%
Social risks	33%
Social opportunities	30%
Governance risks	70%
Governance opportunities	39%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	T CORPORATE BOND YIELDS/SPREADS?
Environmental risks	26%
Environmental opportunities	18%
Social risks	23%
Social opportunities	18%
Governance risks	51%
Governance opportunities	36%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT	T SOVEREIGN DEBT YIELDS?
Environmental risks	18%
Environmental opportunities	13%
Social risks	23%
Social opportunities	15%
Governance risks	41%
Governance opportunities	31%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Dutch practitioners, the survey asked how often Dutch portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Nearly one-third of those surveyed said that they "often" or "always" include ESG issues in their equity or fixed-income analyses (**Figure 19**). However, it seems that analysts and portfolio managers rarely adjust their valuation models based on ESG data (**Figure 20**).

FIGURE 19: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

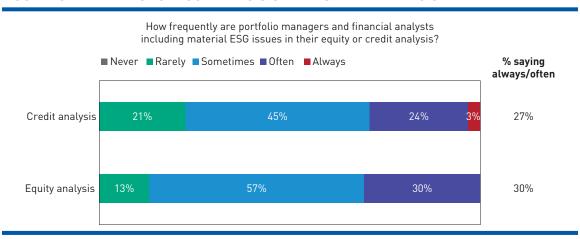
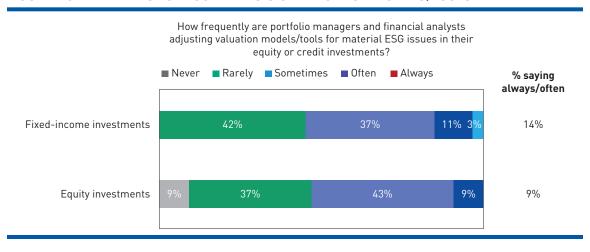


FIGURE 20: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

CFA Institute and PRI thank NN Investment Partners for their help in organizing our ESG Integration workshop in Amsterdam. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.



THE STATE OF ESG INTEGRATION IN THE NETHERLANDS

The group's perception was that large asset owners and investment managers in the Netherlands are already sophisticated at ESG integration. They have the resources to develop their ESG expertise and tools, employ ESG-dedicated staff, and buy ESG data from multiple sources. Some small asset owners and some investment managers with smaller budgets are not able to afford ESG-dedicated staff to develop investment processes that integrate ESG data and practices.

One participant noted that incorporating social factors into the investment process can be difficult, as some managers aren't aware that human capital, health and safety, staff treatment, and product safety are social issues. Thus, managers are analyzing companies' social performance but, due to a lack of understanding of ESG issues, are doing so in an ad hoc, unsystematic, unformulaic way.

Another workshop participant noted that ESG analysis assesses the culture of the firm. It can confirm whether management has a tight grip on a company's strategy and operations. If a company is considered strong on ESG management and considers the impact of its own products and/or services, analysts see it as a sign that the company is considering

all material business risks and has a healthy culture that will produce sustained positive corporate and investment performance.

One participant noted that more case studies are needed on how investors integrate ESG factors and how doing so creates value for the investment and the portfolio. Practitioners will be more convinced about the investment benefits of ESG integration if they learn about ESG integration from other practitioners covering many sectors and issues.

Another workshop participant noted that ESG analysis assesses the culture of the firm. It can confirm whether management has a tight grip on a company's strategy and operations.

EQUITIES VERSUS FIXED INCOME

Workshop participants agreed that the level of ESG integration is higher in equities than in fixed income. There is more ESG integration in the world of corporate bonds than sovereign bonds. The application to bonds is in its infancy and widespread knowledge of how to integrate ESG into bonds is lacking.

Governance issues affect all shares and bonds, but environmental and social issues do not, as the latter are sector and country specific.

ESG issues can have a bigger impact on a share price than on a bond price due to seniority, except in the case of default. Shares are more exposed to ESG risks than bonds, as shareholders will lose their money before bondholders if a company goes bankrupt; thus, the impact of ESG data for bond investors is cushioned. However, there would be a large price impact on bonds if the company went bankrupt.

Engagement is a hurdle for integrating ESG into sovereign bonds. How do investors engage with governments? Would governments listen, especially those in emerging markets?

RISK VERSUS OPPORTUNITY

A few workshop participants noted that asset owners and asset managers tend to look at ESG from different perspectives. Asset owners like to reduce investment risks in their portfolio to ensure they meet their long-term investment goals. They look to avoid securities with high ESG risks and those exposed to ESG controversies. Investment managers are driven by alpha and look for investment opportunities through ESG themes.

One participant noted that investment managers and asset owners are under pressure to look more ethical and thus may be exposed to reputational risk if they do not bulk up their ESG expertise. This has driven several investment managers and asset owners to dedicate time and effort to ESG.

DEFINITIONAL ISSUES

Even in Amsterdam—among some of the most sophisticated ESG practitioners in the world—definitional confusion exists about what exactly ESG is. If investors consider all ESG as negative screening and negative returns, it can prevent them from considering the ESG as a prevent the ESG as a prevent the ESG as a prevent them from considering the ESG as a prevent the

Asset owners like to reduce investment risks in their portfolio to ensure they meet their long-term investment goals. They look to avoid securities with high ESG risks and those exposed to ESG controversies. Investment managers are driven by alpha and look for investment opportunities through ESG themes.

ing how ESG can benefit them and enhance their fundamental analysis.

Investors have different definitions of ESG integration. For example, is ESG integration about adjusting discounted cash flow models or is it about buy/sell decisions? The many approaches, definitions, acronyms, and terms could be the reason for the low percentages in the survey of those integrating ESG into their equity and credit analysis, as

investors do not know which issues are ESG issues. In addition, investors do not know which investment drivers are classified as ESG issues by ESG practitioners.

Participants felt a consensus is needed on a single definition for each ESG practice; also needed is a complete, industry-recognized taxonomy on ESG. The many acronyms and terms describing the same practice are creating barriers to ESG integration.

DATA AND REPORTING

Data quality is a huge issue. Managers can be reluctant to integrate ESG issues because of poor data quality. Consistency is a problem too. Businesses evolve and material ESG issues change. As they evolve, companies may report on previously existing, now nonmaterial issues, then report on new ESG issues with no historical data.

Issuers need to improve their ESG reporting, as do investment managers. Reporting is important in driving ESG integration into the mainstream and allows asset owners to compare managers' ESG practices and performance.

ESG research providers rate companies on their environmental, social, and governance performance and create aggregated ESG scores. However, ESG scores are not the best resource because they can be a hindrance and deter managers from performing ESG

Data quality is a huge issue.

Managers can be reluctant
to integrate ESG issues
because of poor data quality.
Consistency is a problem too.
Businesses evolve and material
ESG issues change.

integration. Integrating ESG scores does not necessarily translate to outperformance.

ESG service providers can be of benefit to those seeking to integrate ESG into their decision making. Although service providers do well on the overall ESG scores, they lag on the pillars. They need to provide analysis on the impact of ESG issues on corporate performance and forecasted financials.

IMPORTANCE OF ESG WILL INCREASE OVER TIME

Participants were in consensus that the importance of ESG increases over time. ESG events tend to be low probability but high impact. This makes integrating ESG into the investment process more important so that uncertain ESG risks can be managed successfully.

In 10 years, environmental issues will become much more important than now and are likely to be second to governance. This sentiment is backed up by our survey results showing that investors and analysts feel that environmental issues will have a much larger impact on shares and bond yields in just five years (see Table 21).

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 23** and **24**.

TABLE 23: DRIVERS OF ESG INTEGRATION IN DUTCH CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	52%	Risk management	51%
Generate alpha	41%	Client demand	44%
Client demand	39%	Fiduciary responsibility	41%
Fiduciary responsibility	28%	Generate alpha	18%
Regulation	11%	Senior management buy-in	8%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 24: BARRIERS TO ESG INTEGRATION IN DUTCH CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	39%	Lack of comparable and historical data	41%
Limited understanding of ESG issues and ESG integration	35%	Limited understanding of ESG issues and ESG integration	31%
Lack of company culture	33%	Limited amount of ESG research	31%
No evidence of investment benefits	28%	No evidence of investment benefits	26%
Concern about negative returns	26%	Too much non-material info	23%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

There was consensus in the group that as more people believe ESG factors are material, client demand will grow, and ESG integration will increasingly drive prices. Client demand will channel assets under management to ESG companies with good ESG practices, driving their share prices up.

Asset managers are already seeing this increase in client demand, noting that more RFPs have questions on ESG; they predict this trend will continue.

Alpha or outperformance is a driver of ESG integration in the Netherlands. Forty-one percent of survey respondents cited alpha generation as a driver (see Table 23), a rate higher than in many other markets. Having a clear investment case will make investment managers investigate ESG opportunities that can provide investment ideas and exposure to ESG trends.

Workshop participants also focused on incentives. If portfolio managers and analysts are incentivized by asset owners (e.g., through additional fees; by not being

Alpha or outperformance is a driver of ESG integration in the Netherlands. Forty-one percent of survey respondents cited alpha generation as a driver (see Table 23), a rate higher than in many other markets.

selected for a mandate), they will conform. Asset owners need to offer more to investment managers to incentivize them to engage in ESG integration.

Benchmarks are a barrier to ESG integration, as no true ESG-integrated indices are available. Those indices that may be used tend to apply screening or engagement techniques. This makes it hard to justify ESG integration to clients who want it. Clients also have risk and tracking error limits that can prevent investors from divesting from companies with poor ESG practices, especially when the benchmark or index has limited options for investing in companies with good ESG practices or when the index is filled with companies with poor ESG practices.

Lack of understanding of ESG issues is another barrier. Managers are doing all sorts of things under the guise of ESG integration, which makes it difficult to know what to do and what is good or bad practice. More education and additional case studies are needed.

As in other global markets, workshop participants in the Netherlands cited the current state of ESG data as a problem. Data and an understanding of what metrics to use are generally lacking. Participants noted the difficulty of integrating inconsistent, noncomparable data.

A few participants noted that the increased incremental cost of doing ESG analysis might be an issue. As the influence of passive investing grows, active management has to step up its game, which can mean cutting expenses such as ESG resources, teams, and external ESG costs. One practitioner stated that ESG is the first area to be axed in a recession. This cultural issue around ESG can be changed by commitment to ESG at the senior management level and from top to bottom.

Finally, participants noted the lack of global standards as a problem. Practitioners want a framework and a consistent approach to ensure ESG is priced into the investment process. Having that will make it easier to instill ESG analysis into investing cultures. Today, most employees in an investment firm do not know what ESG is and are resistant to it. Firms need to build a supportive culture for ESG.

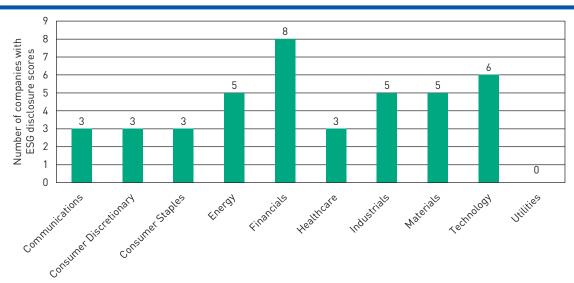
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

The Dutch market is the smallest of the European countries that we analyzed. Only the financials sector has eight companies with ESG disclosure scores, clearing the threshold of seven (**Figure 21**). Given the small market, our analysis of the Netherlands does not split the data into sectors, but rather is based on an analysis of the entire aggregated market.

Figure 22 shows the breakdown of the median environmental, social, and governance disclosure scores for 2011 and 2016. The overall median ESG disclosure score for Dutch companies in 2011 was 33.88, growing to 40.79 in 2016. Consistent with our findings for most of Europe, the highest disclosure scores are in governance, both in 2011 (51.79) and in 2016 (57.14). Social disclosure scores are the second highest at 35.09 in 2011 and 47.37

FIGURE 21: SECTORAL BREAKDOWN OF DATASET: DUTCH COMPANIES WITH LISTED EQUITY WITH ESG DISCLOSURE SCORES IN 2016



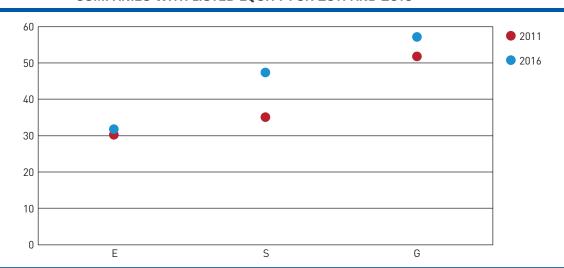


FIGURE 22: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR DUTCH COMPANIES WITH LISTED EQUITY FOR 2011 AND 2016

in 2016, and environmental disclosure scores are the lowest at 30.23 in 2011 and 31.78 in 2016. The median social disclosure score improved the most over the five-year period, whereas the environmental disclosure score barely increased.

The financials sector—the only sector analyzed as all other sectors had less than seven companies disclosing on ESG—underperformed the market in both 2011 and 2016. In 2011, the financials sector median ESG disclosure score was 16.12. In 2016, the sector had almost caught up to the overall Dutch median by reaching 39.40—only 1.39 under the overall disclosure score. Splitting out its E, S, and G components in 2016, the financials sector underperformed on environmental disclosure at 28.24. However, the sector slightly overperformed on social (47.68) and governance (59.82).

Figure 23 shows the split of the median environmental, social, and governance disclosure scores by small cap, mid cap, and large cap companies. The market capitalization of small cap companies is between \$1 billion and \$2 billion, the market capitalization of mid cap companies is between \$2 billion and \$10 billion, and the market capitalization of large cap companies is above \$10 billion. Governance disclosure scores are clearly highest, no matter the company size, with social disclosure being second and environmental third. Small cap companies have higher median environmental, social, and governance scores at 28.68, 36.85, and 55.36, respectively, than mid cap companies, which scored 23.26, 30.70, and 46.43 on environmental, social, and governance, respectively. Large cap companies have the highest median disclosure scores at 39.02, 54.39, and 62.50 for environmental, social, and governance. The scores show that even though scores differ across E, S, and G, large cap companies have a larger lead on social disclosure and partly on environmental disclosure than they do on governance. This indicates that governance reporting is more standardized.

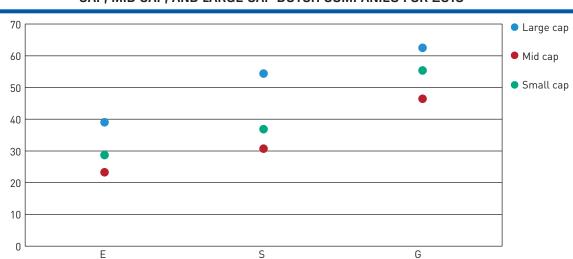


FIGURE 23: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR SMALL CAP, MID CAP, AND LARGE CAP DUTCH COMPANIES FOR 2016

Overall, the Dutch market is difficult to assess due to the small size of each sector. However, the analysis that we were able to do shows that the disclosure of Dutch companies on ESG factors is similar to that of the neighboring countries.

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Overall, equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners (**Table 25**). For both equity and fixed-income practitioners, governance is the most frequently integrated ESG factor. Both groups of practitioners integrate environmental and social factors at relatively similar levels (slightly more than 40% for equity, and 33% for fixed income).
- Figure 24 highlights practices from the ESG Integration Framework that are applied in the Netherlands. Pockets of advanced ESG integration practice exist among both equity and fixed-income practitioners in the Netherlands, although most are focused on qualitative and quantitative techniques, and, to a lesser extent, on portfolio construction, asset allocation, risk management, and portfolio-level scenario analysis.

EQUITIES

Research

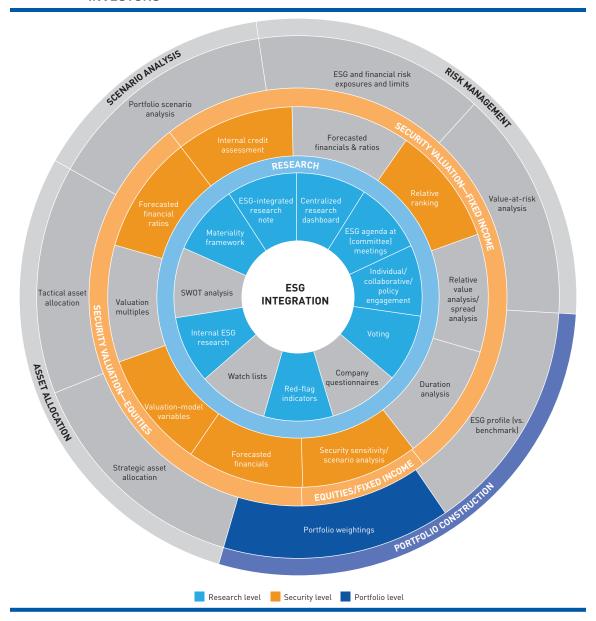
By focusing on companies' financial performance as well as how a company navigates sustainability themes, practitioners in the Netherlands believe that risk-return profiles can be improved while simultaneously contributing to sustainable development. Qualitative

TABLE 25: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	50%	39%
Environmental	45%	33%
Social	43%	33%

Note: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.

FIGURE 24: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY NETHERLANDS-BASED INVESTORS



assessments that feed into buy/sell/hold and underweight/overweight/neutral investment decisions are typically informed through:

- red-flag indicators,
- internal ESG research/scores,
- ESG-integrated research notes,
- centralized research dashboards,
- materiality frameworks, and
- individual/collaborative engagement.

Where proprietary ESG scores are developed and used, practitioners emphasize the financial materiality of the ESG factors, for example, by giving more weight to elements with more predictive power for future returns. Another approach they take is to focus on ESG factors that could have an impact on the length of the competitive advantage period of the company, and to consider those factors in relation to the company's valuation. For example, carbon-intensive companies would get a shorter competitive advantage period while companies that focus on clean tech opportunities could have a longer competitive advantage period.

Dutch practitioners frequently undertake direct engagement with a company's management. In some cases, this tactic provides an important platform for practitioners to provide feedback on their assessments to a company (e.g., by flagging the existence of a positive relationship between the safety records of a company's plants and the company's profitability). The effect is to encourage further improvement on corporate ESG transparency and performance and to increase practitioner knowledge of the company and its sector.

Security Valuation

As is true in most markets, practitioners in the Netherlands often find it challenging to quantify ESG-related risks and to assess these risks separately from other risks. This process can be facilitated through extensive discussions between portfolio managers and dedicated ESG teams, focused on determining the ways in which ESG risks can affect the particular investment case. For those ESG factors determined to be quantifiable, practitioners may make adjustments to the income statement (revenue growth, costs, margins, market share adjustments), balance sheet (extra liabilities or assets), or cash flows (in terms of magnitude and timing). Where ESG factors are considered to mainly impact the risk profile of the company but without a clear indication of magnitude and timing, practitioners may adjust the cost of capital for the company to incorporate the associated risks. ESG factors that have been integrated into research notes can be accompanied by an analyst's explanation of how ESG information was decisive in the calculation of the long-term intrinsic value of the company.

Another approach practitioners use is to supplement financial ratios with an automatic discount or premium such as in the calculation of the price-to-earnings ratio of a stock. The discounts and premiums are informed by the ESG score of the company and the extent to which ESG risks or opportunities are already known in the market.

Portfolio Construction

One of the ways practitioners integrate ESG in portfolio construction is by applying ESG scores as one input in their overall company scores, where the ESG score has a fixed weight. Integrating ESG factors in valuation-model variables such as discount rates may affect the decision of how and whether to hold a company in a portfolio. Portfolios can also be diversified based on ESG themes, such as environmental and social opportunities.

Asset Allocation

Although ESG factors are not often integrated in asset allocation decisions, where ESG integration is performed, it can be of sophisticated quality. For example, ESG sector or country risk monitoring can be used as a tool to determine the risk level of investments in certain markets and hence the investment requirements. Risk-exposure assessments can be combined with their controllability, which differ across as well as within asset class characteristics (e.g., investment strategy, market liquidity, proximity to the ultimate investee). However, even where ESG factors are assessed in relation to asset allocation, they rarely influence the ultimate decision.

Portfolio Scenario Analysis

A few Netherlands-based practitioners consider scenario analysis to be a useful tool and typically deploy it in their energy sector investments. One way they do this is through stress testing energy investments against the climate scenarios by the International Energy Agency. Another approach they use is to focus on assessing the potential for stranded carbon-intensive assets.

FIXED INCOME

Research

Overall, fixed-income practitioners in the Netherlands deploy advanced ESG integration techniques in their qualitative research, including:

- internal ESG research/scores,
- materiality frameworks,
- ESG-integrated research notes,
- centralized research dashboards,
- ESG agenda at (committee) meetings,
- red-flag indicators, and
- individual/collaborative engagement.

Bond issuers frequently are scored on their ESG performance (both stand-alone and in relation to their peers). The underlying ESG research can be an amalgamation

of third-party ESG data providers/sell-side research with robust in-house analysis based on issuer and sector materiality, and can draw from a range of sources, including news articles and litigation cases. ESG research may also be included in internal write-ups (tear sheets) and shared on company-wide platforms accessible to all investment staff. Practitioners will refer to these investment tools to assess the absolute and relative ESG scores, and changes in ESG scores may act as flags that could be picked up in the investment process.

ESG research focuses on materiality and therefore identifying material investment drivers that lead to lower portfolio risk and enhanced portfolio returns. Applying the materiality lens to ESG research or scores means that ESG factors vary per sector. Environmental factors may be weighted higher for sectors such as utilities (e.g., carbon intensity, water and energy efficiency); social factors may be weighted higher for the health-care sector (e.g., privacy and data protection, product safety and accessibility, responsible marketing, nutritional benefits, process/production safety); and governance factors may be given high weights across sectors (e.g., data disclosure and transparency, shareholder structure, controversies/fraud, consistency with regard to business strategy).

This ESG research process can be akin to the ESG integration practices of equity counterparts but with more emphasis on the downward risks of credit investments (i.e., those with the potential to weaken a company/country's business profile and/or financial profile). Sovereign debt practitioners may use a similar materiality lens when assessing the impact of ESG factors on sovereign credit performance. For emerging market categories, less information may be available, meaning that additional in-house research is often required, particularly when the overall perception is that higher level of risks are involved. As a result of these comprehensive practices, practitioners are typically well positioned to identify companies or countries that are leading or lagging with respect to their peers in terms of sustainability and thus can generate value creation.

Engagements may be initiated by practitioners, for example, in cases where companies deliver a sustainable core product but are lagging in their ESG score due to a relatively low level of disclosure, or where a portfolio manager decides to open a dialogue with a company to effect a change in its corporate behavior. Sovereign debt practitioners may undertake country visits to build a complete picture.

Security Valuation

Quantitatively, ESG factors can be and are relatively frequently integrated in security valuation decisions. Most often, this integration is part of the internal credit assessment and relative ranking of issuers in relation to a chosen peer group; it contributes to the assessment of the risk premium that should be placed on a bond to accurately reflect the risks of issuers. More advanced practitioners integrate ESG factors alongside macroeconomic factors in their assessments of future interest rate, yield curve, and market developments.

Portfolio Construction

ESG integration techniques can lead to underweighting or overweighting of sectors, regions, and countries.

Asset Allocation, Portfolio Scenario Analysis, and Risk Management

Although not frequently seen in practice, ESG factors have the potential to affect overall market allocation within and sometimes across asset classes. For example, an ESG country risk monitor can be used as a tool to determine the risk level of investments in certain markets and hence the investment requirements. Scenario analysis is not frequently deployed, but where it is used, it can assist the stress testing of energy investments against the climate change scenarios by the International Energy Agency.

INTERVIEW WITH A DUTCH MAJOR MARKET PLAYER: PGGM

Interview with Dirk-Jan Verzuu, Investment Director, Impact Investing, at PGGM, on the subject of ESG integration and impact investing. PGGM is the second largest pension fund in the Netherlands as measured by assets under management.

Tell us a little about PGGM for those who are not familiar with what you do.

PGGM is the pension asset manager for the Dutch healthcare and welfare sector. We have around EUR 200 billion in assets under management. I am the lead portfolio manager for the long-term equity strategy, which is an impact mandate. Impact is different from ESG. Impact goes a step further, so instead of including or excluding companies depending on their ESG rating, we select companies that have a positive impact on four themes that PGGM selected. Instead of doing less bad, we try to do more good.

We invest in companies across four themes: water (scarcity), food (security), health-care, and climate change.

PGGM has developed a universe of about 350 companies that we believe have a positive impact on those four themes. The themes overlap with UN SDG (Sustainable Development Goal) numbers 2, 3, 6, 7, 12, and 13. The companies that we select must have a positive impact on one of those four themes.

Every investment is also scrutinized on its ESG score. However, the decisive factor is impact. In some cases, a company may have a low ESG rating for whatever reason, but if it has a positive impact on one of the four themes it can be included in the portfolio. If this happens, we will engage with the company on its ESG policy. We have a number of examples in emerging markets where management may not have done much in terms of ESG policies but where the company is having a positive impact on what PGGM is looking for.

What does ESG integration mean to you?

ESG has been of great importance in investing in the Netherlands for years now and I only see it gaining in importance. All pension funds here in the Netherlands are taking ESG into account for their investments. We also see a steep increase in impact investments. The limitations with ESG investments are, however, that you are often still investing in companies that do not have a positive impact on society. There are a number of companies, for example, in the energy sector, that can have a pretty reasonable ESG score. Their overall impact on climate change is, however, negative. To address this problem, you have to go one step further and think about what the impact of the company on society is. So in our impact strategy, we do not invest in these kinds of companies at all. Rather, we look for companies that support a better world.

Pension funds, however, are somewhat constrained. They are fiduciaries and have as their prime responsibility the payment of pensions that their beneficiaries expect. Pension fund managers simply are not allowed to trade financial returns for social or environmental impact.

How do you engage with companies in your portfolio? What is that process like?

PGGM insists that impact alignment requires impact measurement. It is also essential to counter the danger of greenwashing and SDG-washing that lurks behind a simple labelling of existing allocations as contributing to one SDG or another. Company-level data are fundamentally needed to measure the impact of companies but are lacking. Much of the required data are unavailable or inaccessible, as they are competitive and proprietary information. To deal with this difficulty, two research groups are working complementarily, using the same impact metrics but different approaches, and testing them on parts of a public equity portfolio. One group has a top-down, science-based approach, and calculates a company's impact from revenue income. The second has a bottom-up approach and obtains impact data directly from companies through engagement work.

Often companies do have to make serious efforts to find the information we are looking for. For example, our KPIs (key performance indicators) in the pharmaceutical sector are very hard to measure and those KPIs are often not known. But thus far, a number of companies we have invested in within this sector have responded very positively. We have started certain projects here in the Netherlands with a number of pharmaceutical companies to measure the effectiveness of certain medicines and gathered very interesting information. We plan to roll this out in Europe and then the rest of the world.

Sometimes companies aren't immediately interested in engaging on impact at the CEO or CFO level, but when you talk to ESG or sustainability people within those companies, they are very enthusiastic and responsive to what we are doing. However, these are usually very large companies that have the resources for sustainability departments and produce a sustainability report. We see engagement as the way forward because you cannot measure impact when you do not engage.

Tell us about your impact team at PGGM and how that structure works.

We have an internal impact team for a long-term equities strategy at PGGM as well as a responsible investment team; both engage with companies.

On our impact team we have seven people—two portfolio managers and five analysts. We are looking at companies from a financial and strategic perspective, but at the same time we do the impact and ESG analysis as well. We think it is important to have the financial, strategic, and impact analysis all done by the same people.

What are your thoughts on the current state of ESG data?

ESG data have come a long way. We see more and more companies reporting on ESG metrics. We see a difference in the level of data around the world. Europe is ahead of the United States, which is ahead of emerging markets. Emerging markets still have a substantial effort to make but we do see progress. Japan, for example, has stepped up its ESG efforts.

Concerning impact data, it is really the early days. Impact investment is a fast-growing niche, but it is still a niche. Some companies report impact data, but most companies don't. A lot of work has to be done. PGGM has worked hard to standardize impact KPI metrics

and the impact methodology—how do you define what an impact company is? PGGM is talking to other pension funds in the Netherlands and around the world to set impact standards. It will take a lot of work and a number of years before we have a useful standard for impact that we can report on.

Impact KPIs are very different from ESG KPIs. For example, measuring company ESG is about internal data. Impact is the impact of the products. A company can measure its own carbon emissions (ESG data), but it is an entirely different matter to measure the carbon emissions attached to all the products the company sells (impact). Impact data are much more difficult to get at than ESG data.

What are the drivers of ESG integration?

Belief in ESG is one of the main drivers. One of the big drivers is society itself. After the financial crisis, we learned we cannot invest in companies anymore without looking at the total cost of those companies, which includes the impact they have. For example, oil companies can have a high ESG score, but climate change has a huge negative impact on society that we have to take into account. The financial world starts to realize that it becomes necessary to measure the total impact of companies. At PGGM we strongly believe that companies that have a positive impact on society will outperform the broader market in the long term.

What are barriers to ESG integration?

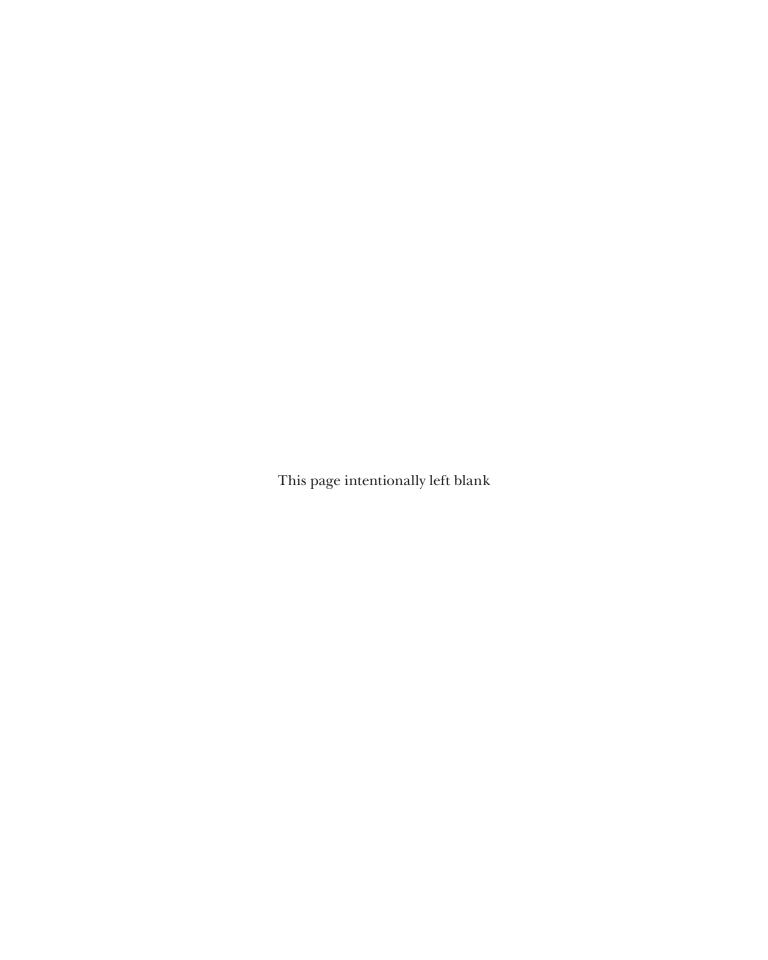
ESG has already come a long way, but companies that have a negative impact on society can still have a positive ESG score, so ESG scores are not necessarily part of the solution. That is something that at a certain point in time is going to be a hurdle for future ESG growth, which is why you need impact ratings for companies.

What is difficult for impact to grow is that as a pension fund you have a fiduciary duty to get good market returns and we can't trade in market returns for a positive impact score or a good ESG score. That is making impact investing more difficult.

Our universe is more limited because of impact screening. With a universe of 350 investable companies we have to at least make a market rate of return. It is a difficult task to get a market return and one you can only do with a very long-term investment horizon. Your beneficiaries need to be able to pay for their groceries years from now, and they need hard cash to do that. So our investments need to be able to cover that.

What do you see as the future of ESG in the Netherlands five years from now? How do you see it changing?

I think that the asset class as a whole, especially the impact investing asset class, has grown a lot. PGGM wants to invest \$20 billion in impact investing by 2020. I think in five years' time we will have reached that and more. We will have reached more standardization in the impact variables we need to work with. In addition to traditional financial reporting, companies will have ESG and impact reporting. We are sort of at the beginning of that right now.



SECTION 6 COUNTRY ANALYSIS: SWITZERLAND

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often Swiss investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the Swiss capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. As expected, respondents believe corporate governance is the ESG factor that impacts share prices and bond yields the most, and by a large margin. However, the survey result suggests that in 2022, the difference between the impact of corporate governance and the impact of environmental and social issues on share prices and bond yields will narrow significantly (**Table 26**).

TABLE 26: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	64%	67%
Environmental	24%	49%
Social	22%	37%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/S	SPREADS	
Governance	33%	52%
Environmental	17%	40%
Social	14%	36%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	26%	33%
Environmental	7%	24%
Social	10%	24%

ESG RISKS AND OPPORTUNITIES

Respondents in Switzerland were asked how often ESG risks and opportunities affect share prices and bond yields in Swiss capital markets. As we saw at the EMEA regional level (see Chapter 1), corporate governance is the factor most often considered (**Table 27**).

In general, ESG risks affect share prices and bond yields more frequently than do ESG opportunities, with opportunities from governance seen much more frequently than opportunities from environmental or social factors.

TABLE 27: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFE	CT SHARE PRICES?
Environmental risks	35%
Environmental opportunities	20%
Social risks	29%
Social opportunities	14%
Governance risks	67%
Governance opportunities	37%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFE	CT CORPORATE BOND YIELDS/SPREADS?
Environmental risks	21%
Environmental opportunities	12%
Social risks	14%
Social opportunities	10%
Governance risks	48%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFE	CT SOVEREIGN DEBT YIELDS?
Environmental risks	10%
Environmental opportunities	7%
Social risks	17%
Social opportunities	10%
Governance risks	33%
Governance opportunities	17%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Swiss practitioners, the survey asked how often Swiss portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Few survey respondents say that they "often" or "always" include ESG issues in their analyses (**Figure 25**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 26**).

FIGURE 25: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

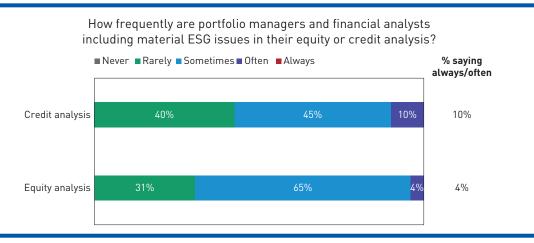
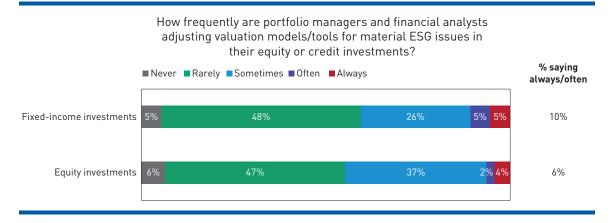


FIGURE 26: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

CFA Institute and PRI thank SIX Exchange for its help in organizing our ESG Integration workshop in Zurich. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.



THE STATE OF ESG INTEGRATION IN SWITZERLAND

Workshop participants were in agreement that ESG integration is just good analysis. Such analysis captures all the risks and opportunities, including the unknown risks and opportunities, that ESG integration techniques identify. Practitioners who don't analyze ESG issues could miss alpha generation opportunities while investors who do analyze ESG are likely to outperform their peers.

However, participants also noted the confusion in the industry around what ESG is and is not. For example, analysts have looked at income levels in sovWorkshop participants were in agreement that ESG integration is just good analysis. Such analysis captures all the risks and opportunities, including the unknown risks and opportunities, that ESG integration techniques identify.

ereign debt investments as a traditional factor for decades, but that analysis is now being called an ESG factor. A number of participants noted that it would be helpful to have a universal framework to understand what investors are calling "ESG factors" and "traditional factors."

One practitioner stated that it is also difficult to assess what is good analysis, as some have difficulty understanding what ESG integration is. Also unclear is how investors score companies and countries on their ESG performance.

A concern voiced was that passive asset management could have an unintended impact on the level of ESG integration performed in the market by active managers. Passive asset management is pushing active managers to consider the level of fees that they charge, which could result in a cut in resources for ESG knowledge and expertise.

CREDIT ANALYSIS VERSUS EQUITY ANALYSIS

Market structure has an impact on ESG integration. Participants view large insurance companies and a dominant insurance sector in Swiss financial services as driving ESG integration in credit.

Although some examples of ESG issues impacting bond prices and some binary scenarios exist, more examples and case studies are needed.

There are more influential short-term drivers of bond prices than ESG drivers, and bond prices are less influenced by news flow compared to equities. The impact of ESG issues on bond prices is generally long term and therefore not responsible for day-to-day price movement. The long-term nature of ESG issues can protect from downside risk, which generates long-term returns.

The impact of ESG issues on bonds also affects equities (with the converse also true). The inability of companies to raise capital in the debt market or roll bonds sends a strong signal to investors. In addition, political stability or social unrest in countries can impact economic growth, which filters down into corporate performance of companies.

Share prices are impacted more than bonds in the short term by news flows and the publicity of ESG controversies, which can generate price movements and volatility. Severe ESG issues impact market prices: ESG events tend to be infrequent but create big and permanent price movements, which justifies the use of ESG analysis as a risk-management tool.

One practitioner noted that it is easier to integrate ESG into sovereign debt, as ESG issues are fundamental to market value (e.g., institutional strength, life expectancy, energy commodity exports). Historically, some ESG issues were called traditional drivers but are now being labelled ESG factors.

MATERIALITY AND TIME HORIZON ARE LINKED

The materiality of ESG factors depends on the time horizon. Investors need to define the time horizon to answer the question of how frequently ESG issues impact prices.

ESG factors materialize as a long-term incremental impact on share prices and bond prices rather than as multiple, one-off price movement changes over a short-term period (ESG events are rarer but can cause large price changes). Over the long-term investment horizon,

The materiality of ESG factors depends on the time horizon. Investors need to define the time horizon to answer the question of how frequently ESG issues impact prices.

the impact of ESG factors on prices and returns can be significant, but over shorter-term investment horizons, other traditional factors have more influence and a more frequent impact.

The frequency of impact comes down to the definition of ESG issues. For example, if practitioners talk about climate change and water scarcity, then the frequency of impact is low in the short and medium term, although certainly material in the long term. If practitioners talk about political stability and employee relations, then the frequency is higher and will impact prices in the short, medium, and long term.

DATA

Poor data quality makes it difficult to integrate ESG in the investment process. ESG data can be misleading and mispresent a company's ESG performance. This prevents investors from

performing ESG integration practices and also prevents investors from pricing in ESG factors, which in turn reduces the frequency of ESG factors affecting market prices. To improve ESG analysis, ESG data need to become more consistent and comparable and of a higher quality.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 28** and **29**.

Client demand for ESG integration is having an effect on prices. Client demand is directing the flow of capital toward investments with good ESG performance and away from investments with poor ESG performance, which pushes the prices up for the good companies and countries and down for the inferior ones. This can push companies and countries to focus on material ESG issues to attract capital and investors.

Client demand for ESG investing is plentiful, according to multiple workshop participants. An increasing number of mandates are asking for ESG integration (one investor said one in five mandates have ESG language).

TABLE 28: DRIVERS OF ESG INTEGRATION IN SWISS CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	82%	Risk management	69%
Client demand	65%	Client demand	55%
Generate alpha	14%	Fiduciary responsibility	21%
Fiduciary responsibility	10%	Generate alpha	10%
Regulation	10%	Regulation	10%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 29: BARRIERS TO ESG INTEGRATION IN SWISS CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues and ESG integration	55%	Limited understanding of ESG issues and ESG integration	45%
Lack of company culture	47%	Lack of company culture	40%
Concerns about negative returns	39%	Lack of comparable and historical data	38%
Lack of comparable and historical data	37%	Concerns about negative returns	26%
No evidence of investment of ESG	22%	Limited amount of ESG research	26%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

Some participants feel that fiduciary duty is a barrier because some investors still perceive ESG as purely negative screening and about ethics; this limits the investable universe and may be seen as a breach of fiduciary duty.

Participants saw a lack of understanding of ESG issues and ESG integration and a lack of support for ESG analysis in a company's culture as the top barriers to ESG integration.

A not insignificant minority of workshop attendees articulated concerns about negative return, tracking error, and underperformance. One practitioner noted that active managers are often closet indexers and that active managers worry about tracking error and therefore avoid ESG integration out of fear it could increase tracking errors, potentially beyond the mandated limits.

Selection of benchmarks is a potential problem. A benchmark may be full of sin stocks or carbonintensive stocks that make it difficult to avoid investment in those stocks without increasing tracking error.

Despite an increased demand for ESG products from some clients, practitioners remain concerned that clients may not be convinced by ESG integration

Participants saw a lack of understanding of ESG issues and ESG integration and a lack of ESG analysis in a company's culture as the top barriers to ESG integration.

strategies; they thus avoid ESG products, as they believe that they cannot meet their risk and return objectives.

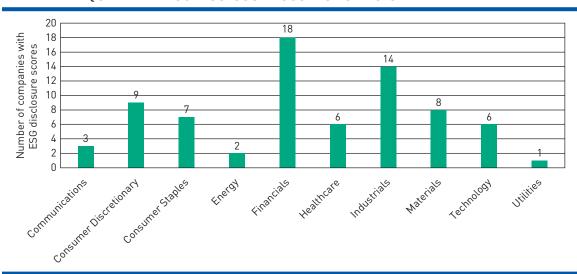
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

As seen in **Figure 27**, the financials and industrials sectors have the most companies with an ESG disclosure score, at 18 and 14, respectively. Consumer discretionary (9), materials (8), and consumer staples (7) are also represented. The communications (3), energy (2), healthcare (6), technology (6), and utilities (1) sectors have too few companies to be included in the analysis.

Figure 28 shows the number of companies in each of the sectors disclosing on ESG, and the median ESG disclosure scores for 2011 and 2016 for the sectors with seven or more companies. These sectors include the three largest sectors—financials, consumer discretionary, and industrials—as well as consumer staples and materials.

FIGURE 27: SECTORAL BREAKDOWN OF DATASET: SWISS COMPANIES WITH LISTED EQUITY WITH ESG DISCLOSURE SCORES FOR 2016



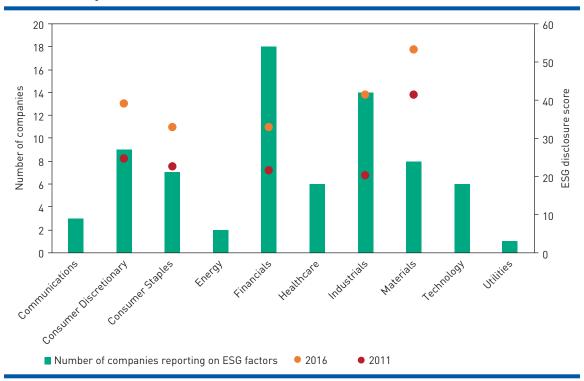


FIGURE 28: MEDIAN ESG DISCLOSURE SCORES FOR SWISS COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2011 AND 2016

As illustrated in Figure 28, the materials sector had the highest ESG disclosure score in both years. The industrials sector had the largest increase in its disclosure score as it rose from the lowest-scoring sector in 2011 (with a score of 20.25) to the second highest in 2016 (with a score of 41.32). Although the financials sector had the most companies (18) disclosing on ESG factors, its median score was among the lowest both in 2011 (21.71) and in 2016 (32.99).

Figure 29 shows the split between environmental, social, and governance scores; the pattern shows that governance is the highest-scoring part of the ESG disclosure score. All five sectors analyzed have governance scores above 50 and fall within a relatively narrow range, with industrials having the lowest disclosure score (50.89) and materials the highest (58.04).

Interestingly, across the EMEA region, the social score is the second highest in most sectors and countries. Switzerland is no exception—its social scores range from 36.67 in the financials sector to 57.89 in the materials sector. Environmental scores are the lowest, and out of the five sectors, three have scores below 30—consumer discretionary (25.58), consumer staples (27.13), and financials (26.79). The low environmental, and in part social,

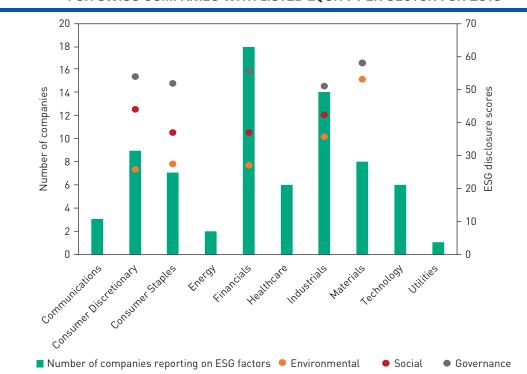


FIGURE 29: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR SWISS COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2016

disclosure scores show why those three sectors were the worst performers in the overall ESG disclosure score.

Overall, a wide gap exists between the levels of environmental, social, and governance disclosure in the Swiss market.

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

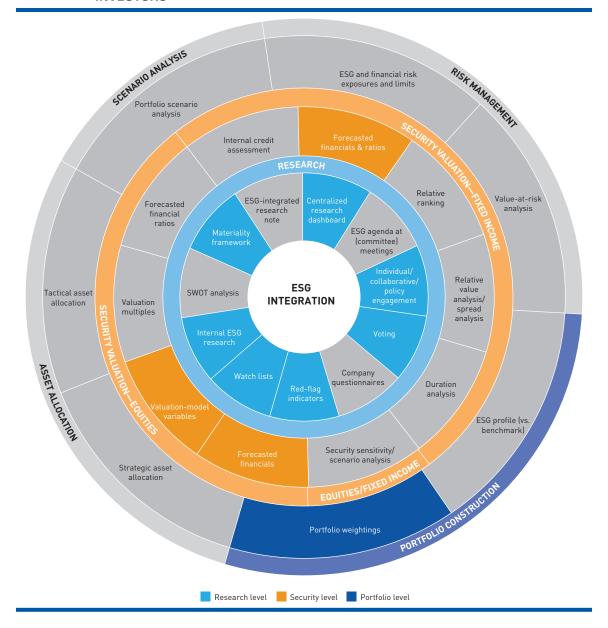
- Overall, equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners (**Table 30**). Equity practitioners integrate governance factors only slightly more frequently than environmental and social factors. Fixed-income practitioners integrate environmental, social, and governance factors with identical frequency.
- Figure 30 highlights practices from the ESG Integration Framework that are applied in Switzerland. Most practitioners in Switzerland are still developing their ESG integration practices, with equity practitioners being slightly ahead of their fixed-income counterparts in terms of sophistication. Their techniques, however, are typically qualitative in nature, with a common approach being to source external ESG research/scores that directly influence their buy/sell/hold decisions or overweight/underweight/neutral decisions. More advanced practitioners quantify the impact of ESG factors on forecasted financials, ratios, and valuation model variables, though rarely integrate those factors into portfolio construction, asset allocation, and risk management.

TABLE 30: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	44%	32%
Environmental	41%	32%
Social	41%	32%

Note: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.

FIGURE 30: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY SWITZERLAND-BASED INVESTORS



EQUITIES

Research

Most practitioners in Switzerland are still developing their ESG integration practices in equity investments. Those that engage in ESG integration do so because they consider that firms recognizing the importance of these factors manage industry-specific risks more efficiently than their competitors and will report more perennial profitability. As a result, identifying and integrating financially material ESG factors that are relatively underresearched by most investors allows them to make unique and better-informed investment decisions for the long term. Their techniques, however, are typically qualitative in nature and directly influence their buy/sell/hold or overweight/underweight/neutral decisions.

To inform their decisions, practitioners use a variety of techniques, including:

- centralized research dashboards,
- watch lists,
- red-flag indicators,
- internal ESG research, and
- materiality frameworks.

A common approach is the use of red-flag indicators derived from external providers to identify and place poor ESG performers on watch lists available to portfolio managers via centralized research dashboards. Portfolio managers then provide their investment rationale on whether those ESG factors represent a material risk to the investment case. More advanced practitioners often have larger in-house ESG teams whose role is to produce in-depth company analysis to identify those companies that are either overly exposed to risks or able to benefit from secular themes, such as energy and water conservation, healthcare, demographics, and other long-term trends. These advanced practitioners base their research on carefully researched lists of potentially material sector-specific ESG factors. Internal ESG research can also be used as the basis for forming questions on material ESG factors that are then used when engaging with companies.

Security Valuation

As is true in most markets, quantitative analysis of the impact of ESG issues on company valuations is less commonly seen than qualitative analysis among Swiss practitioners. Those who integrate ESG factors into their fundamental analysis adjust their forecasted financials or valuation-model variables based on how quantifiable they judge the ESG factors to be. If the factors can be quantified (e.g., net savings from installing energy-efficient lighting, reduction of input material), then the income/cost side of forecasted financials may be adjusted accordingly. ESG controversies identified through research may be incorporated into cash flow projections to allow for litigation costs and fines. Governance is the most frequently integrated ESG factor, and some practitioners have systematic approaches in place to identify firms that might be misstating figures in their financial statements, overrelying on external financing (equity/debt issuance), or overly investing in operating assets.

Where ESG factors are not readily quantifiable, the discount rate applied to valuation models may be altered when a company is deemed to manage its ESG exposure more (or less) effectively than its peers. Practitioners who deploy proprietary ESG scores may reflect those in their fair value assessments, based on the assumption that higher scoring companies will enjoy a higher return on invested capital and/or a lower cost of capital.

Portfolio Construction

Some Swiss practitioners are integrating ESG factors alongside financial fundamentals into their portfolio construction processes. Minimum ESG score thresholds are resulting in adjustments to company, sector, and/or country inclusions and weightings in portfolios. The underlying rationale is that the better a company scores on ESG factors, the higher—all things being equal—the estimation of its fair value and the stronger the rationale for price appreciation. By the same token, stocks with recent specific and significant events such as environmental or corporate governance issues, legal problems, or fraud may be excluded from the portfolio altogether, as these events are likely to affect the stock's future risk profile. Although not a common practice, some practitioners have set specific carbon reduction targets for their portfolios relative to their benchmarks.

Asset Allocation, Portfolio Scenario Analysis, and Risk Management

Practitioners in Switzerland typically reflect ESG issues at the level of selection of individual securities or assets, rather than in their strategic asset allocation. Scenario analysis and ESG integration in financial risk exposures and limits are also rarely practiced.

FIXED INCOME

Research

Practitioners in Switzerland are still developing their ESG integration practices in fixed income. Corporate bond practitioners who integrate ESG factors often do so on an ad hoc basis rather than in a systematic way across their firms. They also frequently make use of the same ESG research and ESG scores that underpin their equity integration strategies. They do so because analysis is done at the company level—in terms of how well companies govern themselves, including relevant regard for environmental and social factors and their potential impact on business models—rather than differentiated by the source of capital.

Companies scoring poorly on ESG may be flagged to investment staff, who then use their discretion to take these flags into account in their investment decisions. More advanced practitioners report that ESG factors are fundamental in nature and as such need to be analyzed as an integral part of the due diligence process, including in estimations of cash flows and valuation metrics. In their research process, these practitioners

qualitatively assess ESG factors in relation to management strength, business strategy, market position, competitive environment, regulatory environment, and financial flexibility. Although this approach is resource efficient and driven by a view that ESG factors may impact fixed-income assets to a lesser extent than they impact equities, one limitation is that analysis is typically carried out at the issuer rather than the issue level.

Sovereign debt practitioners usually make use of country ESG research/scores from external providers. Environmental indicators may measure natural resource consumption, social indicators may measure human social and economic development, and governance indicators may measure the quality of a country's government institutions. These indicators may then affect buy/sell/hold and overweight/underweight/neutral decisions through the practitioners' judgment on the potential for the ESG factors to affect the issuer's ability and willingness to repay the debt. A more holistic/advanced approach to ESG integration in sovereign debt research would be to link ESG factors to the long-term potential of national economies and their vulnerability to external shocks.

Security Valuation

ESG factors are quantified less frequently and systematically by fixed-income practitioners. Where they are integrated, ESG factors may impact quantitative assessments of forecasted financials and ratios: cash flow projections, calculation of various credit ratios, and an expected future outlook. One practitioner reported first estimating the potential EBITDA impact of the active management or mismanagement of each factor, then integrating the estimates into the financial models for the investments according to the base case, downside, and upside scenarios.

Portfolio Construction

ESG factors rarely affect fixed-income portfolio construction decisions directly. Where they do, it is typically in terms of minimum standards of ESG performance and review of those performers at a greater level of scrutiny before making security selection decisions. Sovereign debt practitioners sometimes consider a country's inclusion in major global developed and emerging market indices as a proxy for its management of ESG risks and opportunities.

Asset Allocation, Portfolio Scenario Analysis, and Risk Management

As is the case with equity practitioners, ESG factors rarely impact asset allocation, though a few practitioners report taking ESG factors into account in the process. For example, practitioners might review different trends that shape the investment environment for different asset classes and geographies, such as growing regulatory pressure to transition to a low-carbon economy, demographics shifts, and growing attention to anticorruption and antibribery legislation and enforcement. Practitioners rarely practice scenario analysis and ESG integration in financial risk exposures and limits.

INTERVIEW WITH A SWISS MAJOR MARKET PLAYER: SWISS RE

Interview with Claudia A. Bolli, Head of Responsible Investing at Swiss Re, about ESG integration in Switzerland.

What does ESG integration mean to you?

Our investment philosophy at Swiss Re centers around the principle of Asset-Liability Management with the aim of generating long-term, sustainable returns. To achieve this, the integration of ESG criteria into the investment process is key.

What does that mean in practice? ESG considerations are applied to almost all asset classes, independent of being managed internally or externally. We incentivize the investment managers to integrate them by applying ESG benchmarks or minimum ESG rating thresholds to our mandates.

Before we started integrating ESG benchmarks, we conducted in-depth analysis on the characteristics of these benchmarks. Through our analysis, we concluded that such an integration makes economic sense since these benchmarks have a higher risk-adjusted return in the medium to long term.

When you integrate ESG into an assessment of external managers, are you integrating it into the RFP to the mandate? Is it a fundamental part of your selection process?

Yes, we actively incorporate ESG considerations as part of our due diligence process of investment managers. With that, we determine that our managers can support us in our Responsible Investing approach. Our external managers must manage their portfolios against dedicated ESG benchmarks, which are also used to monitor the managers' performance on a steady basis. Furthermore, they are required to report regularly on their responsible investment activities, including on proxy voting.

When you are asking these questions, are they just around the process and tools they use, as some managers may just buy access to ESG data, or are you asking more specific questions about real-world examples of companies where the investment manager has integrated ESG?

We work closely with the external managers to ensure they consider ESG aspects in their investment processes. Before external managers are appointed, we perform thorough due diligence to confirm their compliance with our responsible investment approach. This covers the managers' governance approach, including dedicated resources and policies, as well as ESG integration into their investment decisions. The managers are also requested to provide insights on their approach to engagement and voting, as well as to monitoring and reporting.

After being mandated, the manager's individual performance is monitored in line with our Responsible Investment policy and measured against ESG benchmarks where the mandate includes one. In giving our managers guidelines and benchmarks that focus on better ESG-rated companies, we define the eligible investment universe. The investment managers can deviate from the benchmarks within a given limited leeway.

The PRI guidelines to select, appoint, and monitor managers were a valuable tool for us when defining our due diligence approach.

The fact that Swiss Re manages to an ESG benchmark is seen as a leading practice because not many do that. Can you talk a bit more about the thought process behind putting ESG benchmarks into place?

We started by conducting an investment benchmark analysis, which confirmed that integrating ESG factors in the investment portfolio resulted in an improved risk-adjusted return profile for corporate credit investments and, to a lesser extent, listed equities. We did not only assess the risk and return behavior, but also the impact on the investment universe, which would be reduced to a certain extent.

The improvement in risk-adjusted returns makes the business case viable and increases the attractiveness of ESG integration for long-term investors like us. We therefore switched to benchmarks focusing on better ESG-rated companies for both our actively managed listed equities as well as corporate credit mandates. For our buy-and-hold mandates, we provide minimum ESG rating thresholds to be taken into account in the investment decision.

We shared our experiences through two publications: *Responsible Investments—Shaping the Future of Investing* (2017), and *Responsible Investments—The Next Steps in Our Journey* (2018), with both available on our homepage.¹ In these, we provide further information and analysis around why ESG integration makes economic sense and invite others to join our journey in making ESG investing more accessible and attractive.

Are you finding a difference between the level of sophistication between equity managers and fixed-income managers?

No, this has not been my experience. I don't see a difference based on the asset class. Both equity and fixed-income managers manage against ESG benchmarks, both have the data available, some even have their own ESG platforms. Both types of managers have been very open and proactive in working on and implementing the targeted solutions, which is probably also driven by our due diligence approach on managers of which the ESG assessment is a part.

Concerning scenario analysis—is that something that you are applying and if so, what are you seeing?

Scenario analysis is part of our standard investment process, and climate change is a main topic for Swiss Re. We looked at changing environments due to climate change as an

¹ The publications are available at https://www.swissre.com/our-business/managing-our-assets/Responsible-Investments-Shaping-the-future-of-investing.html and at https://www.swissre.com/our-business/managing-our-assets/responsible-investments-next-steps-in-our-journey.html.

example. Furthermore, we are also part of the Task Force for Climate-Related Financial Disclosures (TCFD) and take TCFD recommendations into account.

What are the drivers of ESG integration in Switzerland?

ESG strategies within Switzerland continue to be an important topic for investors, with various ESG integration approaches like impact investing and exclusions remaining popular. The Swiss financial center regularly features high in independent rankings, and the sector plays a crucial role given its sheer size of assets under management. Combining these with its strong academia and research centers as well as longstanding experience in financial services, Switzerland is well positioned to increase its focus on sustainable finance further.

Are you seeing any barriers to ESG integration?

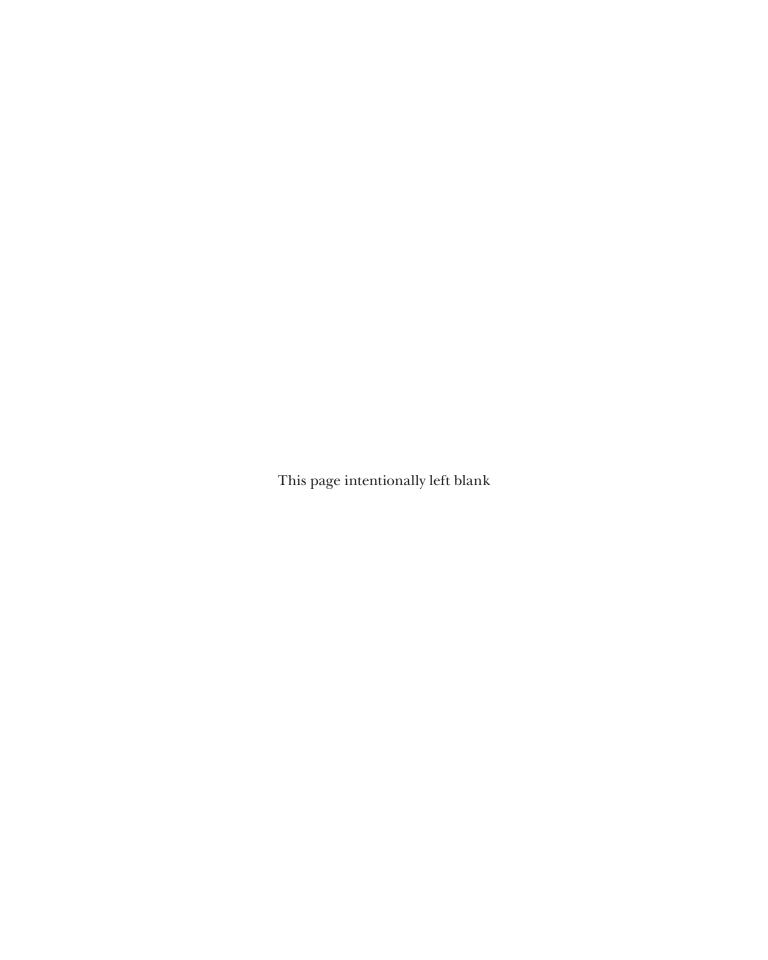
At Swiss Re, we see it as a journey and a learning process. We will continue to fine tune our implementation approach. We are quite outspoken on our approach and have also articulated what we see as key impediments that prevent responsible investing from becoming a standard approach in the industry. In that regard, we have identified four areas for improvement:

- 1. **Market standards:** Today, we don't have market standards for methodology or definitions. An investor first needs to clarify where he is starting from.
- 2. **Standardization of key metrics:** For example, for carbon footprint there are a number of different methodologies. In data collection, it makes sense if key metrics are standardized and agreed on.
- 3. **ESG being an integral component of financial analysis:** More and more firms are moving to this model, but it is still early.
- 4. **Availability and volume:** Although the ESG investment product offering has been continuously increasing, the availability and market volume are still low. We would like to see more ESG investment products in the market.

What do you see as the next innovation in ESG analysis?

Climate change sensitivity analysis would be a big step forward and help investors. We also expect that more firms will integrate the Sustainable Development Goals (SDGs)² into their investment process. Right now, investors are struggling to see how exactly SDGs can be incorporated into their investment portfolios, with discussions centering around measuring the impact of investment products. Other innovations might be around the adoption of ESG integration in financial analyses and in the investment process by providing more related products.

² https://sustainabledevelopment.un.org/sdgs.



SECTION 7 COUNTRY ANALYSIS: THE UNITED KINGDOM

CHAPTER 28

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often UK investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the UK capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. Respondents believe corporate governance is the factor that impacts share prices and bond yields the most. The survey result show that by 2022, all aspects of ESG will impact equities and corporate bonds more, and to a lesser extent sovereign debt (**Table 31**).

TABLE 31: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS' TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	63%	70%
Environmental	23%	60%
Social	23%	49%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/S	PREADS	
Governance	47%	50%
Environmental	13%	43%
Social	17%	30%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	43%	43%
Environmental	7%	17%
Social	10%	20%

ESG RISKS AND OPPORTUNITIES

Respondents in the United Kingdom were asked how often ESG risks and opportunities affect share prices and bond yields in UK capital markets (**Table 32**). As was the case in most of the markets we visited, corporate governance is the factor most often considered.

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of UK practitioners, the survey asked how often UK portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Few survey respondents say that they "often" or "always" include ESG

TABLE 32: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	26%
Environmental opportunities	9%
Social risks	23%
Social opportunities	9%
Governance risks	60%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND	YIELDS/SPREADS?
Environmental risks	17%
Environmental opportunities	7%
Social risks	17%
Social opportunities	10%
Governance risks	30%
Governance opportunities	23%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT	YIELDS?
Environmental risks	10%
Environmental opportunities	0%
Social risks	13%
Social opportunities	3%
Governance risks	33%
Governance opportunities	20%

issues in their analyses (**Figure 31**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 32**).

FIGURE 31: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

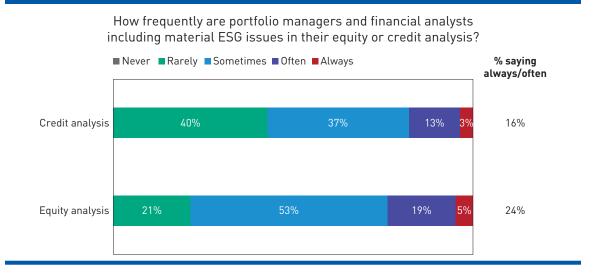
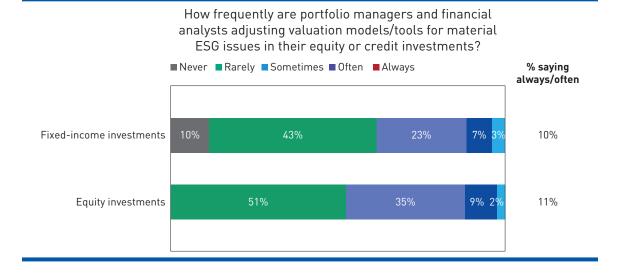


FIGURE 32: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



CHAPTER 29

DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

CFA Institute and PRI thank the London Stock Exchange Group for its help in organizing our ESG Integration workshop in London. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.



THE STATE OF ESG INTEGRATION IN THE UNITED KINGDOM

The group's perception was that governance factors are always relevant, while the relevance of environmental factors is difficult to ascertain, and social factor relevance is dependent on a variety of company characteristics.

Regarding governance, participants believe that governance always impacts share prices. They characterized it as being about the checks and balances, incentives, and executive management effectively executing its role.

Participants had more difficulty pinning down the impact of environmental factors, noting it is a risk to say that investing in all companies that do the right thing for the environment and for people will deliver cash returns and will move share prices upward. They look for mechanisms whereby doing the right things for the environment and for people will sell more products and reduce costs.

One practitioner noted that it is hard to know the optimum way of doing ESG integration. Each investor has a different model. ESG integration is not yet institutionalized.

For the social component, employee recruitment, motivation, and retention are relevant for all companies. However, the impact of these social factors on share prices depends on the status of the company, point of the economic cycle, type of company, and how other companies are managing their ESG factor(s).

One practitioner noted that it is hard to know the optimum way of doing ESG integration. Each investor has a different model. ESG integration is not yet institutionalized.

EQUITIES VERSUS BONDS

Practitioners noted that ESG integration tends to be more advanced in the equity world, with ESG integration in fixed income gaining ground.

One participant noted that it makes sense that bonds lag behind equities with regard to ESG integration, pointing out that the trajectory of ESG started with the Socially Responsible Investment funds, shares, and voting. ESG then evolved into ESG integration and included bonds. Because bondholders don't vote, it is not surprising that bondholders are slightly behind, although it is not right to say practitioners can't engage with companies if they are a bondholder. Bondholders can and do have access to and regularly meet with management.

ESG in bonds is growing, evidenced by client demand and mandates asking for it, and is quickly catching up and converging with the numbers on the equities side.

According to one practitioner, investors still don't know how to translate ESG data into pricing. Although ESG factors do affect credit spreads, some understanding is needed about whether ESG factors are already embedded in pricing and how they affect spreads in the future.

Governance often impacts bond prices, according to practitioners. Participants felt that it is the lack of recognition in the market of how important governance issues are that is preventing those issues from having a greater impact on bond yields/spreads. The key is to capture the transition of ESG risks into credit risk, as credit risk always dominates outright risk levels. Additional risk premia may be assessed for poor transparency and poor behavior.

MATERIALITY

Investors are looking for data and evidence of materiality. UK regulators are pushing it and are saying that you have to look for this evidence of materiality. This pushes leading UK players to look for this evidence, which is supported by a healthy environment of service providers.

When ESG issues are material, they have always been factored into investment analysis and engagement, particularly on the governance side. It is just that they are labelled "ESG" now.

DATA

Data are a huge barrier to ESG integration in the UK, as in all other markets we explored. One participant said that this isn't a data thing; this is a judgment thing. What is the right incentive scheme for management? There isn't a right or a wrong scheme as it depends on the company, sector, and country. What is appropriate to the profitability of the company, the industry, the state of development of the company, and so forth? Therefore, judgment is needed. Climate and water have different impacts and materiality to a bank, to advertising, and to a chemical plant. We need improvement of the data, but we also need to make judgments about how to use the data and on what is relevant and material for the generation of the underlying business of the company.

FIDUCIARY DUTY

ESG integration and fiduciary duty was a topic that arose frequently in our discussions in the United Kingdom. As in most markets we visited, disagreement accompanies the answer

to the question of whether ESG integration is compatible with fiduciary duty. Discussions about the issue are evolving and moving toward ESG integration being part of thorough fundamental analysis.

According to one practitioner, a definitional trap surrounds ESG issues. Some believe ESG is the same as negative screening, leading investors to believe that ESG violates fiduciary duty.

From an ESG integration point of view, practitioners violate their fiduciary duty if they are not including ESG issues in their assessments, according to one practitioner. Studies prove links between ESG and investment performance and tools are available to assess ESG issues, so practitioners should consider these factors in their investments, as they can impact valuations. ESG is about opportunities, and engaging in companies can create opportunities as companies improve. Anything that can impact enterprise values is part of fiduciary duty.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 33** and **34**.

As in most other markets, risk management and client demand are the main drivers of ESG integration. One practitioner noted seeing client demand for ESG and undoubtedly

ESG integration as the future. Practitioners need to future-proof themselves by performing ESG integration. Otherwise, the leading practitioners will become champions and the laggards will be the losers.

Risk management is the main driver of ESG integration in the United Kingdom. Investors start with risk management and then develop their techniques to look at generating alpha from ESG factors.

Regarding fiduciary duty, material ESG issues are an investment consideration. If practitioners leave them out, they are not considering all the risks and therefore are failing on their fiduciary duty.

One practitioner noted seeing client demand for ESG and undoubtedly ESG integration as the future. Practitioners need to future-proof themselves by performing ESG integration.
Otherwise, the leading practitioners will become champions and the laggards will be the losers.

TABLE 33: DRIVERS OF ESG INTEGRATION IN UK CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	79%	Risk management	73%
Client demand	51%	Client demand	47%
Generate alpha	21%	Regulation	20%
Fiduciary responsibility	21%	Fiduciary responsibility	17%
Senior management buy-in	16%	Generate alpha	7%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 34: BARRIERS TO ESG INTEGRATION IN UK CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	51%	Limited understanding of ESG issues and ESG integration	43%
Limited understanding of ESG issues and ESG integration	49%	Lack of company culture	41%
Lack of company culture	33%	Limited amount of ESG research	37%
Concerns about negative returns	28%	Lack of comparable and historical data	37%
Too much nonmaterial information	26%	Negative returns/tracking error	28%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

Investment opportunity is not to be understated, as ESG integration can bring alpha. One manager noted that practitioners should be asking how the auto sector is changing, how the food and beverage sectors are changing. If they are not, then they are not doing their jobs. It is much more interesting to talk about ESG opportunities than ESG risks, and it creates a lot longer conversation between portfolio managers on the ways you can make money from ESG compared to the conversations around the ways you lose money from ESG.

Regarding client demand, participants said that every RFP asks "how do you integrate?" and not "do you integrate?" There is already an assumption by institutional investors that practitioners need to be integrating. There is a surge of interest across the board: institutional investors and private wealth are driven by younger generations.

One practitioner stated that ESG integration is simply about cash and outperformance at their firm as they believe incorporating ESG data in the investment process will bring a return on their investment.

Length of time and experience in the industry are barriers, according to one practitioner. The old guard tends not to be bought in and is resistant to ESG integration. The younger generations will make more decisions based on ESG.

Lack of data was an obstacle, but it is getting better. The level of information investors access can also create barriers. Lots of data are out there, but can practitioners get consistency of data to integrate into the investment process and analyzing it?

Length of time and experience in the industry is a barrier, according to one practitioner. The old guard tends not to be bought in and are resistant to ESG integration. The younger generations will make more decisions based on ESG.

Asset owners and investment managers want a simple answer to ESG, but it is not a simple answer. Asset owners and investment managers find it difficult to understand the data, terminology, value versus values drivers (legacy issue from SRI), and managing money to meet fiduciary duty.

CHAPTER 30

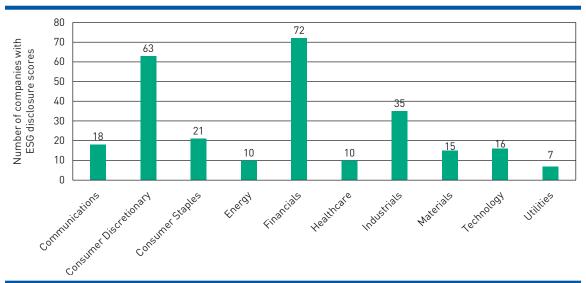
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 33 shows the number of companies with ESG disclosure scores in each sector. The UK financials market is very broad, with good coverage of most sectors. The financials and consumer discretionary sectors dominate the market with 72 and 63 companies, respectively. The consumer staples (21) and industrials (35) sectors have more than 20 companies, whereas communications (18), materials (15), and technology (16) are in the teens. The smallest sectors are energy (10), healthcare (10), and utilities (7). The United Kingdom is the only European market where all sectors have enough companies with ESG disclosure scores to be included in the analysis.

Figure 34 shows the median ESG disclosure score across sectors in 2011 and 2016. Only the utilities sector saw higher scores in 2011 than in 2016—its median score dropped from 40.50 to 39.26. The materials sector was the best scorer in both years, scoring 40.50

FIGURE 33: SECTORAL BREAKDOWN OF DATASET: UK COMPANIES WITH LISTED EQUITY WITH ESG DISCLOSURE SCORES IN 2016



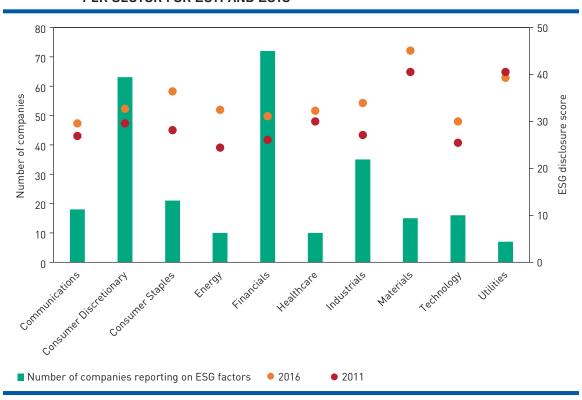


FIGURE 34: MEDIAN ESG DISCLOSURE SCORES FOR UK COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2011 AND 2016

in 2011 and 45.04 in 2016 (co-leading in 2011 and leading alone in 2016). The other eight sectors are operating in a small spectrum, with 2011 scores between 24.38 (energy) and 29.96 (healthcare) and 2016 scores between 29.55 (communications) and 36.36 (consumer staples). The largest improvement happened in the consumer staples sector, with an increase in median ESG disclosure score of 8.26.

Figure 35 shows the distribution of median environmental, social, and governance disclosure scores across sectors. In all sectors, governance disclosure scores are the highest, social are the second highest, and environmental are the lowest. Figure 35 also shows the small range in median governance disclosure scores, with the lowest disclosure score being 52.68 in the healthcare sector and the highest being 58.93 in consumer staples and materials. Social disclosure scores have two semi-outliers: financials at 33.33 and utilities at 49.12. The remaining sectors have social disclosure scores between 36.84 in consumer discretionary and technology and 40.35 in healthcare. Four sectors have the same social disclosure score of 38.60 (communications, consumer staples, industrials, and materials). The similar social and governance scores show that there is more standardization among UK companies in what they disclose on those areas.

The environmental disclosure scores vary much more, with the lowest being 16.28 (communications) and the highest being 37.21 (materials). Only two sectors have environmental

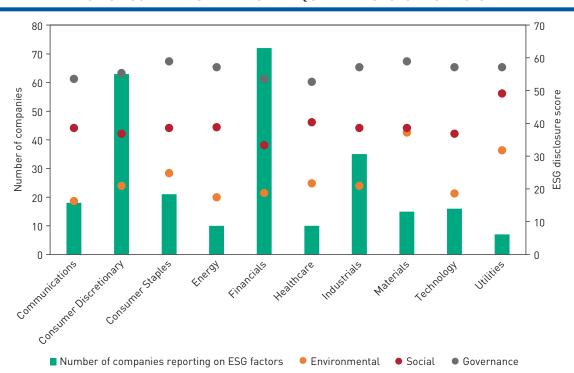


FIGURE 35: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR UK COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2016

disclosure scores of more than 25 (utilities and healthcare). This is significantly lower than the social disclosure scores, which are all above 35, with the exception of the financials sector (33.33). The governance disclosure scores are even higher, with the lowest being 52.68 (healthcare); only communications (53.57) and financials (53.57) are also under 55.

Overall, little variation is found in median ESG disclosure scores across the UK sectors. This is also true for the governance and social disclosure scores. Thus, it appears to be the environmental disclosure score that significantly moves a sector up or down on ESG disclosure scores compared to other sectors. The three highest 2016 median ESG disclosure scores were in materials, utilities, and consumer staples, in descending order. This pattern is repeated with the environmental disclosure scores: in materials it is 37.12, in utilities it is 31.78, and in consumer staples it is 24.81.

At the other end of the spectrum, the communications and technology sectors were the worst performers on overall ESG disclosure score. The environmental score of the communications sector is the lowest (16.28), and the technology sector has the third lowest environmental disclosure score (18.60). The energy sector is the second lowest scorer on environmental disclosure (17.44), but makes up for some of it by having a governance disclosure score among the highest (57.14) and a social disclosure score of 38.83.

CHAPTER 31

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Overall, equity practitioners are adjusting their valuation models and tools for material ESG issues more frequently than fixed-income practitioners (**Table 35**). For both equity and fixed-income practitioners, governance is the most frequently integrated ESG factor. Both groups of practitioners integrate environmental and social factors at the same rate (16% for equity and 13% for fixed income).
- Figure 36 highlights practices from the ESG Integration Framework that are applied in the United Kingdom. Overall, both equity and fixed-income practitioners in the United Kingdom who integrate ESG factors deploy advanced techniques spanning research, security valuation, and portfolio construction, as well as risk management and scenario analysis. Their integration starting point is almost always deeply grounded in financial materiality and proprietary research examining the relationship between ESG factors and financial performance. Integration at the strategic asset allocation level is not practiced.

EQUITIES

Research

Equity practitioners in the United Kingdom who integrate ESG factors in their investment analyses and process are often deploying advanced techniques. As is the case in most markets, ESG

TABLE 35: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	31%	26%
Environmental	16%	13%
Social	16%	13%

 $\it Note$: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.

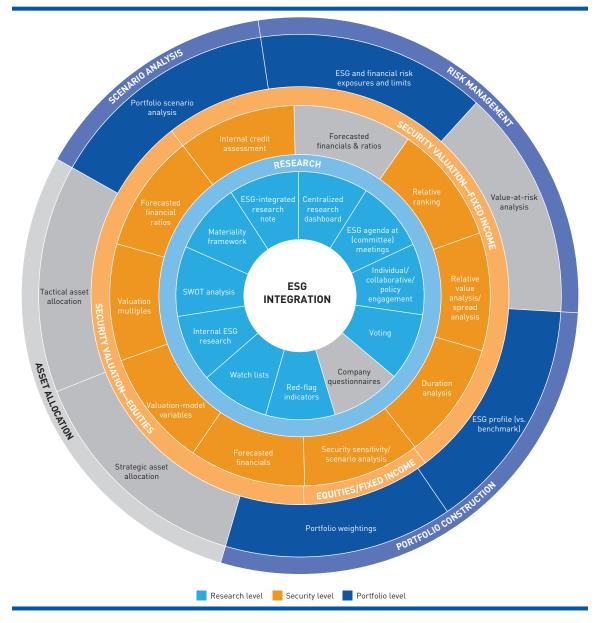


FIGURE 36: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY UK-BASED INVESTORS

factors are most commonly integrated in investment research. ESG integration in the United Kingdom is often grounded in strict financial materiality and sometimes backed by extensive proprietary research examining the relationship between integration and equity returns. As a result, ESG integration is widely accepted as a tool to improve the overall quality of the investment portfolio and enhance the risk/return parameters of the applied investment strategy. One practitioner notes that it is easier to generate performance for clients by assessing a company's prospects for sustainable growth than by predicting short-term price movements.

In practice, practitioners frequently interpreted ESG factors as a signal of management quality and management's ability to navigate large-scale growth trends successfully, particularly over the long term. Practitioners find that better-governed companies tend to also have a more constructive attitude toward managing their broad range of stakeholders and their social and environmental externalities, and are able to innovate through their core products and the way they manage their operations to deliver stronger and more persistent growth (even in an era of low economic growth). Outperformance can be generated through growth from sustainable products, cost savings from sustainability-related innovation, and reduced operational, regulatory, and reputational risks. Increasingly, practitioners may be required by their Investment Management Agreements (mandates) to integrate ESG considerations into their investment decision making.

As is the case in many other markets, ESG scores based on proprietary or third-party research are also commonly used by UK-based practitioners to measure, analyze, and rank securities. Some practitioners deploy the scores as an alpha-generating tool to anticipate improving momentum in corporate governance practices in companies. Others make sure that low scorers are flagged and reviewed in greater depth by analysts. Advanced practitioners have developed internal dashboards that make stock and portfolio-level ESG assessment/footprinting/heatmap tools available firmwide.

Practitioners in the United Kingdom are aware that quantitative ESG metrics need to be treated with caution and that those metrics need thorough reprocessing before being used to add value. Some practitioners explicitly avoid company-level scoring and choose instead to provide an opinion on revenues, cash flows from operations, capital expenditures, and other financials to fund managers. It is often investment team members who hold ultimate responsibility for financial and ESG analysis within their respective sectors, integrating this information into forecast earnings, submitting investment recommendations, engaging with companies, and conducting all proxy voting for investee companies.

Active ownership is a common practice for UK-based practitioners. Engagement is an important part of their investment processes, and they invest time and resources to encourage companies to strengthen their governance, provide views on strategies, and encourage companies to take the long-term view, based on a belief that what is good for companies is also good for investment returns. This ongoing dialogue ultimately feeds insights about how companies manage complex strategic challenges back into practitioners' fundamental research. Many practitioners vote all or most of the holdings for which they hold voting authority and outline their positions on a range of issues in formalized corporate governance and voting policies.

Security Valuation

Although practitioners are still developing their processes to integrate ESG factors into their fundamental analysis and portfolio construction, pockets of advanced practice exist. Practitioners who integrate ESG factors into their fundamental analysis use a variety of techniques, ranging from forecasted financials and ratios to adjusting valuation-model variables, depending on how quantifiable these factors are. Because ESG signals are not consistent over time (they modulate [e.g., the price of a metric ton of carbon] or trend

[e.g., Japanese corporate governance reform]), some practitioners switch from bottom-up forecasted financials to top-down discount rate adjustment on an as-needed basis.

Practitioners may adjust forecasted financials by changing cash flow and revenue generation assumptions, capital expenditure, cost base (e.g., using conservative estimates of costs for resolving ESG concerns; using carbon prices in operating costs), and the tax rate; or by impairing assets on the balance sheet if the useful life of those assets is impacted. They may adjust their forecasted earnings-per-share growth by adjusting the forecasted return on equity to take account of revenue or cost impacts from ESG issues. Popular valuation-model variable adjustments for low ESG scorers include:

- lowering the expected return from investments by adjusting discount rates upward (e.g., increasing the discount rates used in valuation analysis for emerging market companies);
- adjusting the risk premium applied to the discount rate, and ultimately the intrinsic value when performing probability-weighted scenario modelling to determine the intrinsic value of a company;
- increasing the weighted average cost of capital for companies with higher company or sector-specific risks;
- adjusting the long-term sustainable dividend growth rate of companies; and
- intrinsically tying ESG characteristics into quality adjustment scores already used by analysts to weight a company's quality of management.

More advanced practitioners use scenario analysis to calculate a base-case expected return alongside best and worst cases, within which the impact of material ESG factors on forecast earnings and cash flow generation assumptions is analyzed over the short, medium, and long term.

Portfolio Construction

Some UK practitioners are integrating ESG factors into their portfolio construction processes. The ESG profile and scores of portfolios may be assessed relative to the index and subsequently adjusted so that the portfolio ESG score is better than that of the benchmark index. Alternatively, sector specialists may build a picture of the long-term outlook for their sectors that is based on how environmental and social change will impact the operating backdrop. Such factors feed into their regular sector reviews and recommendations and influence allocations at a portfolio level. For example, some practitioners choose to be structurally underweight on sectors that do not provide solutions to sustainability challenges, and overweight on sectors that do.

Sometimes practitioners break ESG measures into their constituent environmental, social, or governance risks for each portfolio company; this enables portfolio managers to, for example, be aware of the level of carbon in their portfolios, including which investments are the largest contributors. Such breakouts give portfolio managers a basis for managing potential risk exposure within their portfolios (e.g., by capping position sizes where the risk/return trade-off is not sufficiently attractive). ESG factors may also be deemed to affect the underlying volatility of a stock and result in smaller active weights relative to other stocks in the portfolio.

Asset Allocation

Advanced practitioners assess ESG factors that influence top-down research and analysis of macroeconomic issues as part of the asset allocation process, typically as part of working groups made up of equity, credit, multiasset, and ESG staff. When all else is equal, this process may result in lower or higher exposure to some regions and sectors than would otherwise be the case. For example, some emerging market regions may be underweight due to governance concerns.

Portfolio Scenario Analysis

Some practitioners assess their portfolios against specific low-carbon transition scenarios, with the goal of understanding and better managing climate-related risks and opportunities that may affect portfolio performance over time.

FIXED INCOME

Research

Both corporate bond and sovereign debt practitioners who integrate ESG factors deploy advanced integration techniques, even if somewhat less frequently than their equity counterparts. Corporate practitioners view ESG research as providing them with valuable insight by identifying risks that may impact the performance or reputation of different companies. Given the asymmetric nature of returns in fixed income, they see it as vital to incorporate such considerations into the investment processes. As is the case across regions and asset classes, governance is the most frequently integrated ESG factor for both corporate and sovereign practitioners.

For corporate practitioners, poor corporate governance can lead to ineffective strategy, incompetent management, and poor deployment of debt and equity capital, as well as intensifying environmental and social risks. These can corrode the value of a business and increase the risk that a company will fail to meet its financial obligations, no matter how attractive its assets currently are or how much market share it has at present. Even factors traditionally associated with equities (e.g., company management incentives) can be tied into credit research. For example, remuneration based on balance sheet and cash flow metrics gives analysts greater conviction that the direction of travel for the companies is likely to be more creditor friendly.

The extent to which environmental or social issues are deemed credit relevant depends on factors such as the company's business activities, geographical footprint, and size. Material issues also differ for financial and nonfinancial corporates, given the relative complexity of financial issuers—they are highly regulated and often systemically important entities with complex balance sheets. For example, within the UK banking sector, some practitioners report that they focus on their exposure to regulatory, litigation, and conduct risks such as law breaches in areas such as mis-selling, LIBOR fixing, money laundering, and breaking sanctions. Advanced practitioners may also assess a bank's indirect exposures to carbon risk through its lending activities. In the retail sector, by contrast, practitioners

may focus on issues such as sustainable sourcing, auditing of the supply chain, robust labor practices, and capitalizing on healthy eating trends.

For sovereign debt practitioners, sustainable economic growth and competitiveness of a country are often deemed to be dependent on the availability and quality of natural, human, social, and political capital. Thus, ESG integration enables these practitioners to assess whether countries manage these capital resources effectively, as well as flag those with limited political rights and civil liberties or high unemployment rates that may lead them to experience greater civilian unrest. Geopolitical and social factors are seen to be particularly credit relevant—they can be dynamic and alter rates and currency parameters and thus affect the credit attractiveness of countries. For example, changes in governments may lead to quick and radical social and environmental policy shifts and improvement/ deterioration of governance.

Corruption is a commonly assessed governance indicator: reduced corruption may strengthen the social contract between a government and its citizens, which in turn is conducive to formalizing a greater portion of the economy, improving the tax-raising capabilities of the sovereign issuer, and improving the affordability of debt. Incorporation of social factors is much more prominent for sovereign debt practitioners than for their corporate counterparts, as the former often see strong links between social issues and credit risk—social unrest can lead to political and economic instability and have a clear impact on sovereign bond performance. Environmental factors are generally considered less credit relevant as the timescale over which their dynamics change does not overlap that much with the investment time horizons for sovereigns. However, some environmental risks, such as droughts or floods associated with changing climate, can be more immediately credit relevant, particularly where the economies of those countries are not sufficiently diversified to withstand such shocks. Finally, additional analytical attention may be given to emerging market issuers due to their risk profile.

Although some fixed-income practitioners report deploying a similar ESG research strategy for their equity income holdings as they do for their fixed-income holdings, most differentiate their approaches. In addition, given a relative lack of available fixed-income ESG analysis from third-party providers (particularly for those issuers who do not have equity listings), many practitioners have developed sophisticated in-house ESG research capabilities to undertake research within a fixed-income context. This can be done through collaboration between fixed-income and ESG analysts to ensure outputs are tailored to the specific nuances of credit risk (e.g., assessing governance in greater detail when analyzing an issuer where a practitioner's position on investment is uncertain). Information from less conventional sources such as nongovernmental organizations (NGOs) and civil societies may also be sought in these cases. Priority ESG items are often an agenda item at credit committee meetings, which provide credit analysts and portfolio managers with the opportunity to exchange ideas and challenge current recommendations or positions.

Issuer ESG scoring is widely deployed, with governance often given a higher weight. Consistently poor ESG scorers may be flagged for in-depth assessment, and securities with a disconnect between their credit and ESG scores may demonstrate investment-relevant "ESG momentum," which according to practitioners is an effective way to utilize ESG data in investment management processes. Most practitioners make their own ESG research and data widely available to all staff through internal platforms/dashboards, and leave

it to fund managers to determine whether these factors are material considerations for their risk-return-valuation consideration, thus directly feeding into the buy/sell/hold and overweight/underweight/neutral decisions. However, external ESG platforms may also be widely deployed. The ability to compare companies to their peers is key in both cases. Advanced practitioners also ensure that their analysts regularly provide examples of ESG integration, which not only helps client reporting but serves to culturally embed systematic ESG integration as a core practice within credit teams.

Although traditionally more prominent within an equity context, engagement is frequently deployed both by corporate as well as by sovereign debt practitioners. Credit analysts may meet with companies alongside fund managers and analysts from equities. Advanced practitioners report voting at Extraordinary General Meetings held by bond issuers. Sovereign debt practitioners also report supplementing their balance sheet analysis with country visits where they discuss material ESG factors with relevant authorities (e.g., policymakers, governments, opposition) as well as with members of civil societies, local businesses, and NGOs.

Security Valuation

ESG factors can and sometimes are integrated at all levels of the fixed-income valuation process. Most prominently, ESG factors are integrated within assessments of issuer credit-worthiness. Credit assessment templates may include fundamental metrics such as relative valuation, SWOT analysis, and company financials and how ESG factors may affect them. Sovereign debt practitioners may also attach significance to ESG factors in understanding default risk and credit rating changes on debt of sovereign bonds.

Pricing ESG risks (and estimating the required return for underlying risks) is seen as a key goal. Poor ESG activities have the potential to impact the enterprise value of a company negatively, with serious implications for both creditors and owners. Sovereign debt practitioners assess a country's balance sheet in combination with ESG factors as they believe that it improves the quality of their return estimates, in much the same way that equity analysts assess the quality of a company's balance sheet, assets, and level of governance when forecasting earnings potential. Countries with weaker ESG scores may require a greater premium to drive an allocation.

Relative value analysis is another common technique, whereby an ESG score may be shown in credit tear sheets, providing a snapshot of company business fundamentals and capturing relative value among peers and within its own debt securities. If two bonds in the same industry with similar maturities, credit ratings, and credit spreads are scored differently on ESG, it could indicate that either of the bonds is cheap/expensive and lead to further investigation and possibly an investment decision. Scenario analysis may also be deployed to determine the financial repercussions of significant ESG risks materializing in the future.

Portfolio Construction

At the portfolio construction level, ESG factors are typically integrated via practitioners' interpretations of the implication of long-term ESG themes on issuers and sectors or

directly through individual issuer ESG scores. Portfolio allocations to individual issuers or sectors may be guided by an assessment of the top long positions in low ESG-scoring issuers, short positions in high ESG-scoring issuers, best and worst contributors to a fund's ESG performance, and whether there are holdings highlighted as being involved in severe ESG controversies.

Advanced practitioners may also integrate ESG considerations by adjusting portfolio duration, leading them to procure credit protection against issuers where they think a long-term risk is not priced in.

Risk Management

Some UK practitioners note that a key advantage of ESG integration is to assist with avoiding issuers where tail risk—a key driver of long-term bond returns—is ineffectively managed and underpriced.

CHAPTER 32

INTERVIEW WITH A BRITISH MAJOR MARKET PLAYER: USS

Interview with Patrick O'Hara, Senior Responsible Investment Analyst, USS, about the state of ESG integration in the United Kingdom.

What does ESG integration mean to you?

We see this in a number of ways: by enabling us to make better-informed investments decisions and by taking a more holistic approach to investment research that includes the analysis of a broader set of risks and opportunities at the company, sector, and macroeconomic level. Also by understanding more fully the context in which the companies in our portfolios operate, we can be better stewards of those companies and make more insightful voting decisions and undertake better-informed engagement on material issues.

How has ESG integration evolved over the last three years?

ESG integration has been constantly evolving. There are a wide range of providers now and a suite of ESG data and KPIs (key performance indicators). You can analyze physical risks more easily than ever before, and asset level and supply-chain data are emerging.

If we take our internally managed equity portfolios as an example, a few years ago, the Responsible Investment (RI) team used to know all of the examples of where ESG factors had impacted investment decisions because we had been involved directly in the research and analysis and the provision of ESG-related data to the portfolio managers. This is not the case anymore. When we completed our PRI report last year, our portfolio managers were able to come up with examples of ESG integration where they had undertaken the investigation themselves.

For me this was an indicator that ESG issues are becoming more material in investment analysis and ESG analysis is becoming just part and parcel of the investment process, particularly in sectors that might be regarded as having a high environmental impact.

The lines between ESG and traditional financial analysis are becoming increasingly blurred. The signals around climate change are getting stronger, and it is becoming virtually impossible for investment managers and analysts covering the oil and gas, utilities, and mining sectors, for example, to ignore climate risk and the risks arising from the transition to a lower carbon economy. It is impossible to deny what's happening around the world in terms of climate regulation, carbon pricing, and the shift to electric vehicles and the opportunities in battery technology.

How does ESG integration vary across regions?

Integration in Europe is now also beginning to be driven by regulation. For example, in France, Article 173 (which makes ESG integration a requirement and standard for all

investors), appears to be adding additional momentum to a market that was already well advanced in its recognition of the materiality of ESG issues.

There are also a number of investors taking a lead on ESG integration in the United States, Canada, and Australia who are both asset owners and asset managers. They are pushing corporates hard for better disclosure and better recognition and analysis of ESG issues.

ESG integration in emerging markets is developing, but it is at the beginning of the journey compared to the European market. Having said that, I have seen some individual investors making a very strong commitment to integration and stewardship in these markets, and they have adopted best practice very quickly. The same is true of some corporations in emerging markets, where there appears to be a greater willingness to engage with investors on these issues. I think the Climate Action 100+ Initiative¹ has helped to accelerate this trend. The direction of travel for ESG integration in emerging markets is becoming clearer.

Are asset owners integrating ESG data and research into their investment process?

The large pension schemes that I have liaised with are committed to ESG integration. Their approach to integration is dependent to a large extent on the resources and budget they have at their disposal. Indeed, USS has a full-time team of five people in RI—one of the largest teams among our UK peers.

The approach to ESG integration also varies depending on whether the asset owner manages assets internally or externally or both. If you manage assets in house, there is a need for a dedicated ESG professional who has a background in ESG investing and has a variety of skills to analyze and assess the financial impacts of ESG issues and scenarios. Smaller asset owners may not have the expertise in house to develop and interpret the results of a climate scenario analysis, for example, or analyze the efforts made by their external managers in this regard.

A lot of larger asset owners are very innovative in this space and are committed to ensuring that their asset managers integrate ESG in a manner that is consistent with their mandate and beliefs. There is a willingness to share knowledge and experience. The Transition Pathway Initiative² is an example of asset owners collaborating—sharing expertise and resource for the benefit of all. There are a number of forums in place to facilitate collaboration.

What is the level of ESG integration performed by equity and fixed-income practitioners in the market?

I think most large asset managers in developed markets are making some effort to integrate ESG into their investment decisions, and many smaller managers are also doing it. The approach taken varies from one house to another and is largely dependent on the type of manager, that is, passive, quant, active, fixed income, or equity.

Asset managers are understandably trying to innovate to demonstrate their expertise and are increasingly seeing ESG integration as a basic requirement to be short listed for new mandate opportunities and as an opportunity to differentiate themselves from their peers.

Overall, I would say that ESG integration is still more advanced in equities than in fixed income, where integration is not driven by stewardship in quite the same way. But fixed

¹ https://climateaction100.wordpress.com/about-us/.

² http://www.lse.ac.uk/GranthamInstitute/tpi/about/.

income appears to be catching up. I think fixed-income investors are more prepared to embrace engagement than they were five years ago. There are a number of specialist fixed-income houses that appear to have a deep commitment to ESG integration and require their credit analysts to analyze the ESG risks facing a business. They have recruited strong ESG people and are leading the way in terms of how to integrate ESG in fixed income. I would say that they are the exception rather than the norm at the moment. However, there is definitely an appetite for this in the fixed-income space and it appears to be growing.

Whatever the asset class, there is an approach to ESG integration that can add value to the investment process.

How do your fixed-income portfolio managers and equity portfolio managers analyze ESG issues? Do they take a different approach?

ESG risks and opportunities arise at the issuer level so they are essentially the same for equities and fixed income. The country, sector, and macro themes are also the same. But a credit analyst will analyze them differently than an equity analyst.

Credit analysts are more interested in downside risk. They are more interested in highimpact risks, for example, those associated with governance, regulation, corruption, and cybercrime, factors that can change credit ratings and impact default risk if they crystallize.

Equity analysts are interested in both downside risks and upside opportunities. One company's upside can be another company's downside. So you can identify companies that are well positioned for the transition to a lower carbon economy and companies that are at risk from the transition.

Is the conversation with portfolio managers on ESG issues moving the focus from purely governance issues to environmental, social, and governance issues?

Yes. Governance is important and fundamental to the investment case as companies need to be well managed to mitigate issues such as bribery and corruption. However, if you are just looking at governance, you are looking at areas of concern that are largely internal to a company.

If you ignore environmental and social issues, you are ignoring all the potential impacts on the sector or market and the relative position of the company against its competitors. Issues such as climate change, pollution, human rights abuse, plastics, and regulation around sugar and caffeine need to be analyzed to assess all the risks and opportunities to a company. Taking a broad approach to the analysis of ESG risks provides a better understanding of the company, its market, and the environment in which it operates.

How does USS work with local companies to help them improve on their ESG performance and reporting?

We work with companies on a variety of issues. Recently, we engaged with a company operating in emerging markets on health and safety (H&S) issues. Our concern was that their H&S policies did not appear to be well implemented, as the H&S statistics that the company presented suggested that its performance was below its peers.

We were keen to send a clear message to the company that we think these issues are important. Apart from everything else, by engaging with the company on H&S, we felt that we could help to strengthen the mandate of people within the business that were working

on sustainability, Corporate Social Responsibility (CSR), and H&S. We also believe that H&S is material and that it is not just the right thing to do, it can be financially material to the company, and H&S performance can be indicative of operational efficiency more generally. Poor performance on H&S can result in a company's license to operate being called into question in a particular region.

Increasingly, companies come to us to find out how they can improve on their ESG performance and reporting. Companies are eager to tell us what they are doing to manage ESG issues and ask questions about how they can improve and how they should report on ESG.

We feel that it is in our interest to engage with companies as better disclosure and data can lead to better-informed investment decisions and better-informed voting, which is especially important in emerging markets. The way in which data are reported is also important to us, as they need to be accessible and they need to be regularly refreshed, preferably ahead of the annual general meeting, so that we can take performance on environmental and social issues into consideration when voting.

Are more companies understanding what we mean by ESG integration?

Overall, yes, although there is still some confusion about the difference between ESG integration and Socially Responsible Investing (which relies also on ethical considerations when establishing the investable universe or screening out sectors). As such, they do not necessarily understand the type of disclosure required for ESG integration to take place. This may be explained partly by companies having to cater for different types of investors, which include ESG-integrated investors, investors tilting to better ESG-rated companies, those tilted away from poorly rated ESG companies, SRI investors with ethical screening policies, and impact investors. Companies also have to produce CSR reporting for a wide variety of stakeholders and sometimes ESG-relevant metrics get subsumed within lengthy CSR reports. Some companies understand the screening part of the SRI approach but still get stuck when trying to understand which material ESG issues they need to report on to attract investors seeking alpha.

What are the barriers to and drivers of ESG integration? Could you describe the unique aspects of your market and how they relate to the barriers to ESG integration in your country?

For us the main driver is our belief that ESG integration can help us make better investment decisions and understand better the risks and opportunities associated with environmental, social, and governance issues. We also believe that it is in our interests as investors to be responsible stewards of the companies in which we invest and that this is beneficial to society and the company.

TCFD (Task Force for Climate-Related Financial Disclosures) is adding additional impetus and helping to drive innovation in terms of data and research provision. It is still difficult to sometimes reconcile the short term and the longer term when analyzing ESG risks and to understand how the transition to a lower carbon economy will play out in particular sectors. The Paris Agreement has not been implemented through national policies to the extent required. The signals are getting stronger, but it would appear that they are still not strong enough to direct capital toward funding the transition at the pace required.

There is still a requirement for better data. Asset-level data, supply-chain mapping, and more comprehensive disclosure of upstream and downstream emissions would all help investors to understand the physical risk posed by climate change and the transition. There is still a lack of transparency in some markets in respect of ESG disclosure. Not all ESG disclosure is provided in English, which can present additional challenges when analyzing companies.

The United Kingdom is a heavily intermediated market, and therefore, there is a big role for investment consultants in advising asset owners, particularly smaller ones.

London is an innovative financial market and a magnet for talent. It is also a very competitive market, so we are seeing some quite innovative solutions around ESG integration emerging.

How will ESG integration evolve over the next five years?

There are a number of factors here: For one, ESG integration will become more mainstream and the norm. The investment signals associated with climate change and the transition to a lower carbon economy are getting stronger, and therefore, we think that ESG integration is likely to grow in importance over the next five years. We also believe that approaches to ESG integration across different regions will become more consistent.

Additionally, ESG professionals will become part of the investment teams, and more ESG research will be taken on by equity analysts and credit analysts. Increasingly, input will be required from other teams across asset management businesses, including investment risk, performance, and quant teams. There will also be a greater emphasis on data rather than on scores and ratings, and the skills associated with these teams will be required to identify signals and alpha.

We also believe that there will be a bigger role for ESG analysis in the idea generation phase of the investment process and in asset allocation. Meanwhile, technologies such as artificial intelligence and machine learning will be increasingly utilized to provide broader datasets and to fill in the gaps in corporate disclosure.

Aside from that, there will be more focus on alpha generation and opportunities rather than risk management.

Finally, we think that all mandates will become ESG mandates. ESG will be in the mandate in some way, just like investment risk and performance targets are in mandates.

ESG integration will also become more prevalent and prominent in other asset classes such as infrastructure and private markets. There will be increasing demand from investors for ESG-related data and corporate disclosure to facilitate this.

SECTION 8 COUNTRY ANALYSIS: RUSSIA

CHAPTER 33

THE IMPACT OF ESG FACTORS ON CAPITAL MARKETS AND INVESTMENT PRACTICES: SURVEY DATA

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often Russian investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the Russian capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. Respondents believe corporate governance is the ESG factor that impacts share prices and bond yields the most. They consider social factors as more influential than environmental issues on share prices and sovereign bond yields now and in 2022 (**Table 36**).

TABLE 36: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS'
TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND
SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	81%	85%
Environmental	7%	26%
Social	11%	30%
ESG ISSUES IMPACT ON CORPORATE BOND YIELD	S/SPREADS	
Governance	62%	65%
Environmental	4%	15%
Social	4%	12%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS	3	
Governance	42%	38%
Environmental	4%	8%
Social	15%	12%

ESG RISKS AND OPPORTUNITIES

Respondents in Russia were asked how often ESG risks and opportunities affect share prices and bond yields in the Russian capital markets (**Table 37**). Governance risks and opportunities are the factors most priced into investments by investors. Social risks and opportunities influence share and bond prices more than environmental risks and opportunities. Only a very small percentage of respondents believe that environmental risks and opportunities "often" or "always" affect share prices and bond yields.

TABLE 37: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	7%
Environmental opportunities	7%
Social risks	7%
Social opportunities	19%
Governance risks	70%
Governance opportunities	63%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	4%
Environmental opportunities	4%
Social risks	15%
Social opportunities	8%
Governance risks	65%
Governance opportunities	50%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	0%
Environmental opportunities	0%
Social risks	12%
Social opportunities	8%
Governance risks	27%
Governance opportunities	23%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment processes of Russian practitioners, the survey asked how often Russian portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. A higher proportion of survey respondents (19%) say that portfolio managers and analysts "often" or "always" incorporate ESG data into equity analysis, as compared to those doing so in credit analysis (4%) (**Figure 37**). Analysts and portfolio managers are more likely to "often" or "always" adjust their valuation models for equities based on ESG data (26%) in Russia than in many of the other markets we visited (**Figure 38**).

FIGURE 37: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

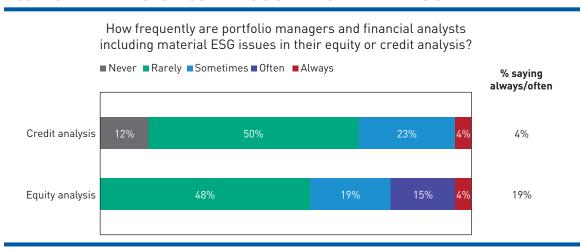
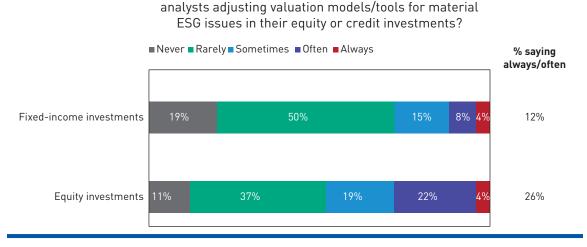


FIGURE 38: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



How frequently are portfolio managers and financial

CHAPTER 34

DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA, WORKSHOP FEEDBACK, AND INTERVIEWS

Capital Management for their help in organizing our ESG Integration workshop in Moscow. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration. We also thank European University at St. Petersburg and TKB Investment Partners for contributing their views on the barriers to and drivers of ESG integration in Russia.

CFA Institute and PRI thank Moscow Stock Exchange and Prosperity





THE STATE OF ESG INTEGRATION IN RUSSIA

Workshop participants said that local investors consider ESG factors in their investment analysis. However, they noted a lack of knowledge in the Russian market about what ESG integration entails, and said it is often confused with screening out sectors, companies, or products.

Investors agree that governance is important as it directly influences the income of a company and ultimately its dividend policy. There is little understanding, however, about the correlation between environmental and social issues with a company's financial performance.

Some Russian investors started to receive ESG questions from their foreign clients a year ago. Russian-based survey respondents ranked low client demand as a top barrier to ESG integration.

Stakeholders were generally in consensus that the promotion of ESG investing in Russia could only work from a top-down approach, where the regulator will need to support this direction.

LOCAL PRACTICES

Workshop participants and additional investors interviewed for this study agreed that local investors are considering ESG factors in their investment analysis. One investment manager described the situation as follows:

When we try to understand the cost of the company, we look at company financials and we also look at nonfinancial data that, although it cannot be easily translated into figures, still influences our subjective view of the company's performance.

In our investment process, we call it the "level of conviction." The overall level of conviction is a complex subjective opinion which is derived from such factors as understanding of a company's business and its level of communication; it also involves the conviction level of a portfolio manager and research analyst looking at that company. For instance, if the management or owner of a company does not care about staff, environment, and broader social implications of company activities, this means the interests of minority shareholders are unlikely to be accounted for either. So these additional risks are factored into the cost of capital of that company.

However, the depth and spread of ESG data analysis isn't as comprehensive, according to another participant:

In Russia, it is better to split ESG into factor by factor. It is clear that almost all of my competitors in Russia look at corporate governance of a company, and probably social responsibility of a business, because it can also pose a risk for minority shareholders. In terms of environment issues, I really don't think that anybody in Russia pays a lot of attention to these issues. I have never seen or heard from my peers that anybody referred to the environment as an important deciding factor in the investment process.

When asked about the overall practice of ESG investing in Russia, an endowment representative confirmed that:

Local investors who don't have links or access to foreign investors would think more about governance and not so much about environmental and social issues. Those who are reporting to foreign investors and investing on their behalf do have some knowledge about ESG, but it is often around corporate governance and social responsibility, and it is less about looking at impact on bond and share prices.

EMPHASIS PLACED ON GOVERNANCE ISSUES

The market believes that corporate governance issues regularly impact share prices and bond prices. Much attention in the investment process therefore focuses on understanding the role and track record of a key decision maker in a company management or ownership structure.

The survey results confirm the low importance of environmental and social issues in investment decisions by local investors compared to corporate governance. Environmental issues can sometimes affect share and bond prices because of possible environmental accidents or penalties for a company. Of note, however, is that survey respondents give social issues slightly higher importance compared to environmental issues (11% versus 7% in equity investing; see Table 36).

A strong sentiment around the impact of social issues on company's profitability, compared to environmental issues, also came from workshop participants. How social factors can impact the price of an equity, however, is not well understood, especially given the short-term investing period in Russia. The investment manager we interviewed also believes that social issues are as low on investors' agendas in Russia as environmental issues. When asked about what issues are

discussed with a company, the investment manager revealed that only governance and social responsibility are generally on the agenda, and that these are never labelled as ESG.

When asked "Would you agree that social issues would be more of a driver of prices than environmental?" the endowment representative agreed, but added that if the question had been asked a year earlier, the response would have been different:

Today, social factors such as employee relations are becoming more important. The mood in the country, both from the perspective of an employer and employee, changed a few months ago, and a lot of discussions started as a result of the pension reform¹ (change in retirement age). I think in the next months, maybe next couple years, this situation will be actively discussed in Russia and it will lead to changes in the social programs of big companies (mostly connected to government).

DATA ARE A PROBLEM

Throughout the workshop and interviews with stakeholders in Russia, the issue of data often came up. Obtaining proper data about the environmental or social responsibility of businesses in Russia is difficult. Russia lacks the media sources and professional investment research

that investors could utilize in their investment process. Gathering information on companies' operations in remote areas of Russia is challenging, especially as ESG data are not covered by media, NGOs, or other data providers. "Even if I receive ESG data, there is no way for me to verify its quality without physically travelling to inspect the company's operations," said an investment manager.

"Even if I receive ESG data, there is no way for me to verify its quality without physically travelling to inspect the company's operations."

The endowment representative also touched on the role of data:

Today some Russian companies already disclose ESG data on a voluntary basis, but only for foreign investors. Those that are interested in foreign capital are already communicating about their ESG practices according to European ESG requirements to foreign investors. Same for Russian asset management companies. If we have more companies that provide ESG data, ultimately they will promote this idea, and more investors would have to make sense of this information. This will start changing the mindset of local investors.

However, there seem to be positive signals around ESG data. There are discussions about the introduction of ESG disclosure on a comply or explain basis for companies in Russia. Other initiatives are also noted. The Russian Union of Industrialists and Entrepreneurs² runs sustainability indices and annual rankings of Russian companies' nonfinancial disclosure and provides investors access to a platform where local companies' sustainability or integrated financial reports are stored in one place. The Concessionaires

 $^{^{1}}$ http://www.pfrf.ru/press_center/~2018/10/04/167652.

² http://www.rspp.ru/simplepage/475.

and Long-term Infrastructure Investors National Association³ developed for existing and potential investors a single database and sustainability analysis of local infrastructure projects in recycling, waste management, water supply, and transport.

MARKET STRUCTURE IMPEDIMENTS

The Russian capital market is small and concentrated, so the idea of excluding financially profitable companies not meeting certain ESG criteria (ethical standards) would not be an approach a local investor would choose today. For example, the energy sector represents roughly half of the MSCI Russia Index; the second largest portion of the index is financials. With ESG issues highly material for these sectors, excluding these sectors would undoubtedly have implications on a portfolio and its risk/return performance. As an investment manager interviewee pointed out, "If a client starts saying you cannot invest in those sectors, you are pretty much left with a very volatile and a very concentrated portfolio." The endowment representative supported this concern: "There is a small universe of bonds and equities that we can invest in [local endowments can invest only in companies listed on the Moscow Exchange]. Most companies of those sectors are not highly ranked on ESG performance." The first green bonds in Russia were issued in December 2018 to finance environmentally friendly projects in waste management. The Moscow Exchange released a statement on the formation of a separate segment in 2019 where green and social bonds will be listed.⁴

Another market impediment to ESG integration is the investment horizon of Russian investors. Some believe Russian capital markets and ESG don't go together, as many local investors have short investment horizons. Because material ESG issues are long-term drivers of returns, they believe ESG issues will not have an impact during their investment horizon.

"If a client starts saying you cannot invest in those sectors, you are pretty much left with a very volatile and a very concentrated portfolio."

Lastly, a problem in Russia is its lack of a strong

base of local institutional investors. Insurance companies and pension funds in other markets often drive ESG integration. In its document of strategic direction, "Key Areas of Development of the Russian Financial Market for the Period of 2019-2021," the Central Bank of Russia (regulator) recognizes the negative impact of this issue: "This limits the ability of the Russian economy to transform household savings into long-term investments necessary for sustainable growth of the economy and improving the welfare of citizens."

THE NEED FOR EDUCATION

Aside from market limitations, lack of buy-in for ESG investing can also be explained by low understanding of what ESG investing is (ESG integration and negative screening are often used interchangeably) and how these factors (more specifically environmental and

³ https://investinfra.ru/concessionaires-and-long-term-infrastructure-investors-national-association/.

⁴ https://www.moex.com/n22067/?nt=106.

⁵ http://www.cbr.ru/finmarket/development/develop/main_directions/.

social) can impact share prices and bond yields. The endowment representative observed that local investors are driven by financial returns and cannot see how issues beyond corporate governance can add value. "If we begin to speak about socially responsible investment, most people would think about avoiding tobacco companies and that's it. Even among foundations and endowments I need to explain what it really means and that it is possible and beneficial to pay attention to ESG factors in Russia."

Knowledge of what ESG issues are is also limited, which makes client reporting on these issues difficult. On the flip side, a good understanding of ESG issues makes client reporting easier, as pointed out by the endowment representative:

"If we begin to speak about

Some Russian asset management companies who work with foreign investors have better knowledge of ESG and how to report on how Russian companies meet ESG criteria, which sometimes may be very easy. For example, there is no such practice as child labor in Russia. Our Labor Code simply prohibits this, so it is easy to claim that Russian companies meet this requirement.

"If we begin to speak about social responsible investment, most people would think about avoiding tobacco companies and that's it. Even among foundations and endowments I need to explain what it really means and that it is possible and beneficial to pay attention to ESG factors in Russia."

An investment manager supported this concern about understanding what are ESG issues and whether they have been integrated already:

To me as an investor, it does not matter how you call it, ESG investing or something else. In our firm, ideas that ESG are based on have been integrated into the investment process for years. These come from a risk management perspective and we don't label it ESG investing. We have always paid attention to corporate governance, we account for this metric when we calculate cost of capital of the company early on in the valuation process.

The importance of education is essential. Survey respondents agreed that education can change the perception of ESG investing and will have an impact in the market when there is some consistency around how often ESG questions are raised and discussed by various stakeholders. Media coverage of the issues is needed, and ESG must be discussed at conferences and other platforms. These ideas need to be put in front of the broader public—not just investment professionals—to raise awareness.

DEMAND FOR ESG IS CHANGING

Russian investment managers are starting to receive ESG questions from their foreign clients, but according to those interviewed, these questions are not always sophisticated. One investment manager noted that "it is popular to talk about ESG in Europe and that is why they ask us about ESG. I never feel these questions are being raised to help a client make a better investment decision or help make an impact with their investments in Russia."

No high demand for ESG considerations locally was registered at the time of the workshop and survey. However, the outlook is that this picture is set to change, with a new, more responsible generation emerging. Although at a slow pace, investors are starting to observe the beneficiary demand and peer pressure.

An endowment representative has shown commitment to ESG and sees students pushing for ESG investing:

Today we don't implement ESG in the endowment, it is new in Russia, but we started to discuss this with our Investment Committee. We have not made progress yet because we are not sure of our knowledge, and we are discussing how to implement this step by step. But the key message here is that we are committed, we feel it is the right way, the international community of endowments and foundations is already engaging in the area of ESG and impact investing, and we want to be in line with our global peers. Also, our PhD students are starting to ask ESG questions—

they are not pushing us to make changes yet, but we feel this is the first step and the next step will be to ask us to start making changes. We monitored how the endowment movement started in the United Kingdom and the United States, where millennials played a key role. Well, generational change here in Russia is very visible, and young people are thinking very differently to a previous generation.

PhD students are starting to ask ESG questions, they are not pushing us to make changes yet, but we feel this is the first step and the next step will be to ask us to start making changes.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey and workshop are presented in **Tables 38** and **39**.

As mentioned previously, lack of comparable and historical environmental and social data, market constraints, a limited understanding of ESG issues and ESG integration, and the potential for positive returns are major barriers in Russia to ESG integration.

TABLE 38: DRIVERS OF ESG INTEGRATION IN RUSSIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	56%	Client demand	42%
Client demand	41%	Risk management	38%
Regulation	41%	Regulation	27%
NA – we don't integrate ESG issues	15%	Senior management buy-in	15%
Senior management buy-in	15%	Incentives	8%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 39: BARRIERS TO ESG INTEGRATION IN RUSSIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of company culture	52%	Low client demand	46%
Lack of comparable and historical data	37%	Lack of company culture	31%
Low client demand	37%	No evidence of investment benefits	27%
Limited understanding of ESG issues and ESG integration	26%	ESG issues are rarely material	23%
ESG issues are rarely material	22%	Limited understanding of ESG issues and ESG integration	23%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

As supported by the survey (Table 39), the lack of a company or investor culture is another barrier, especially with respect to short-termism. Currently, investors often seek pure financial returns on a portfolio and do not think of the impact on society or try to promote the value creation in portfolio companies for the benefit of future generations. Some in Russia believe that short-term investing is also representative of some foreign capital going into Russian equities and bonds. "When investing in Russia, foreign investors understand all the risks and care little about impact, they only pay attention to government risks," said one investment manager.

Low client demand was seen as a top barrier to ESG integration by Russia-based survey respondents. At the same time, client demand is also a top driver of ESG integration, as indicated by the survey results and expressed during the workshop. Over 40% of survey respondents believe client demand would help push ESG investing in Russia (see Table 38).

As with most of the countries we studied, risk management is one of the largest drivers of ESG integration in Russia. There was also consensus among stakeholders that promotion of ESG investing in Russia could only work from a top-down approach, where the regulator would support the direction. However, some shared their view that it is sometimes difficult to make a clear distinction between what is more important, client demand or regulation. In those cases, they tend to defer to client demand as a more important driver. The endowment representative agreed, saying, "It is more about clients who demand it. There is no ESG regulation at this stage in Russia. I know they are thinking about it, but it is not in place right now. When it comes to internal policies, I have not met any Russian investor who has any policies that would touch on ESG. This might cover corporate governance though."

Workshop participants noted that the Central Bank of Russia (the regulator) has started to make positive steps that will support ESG investing. For the first time, it is introducing the idea of developing sustainable finance mechanisms in its roadmap of strategic development of the Russian financial market:

The financial market is able to stimulate investments that contribute to the preservation and improvement of living conditions. Global challenges related to climate change, accumulated environmental damage, and biodiversity reduction

have contributed to the creation and development of sustainable finance institutions and special instruments in foreign financial markets, including green bonds. Russia will also have to get involved in the global process, work on creating its national system of financial instruments contributing to sustainable development, and develop its methodology and verification system for assessing responsible financing instruments.⁶

OUTLOOK FOR ESG INVESTING IN RUSSIA

Asked, "How do you see future developments of ESG in Russia?" our endowment interviewee explained that there isn't an easy answer:

My first reaction is that it would depend on the political situation and sanctions. If there are sanctions against the financial sector in Russia, then not much progress will take place unfortunately, because our financial sector will be excluded from global markets, which will mean it will live its own life without connecting to best practices of ESG investing. If [there are] no sanctions and the Russian financial community can operate on global markets, that would mean the Russian financial market will follow the same direction and ESG practices will be developing, as peer exchange and pressure will help. It really depends on if we are inside the global markets or not.

Some workshop participants are a little more skeptical about any positive developments on the ESG front in Russia, but agree that the environment could be created with the right motivations. For example, management of companies can be motivated on the share price and performance of a company and if they see that performance of the share correlates with their ESG practices, they will be motivated to improve their ESG footprint. An investment manager interviewee agreed that regulation will make companies think more about ESG, and that if there is a request from the top to look at ESG, and ESG factors are included in key performance indicator metrics, then change and progress is possible.

⁶ https://www.cbr.ru/Content/Document/File/44185/onfr_2019-21(project).pdf.

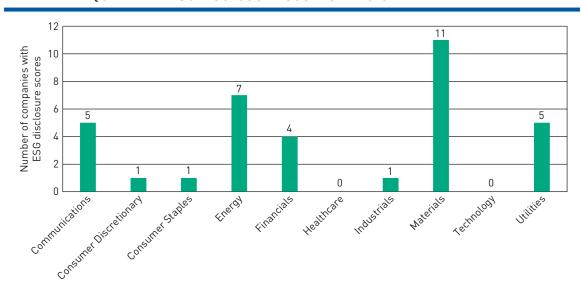
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, and governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies reporting on ESG factors. (For more information, see "Appendix: Methodology.")

In the Russian equity market (**Figure 39**), only two sectors consisting of seven or more companies in 2016—the energy sector and the materials sector, with seven and eleven companies, respectively—reported on ESG factors.

Looking at the aggregated Russian market, **Figure 40** shows how the environmental disclosure score was the lowest in both 2011 and 2016 (23.29 and 30.23, respectively), whereas the social disclosure score ranked second in both years (29.66 and 38.60, respectively), and the median governance disclosure score was the highest in 2011 (42.86) and 2016 (53.57). The largest absolute increase was seen in the median governance disclosure

FIGURE 39: SECTORAL BREAKDOWN OF DATASET: RUSSIAN COMPANIES WITH LISTED EOUITY WITH ESG DISCLOSURE SCORES IN 2016



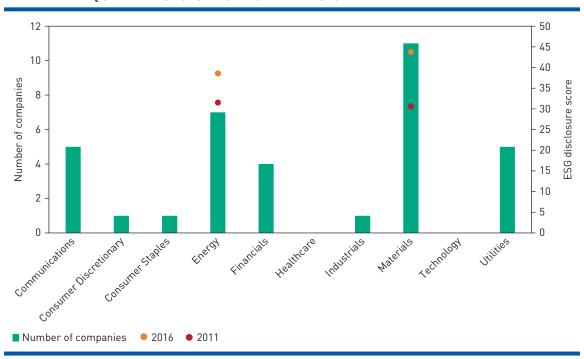


FIGURE 40: MEDIAN ESG DISCLOSURE SCORES FOR RUSSIAN COMPANIES WITH LISTED EOUITY PER SECTOR FOR 2011 AND 2016

score at 10.71, whereas the median environmental and social disclosure scores increased more relative to their 2011 scores (30% for both).

Zooming in, the energy and materials sectors both improved in the five-year period between 2011 and 2016. As **Figure 41** illustrates, the materials sector had the lowest score (30.58) in 2011. The energy sector had a median ESG disclosure score of 31.54. However, in 2016, the materials sector surpassed the energy sector with a median ESG disclosure score of 43.80 compared to 38.59 in energy.

Figure 42 shows the split between the environmental, social, and governance scores for the energy and materials sector. In both sectors, the governance disclosure score is the highest at 55.36 and 57.14 in energy and materials, respectively. The energy sector has environmental and social disclosure scores much lower than the governance disclosure scores, at 38.02 and 35.94.

On the other hand, the materials sector has a social disclosure score (54.39) very close to the governance disclosure score. Its environmental disclosure score of 32.56 is significantly lower and pulls down its overall ESG disclosure score.



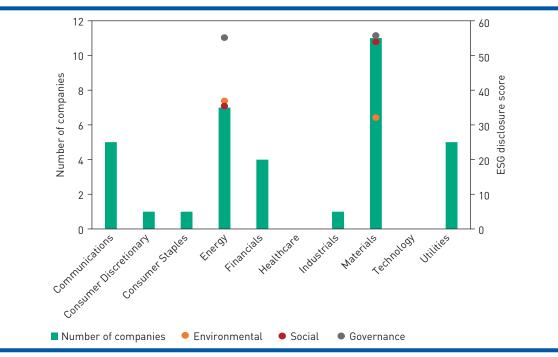
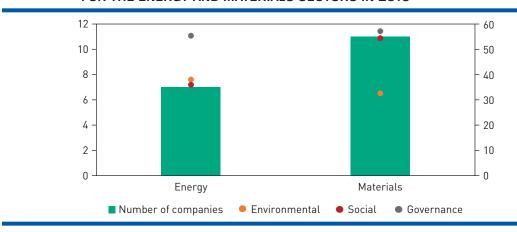


FIGURE 42: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR THE ENERGY AND MATERIALS SECTORS IN 2016



CASE STUDY BY EAST CAPITAL: INTEGRATING ESG FACTORS INTO RUSSIAN EQUITIES

East Capital has been investing in emerging and frontier markets for 20 years. Although we didn't call it as such, ESG analysis has been integral to our investment process from the start. Initially this meant a focus on companies with owners with aligned incentives and transparent operations. This is still the case, but our ESG framework has developed over time. We introduced sector exclusions in 2007, controversy screening in 2010, and our proprietary ESG scorecard in 2016. Our final ESG pillar relates to voting and engagement, which we have been doing since our inception in 1997.

Figure 43 provides an overview of how ESG is implemented in each stage of our investment process.

THE EAST CAPITAL ESG SCORECARD

The decision to develop our own scorecard was driven mainly by the desire to formalize and structure our own experience with relevant and material ESG-related risks and opportunities. This was compounded by the reality that "off the shelf" ESG scores are highly dependent on data availability and typically a tick-the-box type of exercise (e.g., "Is there a policy on child labor?"). In fact, policy metrics have been shown to have a negative correlation with alpha generation,⁷ hence, the need to collect our own data based on quantitative and qualitative research.

Our scorecards are filled out by the portfolio managers and analysts and typically require engaging in a dialogue with a company's management. The key benefit to such an approach—and to the scorecard in general—is that it ensures that we take a holistic approach to company analysis and that relevant and material ESG factors are considered. This includes risks and opportunities related to the Sustainable Development Goals (SDGs).⁸

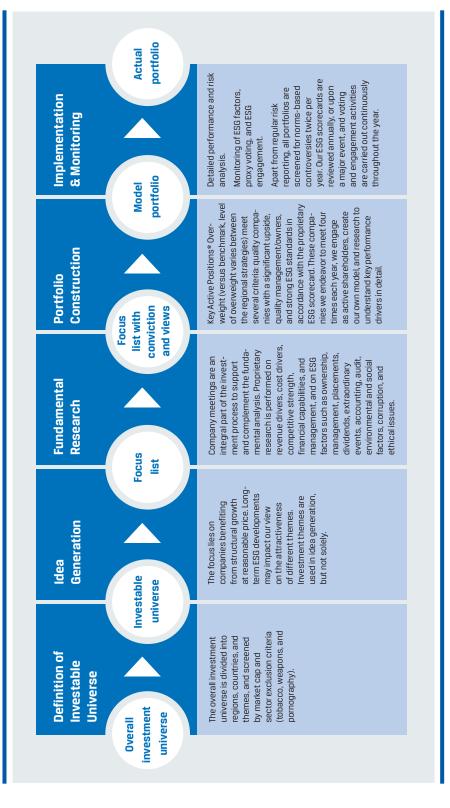
Further benefits to the scorecard are that it:

- generates a list of issues/questions to research further or raise with the company;
- identifies areas of improvement that we can address through constructive engagement;
- helps to focus our internal resources and ensures that we bring sustainability topics onto corporate agendas;

⁷ Goldman Sachs, "The Emerging ESG Toolkit: Promise and Pitfalls," 19 February 2018.

⁸ https://sustainabledevelopment.un.org/sdgs.

FIGURE 43: THE EAST CAPITAL INVESTMENT PROCESS



- allows us to adjust our scenarios and modelling assumptions, if needed; and
- helps to determine a level of conviction, together with the more typical investment criteria.

Figure 44 provides an overview of the scorecard. Note that "key active positions" are significant overweight positions, the size of which varies based on the strategy.

ESG INTEGRATION CASE STUDY: YANDEX

We now explain how we used the scorecard to determine our positioning for Yandex in 2017. Yandex is most simply described as the "Google and Uber of Russia." The company enjoys a dominating 56% share of the internet search market in Russia (Google has 40%). It also has a range of other segments, such as a leading ride-sharing business, Yandex. Taxi (with whom Uber formed a joint venture in February 2018). **Figure 45** shows the ESG score that informed the Yandex assessment.

We consider capital allocation to be the heart of good "ESG" and also the ESG factor that has the largest impact on company valuations. Hence, its weighting in our scorecard is 30%. Thorough analysis led us to conclude that over the last few years Yandex had an exemplary track record of highly accretive and transparent investments and that we expected this to continue. One particular example we focused on is Yandex. Taxi, the "Uber of Russia." Up to Q2 2018, the company had invested USD 333 million into this subsidiary, which we estimate is now worth around USD 5 billion, with revenues growing 426% year-on-year in Q2 2018. More generally, through our meetings with managers of the company's various initiatives such as Yandex. Cloud or Yandex. Drive (a car-sharing service), it is clear to us that the majority of the company's investments will contribute significant value to its shareholders over the next few years.

In terms of risks that the scorecard highlights, the ownership structure required careful consideration. Like many tech companies, Yandex has a dual-class voting structure: founder Arkady Volozh has a 10.2% economic interest in the company but a 48.2% voting interest. Although this limits the power of minority shareholders, our analysis suggests that Mr. Volozh and his co-investors have so far not taken any decisions that would negatively impact minority investors and we do not expect this to change going forward.

Environmental issues are less important for tech companies such as Yandex compared to the extractive companies that dominate Russia's equity markets. Nevertheless, we have been impressed with the company's innovative approach to energy management, most notably at its Finnish data center where it directs excess heat to local households for heating. This has allowed the Finnish city to reduce heating prices and cut emissions by 40% while reducing costs for Yandex. On the social side, we noted the company's strong commitment to developing and retaining human capital and that it consistently ranked as the top one or two desirable companies for Russian IT graduates. Talent acquisition and retention are key issues for IT companies.

From a fundamental perspective, we have liked this company for a few years, as we believe the market is significantly undervaluing the combination of Yandex's core search business (demonstrating annual growth of 20%+) and its exciting (though still loss making)

FIGURE 44: OVERVIEW OF THE EAST CAPITAL SCORECARD

	Holdings	Aim	Areas covered	Score levels
Red-Flag score	All existing holdings	At the outset, consider the 10 most critical ESG questions in EM and FM	Focuses on major Red Flags related to corporate governance, ethics, and corruption, and severe or	Maximum 2 Red Flags for Key Active Positions
	When initiating research on new companies	Gives quick ESG overview and understanding Helps focus research resources	systematic environmental or social controversies	More than 3 Red Flags should not warrant further research or investment unless specific reason to accept higher ESG risk is warranted, accepted, and documented
score	All Key Active Positions and top holdings to start Overtime, other relevant long- term holdings and new investments	50+ questions to consider relevant and material ESG risks and opportunities in EMs and FMs Helps to determine level of conviction (together with financial quality, significant upside, etc.) Generates a list of issues/ questions to research further or raise with the company Allows us to adjust our scenarios and modelling assumptions, if needed	Shareholders/board/ management Dividend policy Capital allocation Ethics and corruption Transparency Impacts on CapEx/OpEx next 5 years Management's understanding of relevant risks and opportunities, including climate change Significant controversies Social (12.5%) Impacts on CapEx/OpEx next 5 years Social (12.5%) Impacts on CapEx/OpEx next 5 years Supply chain Health & safety Significant controversies	Key Active Positions should have an ESG score of at least 70% Other holdings should score at least 60% However, specific insight or reason may allow us to accept a lower score—and higher ESG risk—if warranted, accepted, and documented. For example, if we have sufficient evidence and tangible triggers for near-term ESG improvements. We may, for certain reasons, such as liquidity requirements, be forced to hold certain companies that we see as laggards from an ESG perspective.

FIGURE 44: OVERVIEW OF THE EAST CAPITAL SCORECARD (CONTINUED)

els	Determine to which extent an issuer can be categorized as being a "solution provider" Adjust modelling assumptions, level of conviction, or stock selection
Score levels	Determine issuer car a "solution Adjust mc level of cc selection
Areas covered	groups: 1 2 Goals that we believe may impact the demand for, or attractiveness of, a company's products, services, or technologies Goals: 1-4, 6, 7, 9, and 11-15 5 Goals that we see as the universal responsibility of all companies to address in their operations, regardless of size, market, or sector. Assessed in the E, S, and G sections of our scorecard Goals: 5, 8, 10, 16, and 17
Aim	Framework to identify streams of revenue from a company's products/services or technologies that are expected to either: BENEFIT due to greater demand in order to achieve the SDGs, (e.g., clean energy, education, health); OR SUFFER due to lower demand or total substitution in order to achieve the SDGs (e.g., fossil assets or unhealthy food)
Holdings	All Key Active Positions and top holdings to start Overtime, other relevant long- term holdings
	module

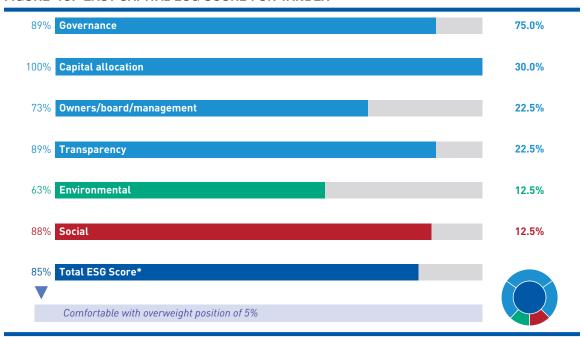


FIGURE 45: EAST CAPITAL ESG SCORE FOR YANDEX

subsidiaries such as Yandex.Taxi. In fact, we believe that Yandex.Taxi will be one of the ride-sharing companies globally to reach profitability in early 2019. However, to determine weighting in our strategies, we lean on the ESG score.

The ESG score of 85% meant that we were comfortable with a significant overweight position across our strategies. Indeed, in 2017, the company enjoyed an active weight of over 4.5% in our Russia strategy. This turned out to be a good decision as the company returned 62.7% in 2017, 56.8% above the Russian index, all in US dollars. Had the score been below 80%, the active weight would have been considerably lower due to the higher risks involved.

From an SDG perspective, we see the internet as an enabler for growth and prosperity⁹ (SDG Goal 1). Yandex's various products contribute to this in various ways, from small enterprises being able to sell goods on Yandex.Market to students being able to study free courses through the Yandex School of Data Analysis (SDG Goal 4). We also note that Yandex is the first company in Europe to launch an autonomous ride-hailing service, which has been running since August 2018 in the Russian university town of Innopolis. Clearly, self-driving cars will play a key role in making cities more sustainable (SDG Goal 11). These observations further increase our conviction level in the company.

⁹ See, for example, Deloitte, "Value of connectivity – Economic and social benefits of expanding internet access," February 2014, https://www2.deloitte.com/content/dam/Deloitte/ie/Documents/TechnologyMediaCommunications/2014_uk_tmt_value_of_connectivity_deloitte_ireland.pdf.

INTERVIEW WITH A RUSSIAN MAJOR MARKET PLAYER: THE CENTRAL BANK OF THE RUSSIAN FEDERATION

Interview with Sergey Shvetsov, First Deputy Governor, Bank of Russia (the Central Bank of the Russian Federation), about ESG integration in Russia.

What changes have you seen with regard to ESG investing in Russia during recent years?

In the Russian Federation, investment practice factoring in ESG principles is at its inception. The issues of implementing and promoting ESG investment have not yet been translated into the Russian Federation's regulations, while the procedure for making investment decisions by national institutional investors most commonly does not cover the evaluation of ESG factors.

At the same time, a growing number of Russian companies strive to achieve the objective of long-term sustainable development. The idea that business profitability must combine with social responsibility, environmental protection, and protection of human rights is becoming increasingly widespread. Professional associations develop ratings and indices in the field of sustainable development and corporate social responsibility (e.g., the sustainable development, corporate responsibility, and reporting indices developed by the Russian Union of Industrialists and Entrepreneurs). Given the interest of foreign investors in ESG matters, Russian public companies put certain efforts in this area: they develop ESG strategies and corporate policies that govern the activities in the sphere of environment, social responsibility, anticorruption policy, corporate responsibility, and sustainable development matters.

Many large public companies, particularly following the recommendations of the Corporate Governance Code, publish information on social and environmental responsibility, as well as sustainable development reporting. Such reporting is disclosed as part of the annual report, integrated report, or separate sustainable development report.

How do you see your role as the regulator of the financial market in promoting ESG investing in Russia?

Responsible investment is inextricably connected with the need to adhere to high standards of disclosure of ESG information that enable investors to include social and environmental data in the decision-making procedures. The first step to regulate ESG-related matters was the Concept for Public Non-Financial Reporting Development adopted by the Government of the Russian Federation. The Concept implementation should also contribute to improving Russia's investment attractiveness and systematization of the procedure

for nonfinancial reporting introduction into practices of Russian entities and encouraging companies to increase transparency.

Currently, as part of the Concept implementation, a draft law, "On Public Non-Financial Reporting," is being developed to establish the requirements for drawing up public nonfinancial reporting with respect to a significant number of Russian companies. The preparation and disclosure of public nonfinancial reporting would help investors to evaluate the contribution made by Russian companies to the social development and facilitate the building of trust and long-term relations between investors and companies. For companies themselves, disclosing such information would help increase company value and attract capital, and is an incentive to comply with the occupational health and safety, business ethics, ecological safety standards, and environmental requirements, as well as to meet the noticeably growing expectations of the civil society in terms of corporate social responsibility.

As businesses demonstrate their focus on environmental protection, a responsible attitude to resources, and enforcement and protection of human rights, they become increasingly attractive to investors. Russian companies should pay special attention to sustainable development factors, as well as consider ESG factors in their development strategies and risk management policies.

One crucial issue is the participation of institutional investors in corporate governance, as well as their contribution to the sustainable and long-term development of a company. Responsible investment contemplates that investors will play an active part both during the selection of investments and after (i.e., when monitoring the operations of the investee companies).

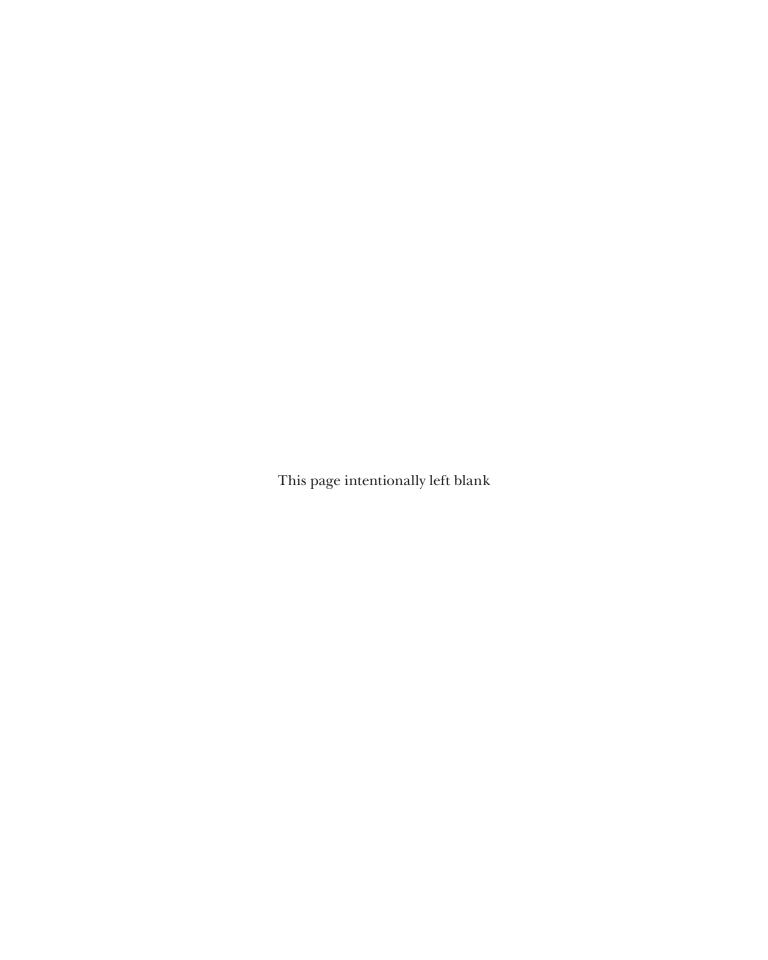
How do you see the future development of ESG investing in Russia?

Given the increasing focus on responsible investment matters, the Bank of Russia considers a possibility of developing a national Stewardship Code for institutional investors. The introduction of such a code is aimed at ensuring proper interaction between institutional investors and companies to create conditions that contribute to an increase in the long-term income of shareholders and efficiency of performance of corporate governance functions, including by shaping the good practice of interaction between institutional investors and companies. At present, efforts are made to study the international practice of introducing Stewardship Codes in other financial markets.

Another recent initiative relates to the growing institutional investor interest in green bonds worldwide. As a result, a Working Group (part of the Expert Committee on fostering long-term investments by the Central Bank) was set up in 2018, and tasked with studying the barriers to and identifying key characteristics necessary for developing of green finance in Russia. At the end of 2018, the Working Group published the report *Green Finance: Agenda in Russia.* ¹⁰

We believe that consistent encouragement of the application of good governance and responsible investment principles will benefit companies, investors, and the Russian economy as a whole.

¹⁰ https://www.cbr.ru/finmarket/development/development_fin_instruments/financing/.



SECTION 9 COUNTRY ANALYSIS: SOUTH AFRICA

THE IMPACT OF ESG FACTORS ON CAPITAL **MARKETS AND INVESTMENT PRACTICES: SURVEY DATA**

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often South African investors consider that environmental, social, or governance (ESG) issues affected share prices and bond yields in the South African capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in 2022. South African practitioners consider social factors more impactful than do the practitioners in many of the other markets we visited. As well, respondents feel that the impact of social factors will increase by 2022 (**Table 40**).

TABLE 40: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS' TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICE	S	
Governance	58%	80%
Environmental	23%	60%
Social	23%	65%
ESG ISSUES IMPACT ON CORPORATE E	BOND YIELDS/SPREADS	
Governance	69%	77%
Environmental	23%	54%
Social	38%	62%
ESG ISSUES IMPACT ON SOVEREIGN D	EBT YIELDS	
Governance	58%	69%
Environmental	23%	23%
Social	42%	62%

ESG RISKS AND OPPORTUNITIES

Respondents in South Africa were asked how often ESG risks and opportunities affect share prices and bond yields in South African capital markets (**Table 41**). Social risks and opportunities are more prominent in investors' minds in South Africa than in other markets, but governance risks are still the main risk investors look to in South Africa when incorporating ESG data into the investment process.

TABLE 41: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	35%
Environmental opportunities	23%
Social risks	43%
Social opportunities	25%
Governance risks	78%
Governance opportunities	45%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BON	D YIELDS/SPREADS?
Environmental risks	27%
Environmental opportunities	15%
Social risks	31%
Social opportunities	31%
Governance risks	65%
Governance opportunities	46%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT	YIELDS?
Environmental risks	31%
Environmental opportunities	27%
Social risks	38%
Social opportunities	38%
Governance risks	69%
Governance opportunities	62%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of South African practitioners, the survey asked how often South African portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Just over one-quarter of survey respondents say that they "often" or "always" incorporate ESG data into equity and credit analysis (**Figure 46**). However, analysts and portfolio managers in South Africa are much more likely to adjust their models based on ESG data than practitioners in other markets; most practitioners in other markets rarely adjust their models based on ESG data, and their numbers for this question were usually in the single digits (**Figure 47**).

FIGURE 46: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

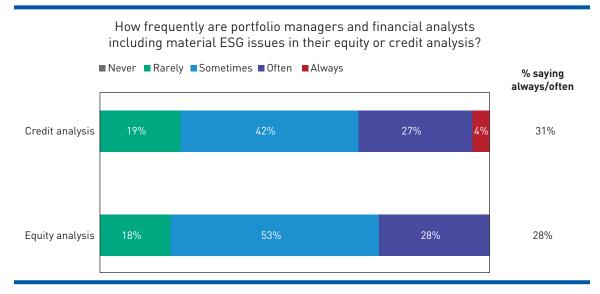
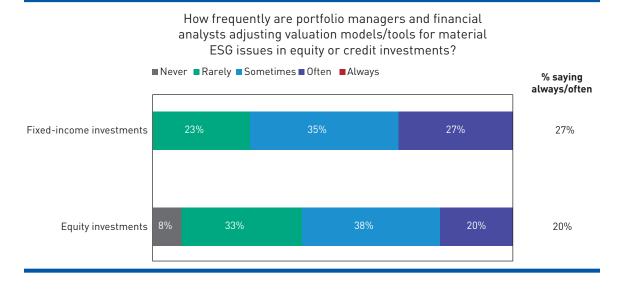


FIGURE 47: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



DRIVERS OF AND BARRIERS TO ESG INTEGRATION: SURVEY DATA AND WORKSHOP FEEDBACK

CFA Institute and PRI thank Johannesburg Stock Exchange, who hosted us at their Johannesburg and Cape Town offices, and Old Mutual Investment Group, for their help in organizing our ESG Integration workshops in Cape Town and Johannesburg. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.



THE STATE OF ESG INTEGRATION IN SOUTH AFRICA

Workshop participants agreed that ESG factors can influence prices over the long term and can add value. However, they felt that the impact of ESG factors on prices are more muted in South Africa compared to the rest of the world. European investors, for example, are doing a lot more integration of ESG factors; therefore, ESG factors are likely to affect share and bond prices in European markets more frequently than in South African markets.

Participants in our South African workshops note that ESG integration is happening more in listed equities than in fixed income. One participant noted that even though ESG issues are very tangible, the impact on market values tends not to occur until after a controversy. Prices are reactive to ESG issues and therefore are not priced in until a major event happens.

The long-term nature of fixed income means investors price ESG into bond valuations and prices with more confidence. As such, companies that do not consider ESG issues are at risk of being cut out of the fixed-income market as investors may not want to be exposed to the risk of losing their capital because of default.

The long-term nature of fixed income means investors price ESG into bond valuations and prices with more confidence.

Governance is the most material of the ESG issues across shares, corporate bonds, and sovereign debt. Sector-specific risks need to be considered when considering the impact of environmental and social issues.

IT'S ABOUT GOVERNANCE

Governance is the main driver of ESG integration as it is an indicator of quality of management. Strong governance equals quality management, which equates to a sustainable business and consistent investment performance. Investors are familiar with governance but fuzzy about environmental and social issues. Governance issues such as board

independence, conflict of interest, and executive pay are well known, assessed, and valued. Environmental and social issues are not as well known, and investors aren't aware if these issues are being assessed and valued.

Governance issues are easier to fix than environmental and social issues, as governance codes and international norms provide objective standards. This makes good governance scores easy to achieve. If poor governance is priced in, then a company can make quick adjustments to its governance that in turn improves its governance scores, share prices, and bond prices. Environmental and social issues are long term and more difficult to assess. This makes it harder for these factors to be priced into the markets as investors do not know how these issues are valued by other investors.

One participant noted that social issues are hard to price and tend to be driven by regulation and values, asking, "How does an investor value human rights or community relations?" Although some standards exist for environmental issues, there are few for social issues. Environmental issues seem more quantifiable than social issues as some raw data are available for them; it is also relatively easier to assess if a company is managing its environmental footprint through programs, key performance indicators (KPIs), and targets. Thus, integration of environmental issues is more advanced than integration of social issues.

EQUITIES VERSUS BONDS

Although investors are assessing ESG issues and identifying material ESG factors, some investors are not convinced that ESG issues are being priced in. Share prices tend to be reactive to ESG events, which suggest that share prices are not being influenced until after a major controversy. Share prices react to ESG issues and events more quickly than bond yields and ESG integration is essential to avoid large losses and to take advantage of large gains in the equity market.

Education around ESG is an issue in the fixed-income world. ESG is more familiar to and practiced by equity investors. Fixed-income practitioners are not as knowledgeable about ESG integration and training is necessary to encourage more ESG integration in fixed income and in the pricing of ESG factors.

According to one practitioner, it is more important to integrate ESG issues in fixed income than in equity. As the bond market is less liquid than the equity market, when a major ESG incident happens, it can be harder to sell out of an issuer—there will be a larger price impact and the issuer could even default.

TIME HORIZONS

Time horizons make a difference. ESG factors are long term and are more material the longer a company is held in a portfolio and especially if bonds are held to maturity.

The impact of ESG issues depends on whether the strategy has a short-term investment horizon or a long-term investment horizon. Short-term strategies Time horizons make a difference. ESG factors are long term and are more material the longer a company is held in a portfolio and especially if bonds are held to maturity.

are not influenced significantly by ESG factors, but long-term strategies are exposed to ESG risk due to their long-term, infrequent, high-impact nature.

Short-termism is a problem. Pension funds monitor their external managers based on short-term performance, but the benefits of ESG integration are shown on long-term performance and therefore harder to prove, especially during quarterly client meetings that focus on quarterly and annual returns.

Bonuses are also based on short-term performance so there is no incentive for practitioners to integrate ESG issues. Managers analyze short-term drivers such as economic indicators and quarterly earnings to try to demonstrate strong quarterly and annual performance and therefore earn higher bonuses.

The buy side tends to have a more long-term investment horizon and is more likely to analyze ESG factors and therefore more likely to include ESG factors in valuations. Sell-side brokers have a short-term investment horizon and therefore their buy/sell/hold recommendations are less likely to be influenced by ESG factors. As markets are often driven by sell-side brokers' recommendations, ESG factors are not likely to influence short-term price movements caused by broker recommendation.

Pricing ESG issues in the long term requires confidence. As ESG factors are infrequent, high-impact, low-probability issues, it is difficult to know how to quantify ESG factors and to estimate when they will impact the share price or bond price—will it be in a year's time, two years' time, or five years' time? It takes courage for a portfolio manager to divest holdings based on a view that a material ESG factor will cause the share/bond price to drop significantly sometime in the next five years, especially if the company outperforms the market in the interim.

THE DATA

Issues surround the quality and availability of ESG data. One participant wanted to know how to quantify ESG data in valuations when the data are spotty or unreliable, asking, "Do you turn the raw data into a line item, do you adjust the discount rate, do you link the data with adjustments in weightings? What is the best practice?"

Quantification of ESG issues is an issue for many investors. They argue that if ESG issues can't be put in a spreadsheet, they can't be integrated.

Quantification of ESG issues is an issue for many investors. They argue that if ESG issues can't be put in a spreadsheet, they can't be integrated.

HOW ESG IS REGULATED

Regulation has an impact on ESG integration in South Africa:

- Section 54 of the Mine Health and Safety Act (MHSA)¹ has forced companies to think more about health and safety.
- Regulation 28 of the Pensions Fund Act outlines a fund's fiduciary duty to "give appropriate consideration to any factor which may materially affect the sustainable

¹ http://businessmediamags.co.za/section-54-vs-55-enforcing-efficiency-for-sas-safety-laws/.

- long-term performance of a fund's assets, including factors of an environmental, social, and governance character."
- The Institute of Directors in Southern Africa released the Code for Responsible Investing in South Africa (CRISA),² which directs institutional investors to "incorporate sustainability considerations, including environmental, social, and governance, into investment analysis and investment activities as part of the delivery of superior risk-adjusted returns to the ultimate beneficiaries."

One workshop participant suggested that regulation was not as effective as hoped. The example given was South Africa's Regulation 28, which governs pension funds' investment practices, but was seen as ineffective by that participant.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 42** and **43**.

TABLE 42: DRIVERS OF ESG INTEGRATION IN SOUTH AFRICAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENT	rs
Risk management	73%	Risk management	81%
Regulation	33%	Regulation	42%
Generate alpha	23%	Client demand	15%
Fiduciary responsibility	20%	Fiduciary responsibility	15%
Client demand	15%	Generate alpha	12%

Note: Percentages represent those who thought each item was a main driver. Survey respondents could choose more than one answer.

TABLE 43: BARRIERS TO ESG INTEGRATION IN SOUTH AFRICAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues and ESG integration	48%	Limited understanding of ESG issues and ESG integration	46%
Lack of comparable and historical data	38%	Concern about negative returns	27%
Lack of company culture	30%	Lack of comparable and historical data	27%
Concern about negative returns	25%	Lack of company culture	27%
Too much nonmaterial info	25%	Limited amount of ESG research	23%

Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

²https://www.iodsa.co.za/page/CRISACode.

Risk management is still the main driver of ESG integration, as it is in most markets. However, in South Africa, regulation was also a main driver of ESG integration because of a higher requirement concerning the publication of ESG data in South Africa than elsewhere. One practitioner notes that Regulation 28 has forced clients to do something on ESG.

According to one practitioner, corporate culture change is necessary for portfolio managers to learn about ESG, to think about ESG, and to integrate ESG.

In South Africa, regulation was also a main driver of ESG integration because of a higher requirement concerning the publication of ESG data in South Africa than elsewhere.

Managers are driven by alpha and look for investment ideas to generate alpha. If managers believe ESG integration can find investment opportunities and alpha, then they will buy into ESG integration.

A lack of understanding of ESG integration and how it can be accomplished is a significant barrier to ESG integration. Respondents find it difficult to translate ESG into performance (i.e., translating ESG into EPS impact). Short-term investment horizons are also a barrier. For successful ESG integration, investment horizons need to be longer than three years.

ESG professionals tend not to understand how to quantify ESG, to look at non-material information, and to fail to provide an investment case to portfolio managers. Portfolio managers and analysts, for their part, tend not to understand ESG issues and not look at ESG data, to be unable to quantify ESG issues, and to lack incentives to integrate. The separation of responsibilities for ESG analysis and fundamental analysis can prohibit the creation of a collaboration where ESG issues can be effectively and systematically integrated.

Career risk is also cited as a barrier to ESG integration. If a portfolio manager engages in ESG integration and it causes the portfolio to underperform, the portfolio manager could be at risk of losing the mandate. Portfolio managers are under pressure to provide proof of positive performance related to ESG. Thus, a clear demonstration of evidence supporting positive performance and a clear benefit for taking that risk are needed.

Too much nonmaterial information is a concern among some practitioners. Companies can easily hide poor ESG performance behind lofty sustainability reports, a strategy often referred to as "greenwashing."

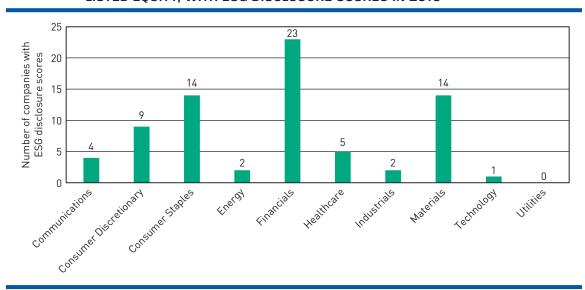
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 48 shows the number of companies with ESG disclosure scores in the South African equity market. In terms of numbers of companies, the sectors large enough to be included in the analysis are the financials (23), consumer discretionary (9), consumer staples (14), and materials (14) sectors. The communications (4), energy (2), healthcare (5), industrials (2), technology (1), and utilities (0) sectors are too small to be included.

Figure 49 shows the median ESG disclosure score across sectors for 2011 and 2016. Only the financials sector had a higher score in 2011 (35.35) than in 2016 (32.46). The consumer discretionary and materials scores both barely increased in that five-year period, moving from 34.45 to 36.36 and 51.45 to 52.27, respectively. Consumer staples moved from having

FIGURE 48: SECTORAL BREAKDOWN OF DATASET: SOUTH AFRICAN COMPANIES WITH LISTED EQUITY, WITH ESG DISCLOSURE SCORES IN 2016



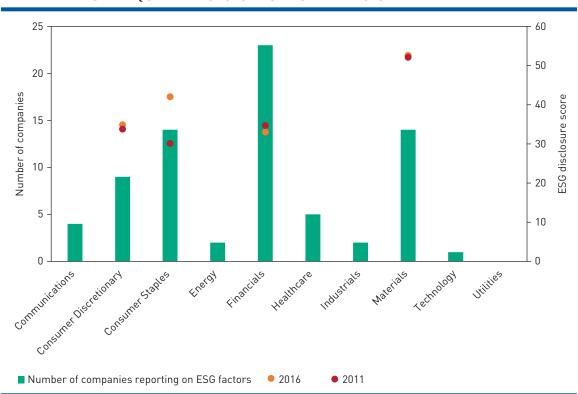


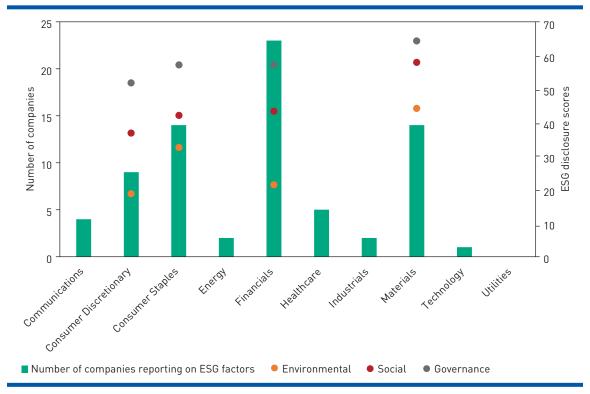
FIGURE 49: MEDIAN ESG DISCLOSURE SCORES FOR SOUTH AFRICAN COMPANIES WITH LISTED EOUITY PER SECTOR FOR 2011 AND 2016

the lowest ESG disclosure score in 2011 (30.60) to having the second highest score (41.94) in 2016. The materials sector had the highest median ESG disclosure score in 2011 (51.45) as well as in 2016 (52.27), a trend consistent with our findings from the European markets.

Figure 50 shows the split between the median environmental, social, and governance disclosure scores in 2016 across sectors. In all four sectors, the governance disclosure score is highest, the social score is second, and the environmental score is lowest. As in the European countries, governance disclosure scores show the least variation in range, with consumer discretionary having the lowest score (51.79) and materials the highest (64.29). Social disclosure scores vary more widely, ranging from 36.84 in consumer discretionary to 57.89 in materials. Environmental disclosure scores follow the others by being lowest in consumer discretionary (18.75) and highest in materials (44.19); they also show the largest variance in scores across sectors.

Overall, the South African market has performed in line with European markets, with the materials sector being the highest-scoring sector regarding ESG disclosure.

FIGURE 50: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR SOUTH AFRICAN COMPANIES WITH LISTED EQUITY PER SECTOR FOR 2016



INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

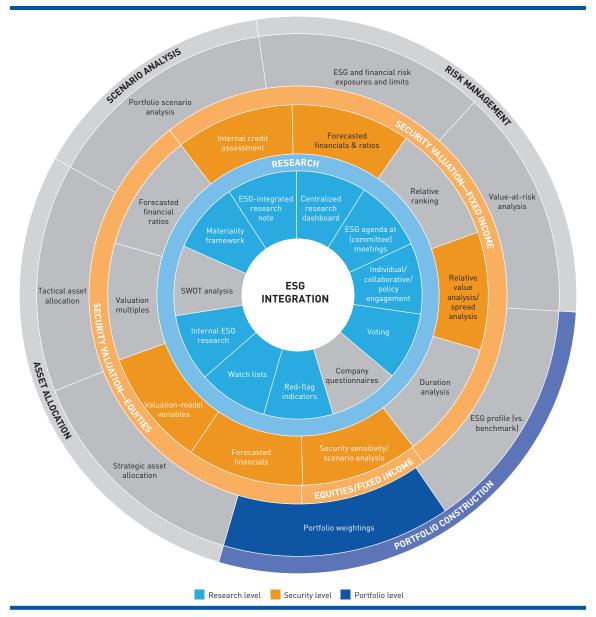
- The results of our survey and reported data by investors showed that ESG integration in South Africa is predominantly focused on corporate and sovereign governance issues. However, attention to social and environmental considerations is on the rise.
- For companies, social and environmental risks and opportunities are mainly considered for high-impact sectors such as mining and oil and gas. For sovereign debt investors, analysis is concentrated on emerging market issuers.
- Equity practitioners adjust their valuation models/tools for material ESG issues more frequently than fixed-income practitioners (**Table 44**).
- **Figure 51** highlights practices from the ESG Integration Framework that are applied in South Africa. Both equity and fixed-income practitioners favor qualitative over quantitative analysis. Equity practitioners focus on ESG risks as well as opportunities, while fixed-income practitioners primarily evaluate ESG from a risk perspective. Materiality frameworks are typically a starting point in ESG research for all practitioners. Fixed-income practitioners frequently build proprietary ESG scores to track issuers' performance over time and make use of ESG red flags and watch lists much more often than equity practitioners.
- Portfolio construction, risk management, and asset allocation are rarely deployed, though where they are, the practices are typically robust.

TABLE 44: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	39%	38%
Environmental	29%	19%
Social	32%	25%

Note: Percentages represent respondents who answered "often" or "always." Fixed-income investments include corporate bonds and sovereign debt.

FIGURE 51: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY SOUTH AFRICA-BASED INVESTORS



EQUITIES

Research

The most popular approach taken by practitioners is to formulate a qualitative assessment of ESG issues that will influence buy/sell/hold decisions or overweight/underweight/

neutral decisions. The goal is to identify factors that inform investor opinion on a company management's ability to deliver sustainable returns over the long run. To inform their decisions, practitioners use a variety of techniques, including:

- materiality/sustainability frameworks,
- centralized research dashboards,
- ESG-integrated research notes, and
- company engagement.

Identifying ESG issues that are relevant and material to a company's operations and its external environment is often the starting point of ESG integration. This can be accomplished through internal bottom-up research that incorporates ESG research as part of the research framework/research notes. Qualitative ESG assessment can also be informed via external ESG scores, which help practitioners determine whether a company is a leader or a laggard within its industry based on a standardized set of material ESG risks and opportunities. The results of qualitative ESG analysis can be presented to and debated within the investment team. They are typically used in one of two ways: to adjust the valuation metrics (forecasted financials, valuation-model variables, and valuation multiples) of investee companies, or to inform direct discussions with company management.

Changes in ESG performance over time may be monitored and compared with changes in financial performance. The ESG assessment of a stock can inform the "margin of safety" to which practitioners attach their valuation of that stock, thus limiting and at times preventing entirely their investment in stocks that look attractive on price but do not hold up on ESG factors.

Security Valuation

Analysts typically use discretion to decide how best to capture ESG risk in the derivation of fair value. ESG factors are being quantified through forecasted financials and/or valuation-model variables.

Where the financial/earnings impact of environmental, social, or governance factors is known or can reasonably be estimated, analysts will include the information in the earnings forecast, cost growth, or levels of profitability for the valuation of the company. For example, this can happen through a provision for carbon taxes, water and mine waste pollution clean-up costs or fines, or additional costs related to the potential for change in the company's legal and regulatory frameworks. Company valuations can also be adjusted by deducting overall environmental damage costs from the valuations.

If analysts cannot estimate the financial impact or the timing of the material environmental, social, or governance factors to cover for this uncertainty, they may make a positive or negative adjustment to the discount (or "hurdle") rate. Management's strategic decisions with respect to ESG can also be seen to affect the investor's view on components of the Dividend Growth Model, including its return on equity, discount rate, and expected dividend growth rate.

Valuations within a sector may be influenced by ESG factors, so that identical companies can have different valuations. For example, when investing in a platinum company that is identical to others from a financial perspective, integrating the social criteria around labor relations and working conditions may produce a valuation that differentiates the company from its counterparts. Sometimes, ESG analysis may help implicitly, for example, by improving the pricing of commodities, which in turn delivers better estimates for the valuation of resource-intensive companies.

Portfolio Construction and Risk Management

Few South African practitioners are applying ESG research at the portfolio construction level. Some strategies may limit exposure to poor ESG performers in absolute terms, while others may prefer to consider ESG risks relative to a benchmark. In determining the target allocation within the model portfolio risk characteristics, practitioners may balance ESG factors alongside effective diversification and valuations. In one example, a risk rating (including ESG-related risk) as well as a "buy" or "sell" status is assigned to each stock, restricting the size of specific holdings in client portfolios. Although applying ESG to asset allocation decisions is uncommon, one practitioner reported having adjusted asset allocation in a portfolio to lower ESG risk by choosing to disinvest from certain companies that presented too high an ESG risk and where management engagement was ineffective.

When the magnitude and implications of change are unknown, as is often the case, practitioners also deploy scenario analysis, examining different potential scenarios and how the company plans to adapt to each.

FIXED INCOME

Research

Although slightly fewer fixed-income practitioners compared to equity practitioners are integrating ESG factors into their investment analysis, some are deploying advanced techniques to assess the creditworthiness of corporate issuers. Within fixed income, ESG integration practices are less prevalent for sovereign debt investors.

Similar to their equity counterparties, fixed-income practitioners use a range of qualitative techniques to inform their research, including:

- centralized research dashboards (whereby ESG information is made available to all investment staff and is a standard item on issuer summaries, tear sheets, and similar documents),
- ESG-integrated research notes,
- internal ESG research,
- red-flag indicators,
- materiality/sustainability frameworks,
- ESG agenda at (committee) meetings, and
- direct issuer engagement.

Qualitative decision making is the most popular ESG integration approach for corporate and sovereign debt investors in South Africa. ESG factors at the forefront of practitioners' minds include corporate governance as well as a careful evaluation of the macro and regulatory backdrop of the sector where the issuer is operating. To assess the outlook for a company, one practitioner reports striving to understand the government's stance on a sector; the social and economic role the sector/company plays, including its social license to operate for sectors such as oil and gas and mining; and the degree to which regulation may change. Corporate governance can be assessed internally, via checklists to ensure red flags are identified in a timely manner, or externally, via service provider assessments.

Overall, scoring and monitoring of corporate issuers over time against a proprietary materiality framework is a popular approach for South African fixed-income practitioners. Practitioners often use materiality frameworks (also referred to as sector-specific scorecards) to inform their direct engagement with company management and as a source of information for their decision making.

Sovereign debt practitioners are equally likely to prioritize a bottom-up scorecard-based approach to issuer assessment. Typical criteria include regular monitoring of a country's socioeconomic policy dynamics and an anticipated direction of a country on ESG issues. Nontransparent governance practices at the sovereign level are typically penalized through demanding higher risk premia. ESG scoring at the sovereign level is also informed by a range of established external indicators (e.g., TI Corruption Perception Index, UN Human Development Index, WSJ/HF Index Economic Freedom, WEF Global Competitiveness, World Bank Ease of Doing Business).

Practitioners report that gathering data from government organizations is more challenging as compared to corporates, due in part to a lack of standardized disclosure frameworks for sovereigns. Some attempt to circumvent this by direct conversations with public policymakers and the treasury. Most information is then utilized and debated at weekly fixed-income meetings.

Security Valuation

Corporate credit practitioners most frequently integrate ESG factors into their internal credit assessments, sometimes into forecasted financials (where the likelihood of impact on future earnings can be reasonably estimated), and rarely into ratios. They also perform relative value/spread analysis, but duration analysis is not common.

The primary goals of integrating ESG considerations with fundamental credit analysis are to price in risks or negotiate appropriate rates and covenants. For example, a practitioner may factor carbon taxes into future earnings of a company when analyzing cash flow, or potential liabilities may be added to the debt matrix of a company. Because of this, practitioners may require a wider credit spread to capture the anticipated financial impact of companies with large carbon emissions.

These practitioners rarely conduct scenario analysis; when they do, it is mainly at the security level (within certain sectors such as energy), not the portfolio level. One practitioner described undertaking a detailed modelling exercise (through the year 2050) of global demand for renewable and nonrenewable generators, storage, and electrification

technologies. By understanding the changing dynamics of energy generation, storage, and electrification technologies, the practitioner sought to identify potential investment opportunities across the energy mix as progress is made toward the international goal to limit global temperature increase to below 2°C above pre-industrial levels.

Portfolio Construction and Risk Management

It is uncommon for South African practitioners to integrate ESG factors into portfolio construction, though a number note this is the direction in which they are headed. Where integration is practiced, it involves optimizing for ESG considerations (such as carbon intensity) by adjusting portfolio weightings.

Asset Allocation

It is also uncommon for South African practitioners to integrate ESG factors at the asset allocation level. One practitioner described how a social and governance analysis of sovereign issuers anticipated South Africa's downgrade to junk status, thus directly affecting the asset allocation as well as the choice of underlying securities and weightings.

INTERVIEW WITH A SOUTH AFRICAN MAJOR MARKET PLAYER: MMI GROUP LIMITED

Interview with Jana van Rooijen, Responsible Investment Specialist at MMI Group Limited, about ESG integration in South Africa.

What does ESG integration mean to you?

To incorporate environmental, social, and governance risk factors in our investment decision-making processes and in our investment research.

Are equity investment managers practicing ESG integration and to what level? Are fixed-income investment managers practicing ESG integration and to what level?

Locally, the majority of equity investment managers apply ESG considerations as a qualitative overlay before making an investment decision. Few equity investment managers illustrate a quantitative integration of ESG risk factors in their investment process.

The fixed-income investment managers usually have a rigorous credit process, which inherently focuses on ESG factors that influence the risk rating of an investment consideration. The manner in which ESG has been addressed has become more meaningful, as a majority of the investment managers have incorporated it directly into their investment process, so it affects valuation of the underlying company—where the investment case is penalized if the investment manager identifies ESG risk (this also depends on materiality and surrounding circumstances).

According to our investment manager research team, there has been a shift in the way in which ESG is viewed, where even if the investment manager is not a PRI signatory, it will as far as practically possible adopt the principles of PRI. Most of the investment managers support CRISA.

Are other asset owners—pension funds, insurance companies, sovereign funds, corporate funds—committed to ESG integration?

Yes, our company recently participated in a roundtable discussion with other asset owners in South Africa, hosted by PRI. We have no doubt that our peers are committed to ESG integration.

Do you believe that ESG issues are impacting shares prices and bond prices?

There is no doubt that the long-term benefits of ESG integration will affect equity and credit. ESG risks come with their own costs to business and will affect earnings. Bond investors are conservative in nature. When there are gross ESG failures in corporate bonds, our head of fixed income would rather walk away from issuers than demand a higher spread.

How do you assess your external portfolio managers on ESG integration?

Where our company outsources to external investment managers, our approach to ESG is one of the core considerations in our assessment of their capabilities. We appoint external investment managers who apply responsible investment practices, and through our due diligence processes, we assess how ESG integration is done. New investment management agreements, where we have discretion, ensure external investment managers adopt our responsible investment policy.

Are ESG issues impacting the equity analysis and credit analysis of your internal portfolio managers?

Yes, ESG issues have an effect on investment decision making with regard to our investment portfolios. ESG considerations should improve the accountability and overall quality of share prices and credit. For example, our equity investment manager made a decision not to allocate any exposure to a listed property company due to its ethical score being too low. Corporate governance has also become a critical factor when doing credit analysis, which has led to the exclusion of one of the weapon manufacturing issuer companies in South Africa.

What are the barriers to and drivers of ESG integration? Could you describe the unique aspects of your market and how they relate to the barriers to ESG integration in your country?

South Africa is in a privileged position to have built up a culture of responsible investment practices since the publication of the first King Code in 1992, followed by:

- extensive South African PRI signatory subscriptions since 2006,
- publication of South Africa's Regulation 28 that made responsible investment practices key to retirement fund investing since 2011, and
- the launch of the Code for Responsible Investment in South Africa (CRISA) in 2011.

Some companies in South Africa have disappointed investors and proven that ESG risk can lead to material investor value losses. The governance factor of ESG has proved to be the most prominent challenge our country needs to address. The South African investable market is small compared to developed markets; therefore, our investors may be exposed to investments where they will need to be active shareholders and engage to manage the governance risk they may be exposed to.

What is the future of ESG integration in your country over the next five years?

External investment managers will improve their reporting to all investment stakeholders on how they implement responsible investment practices. We expect an increase in investor demand for ESG integration in investment products. There will be an increased focus on how climate change plays a role in investment decision making.

APPENDIX METHODOLOGY

METHODOLOGY

In preparing these reports, we collected data from several sources, including:

- an ESG integration survey of 1,100 financial professionals, predominantly CFA Institute members. The survey ran from September 2017 to July 2018;
- workshops organized by CFA Institute, PRI, and 23 CFA® Societies that ran from October 2017 to April 2018;
- Bloomberg, which contributed two datasets—equity and fixed income—of its ESG disclosure scores for 17 markets; and
- PRI's 2017 reporting framework, which collates the ESG practices of practitioners around the world.

ESG INTEGRATION SURVEY

To better understand how ESG factors impact the capital markets (share prices, corporate bond spreads, and sovereign debt yields) and how frequently investors do and do not integrate ESG data in their investment analysis and process, the firm YouGov was commissioned to administer a global survey on ESG integration. The survey asked questions to gauge investor attitudes toward ESG integration as well as to obtain a better understanding of how ESG integration is done in practice.

Research was carried out among stakeholders in 17 different countries.

The findings for respondents in the EMEA region are based upon 392 completed surveys from respondents based in:

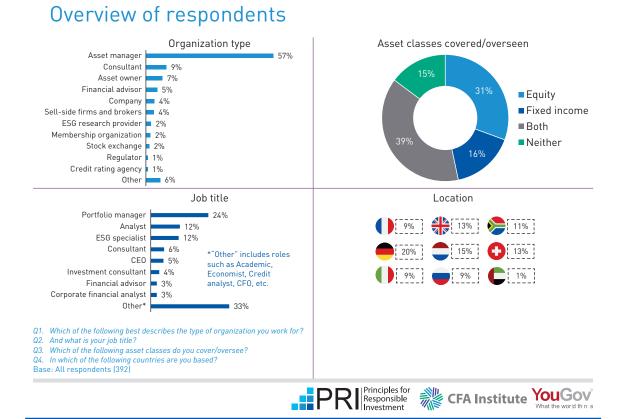
- France (n=37);
- \blacksquare Germany (n=79);
- Italy $(n=35)^2$;
- \blacksquare The Netherlands (n=59);
- Russia (n=35);
- South Africa (n=43);
- Switzerland (n=51);
- The United Kingdom (n=51); and
- The United Arab Emirates (n=2).

Figure A.1 provides the demographics of the survey respondents from EMEA.

¹ PRI commissioned YouGov to set up and host the online survey on YouGov's bespoke, secure survey platform. The survey was available to complete in a variety of languages. PRI and CFA Institute promoted the survey via invitations to the workshops discussed in this report.

² Although survey responses from Italy are included in the survey results, there is no separate chapter on the country.

FIGURE A.1: DEMOGRAPHICS OF THE SURVEY RESPONDENTS FROM EMEA



WORKSHOPS

We held 23 workshops to accompany the survey. Nine workshops were held in the EMEA region, including workshops in France, Germany, the Netherlands, Russia, South Africa, Switzerland, the United Kingdom, and the United Arab Emirates (**Figure A.2**).

The purpose of these workshops was to provide color to the results of the survey. Workshop participants were split into groups of six to eight and discussed and contributed their views on the preliminary results of the survey. From the workshops, we were able to collect insights from local practitioners who are predominantly non-ESG investment professionals.

BLOOMBERG'S ESG DISCLOSURE SCORES

CFA Institute and PRI asked Bloomberg if the firm would like to partake in this ESG integration project by contributing a dataset of its ESG disclosure scores. We considered that the analysis of ESG company data, found in the subsections "Trends in ESG Company

FIGURE A.2: ESG WORKSHOP LOCATIONS

ESG WORKSHOPS ACROSS THE WORLD		
AMER	APAC	EMEA
Boston	Beijing	Amsterdam
New York	Hangzhou	Cape Town
São Paulo	Hong Kong	Dubai
Toronto	Melbourne	Frankfurt
	Mumbai	Johannesburg
	Shanghai	London
	Shenzhen	Moscow
	Singapore	Paris
	Sydney	Zurich
	Tokyo	

Abbreviations: AMER, Americas; APAC, Asia Pacific; EMEA, Europe, Middle East, and Africa.

Data," would further help investors when they integrate ESG data into their investment analysis and process.

Bloomberg's ESG disclosure scores are based on publicly available data and are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on over 100 environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100 and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. Some factors are given a higher weight depending on their importance, and the scores are also tailored to each industry. Bloomberg accounts for industry-specific disclosures by normalizing the final score based only on a selected set of fields applicable to the industry type (e.g., "Total Power Generated" is counted into the disclosure score of utility companies only).

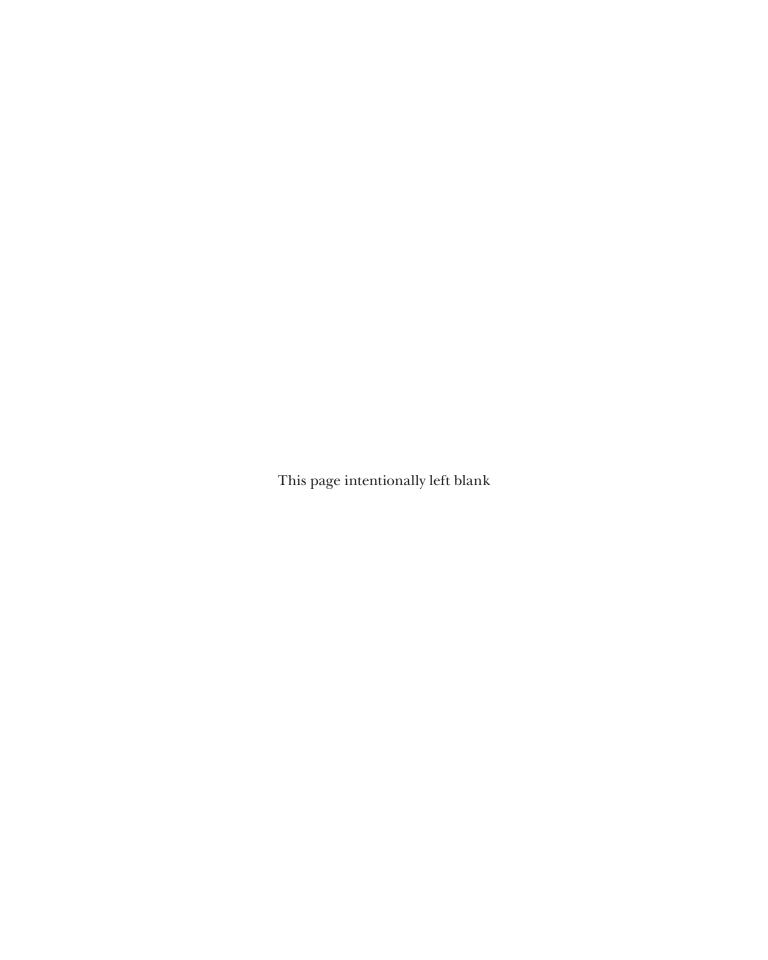
The dataset has combined ESG disclosure scores for 2011 and 2016 and environmental, social, and governance scores for the 10 different Bloomberg Industry Classifications (BICs): Communications, Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Materials, Technology, and Utilities. It also contains environmental, social, and governance scores per sector for 2016.

The dataset includes companies with a market capitalization of more than \$1bn. It was broken down further into small (market capitalization between \$1bn and \$2bn), mid (market capitalization between \$2bn and \$10bn), and large cap (market capitalization more than \$10bn).

The ESG disclosure scores shown in the regional reports are median scores to avoid skewing of the data with extreme values. Due to the scores being medians, they cannot be aggregated across sectors. The representativeness of the data varies among countries and regions, as some have more listed companies than others.

THE PRI REPORTING FRAMEWORK

We analyzed data from the PRI reporting framework, alongside the survey and the feedback of the workshops, when writing the subsections entitled, "Investment Practices of Local Practitioners: Equities and Fixed Income." PRI signatories submit reports that detail their ESG approach/commitments and ESG practices on an annual basis. The analysis for this report is based on the PRI signatories' ESG practices reported during 2017.



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