



CFA Institute

PRI | Principles for
Responsible
Investment

ESG INTEGRATION IN THE AMERICAS: MARKETS, PRACTICES, AND DATA



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ISBN: 978-1-942713-56-2

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EXECUTIVE SUMMARY

Portfolio managers and analysts are increasingly incorporating ESG factors into 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 contains case studies on how ESG integration is “done” by leading practitioners.

This report focuses on the current state of ESG integration in the Americas. Other regional reports will focus on the EMEA 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 are as follows:

Brazil

1. Governance issues are systematically integrated into investor processes. However, survey responses suggest that over the next five years, by 2022, environmental and social issues will become significantly closer in importance to governance issues.
2. ESG integration practices in Brazil are carried out predominantly in equities. However, a few fixed-income practitioners are deploying advanced ESG integration practices.

3. Compared with those in other countries, ESG company disclosures in Brazil are very high for all sectors. However, workshop participants expressed concerns around data quality and greenwashing¹ by firms.

Canada

1. Environmental issues affect share prices and corporate bond yields/spreads more frequently than social issues; for sovereign debt yields, the opposite is true.
2. ESG integration practices in Canada are more prevalent among equity practitioners than among fixed-income practitioners. Like equity practitioners, fixed-income practitioners are predominantly performing ESG-integrated qualitative analysis of issuers.
3. When analyzing ESG company disclosure scores, the social scores of companies are higher than their environmental scores across all sectors.

The United States

1. In contrast to their impact on share prices, social issues are seen to affect sovereign debt yields more frequently than environmental issues do, both in 2017 and in 2022. Social and environmental issues are considered to affect corporate bond yields/spreads at roughly the same frequency.
2. Although fewer fixed-income practitioners than their equity counterparts are performing ESG integration techniques in the United States, the sophistication of the ESG integration practices performed by fixed-income practitioners is similar to that of the ESG integration practices performed by equity practitioners.
3. Listed companies in the United States in every sector other than financials have seen an increase in their ESG company disclosure from 2011 and 2016.

¹ Information produced by companies to deceptively present themselves as environmentally friendly

CONSIDERATIONS FOR THOSE INTEGRATING ESG INTO THE INVESTMENT PROCESS

As a result of 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 in 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 academic² 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.
- 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*).

² Gunnar Friede, Timo Busch, & Alexander Bassen. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies, *Journal of Sustainable Finance & Investment*, 5:4, 210–233. DOI:10.1080/20430795.2015.1118917

- 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 in 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 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 main sections cover the analysis of ESG integration in the following region and countries:

1. Americas
2. Brazil
3. Canada
4. The United States

The first section, “Regional Analysis: Americas,” provides an overview of our survey results for the entire region (North and South America). The country sections that follow each have the following subsections, 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 the Americas as a whole, as well as in Brazil, Canada, and the United States in particular, are and are not integrating ESG in the investment process. These subsections 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 Brazil, Canada, and the United States 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 subsections 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 size.
- d. **Investment Practices of Local Practitioners: Equities and Fixed Income.** These subsections 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.

- e. **Interviews with Major Market Players:** In each market we interviewed at least one major market player to give readers 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 firm. 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” subsections of each regional report 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 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. In addition to being used for voting, this process can be employed to submit resolutions on which other shareholders may vote.
- **Individual/collaborative engagement:** 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. It involves a structured process that includes dialogue and continuously monitoring companies. 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 impacts 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 those of 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

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SECTION 1

**REGIONAL ANALYSIS:
AMERICAS**

CHAPTER 1

REGIONAL ANALYSIS: AMERICAS

IMPACT ON PRICES AND YIELDS

When asked how often ESG issues affect share prices, respondents answered “often” or “always” 48% of the time for governance issues, and 20% and 17% of the time for environmental and social issues, respectively (see **Figure 2**). This result mirrored our findings in the workshops we held, where governance was more often integrated into the investment process than environmental or social issues.

The pattern is the same for corporate bonds and sovereign debt, with governance being considered more often. However, whereas environmental issues impact corporate bond yields/spreads more frequently than social issues, the survey results showed the opposite for sovereign debt.

We also wanted to see whether survey respondents in the Americas 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 the Americas were asked how they view risks and opportunities. Interestingly, whether we asked about share prices, corporate yields/spreads, or sovereign yields, survey respondents in the Americas 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 analyses, 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 10% 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, as the respondents believe that less than 20% of financial professionals in the Americas systematically include ESG data in their analysis. When adding in those who believe that

portfolio managers and financial analysts are “sometimes” using this information in their initial analysis, these numbers approach or exceed 50%, though valuation models are not adjusted more than 43% of the time (equities) based on ESG information.

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

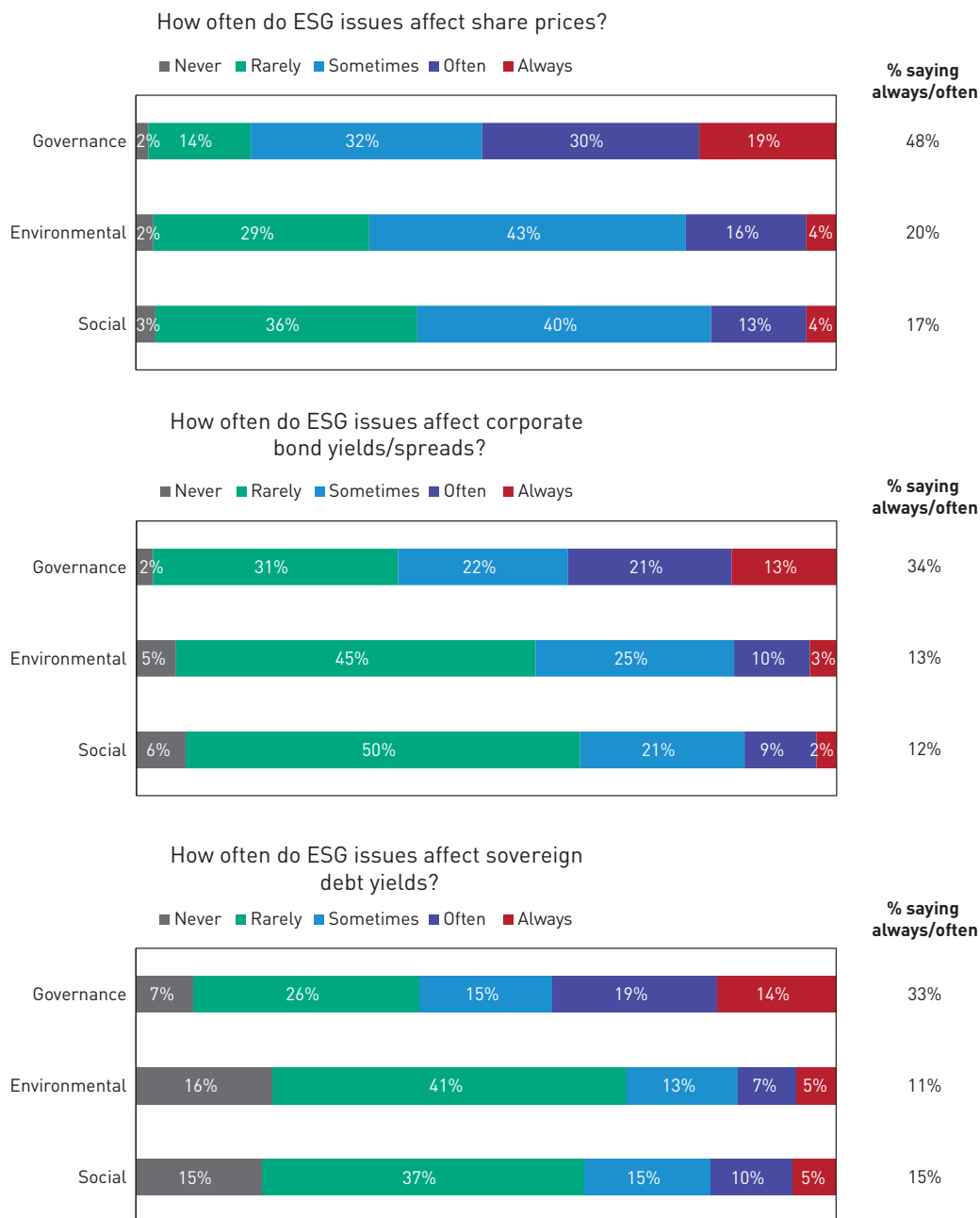


TABLE 1: THE IMPACT OF ESG ISSUES IN 2017 AND THE EXPECTED IMPACT IN FIVE YEARS' TIME (2022) ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	48%	54%
Environmental	20%	33%
Social	17%	37%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	34%	41%
Environmental	13%	30%
Social	12%	27%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	33%	38%
Environmental	11%	24%
Social	15%	25%

Note: Percentages represent respondents who answered “often” or “always.”

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	21%
Environmental opportunities	12%
Social risks	17%
Social opportunities	11%
Governance risks	49%
Governance opportunities	29%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	15%
Environmental opportunities	9%

(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	13%
Social opportunities	9%
Governance risks	32%
Governance opportunities	21%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	10%
Environmental opportunities	7%
Social risks	13%
Social opportunities	9%
Governance risks	32%
Governance opportunities	21%

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)	14%	7%
Credit analysis (often, always)	12%	7%
Equity analysis (often, always, sometimes)	66%	43%
Credit analysis (often, always, sometimes)	48%	35%

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SECTION 2

COUNTRY ANALYSIS: BRAZIL

CHAPTER 2

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

CAVEAT: The survey results for Brazil come from only 28 responses, which we do not consider a statistically significant sample. They are provided here for informational purposes only and may not be assumed to accurately reflect the actual sentiments of Brazilian investors.

IMPACT ON PRICES AND YIELDS

Through our global ESG integration survey, we wanted to understand how often Brazilian-based investors consider that environmental, social, or governance issues affected share prices and bond yields in the Brazilian capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). As expected, the respondents believed corporate governance was the factor that impacts share prices and bond yields the most, by a large margin. However, the survey result suggests that in 2022, the difference between the corporate governance figures and the environmental and social figures will narrow down significantly (**Table 4**).

In line with the regional findings, social issues are considered to be impacting sovereign debt yields more frequently than environmental issues both in 2017 and in 2022.

ESG RISKS AND OPPORTUNITIES

Respondents in Brazil were asked how often ESG risks and opportunities affect share prices and bond yields in Brazilian capital markets. As we saw at the regional level, corporate governance is the factor most often considered (**Table 5**).

In general, ESG risks impacted share prices and bond yields more frequently than did ESG opportunities. This differs where:

- social risks and opportunities are having similar influence on share prices;
- social and environmental risks and opportunities are having similar influence on sovereign debt yields (the percentage that answered “often” or “always” to environmental risks and opportunities is zero).

TABLE 4: 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	68%	80%
Environmental	20%	60%
Social	16%	52%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	43%	61%
Environmental	9%	48%
Social	4%	30%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	43%	52%
Environmental	4%	26%
Social	13%	30%

Note: Percentages represent respondents who answered “often” or “always.”

TABLE 5: 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	20%
Environmental opportunities	4%
Social risks	24%
Social opportunities	24%
Governance risks	68%
Governance opportunities	52%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	4%
Environmental opportunities	0%
Social risks	4%
Social opportunities	0%
Governance risks	43%
Governance opportunities	26%

(Continued)

TABLE 5: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS (CONTINUED)

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	0%
Environmental opportunities	0%
Social risks	9%
Social opportunities	9%
Governance risks	35%
Governance opportunities	26%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Brazilian practitioners, the survey asked how often Brazilian portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. It seems that for the most part the use of ESG research in investment analysis is done on an ad hoc basis in Brazil, with few survey respondents saying that they “often” or “always” include ESG issues in their analyses (**Figure 3**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either “never” or “rarely” (**Figure 4**).

FIGURE 3: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

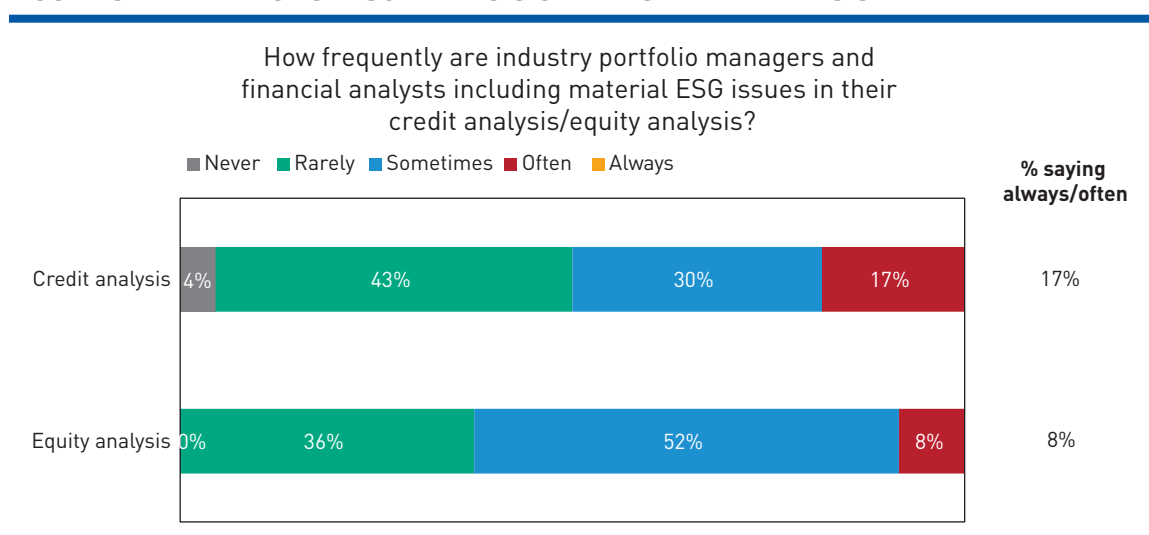
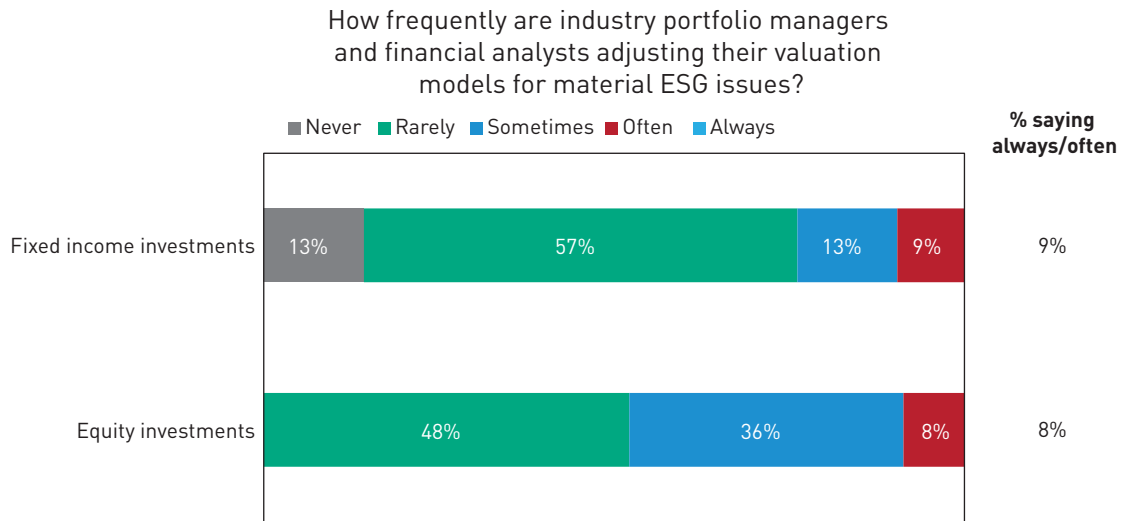


FIGURE 4: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



When comparing the level of ESG integration in equities with the level of ESG integration in fixed income, the results suggests that more equity practitioners than fixed-income practitioners are “sometimes,” “often,” or “always” integrating material ESG issues into their fundamental analysis and valuations tools/models.

CHAPTER 3

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

CFA Institute and PRI thank Bradesco Asset Management for its help in organizing our ESG Integration workshop in São Paulo. 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 BRAZIL

ESG integration in Brazil is in its early stages. ESG teams at investment firms are small if they are present at all. Much of the demand for ESG integration is coming from investors outside Brazil and from global institutional investors who are integrating ESG into their own investment process in their home markets. The demand for ESG integration from institutional investors in Brazil is low at this time. However, because ESG analysis represents a culture change in analysis, this is expected to change slowly over time.

One data provider who attended the workshop noted that their firm is educating the market to understand ESG. The firm has a few Latin America clients, but are mostly just gathering information for clients elsewhere.

One asset manager noted that their firm is currently learning about ESG and ESG integration. There is no specific ESG analyst or ESG team at this firm. It has an ESG process that consists of adding and subtracting points based on a checklist of largely governance factors.

There was general agreement that governance tends to be well integrated into the investment process in Brazil, especially with the advent of the Novo Mercado listing section of the Brazilian stock exchange more than a decade ago. Environmental and social factors are rarely integrated into the investment process, however.

In Brazil, ESG integration is largely seen as Socially Responsible Investing (SRI), and the few products on offer are SRI products. SRI is typically associated with negative and positive screening, while integration of ESG factors into financial products is just starting. One asset manager noted that they have one SRI fund that the firm offers investors, but this product is rare.

There was consensus from the group that a great deal of education of investors and clients is still needed. Both investors and clients need to be educated about the benefits of ESG integration. There needs to be more education of clients and investment firms.

There was consensus from the group that a great deal of education of investors and clients is still needed.

IT'S ABOUT GOVERNANCE

In the wake of recent corporate governance scandals at several Brazilian companies, workshop participants agreed that there has been a heightened vigilance around governance analysis by investors and analysts.

Governance is the main topic in Brazil where ESG is concerned. Most practitioners noted that integrating governance into the investment process is understood to be best practice. Governance is integrated into both equity and fixed income. Environmental and social factors are rarely considered as it is hard to see them moving market prices. Environmental factors are sometimes factored in equity, but not often in fixed income.

One practitioner, who is an ESG specialist, noted that all analysts are evaluating corporate governance issues, but not ESG. However, they tend to consider the structure of the board and board processes, rather than individual corporate governance issues, such as executive compensation at the level that it is looked at in other markets (although some information is available). Companies don't tend to break out compensation individually, so analysts typically only know themes and the process.

One practitioner, who is an ESG specialist, noted that all analysts are evaluating corporate governance issues, but not ESG.

RISK

Many workshop participants see ESG as a risk mitigation process, but again this analysis is especially focused around governance at the current time without much consideration for environmental and social factors.

A number of practitioners noted that there is risk reporting on corporate governance but that much of the disclosure is boilerplate. Reporting on risk needs to improve. Companies aren't saying how they are managing it.

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 6** and **7**.

Demand for ESG integration is largely from outside the country and from private clients, not so much from institutions, which may hinder uptake. Client demand for ESG analysis in the country is relatively low.

There is low demand internally in Brazil, and there is a lack of comparable ESG historical data, a lack of performance data, and a lack of understanding "how" to integrate ESG into the investment process. There is also a lack of training in ESG, which is true all over the world.

A few practitioners noted that they are not seeing demand from local clients and believe that there will not be such demand until a track record of ESG adding to performance can be established.

Demand is from outside the country and from private clients, not so much from institutions, which may hinder uptake. Client demand for ESG analysis in the country is relatively low.

TABLE 6: DRIVERS OF ESG INTEGRATION IN BRAZILIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	64%	Risk management	65%
Regulation	36%	Client demand	30%
Client demand	24%	Fiduciary responsibility	30%
Fiduciary responsibility	20%	Incentives	17%
Alpha	20%	Regulation	17%

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

TABLE 7: BARRIERS TO ESG INTEGRATION IN BRAZILIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues and ESG integration	60%	Limited understanding of ESG issues	55%
Low client demand	52%	Low client demand	48%
No evidence of investment benefit	32%	No evidence of investment benefit	39%
Lack of company culture	32%	Lack of comparable and historical data	26%
Lack of comparable and historical data	20%	Lack of company culture	22%

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

There is a concern about what benchmark to use when using ESG integration. There is also an unwillingness to be the first mover in ESG integration without data showing that ESG integration is effective. People are asking: What do I win by doing ESG?

There is a relatively small universe of assets to invest in so there is less competition for investment and therefore less need for more transparency and more ESG data.

The Associação de Investidores no Mercado de Capitais (AMEC) investor stewardship code was finalized recently and is just coming to be demanded by clients. The code calls for integration of ESG into the investment process, so more clients are asking if firms have signed up. AMEC will start monitoring compliance and will have an announcement in February. In 2020, they will start removing firms if they don't comply.

THE DATA

Many companies are providing data, but are those data useful or material?

There are concerns around data quality, and often, the data provided are not material. Data are not always consistent—one year they may be there and the next year they may not—and a few practitioners noted that concerns that sustainability reports are often greenwashing and that it is hard to get meaningful and comparable data. Data are also not released at the same time or as often as normal financials. Most companies update their sustainability reports yearly.

One approach to overcoming the data challenge is for financial firms to use a service provider to provide public information and engage with companies to gather more information; they then put the data in a final ESG score, which is updated every month.

CHAPTER 4

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 one environmental, social, and governance score. These are again aggregated to a combined ESG score. (For more information, see “Appendix: Methodology.”)

Brazil’s equity and fixed-income markets are centered on a few sectors (see **Figure 5**). Utilities is the sector with most companies, 22, that have issued shares. The consumer discretionary, consumer staples, financials, and materials sectors have approximately 10 listed companies. On the fixed-income side, the numbers are even lower, with only the financials and materials sectors having more than five companies with public debt.

Figure 6 shows that the different sectors have very different scores and that it has not been a given for sectors to improve their median ESG scores from 2011 to 2016.

For the sectors with large enough sample sizes, it is especially notable that the materials and financials sectors had higher median ESG scores in 2011 than in 2016, dropping from 56.20 to 50 and from 36.78 to 29.82, respectively. Utilities, the largest sector on the listed equity markets, jumped from the sector with the fourth highest score in 2011 (44.01) to the sector with the highest ESG score in 2016 (55.37); healthcare improved relatively even more (2011: 28.54, 2016: 52.19).

FIGURE 5: SECTORAL BREAKDOWN OF DATASET: BRAZILIAN COMPANIES WITH LISTED EQUITY AND PUBLIC FIXED INCOME

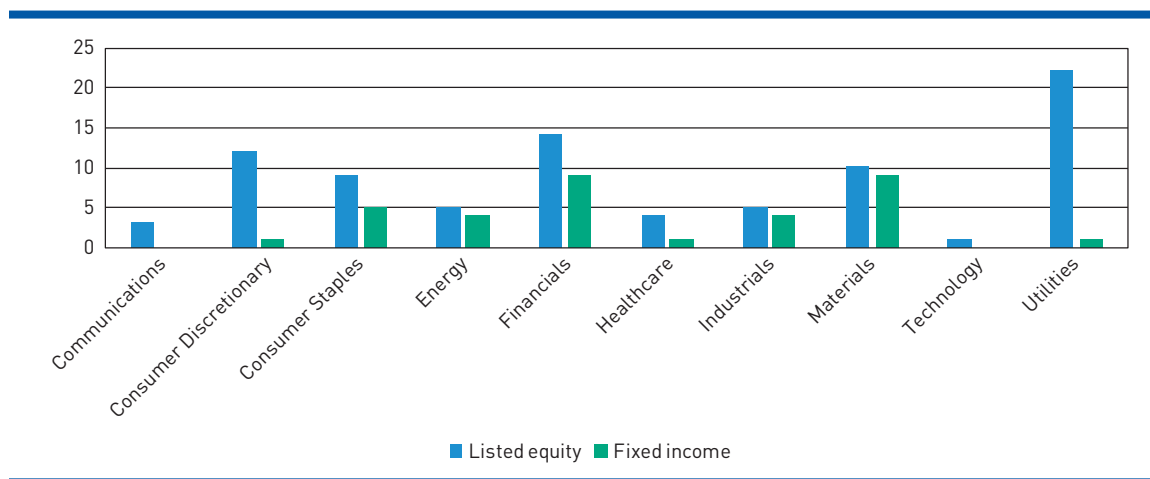
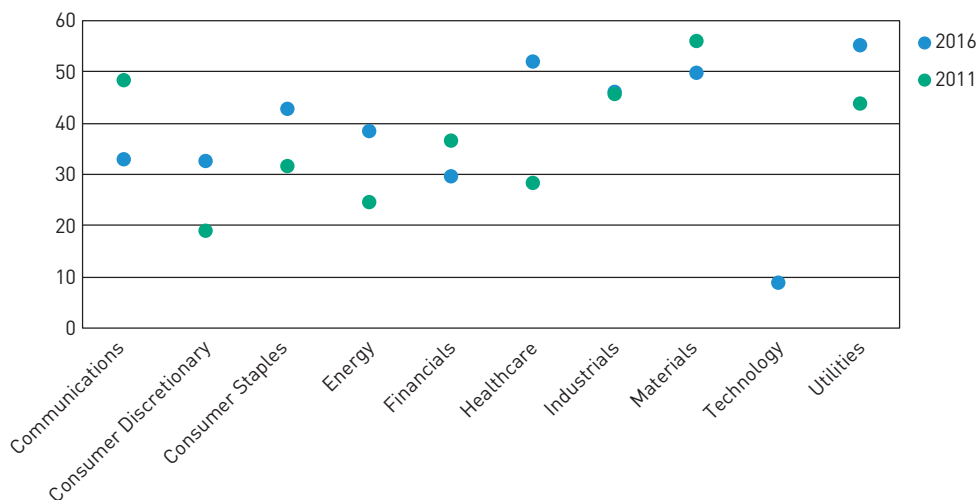


FIGURE 6: MEDIAN COMBINED ESG SCORES FOR BRAZILIAN COMPANIES WITH LISTED EQUITY PER SECTOR

The breakdown of environmental, social, and governance scores is also interesting. **Figure 7** shows that the differences between environmental, social, and governance scores are not very large, with the utility sector being the exception.

Other countries have seen a standardization of social issues and relatively high governance scores. In Brazil, the scores are more spread out, indicating less standardization across sectors. Although governance scores are the highest in most sectors, the materials (E: 51.16, S: 47.37, G: 42.86), healthcare (E: 56.51, S: 56.67, G: 48.21), and communications (E: 50.41, S: 68.75, G: 49.11) sectors have higher environmental and social scores, and utilities has a higher social score (E: 42.64, S: 80.70, G: 53.57).

Figure 8 provides the breakdown of large, mid, and small cap Brazilian companies per sector. There does not seem to be a pattern in the median ESG disclosure score based on size of the company. This is most significantly exemplified by the communications (small cap: 9.09, large cap: 57.20), energy (mid cap: 34.30, large cap: 63.90), and financials sectors (small cap: 16.53, mid cap: 19.83, large cap: 45.04). An unexpected finding was small cap and mid cap companies in the consumer staples (small cap: 40.50, mid cap: 48.76, large cap: 31.40) and industrials sectors (small cap: 53.31, mid cap: 45.87, large cap: 39.26) scored higher than large cap companies.

FIGURE 7: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR BRAZILIAN COMPANIES WITH LISTED EQUITY PER SECTOR³

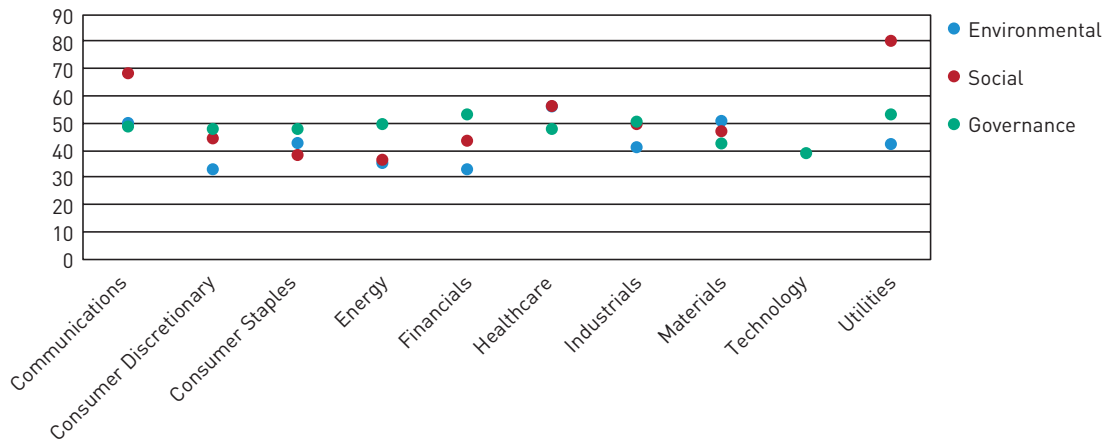
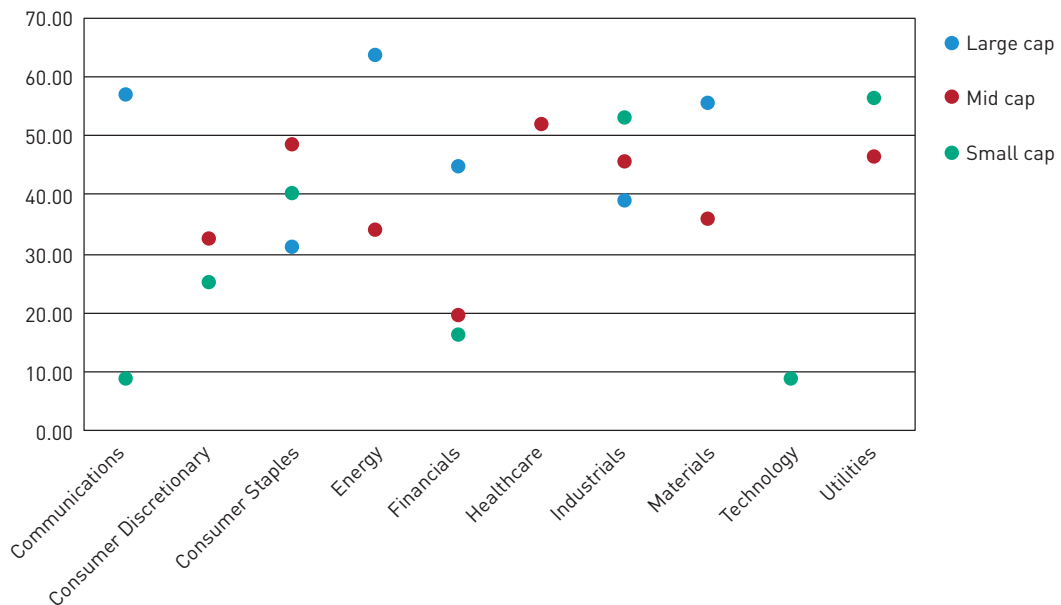


FIGURE 8: MEDIAN COMBINED ESG SCORES FOR SMALL CAP, MID CAP, AND LARGE CAP BRAZILIAN COMPANIES PER SECTOR



³ Not all companies have an environmental or social score, which means that the sample size differs among scores.

CHAPTER 5

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

Brazil is leading the charge, albeit from a low base, for ESG integration in South America, with corporate governance being the factor most integrated into the investment process. **Figure 9** highlights the practices from the ESG Integration Framework that are applied in Brazil.

The results of our survey and discussion with investors in our ESG integration workshop reinforced that ESG integration in Brazil predominantly focuses on corporate governance, with integration of environmental and social factors slowly gaining inclusion in the investment process. Equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners do (**Table 8**).

Through our conversations with investors, we discovered that foreign investors who invest in Brazil are beginning to bring environmental and social integration practices into the Brazilian market; in the coming years we expect these practices will begin to be integrated more prominently in the investment process.

EQUITIES

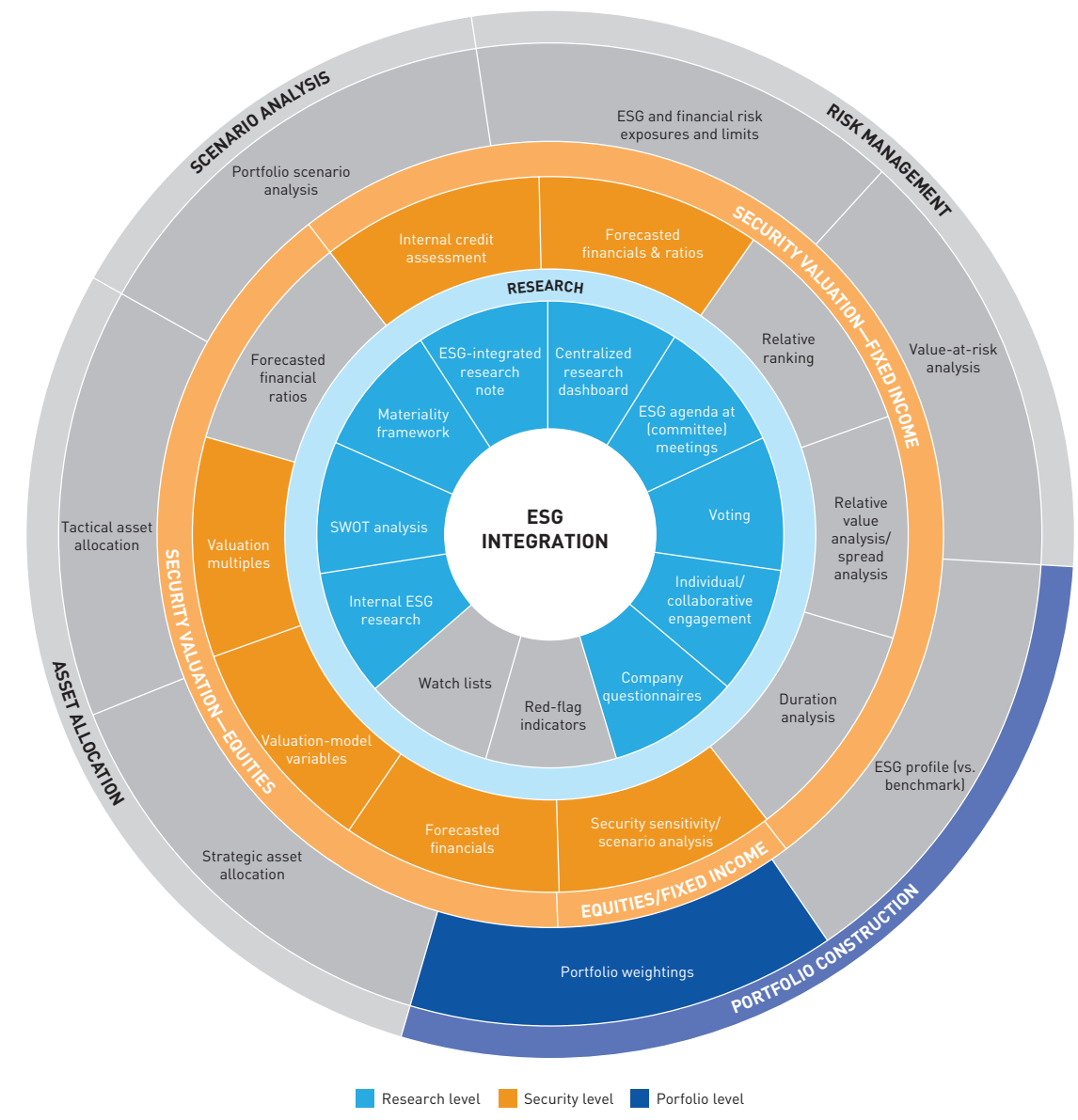
ESG integration practices in Brazil are carried out predominantly in equities. The most popular approach taken by practitioners is to form a qualitative assessment of ESG issues that will influence buy/sell/hold decisions or overweight/underweight/neutral decisions. The quantification of ESG factors is less widespread.

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

- questionnaires;
- third-party ESG scores;
- proprietary ESG scores;
- materiality/sustainability frameworks;
- SWOT analysis; and
- dashboards.

Questionnaires are a common tool used to embed ESG data and analysis into practices and processes. Practitioners send questionnaires to companies to collect more ESG data and information where the company's level of public ESG disclosure is inadequate. These are also being used in parallel with regular company meetings, where investors and companies meet to discuss the most material ESG issues.

FIGURE 9: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY BRAZIL-BASED INVESTORS



Other practitioners use questionnaires as an ESG report. Internal portfolio managers and analysts provide answers to questions that will lead to an investor opinion on the implications of ESG factors on the sustainability of a business strategy and the company’s future investment performance.

TABLE 8: 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%	12%
Environmental	15%	12%
Social	20%	6%

Note: Percentages represent respondents who answered “often” or “always.”

ESG factors are being quantified through forecasted financials, valuation-model variables, and/or valuation multiples. Some of the forecasted financials being adjusted are cost of goods sold (COGS), operating margins, and capital expenditures. For example, COGS formulas are being amended for potential impact of resource scarcity; operating margins are being adjusted for potential loss of environmental license; and capital expenditure is being increased due to the potential costs of extreme weather events. Revenue forecasts and earnings estimates are also being revised for ESG factors.

The valuation-model variables being adjusted are beta, discount rates, and perpetuity growth rate. This approach tends to be favored when it is difficult to quantify ESG factors such as corruption, quality of management, and litigation risk, but practitioners still strive to adjust their valuations to reflect the varying levels of ESG risk among sector peers.

Adjustments to enterprise value and sensitivity analysis are other techniques applied by Brazilian practitioners. In some cases, the probability-weighted present value of the ESG risk(s) is being subtracted from the enterprise value of a company. In other cases, the magnitude of impact of the ESG risk or opportunity on a company’s valuation is being assessed through sensitivity analysis.

FIXED INCOME

Although fewer fixed-income practitioners compared to equity practitioners are integrating ESG factors into their investment analysis, there are practitioners who are deploying advanced ESG integration techniques. This is especially the case for corporate bond investors, who are analyzing the impact of ESG factors on the creditworthiness of corporate bond issuers. The prevalence of ESG integration practices in sovereign credit analysis is lower than in corporate credit analysis.

ESG-integrated, qualitative decision making is the most popular ESG integration approach for corporate bond investors and sovereign debt investors in Brazil. Practitioners are gathering ESG data through publicly available sources and ascertaining nonpublic information through meetings and calls with issuers. They are also implementing review processes where ESG research is being discussed by a credit committee and including ESG analysis in their credit research reports. Before making a buy/sell/hold decision or overweight/underweight/neutral decision, the ESG analysis and credit research are carefully reviewed.

Brazilian practitioners are also integrating ESG factors into credit analysis. The approach tends to be the integration of ESG research into the internal credit assessments of an issuer, which therefore has a direct impact on the practitioner's outlook for an issuer. Advanced practitioners are adjusting forecasted financials and future cash flow estimates and analyzing the effect on leverage ratios and coverage ratios, which ultimately impact the internal credit assessment of an issuer.

ESG factors influencing portfolio construction processes are less practiced compared to credit analysis. Some practitioners will discuss ESG-integrated internal credit assessments with committees to inform portfolio construction decisions. Others have set up a process where changes to ESG scores will directly impact the weighting limits of issuers in the portfolio.

CHAPTER 6

INTERVIEW WITH A BRAZILIAN MAJOR MARKET PLAYER: PREVI

Interview with Marcus Moreira de Almeida, Chief Investment Officer at PREVI, on the subject of ESG integration. PREVI is the largest pension fund in Latin America.

What is the level of ESG investing performed by local investors and international investors who invest in the local equity and fixed income market?

To determine the level at which investors are committed to incorporating aspects of ESG into their investment decisions, we would highlight the study conducted by ANBIMA in 2016⁴ to measure how much environmental, social, and governance are present in the decision-making process of associate managers (this study should be repeated this year according to the resulting document entitled “ANBIMA Sustainability Report”), of which we highlight the following points.

The ESG issues were part of the decision making of the managers of large institutions, which accounted for 77.2% of the resources of the Investment Funds market in 2016. Most institutions (68.1%) consider some environmental, social, or governance criteria in their investment analysis, with governance as the only criterion used by 100% of the research sample.

Despite the largest institutions [in shareholders’ equity terms] adopting ESG criteria in their investment valuations, the share of portfolio assets that go through this type of evaluation is relatively low. More than half of the institutions have less than 20% of the assets with ESG valuation in relation to the total equity managed.

Are equity investment managers practicing ESG investing and at what level? Are fixed-income investment managers practicing ESG investing and at what level?

According to ANBIMA’s 2016 study, from the total assets invested by its members with ESG analysis, approximately 42% are incorporating ESG analysis in listed equity, 26% in fixed income, and 22% in private equity.

Regarding the methodology for the evaluation of the ESG criteria, negative and positive screening approaches are losing space for other more robust approaches, demonstrating evolution in the processes that subsidize investment decision. Currently, the focus is on approaches that integrate the ESG variables with the valuation models of the companies that make or will be part of the portfolios. These approaches correspond to 38% of shareholders’ equity of the research sample. In second place are best-in-class criteria, which apply sector filters for the best performing companies, representing 29.5% of the shareholders’ equity of the sample.

⁴ http://www.anbima.com.br/data/files/92/C1/06/9B/A32085106351AF7569A80AC2/_anbima_relatoriosustentabilidade_final_1_.pdf

Are other asset owners—pension funds, insurance companies, sovereign funds, and corporate funds—committed to ESG investing?

Our perception is that resource allocators, in a general way, are gradually increasing the weighting of ESG factors in the evaluation of their investment proposals.

The Pension Fund has historically played an active role in inducing corporate governance issues. Especially in Brazil, this process intensified from the PND–National Privatization Program that had its peak in the 90s.

In 2004, ABRAPP, in partnership with the Ethos Institute, launched the “Eleven Basic Principles of Social Responsibility for EFPC” at the Annual Pension Fund Congress.

As for financial institutions in general, we know that aspects of ESG are incorporated in part of their investment decisions, although we have no way to measure to what extent.

How do you assess your managers on ESG investing?

PREVI, as the largest Pension Fund in Latin America, plays a key role in inducing ESG issues in the capital market. At PREVI, the investment premises are defined in the Investment Policy of the Benefit Plans. PREVI, as a way to stimulate the dissemination of ESG investment practices, recommends in the Investment Policy and Guidelines for the hiring of external fund managers, preference for those who have incorporated environmental, social, and ethical responsibility practices. This is in accordance with the Principles for Responsible Investment (PRI) and the PREVI Code of Best Practices and Corporate Governance. In addition, investments in companies in sectors such as tobacco or weapons are forbidden.

Currently, in the case of investments in private fixed-income securities of nonfinancial institutions, for example, the investment analysis of PREVI takes into consideration the ESG aspects of the issuing company, in addition to observing criteria pertinent to the subject “Integrity.” After applying a questionnaire, a note is assigned to the issuer, depending on the degree of adherence to the ESG/integrity dimensions, where the higher the adhesion, the higher the grade. The note calculated for the company will imply the application of goodwill or negative goodwill on paper in relation to the market credit curve.

What are the barriers and drivers of ESG investing?

We would highlight as main barriers to the development of investments based on ESG criteria, the lack of standardization or even the small volume of information in companies/issuers of debt securities. For example, in listed equity, the low number of companies listed in the Brazilian Stock Exchange is an obstacle to allocating, since to allocate relevant amounts while maintaining a high degree of liquidity, diversification options are reduced.

Another difficulty is to quantify the information of ESG of the companies and how to incorporate these data into the price of the asset.

On the other hand, in terms of targeting, the main driver is the growing awareness of the issue. Investors should increasingly deepen the analysis in these points, describing the practices of the companies in which they invest.

What’s next for ESG investing for the local capital markets and companies?

Recent Brazilian history proves the importance of governance for the companies’ sustainability. [W]e understand that the other aspects of ESG—environmental and social—are also important foundations in the formation of the investment decision of any manager.

Therefore, in the coming years, it will be incumbent on the induction agents, regulatory authorities, and specialized investors to use past experience and develop new criteria and control mechanisms that incorporate these issues as a form of risk control in their investments. Regarding the capital market, it is worth highlighting the increase in the supply of funds focused on ESG issues. At the same time, companies in general are improving its ESG criteria through internal policies and investment analyses combined with disclosure in their reports.

CHAPTER 7

INTERVIEW WITH A BRAZILIAN MAJOR MARKET PLAYER: B3

Interview with Sonia Favaretto, Managing Director—Media Relations, Sustainability, Communications, and Social Investment, B3, on the subject of ESG disclosure and integration in the Brazilian market. B3, formerly BM&FBOVESPA, is the Brazilian stock exchange.

What is your opinion on the level of ESG disclosure in the local market? How has the level of disclosure changed from five years ago?

The level of ESG disclosure is satisfactory, but we are still on a journey. Back to five years ago, I can see it was an evolution. From a perspective of listed companies, we can see the companies understand the ESG agenda. For example, according to GRI [Global Reporting Initiative], Brazil is on the top five list of countries that report financial, social, environmental, and corporate governance information.

A good example of this evolution is B3's Corporate Sustainability Index (ISE). Other examples are the "Report or Explain" (see next question) and Integrated Reporting initiatives.

Since 2012, the ISE's questionnaire has included a question asking companies to allow the voluntary publication of [their] questionnaire answers.

Considering the results of 2015, when 94% of the portfolio was adherent to the initiative, the ISE's board approved the proposal for the mandatory publication of the questions. The proposal was accepted by the society after the public consultation at the beginning of the year.

Since 2016, the publication of the answers of the questionnaire is a prerequisite to be part of ISE.

What are the requirements on ESG disclosure for companies who issue equities and for companies who issue bonds only?

At B3 we recommend ESG initiatives, but we don't have requirements for issuers. For instance, in 2012 we launched the "Report or Explain" initiative.

Report or Explain was born as a recommendation for voluntary adherence by listed companies on our Exchange to encourage disclosure of ESG-related information, which was increasingly demanded by investors—[a] movement that remains strong and intense. The request was for listed companies to inform annually if and where they disclosed ESG information. Where reporting was not available, an explanation was required. Companies were not obliged to respond. To avoid creating a new document, information was to be stated in a Reference Form issued by the Brazilian Securities Commission (CVM), Brazil's capital markets regulator, under a generic item: "Item 7.8: Description of other material long-term information."

The first results were announced at the Rio+20 Summit held in June 2012 in Rio de Janeiro during the GRI—Global Reporting Initiative—discussion panel. The GRI was a

great motivator for B3 to create the Report or Explain initiative. In its first announcement, 45.31% of listed companies issued the report or explained why the report was unavailable. After four years, the results showed 71.65% of listed companies issued the report or explained why the report was unavailable.

The regulator, Brazilian Securities Commission (CVM), upon a review of its Reference Form, determined that companies must answer directly to them, as of 2016. Bearing this Brazilian success case in mind, in 2017, B3 launched the “Report or Explain for the Sustainable Development Goals (SDGs) Initiative,” which aims to stimulate the transparency of the listed companies’ strategies and actions in relation to the 17 UN-established SDGs. Through this initiative, the company recommends, from 2017, that listed companies annually state whether they publish a sustainability or integrated report taking the SDGs into account. Along similar lines with the previous initiative, if they do not, B3 requests they explain why by choosing one of the options supplied.

Among the companies consulted by B3, 147 responded to the survey, the equivalent to 33% of the total companies listed on the Exchange. Of these 147 companies, 40% disclose their reports considering the SDGs, are preparing the reports, intend to, or are considering the possibility of including the SDGs in their reports.

Sixty companies take the SDGs into account in their reports, 7 are preparing their reports to include the SDGs, and 36 companies intend [to include] or are considering the possibility of including the SDGs in their sustainability or integrated reports.

Are investors asking companies questions about ESG issues and for them to provide more ESG data? How has that changed from five years ago?

As a heart of capital markets, it’s our role to engage with the investors and listed companies toward the ESG agenda.

In Brazil, we see now more than ever that our market is concerned about integrating ESG factors in financial analysis by including explicit ESG risks and opportunities into traditional financial analysis and investment decisions based on a systematic process and appropriate research sources. This behavior has drawn the attention of investors and analysts who are increasingly interested in how companies are incorporating ESG issues into their strategy and management. For example, nowadays it is common to see the sustainability director being asked to join a road show with the investor relations director. Five years ago, this invitation didn’t happen.

What are the barriers to and drivers of ESG investing for companies?

Drivers: responsibility to client/fiduciary duty, risk management, looking for stable long-term return, address climate change and other environmental issues, and contribute to local community development.

Barriers: lack of understanding and compliance with the sustainability agenda from board of directors and CEO. Lack of pressure from investors. Lack of comparability and consistency of the information from its peers.

What's next for ESG investing for the local capital market and companies?

In Brazil, we are working to make the SDG agenda part of the investor decision making, through meetings and B3's services and products. On the other hand, we are stimulating listed companies not only to report but inviting them for workshops we provide and to engage the listed companies for being part of commitments and SDG working groups. We are aware that it is a change of behavior not only to investors but also to companies, and it will take time, but as we can see back five years ago, it is a journey and we know there's no turning back.

SECTION 3

COUNTRY ANALYSIS: CANADA

CHAPTER 8

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 Canadian-based investors consider that environmental, social, or governance issues affected share prices and bond yields in the Canadian capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022).

As expected, corporate governance was the factor that survey respondents believed impacted share prices and bond yields the most. And while based on the survey, environmental issues affect share prices and corporate bond yields/spreads more frequently than social issues. For sovereign debt yields, the opposite appears to be true (**Table 9**).

TABLE 9: 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	52%	54%
Environmental	30%	48%
Social	26%	41%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	36%	44%
Environmental	23%	33%
Social	20%	32%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	36%	38%
Environmental	18%	26%
Social	21%	26%

Note: Percentages represent respondents who answered “often” or “always.”

ESG RISKS AND OPPORTUNITIES

Respondents in Canada were asked how often ESG risks and opportunities affect share prices and bond yields in Canadian capital markets. As we saw at the regional level, corporate governance is the factor most often considered (**Table 10**). Survey respondents believe that practitioners are using ESG data to assess risks at about twice the rate as they do to spot opportunity. As we found in most other markets, ESG analysis is used more for mitigating risks than for spotting opportunities.

Responses were similar for both corporate bonds and sovereign debt, with respondents considering that fewer practitioners often or always include ESG issues in their risk analysis and that even fewer are identifying ESG opportunities.

TABLE 10: 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	31%
Environmental opportunities	19%
Social risks	22%
Social opportunities	19%
Governance risks	48%
Governance opportunities	32%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	21%
Environmental opportunities	14%
Social risks	17%
Social opportunities	14%
Governance risks	32%
Governance opportunities	24%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	15%
Environmental opportunities	11%
Social risks	17%
Social opportunities	12%
Governance risks	35%
Governance opportunities	24%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Canadian practitioners, the survey asked how often portfolio managers and financial analysts are including material ESG issues into equity and credit analysis. It seems that for the most part the use of ESG research in investment analysis is done on an ad hoc basis in Canada, with few survey respondents saying that they often or always include ESG issues in their analyses (Figure 10). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either “never” or “rarely” (Figure 11).

When comparing the level of ESG integration in equities with the level of ESG integration in fixed income, the results suggest that more equity practitioners than fixed-income practitioners are “sometimes,” “often,” or “always” integrating material ESG issues into their fundamental analysis and valuations tools/models.

FIGURE 10: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

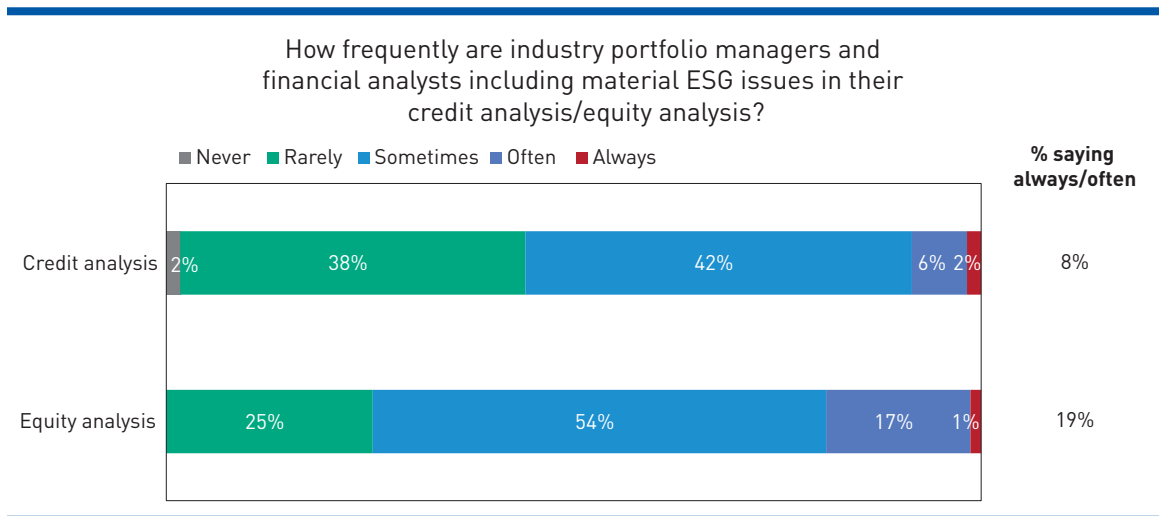
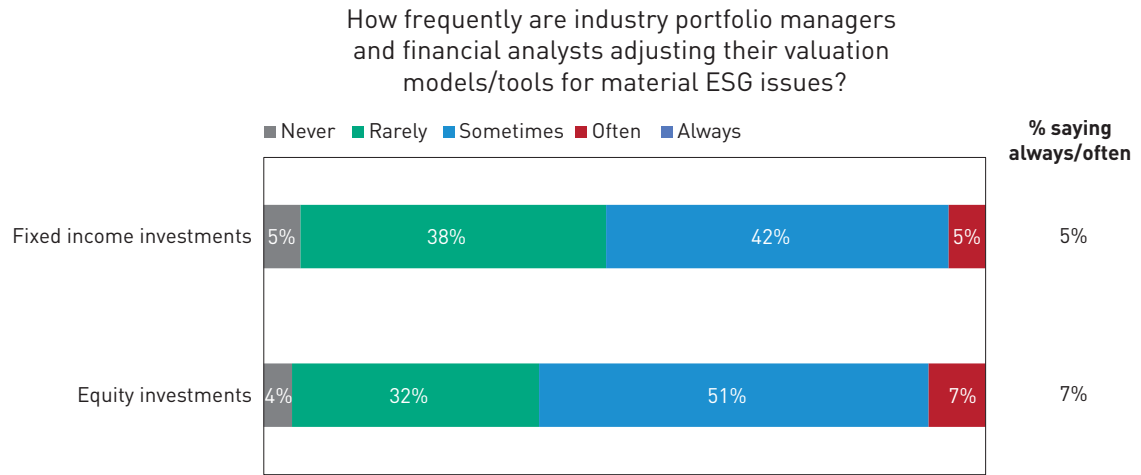


FIGURE 11: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



CHAPTER 9

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

CFA Institute and PRI thank NEO Exchange for its help in organizing our ESG Integration workshop in Toronto.



THE STATE OF ESG INTEGRATION IN CANADA

Workshop participants agreed that they tend to integrate corporate governance into the investment process much more than environmental and social factors, as governance is the easiest aspect of ESG to measure and identify. Many participants noted that ESG data have traditionally been incorporated into the investment processes on a more informal basis and only now is a systematic integration of ESG making its way into the investment process. However, such a systematic approach to ESG integration is in its infancy, although it is more advanced at larger asset managers and investment banks.

A number of workshop participants noted that they believe ESG analyses by Canadian analysts at investment banks is a step behind their counterparts in the United States. Workshop participants noted that investment banks in the United States have made a larger investment in building ESG teams than have their Canadian counterparts.

METHODS OF ESG INTEGRATION

Many agreed that one of the main reasons they incorporate ESG into the investment process is to better assess risk. This incorporation can take many forms as ESG analysis and ESG integration are in their early stages. Some firms are integrating ESG on a systematic basis across the whole investment process, while others are still working on a process for ESG integration—focusing first and foremost on governance, which they find easier to quantify, and then integrating environmental and social factors into the investment process where they can.

The responsibility for ESG integration varies from firm to firm. At some asset managers, analysts are responsible for coverage as are portfolio managers—issues are identified and discussed, and then it is up to portfolio managers to ultimately make investment decisions. Of course, some firms do not have the benefit of an ESG team or ESG analysts, and portfolio managers are responsible for ESG analysis by themselves, but as noted above, much of this is done on an informal basis. The larger firms tend to have a team-based approach, where many ESG inputs from numerous sources are included in the investment process.

In terms of who is responsible for ESG implementation and oversight at their firms, 42% said non-ESG portfolio managers were responsible for implementation, and 46% said senior management was responsible for oversight (respondents could choose more than one answer). Only 29% said that senior management or ESG portfolio managers were responsible for implementation, and 21% said that non-ESG portfolio managers were responsible for oversight. It therefore appears that the main way ESG

is integrated at Canadian firms is for portfolio managers who are not ESG specialists to implement an ESG strategy overseen by senior management, although this is not the only model.

The main way ESG is integrated at Canadian firms is for portfolio managers who are not ESG specialists to implement an ESG strategy overseen by senior management.

DEFINITIONS AND TERMINOLOGY STILL A PROBLEM

A main concern of the group was one we anticipated—that there is no clear understanding or agreement on what exactly is meant by “ESG integration.” ESG integration suffers from a definitional problem because the concept is relatively new in the investments world.

The analysts and portfolio managers around the table tended to see ESG integration as a more systematic way to qualify and quantify ESG data and incorporate it into the investment process. On the day of our workshop, we found that a minority of those in the room (about 20–25%) see ESG as synonymous with SRI. Our survey data confirm this result, as about 29% of Canadian financial professionals surveyed said that exclusionary screening is used in their investment process.

On the day of our workshop, we found that a minority of those in the room (about 20–25%) see ESG as synonymous with SRI.

Many in the room noted that their clients see ESG as just the most recent acronym for socially responsible investing. This is consistent with what we have seen in some other markets as institutional investors are more likely to focus on the *value* proposition offered by ESG integration, when many of their individual clients and high-net-worth individuals see ESG as a *values* proposition. They see ESG as the latest name for SRI or CSR (corporate social responsibility).

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 11** and **12**.

Many of the participants in the workshop confirmed the two top reasons behind ESG integration that we saw in the survey—evaluating risk and client demand. Our survey results of financial professionals show that 65% of survey participants cited risk management as a main driver of ESG integration in equity investments, with client demand following at 51%. For fixed income, these numbers are 61% and 42%, respectively. One participant noted that they see increased demand from clients to incorporate ESG into the investment process, and that they are hearing from their sales teams that an ESG strategy and ESG expertise are increasingly expected in order to win and retain business.

TABLE 11: DRIVERS OF ESG INTEGRATION IN CANADIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	65%	Risk management	61%
Client demand	51%	Client demand	42%
Fiduciary responsibility	32%	Fiduciary responsibility	33%
Alpha	22%	Alpha	18%
Regulation	15%	Regulation	11%

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

TABLE 12: BARRIERS TO ESG INTEGRATION IN CANADIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues and ESG integration	54%	Lack of comparable and historical data	32%
Lack of comparable and historical data	36%	Limited understanding of ESG issues and ESG integration	30%
Concerns about negative returns and underperformance	31%	Limited amount of ESG research	27%
No evidence of investment benefit	25%	No evidence of investment benefit	26%

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

However, some participants noted that they are looking to integrate ESG data into the investment process to create alpha, with their reasoning being that incorporating material ESG information into the investment process will give them a more complete picture of the investment landscape, which will lead to better investment decision making. According to our survey results, this is still a minority opinion in the Canadian market, as about 22% of those investing in equities and 18% of those investing in fixed income see “generating alpha” as a main driver of ESG integration in Canada. Similarly, some saw ESG integration as a way for their firms to differentiate themselves from their competitors if their competitors were not integrating ESG factors into the investment process.

ESG data and its unavailability and inconsistency in quality were major barriers to ESG integration according to those who participated in our workshop. This is especially the case at smaller companies and emerging market companies that do not have the resources of larger international firms that have adopted some level of sustainability reporting. Our

One workshop participant noted that they are hearing from their sales teams that an ESG strategy and ESG expertise are increasingly expected in order to win and retain business.

survey results support these findings. For equity investments, 54% of those surveyed in Canada cited a lack of comparable and historical ESG data as a main barrier of ESG integration (32% for fixed income) (see Table 12).

Even at these larger firms there was frustration among some workshop participants at the inconsistency with which data are provided. For example, data on one metric may be provided one year, but not the next. Data by competitors in the same industry are not always comparable or presented in a way that makes comparisons easy. The quality of data is also a concern. There was a consensus view that data quality, consistency, and transparency need to improve. There was sympathy with the understanding that we are in the early stages of ESG integration and that data transparency and consistency will improve, but there was a desire for standards or an agreement on what data are material.

Even at these larger firms there was frustration among some workshop participants at the inconsistency with which data are provided. For example, data on one metric may be provided one year, but not the next. Data by competitors in the same industry are not always comparable or presented in a way that makes comparisons easy.

Although data quality was seen as a significant barrier to integration, a limited understanding of ESG issues and ESG integration was seen as the main barrier in the equities space supported by 54% of respondents (30% for fixed income). This result supports the idea of several workshop participants who believed that more training and resources needed to be devoted to ESG analysis.

Some workshop participants voiced the concern that ESG investing may limit the investment universe through negative screening and therefore lead to underperformance. This misperception of ESG integration as only negative screening is a view we see more in the retail community and it tends to be a concern of fewer in the institutional space, but it was still voiced as a concern by some participants.

NEED FOR BEST PRACTICES

A number of Canadian workshop participants voiced a desire to see a best practice emerge as to how exactly a firm can best integrate ESG into the investment process. Many see large banks such as Morgan Stanley, Barclays, and UBS creating their own proprietary methods for ESG investing, but these are largely inaccessible to smaller firms or the investing public. Workshop participants were hungry for a set of best practices or a gold standard that they could follow to better integrate ESG analysis into the investment process, but at the same time were wary of a simple checklist that would not allow for a broader understanding of the ESG issues impacting companies.

Workshop participants were hungry for a set of best practices or a gold standard that they could follow to better integrate ESG analysis into the investment process.

CHAPTER 10

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 one environmental, social, and governance score. These are again aggregated to a combined ESG score. (For more information, see “Appendix: Methodology.”)

The Canadian market is very concentrated around specific sectors (see **Figure 12**). Apart from financials, the major sectors are energy and materials, especially on the listed equity side, but to a certain degree also in fixed income. With only one Canadian health-care company in fixed income, this sector does not feature much in the section.

Figure 13 shows that for the most part, ESG disclosure scores increased from 2011 to 2016. The largest increases happened in sectors with relatively low median disclosure scores in 2011—the consumer discretionary (2011: 17.43, 2016: 25.62), industrials (2011: 17.36, 2016: 23.97), and utilities (2011: 13.64, 2016: 23.14) sectors. The exception is technology (2011: 21.07, 2016: 20.45), which is the only sector that has seen a decrease.

FIGURE 12: SECTORAL BREAKDOWN OF DATASET: CANADIAN COMPANIES WITH LISTED EQUITY AND PUBLIC FIXED INCOME

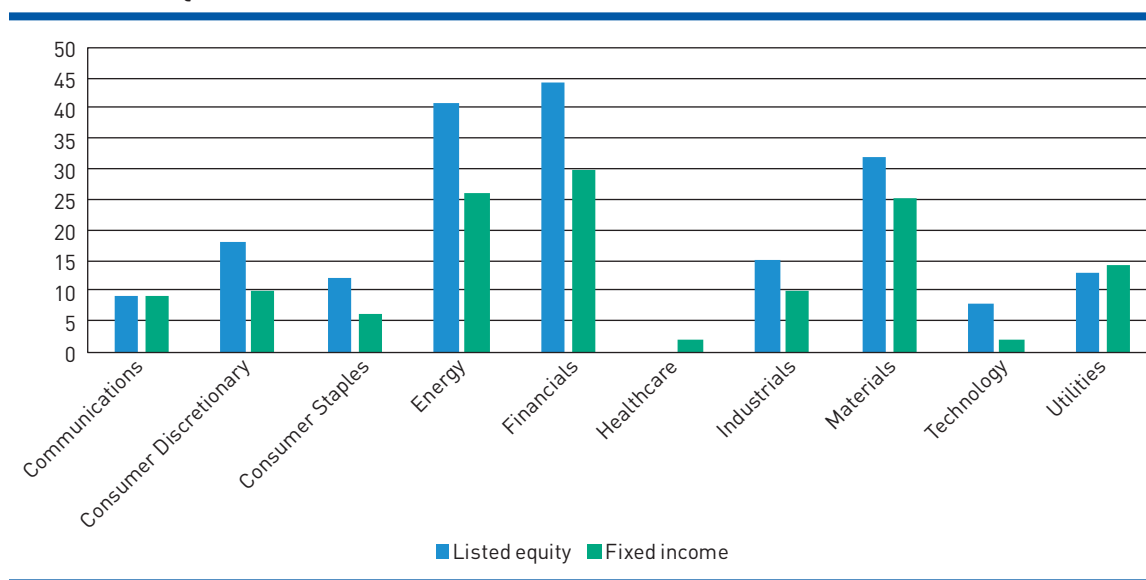


FIGURE 13: MEDIAN COMBINED ESG SCORES FOR CANADIAN COMPANIES WITH LISTED EQUITY PER SECTOR

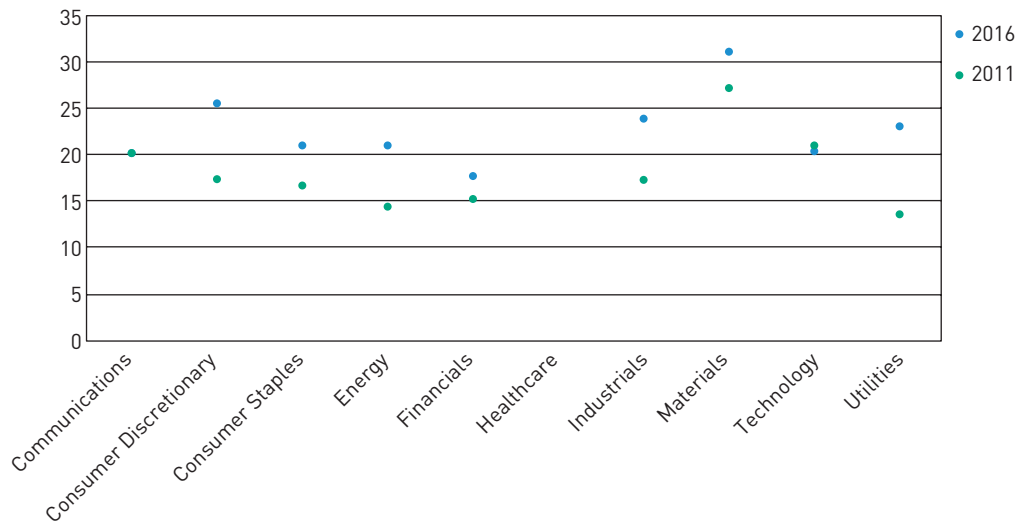
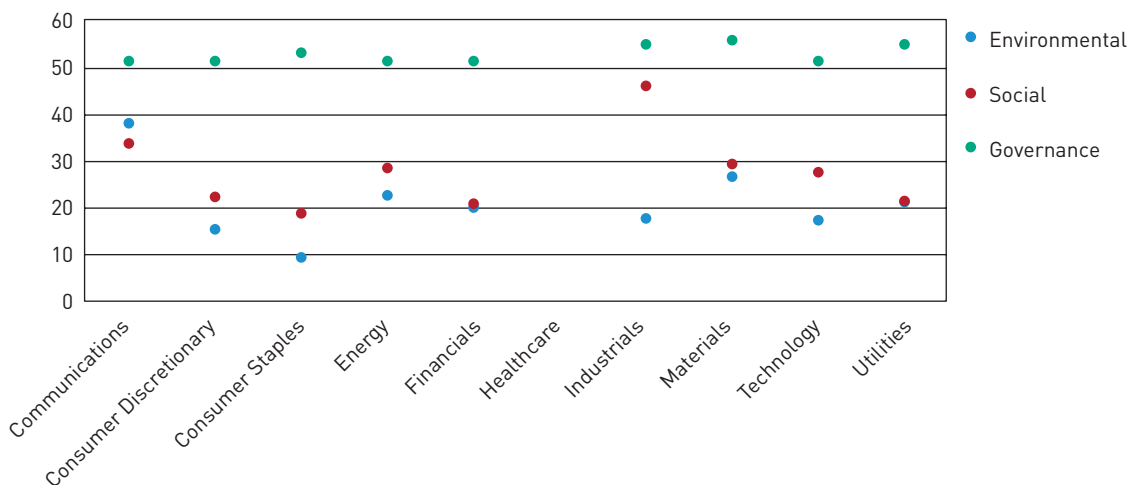


Figure 14 shows the breakdown of environmental, social, and governance scores by sector. Governance disclosures are in general much higher than environmental and social scores, with social being second in all sectors except communications. The only sectors where the governance score is less than 20 points higher are the communications

FIGURE 14: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR CANADIAN COMPANIES WITH LISTED EQUITY PER SECTOR⁵

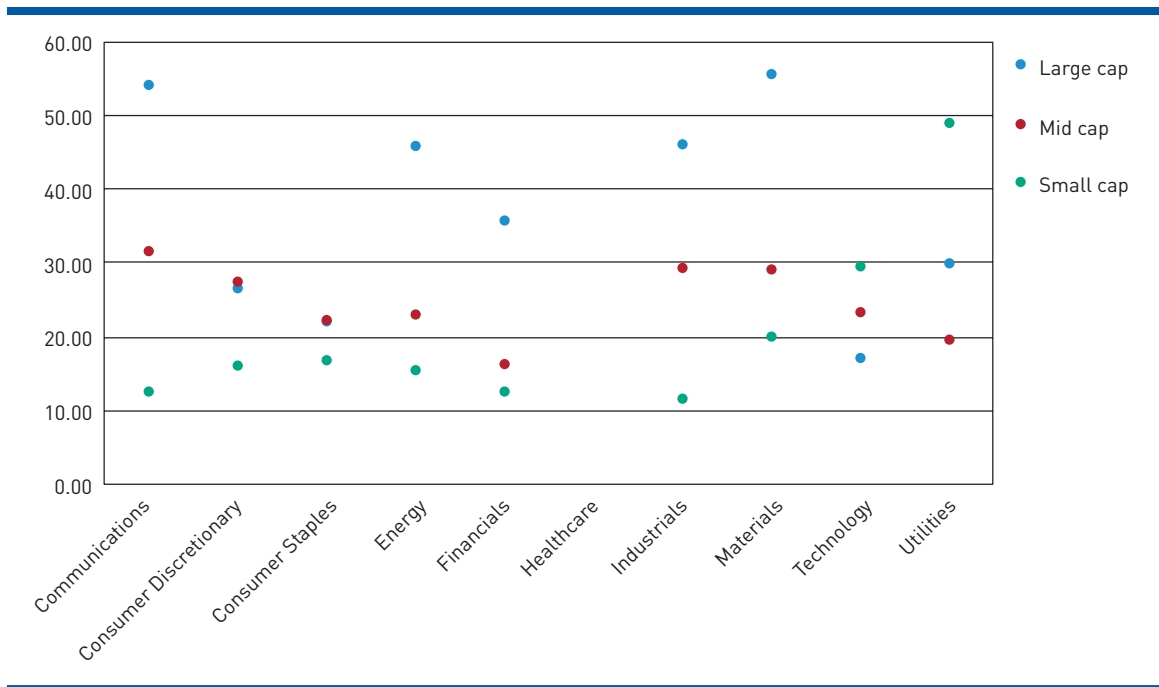


⁵ Not all companies have an environmental or social score, which means that the sample size differs between scores

and industrial sectors (S: 34.21, G: 51.79 and S: 46.49, G: 55.36, respectively), and communications is the only sector where the environmental score is less than 20 points under the governance score (E: 38.52, G: 51.79). Several industries have the same governance score, indicating standardization across sectors. Overall, a significantly higher governance score skews the combined ESG score, which then becomes less representative of environmental and social disclosure scores.

When categorizing the dataset by size as shown in **Figure 15**, little consistency is seen. Only 5 of the 10 sectors have the highest scores for large cap companies, whereas utilities (small cap: 49.17, mid cap: 19.83, large cap: 30.17) and technology (small cap: 29.75, mid cap: 23.55, large cap: 17.36) saw small cap companies beat the large cap companies with higher median scores. The large gap between the highest scoring size group and the lower scorers shows which companies drive up the score (e.g., in utilities, small cap companies drive up the overall score).

FIGURE 15: MEDIAN COMBINED ESG SCORES FOR SMALL CAP, MID CAP, AND LARGE CAP CANADIAN COMPANIES PER SECTOR



CHAPTER 11

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

ESG integration practices in Canada are more prevalent among equity practitioners compared to fixed-income practitioners. More equity practitioners are also quantifying ESG factors into their security valuations. **Figure 16** highlights the practices from the ESG Integration Framework that are applied in Canada.

When analyzing the ESG integration techniques of ESG practitioners, we found that equity practitioners favor integrating ESG issues into fundamental analysis and rarely into portfolio construction. Fixed-income practitioners equally like to integrate ESG factors into credit analysis and portfolio construction techniques.

Investors in Canadian companies are more likely to concern themselves with environmental and social issues than are their neighbors to the south, due to the predominance of extractive industries (oil, gas, and mining) that populate the Canadian market. The number of environmental and social factor–related shareholder proposals at Canadian companies is steadily on the rise, albeit from a relatively low base. According to a report by the Shareholder Association for Research & Education (SHARE), 33 such shareholder proposals were filed in 2017 in Canada, up from 27 in 2016 and 20 in 2015.⁶

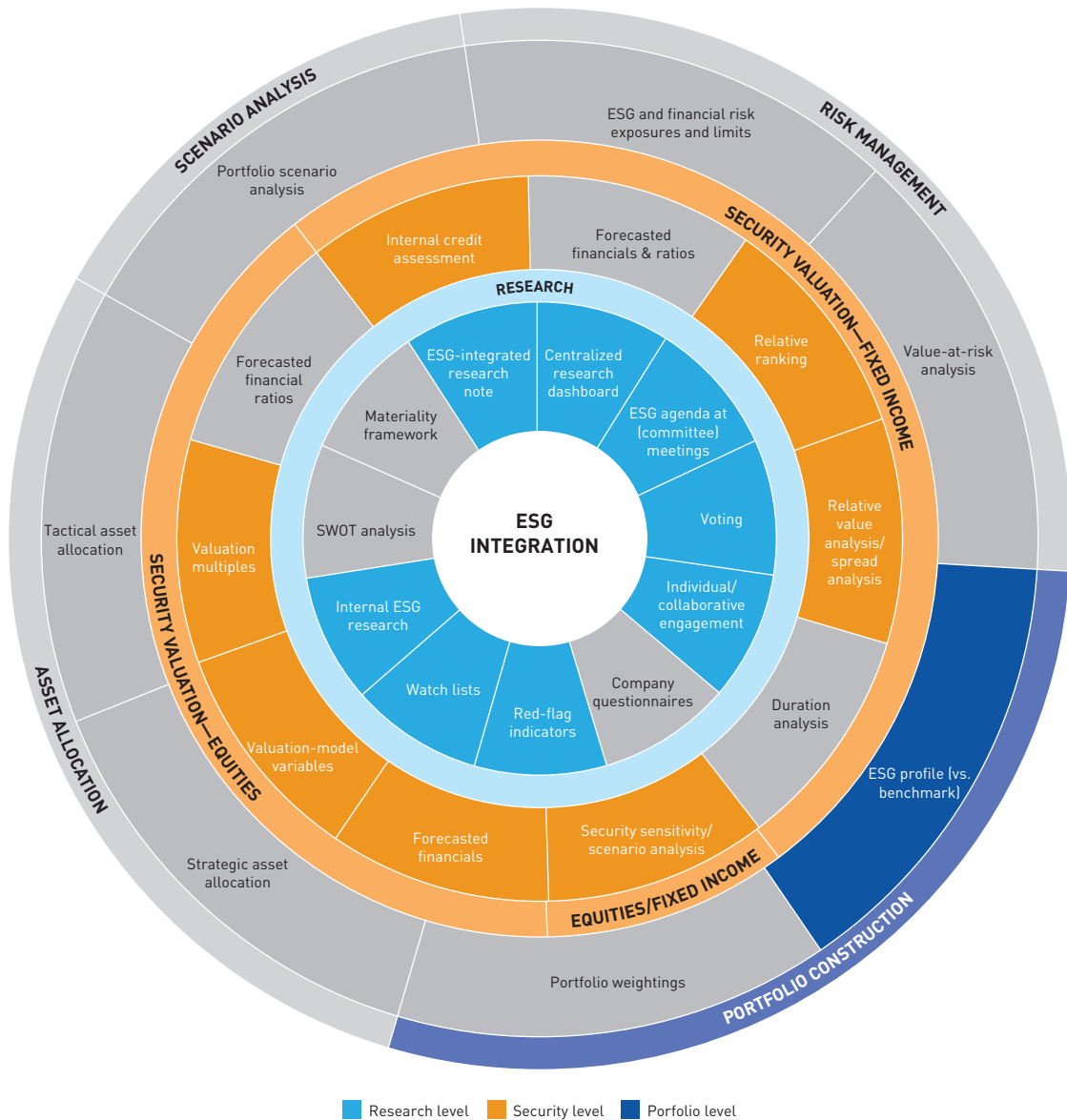
As is the case with their counterparts in the United States, Canadian investors are beginning to incorporate ESG into the investment process first as a risk mitigation exercise and secondarily as a potential driver of value. Equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners do (**Table 13**).

EQUITIES

Many equity practitioners who engage in ESG integration practices are using qualitative techniques to integrate ESG issues into their buy/sell/hold decisions or overweight/underweight/neutral decisions. A number of these practitioners will collate ESG data and research from multiple sources to create aggregate ESG scores as well as individual scores for environmental, social, and governance factors. The portfolio managers and analysts will review these scores while assessing the company's financials and their valuation models before making an investment decision.

⁶ https://share.ca/documents/annual_reports/annual_activity_report_2017.pdf

FIGURE 16: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY CANADA-BASED INVESTORS



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

- a centralized database;
- research notes;
- ESG scorecards; and
- watch lists.

TABLE 13: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	42%	22%
Environmental	34%	16%
Social	26%	16%

Note: Percentages represent respondents who answered “often” or “always.”

Some practitioners also access and review these ESG scores through regular sector meetings or daily risk reports that highlight companies with poor ESG scores. ESG scores can impact investment decisions through regular monitoring of ESG risks at the portfolio level.

As is the case in most markets, the number of practitioners who adjust their security valuations is much lower than the number of practitioners who are integrating ESG factors directly into their buy/sell/hold decisions.

ESG factors are implicitly and explicitly impacting security valuations. Some practitioners are assessing the implications of ESG factors with conventional risk factors in their overall growth rate assumptions of revenue forecasts and/or operating cost forecasts. Others are making explicit adjustments to forecasted financials, including:

- reducing revenue growth rates of chemicals companies for products that are likely to be banned on health and safety grounds;
- decreasing operating costs of utilities and materials companies that deploy new clean technologies to reduce emissions;
- adjusting operating costs of oil and gas companies based on the type of oil being produced; and
- adjusting future operating costs for changes in labor costs and tax rates.

Practitioners who are using ESG scores to adjust security valuations may feed ESG scores into the calculation of the discount rates that compute the target price of a company. Under such a method, companies with above-average ESG scores relative to their sector peers will have their discount rates adjusted down, whereas companies with below-average ESG scores will have their discount rates adjusted up. Discount rates of companies that receive sector-average ESG scores will remain the same.

In addition to using ESG scores to adjust discount rates for ESG risk, practitioners are using ESG scores to adjust price multiples. This technique involves calculating a company’s target price by multiplying a figure on a company’s financial statement (or another measure of a company’s value) by an ESG-integrated price multiple. When practitioners calculate the ESG-integrated price multiple, companies with below-average ESG scores will have their base-case price multiple adjusted down, and companies with above-average ESG scores will have their base-case price multiple adjusted up.

Scenario analysis is also being used to inform investment decisions. Practitioners will build a base-case valuation for a company and then apply different scenarios based on ESG trends. These scenarios are also being weighted for the probability of impact. For example, practitioners are applying scenarios that provide insights into the impact on companies' earnings per share caused by different carbon tax prices and regulation.

FIXED INCOME

Like equity practitioners, fixed-income practitioners are predominantly performing ESG-integrated qualitative analysis of bond issuers. Also, in line with the trends identified with equity practitioners, fewer fixed-income practitioners are quantifying ESG factors compared to those who are applying qualitative ESG integration techniques. Where fixed-income practitioners differ from equity practitioners is that they also integrate ESG factors into their portfolio construction techniques.

When firms have a mixture of equity and fixed-income investments and funds, they tend to apply the same practices for both asset classes. For example, fixed-income practitioners will create and use proprietary ESG scores and commentary and add them to credit research reports/monitoring lists/daily risk reports. Corporate bond investors can also borrow the same ESG research and scores of an issuer that is in the investment universe as their equity colleagues. Although practices of equity practitioners are often copied by corporate bond investors, there are additional considerations for fixed-income investments. For example, practitioners will analyze whether the same ESG factors are material for all bond issuances by a company (i.e., ESG factors that are material for a bond maturing in three years' time may be different from the ESG factors that are material for a bond maturing in twenty years' time). For sovereign debt investors, a country analysis and framework typically needs to be created and applied for their processes.

Other methods used by fixed-income practitioners are to create "indicators" that are used to flag a high-risk issuer. These ESG scores and indicators provide portfolio managers and analysts with instant access to information on ESG risks and opportunities when analyzing companies, countries, and portfolios. They are also used in:

- monitoring meetings;
- as a standard agenda item of credit meetings; and
- by risk teams and credit committees to monitor the risk and return of portfolios and the implementation of ESG investing within teams.

Those who are integrating ESG factors into credit analysis use a variety of approaches. The most popular method is to feed the ESG analysis and/or scores into the internal credit assessments or adjusted credit ratings. This can have an instant impact on the inclusion or exclusion of a bond in a portfolio, especially if the mandate states that bonds cannot be incorporated if their ratings are below a certain level.

Some practitioners quantify ESG factors into their spread analysis. Along with examining other determinants of a corporate bond's credit spread, they would look to see if the credit spread of bonds has priced in the ESG performance of a company. If the credit

spread of a corporate bond has not priced in the ESG performance of a company, this mispricing may offer an attractive investment or a poor investment. For example, a practitioner may believe that a company that performs well from an ESG perspective may see its bond spreads tighten over time if ESG risk is not priced in. On the other hand, a practitioner may believe that a company that performs badly from an ESG perspective may see its bond spreads widen over time if ESG risk is not priced in.

Corporate bond and sovereign debt practitioners are also integrating ESG factors into their relative ranking tools. As an additional component to an assessment, ESG information and analysis can have an impact on the relative ranking of an issuer. A good ESG performer could improve on its relative ranking to reflect a stronger valuation relative to some of its peers.

Our analysis also shows that while equity practitioners favor fundamental analysis, corporate and sovereign bond practitioners like to incorporate ESG factors into their portfolio construction tools and processes. These practitioners will tend to make qualitative assessments of ESG risks at the portfolio level as opposed to adjusting holding/sector/geographic weightings.

CHAPTER 12

INTERVIEW WITH A CANADIAN MAJOR MARKET PLAYER: ONTARIO TEACHERS' PENSION PLAN

Interview with Barbara Zvan, chief risk and strategy officer, Ontario Teachers' Pension Plan (OTPP), on the subject of how asset owners see ESG integration. OTPP is one of Canada's largest asset owners and its largest single-profession pension plan.

How do you define ESG investing?

ESG investing is the integration of environmental, social, and governance issues into the investment process.

How does your firm integrate ESG into the investment process?

We identify ESG risks that could impact the investment and work to understand how the company is managing these risks. The integration process may lead to engagement if more information/clarity is needed and/or to encourage the adoption of best practices.

What do you see as the main barriers to and drivers of ESG integration?

Barriers to ESG integration include:

- lack of confidence in ESG data due to availability, consistency, and access of information; and
- sometimes the ESG risk identified is not material.

Drivers of ESG integration include:

- increased appreciation of the materiality of ESG risks;
- increased stakeholder interest in ESG risks;
- proliferation of stewardship codes and the resulting stewardship obligations;
- peer pressure; and
- organizations providing frameworks for ESG integration and opportunities for shareholders to discuss ESG integration issues.

Are other asset owners—pension funds, insurance companies, sovereign funds, corporate funds—committed to ESG investing?

Yes.

How do you assess your managers on ESG investing?

We conduct ongoing due diligence of our managers, during which ESG integration is a topic of discussion.

Do you believe that ESG issues are impacting share prices more than corporate bond prices? Are ESG issues impacting corporate bond prices more than sovereign debt prices?

This depends on the issue. However, generally we would say ESG issues are more impactful on share prices because the time period associated with debt maturity is usually three to five years while equity has an infinite time horizon. ESG issues impact over the longer term.

We have no information that will allow us to comment as to the extent to which ESG issues are impacting corporate bond prices vis-à-vis sovereign debt prices.

What are the differences between integrating ESG issues into equity analysis and credit analysis?

Two differences between integrating ESG issues into equity analysis and credit analysis would be the time horizon for risk (as mentioned above) and the nature of the risk.

Can you give an example of how ESG issues have impacted your investment decisions?

ESG considerations are part of every investment decision. We do not make an investment decision on ESG alone.

What's next for ESG investing? Where do you see ESG investing in five years?

There is a growing onus on investors to play a stronger stewardship role in their investments. This will result in a move from purely managing ESG to how they impact externalities (e.g., exacerbating climate change impact on society and the environment). In addition, there will be more tracking of investment practices against the UN Sustainable Development Goals.

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SECTION 4

**COUNTRY ANALYSIS:
THE UNITED STATES**

CHAPTER 13

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

IMPACT ON PRICES AND YIELDS

Through the global ESG integration survey, we wanted to understand how often US-based investors consider how environmental, social, or governance issues affected share prices and bond yields in US capital markets when the survey was conducted in 2017 and how often they believe these factors will impact share prices and bond yields in five years' time (2022). As expected, corporate governance was the factor that survey respondents believed impacted share prices and bond yields the most. Most interesting, however, is the distinct jump in ESG integration in the environmental and social portions of ESG analysis that financial professionals expect to impact prices and yields in 2022 (**Table 14**).

Contrary to respondents' opinions on share prices, social issues are considered to be impacting sovereign debt yields more frequently than environmental issues both in 2017

TABLE 14: 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	45%	50%
Environmental	17%	39%
Social	13%	33%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	32%	37%
Environmental	9%	26%
Social	9%	24%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	30%	36%
Environmental	9%	23%
Social	12%	24%

Note: Percentages represent respondents who answered “often” or “always.”

and in 2022. Social and environmental issues are considered to impact corporate bond yields/spreads at roughly the same frequency.

ESG RISKS AND OPPORTUNITIES

Respondents in the United States were asked how often ESG risks and opportunities affect share prices and bond yields in US capital markets. As we saw at the regional level, corporate governance is the factor most considered, and survey respondents believe that practitioners are using ESG data to assess risks at about twice the rate as they do to spot opportunity (**Table 15**).

Responses were similar for both corporate bonds and sovereign debt, with respondents believing that fewer practitioners often or always include ESG issues in their risk analysis and even fewer identifying ESG opportunities.

TABLE 15: 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	18%
Environmental opportunities	11%
Social risks	15%
Social opportunities	8%
Governance risks	47%
Governance opportunities	25%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	14%
Environmental opportunities	8%
Social risks	13%
Social opportunities	8%
Governance risks	30%
Governance opportunities	18%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	10%
Environmental opportunities	7%
Social risks	13%
Social opportunities	7%
Governance risks	30%
Governance opportunities	18%

ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

We also wanted to better understand the investment practices of US-based practitioners. The survey asked how often portfolio managers and financial analysts are including material ESG issues into equity or credit analysis. It seems that for the most part the use of ESG research in analysis is done on an ad hoc basis in the United States, with few survey respondents saying that practitioners often or always include ESG issues in their analysis (Figure 17).

It also appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either “never” or “rarely” (Figure 18).

When comparing the level of ESG integration in equities with the level of ESG integration in fixed income, the results suggest that more equity practitioners are “sometimes,” “often,” or “always” integrating material ESG issues into their fundamental analysis. However, respondents believe that equity practitioners and fixed-income practitioners are adjusting their valuations tools/models at the same frequency.

FIGURE 17: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

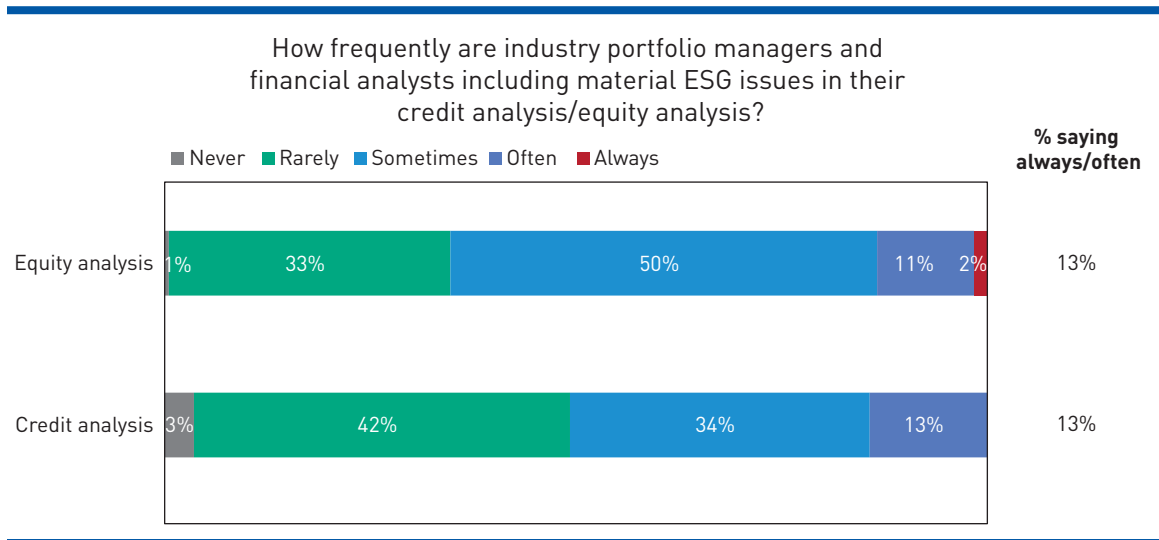
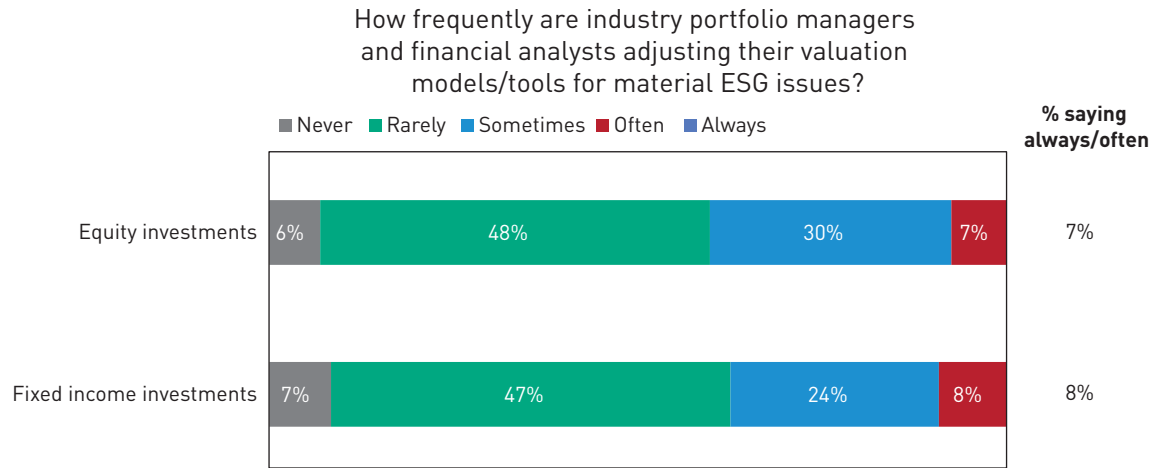


FIGURE 18: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



CHAPTER 14

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

CFA Institute and PRI thank the New York Stock Exchange, BNY Mellon, and MSCI for their help in organizing our ESG Integration workshops in New York and Boston.



THE STATE OF ESG INTEGRATION IN THE UNITED STATES

Although the use of ESG integration in the investment process has grown rapidly in the United States in the past decade, there is still some confusion about ESG—what exactly it means and just how ESG integration is done.

For one, ESG has a definition problem. A coherent understanding is lacking among asset owners, asset managers, issuers, and retail investors of what is meant by ESG, and therefore ESG integration is often being done on an ad hoc basis without agreement among many of the parties on exactly what ESG means. This is not necessarily a bad thing as two investment shops with differing definitions of ESG integration may simply have two different methods of ESG integration, each of which can lead to robust analysis. However, we are in the early days of ESG integration, and such definition confusion leads some practitioners to sit on the sidelines before they engage in ESG integration.

ESG has a definition problem. A coherent understanding is lacking among asset owners, asset managers, issuers, and retail investors of what is meant by ESG.

Workshop participants noted that governance is covered for the most part at the institutional level. This is reflected in our survey, in which only 18% of respondents in the United States say that ESG issues never or rarely impact share prices, compared to well over one-third who believe that environmental and social issues rarely or never impact share prices.

One manager noted that they are not hearing ESG integration from portfolio managers and analysts, but there is a lot that they are doing that includes ESG issues on an ad hoc

basis. This highlights a topic that was discussed by a number of participants—what exactly is proactive ESG integration versus reactive? Although some firms have integrated ESG integration thoroughly in the investment process, there are plenty of asset managers who simply use ESG integration on an ad hoc basis.

How ESG is used depends on the industry and time horizon, and it is interesting that private clients are starting to ask about ESG, which is relatively new.

Retail and high-net-worth individuals often see ESG as the same as SRI. On the retail level, a lot of education is needed as ESG integration isn't often discussed at the retail level.

DEFINITIONAL ISSUES

Practitioners agree that there is still too much confusion around language and terms such as “SRI,” “ESG,” and “impact investing,” which are all seen as synonyms by many.

About 37% of survey respondents from the United States believe that a barrier to ESG integration in equities is a concern over negative returns and tracking errors that are associated with negative screening. This number is about 26% when fixed-income investments are concerned. This shows that there is still a perception among about one-fourth to one-third of investors that ESG integration is synonymous with negative screening.

There is no clear consensus about what ESG integration means, and each practitioner who ascribes to an ESG integration framework has his or her own in-house recipe for how this integration is done.

There was agreement that, over time, there will be less need to label this process “ESG integration,” and in the end, ESG will just be seen as a part of fundamental analysis.

Definition and terminology confusion will not go away anytime soon. There is still a big education curve to climb among investors as well as those financial professionals making and selling ESG products.

There is no clear consensus about what ESG integration means, and each practitioner who ascribes to an ESG integration framework has his or her own in-house recipe.

FIDUCIARY DUTY

Regarding the topic of ESG and fiduciary duty, there was consensus that ESG supports fiduciary duty. There is still concern in some quarters that ESG analysis is not in line with the concept of fiduciary duty. The US Department of Labor offered guidance in 2015 that laid to rest this concern, saying that ESG analysis is not in conflict with fiduciary duty and can even aid in analysis; some participants, however, were still unaware of this Department of Labor guidance.

HOW IS ESG INTEGRATED?

Workshop participants noted that the frequency of ESG integration depends greatly on the sector or industry of a company. Corporate governance tends to be integrated in the

investment process more routinely, but environmental and social factors depend on sectors. For example, the mining industry or oil and gas industry will garner far more consideration of environmental factors than will the banking industry. Social factors are more likely to be considered in the retail and apparel industries than in software. A number of participants also noted that there are not always processes in place for systematically incorporating ESG factors in these sectors, noting that integration is often done on a case-by-case basis as ESG issues come up and may not be done uniformly for all companies in a given sector.

A challenge for ESG integration is often the time frame. Many ESG issues are long term in nature, and analysis or investment decisions are often undertaken with a shorter term time frame (e.g., the next quarter or the next year) in mind. This has led some workshop participants to call on asset managers to more thoroughly explain how they incorporate ESG into the investment process, so that asset owners can know the depth of the analysis and the time frames considered.

ESG IN FIXED INCOME

A number of fixed-income practitioners argued that ESG has always been integrated into fixed income, and it is not a novel concept in the fixed-income world. ESG presents a challenge for fixed income as there are other issues that compete, such as maturity and interest rates. This does not line up with our survey results, however, as only about 47% of survey respondents said that portfolio managers and analysts “sometimes,” “often,” or “always” incorporate ESG into credit analysis.

Governance issues are priced more efficiently in fixed income compared to environmental and social factors. Therefore, there are more alpha opportunities from an environmental and social perspective. Governance is always looked at and covered by credit rating agencies. Environmental issues are less transparent. Analysts are barely looking at social factors in sovereign debt. Fixed-income specialists look at ESG risks: country risks, environmental footprint, and human rights.

MATERIALITY

The issue of ESG materiality came up in many conversations. People noted that as a first step in the ESG integration process, materiality needs to be defined. One participant emphasized that for some ESG factors to be material, they must be clearly linked to cash flow and risk.

Participants voiced concern that it is difficult to disaggregate the impact of ESG on value and that it is often difficult to gauge where alpha comes from. A number of practitioners also questioned how they can best attribute performance to ESG factors. It is difficult to tell what quantifiable impact ESG has, though practitioners agreed that ESG integration can give a more complete understanding of an investment. That question of performance attribution was left largely unanswered—there was no consensus on how far it has come and how far it needs to go.

One participant wished to emphasize that it is too much to say ESG is always impactful. There are usually only a few key performance indicators that make a difference, and we need to try to focus on those few that are clearly material. These are usually only a handful of issues per company, and analysts and investors would be better served by focusing on these few items than dozens of ESG data points.

There are usually only a few (ESG) key performance indicators that make a difference.

There was a consensus among most participants that it would be helpful to agree on a standard of materiality to start from, one that even if imperfect can serve as a starting point for companies and investors to agree on so that everyone is using the same rulebook.

ISSUERS' VIEWS ON ESG

There was consensus that companies are getting better at measuring and disclosing ESG data, but there are still issues stemming from both investors and companies not being informed enough to have the right conversations about ESG.

Large US companies have grown rather sophisticated in providing ESG-related data to investors in recent years, though they still feel survey fatigue and want a more limited set of material data that they can measure and report on to investors. Many large companies are already doing this, however, and have increased engagement in recent years with investors.

A gap still exists in ESG information gathering and reporting from mid cap and small cap issuers who are perceived to lack the resources or expertise to track these data to the satisfaction of investors.

From an issuer perspective, there is a legitimate concern about the costs of tracking and measuring all the ESG data requested by investors and different interest groups, particularly when there is no understanding of which key performance indicators drive value. There are many frameworks that take the time and resources of issuers, so it is reasonable for issuers and investors to work together to define materiality.

From an issuer perspective, there is a legitimate concern about the costs of tracking and measuring all the ESG data they are asked to by investors.

Companies want to get to materiality just as much as investors—efforts such as those of the Sustainability Accounting Standards Board (SASB) offer promise for all parties.

Some issuers wonder about the real interest of ESG issues, as they don't often hear these issues discussed on their company calls. Investors argue that many of these issues are long term in nature and don't often come up in quarterly calls unless there is a huge ESG red flag.

E VERSUS S VERSUS G

Asset owners have largely been incorporating governance factors into the investment process for years. They believe that environmental and social importance is dependent on the

sector. Environmental factors are most important; social factors are deemed important on a case-by-case basis.

Investment managers have also had years of experience in incorporating governance into the investment process, and most have established methods for doing so that usually include a mixture of data from governance data providers and in-house expertise.

The feedback at the workshops suggests that the order of materiality is governance, then environmental, then social. The order depends on whether you are an asset owner or investment manager, and it can change based on if you are integrating with the views of investing in the long term or short term.

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 16** and **17**.

Client demand was cited by most workshop attendees as a main driver of ESG integration and confirms our survey results (see Table 16). Many also cited risk management as

TABLE 16: DRIVERS OF ESG INTEGRATION IN US CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	63%	Risk management	59%
Client demand	60%	Client demand	57%
Regulation	18%	Fiduciary responsibility	20%
Alpha	16%	Regulation	16%
Fiduciary responsibility	15%	Alpha	9%

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

TABLE 17: BARRIERS TO ESG INTEGRATION IN US CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	43%	Lack of comparable and historical data	35%
Limited understanding of ESG issues and ESG integration	41%	Limited understanding of ESG issues and ESG integration	34%
Concerns about negative returns and underperformance	37%	No evidence of investment benefit	28%
Lack of company culture	29%	Concerns about negative returns and underperformance	26%
No evidence of investment benefit	27%	Low client demand	24%

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

a main driver of ESG integration as well as alpha generation, though many conceded that this outperformance is generally part of a longer term investment strategy. These results conform to our survey in which 63% of those surveyed in the United States said that risk management is a driver of ESG integration for equities (59% for fixed income), and 60% said the same of client demand (57% for fixed income).

Barriers to ESG integration were more varied. Many people noted that ESG integration is a different skill than the number crunching many analysts are used to—it is as much art as science. One person argued that ESG does not lend itself to plugging into a formula but is better thought of as one piece of the puzzle, one tile in the mosaic. It just gives a clearer picture. A lack of standardized reporting and challenges in performance attribution were also cited by multiple participants.

As we have seen in each market in which we held an ESG workshop, concern exists that the data used in ESG integration are not where they need to be to make apples-to-apples comparisons across companies and that the data are still not uniformly presented or audited. It is often hard to know when ESG issues are going to be important and material, which made several participants hopeful that the SASB and other reporting structures could help bring agreement to the issue of materiality in each sector.

Cultural barriers to ESG integration in the investment world also exist. Although their numbers are diminishing, some still have the perception that ESG integration represents a trade-off between integration and returns, as about 30% of survey respondents believed that ESG integration leads to underperformance due to limiting of one's investment universe. This negative screening is more associated with SRI investing and is not practiced by many who engage in ESG integration, but the perception remains.

Implementation of ESG integration also often requires significant active management and monitoring unless a firm simply overlays a rather broad screen or filter on their process.

A key driver was demand, but that driver is shifting to performance—the expectation is increasing that ESG integration will need to lead to outperformance or demand could wane.

CLIENT DEMAND INCREASING WHILE ADVISERS' KNOWLEDGE IS LIMITED

Interest from clients, although marginal, seems to be growing. A number of participants noted that they have seen a lot of interest in ESG products from clients lately, but that this growth in interest is emerging from a small base.

Many practitioners worried that adviser knowledge may not be meeting client demand, noting that there is a fundamental problem in that most clients want it but few advisers understand it. ESG may be used to win business, but is there anything there to sell? Education is key, but are data oversimplified?

One asset manager noted that they are seeing high demand from clients and that their team is

There is a fundamental problem in that most clients want it but few advisers understand it. ESG may be used to win business, but is there anything there to sell?

ramping up. “Our private clients tend to think it is the same as SRI. We have seen it help in risk mitigation. It is built in to our risk mitigation systems. They have MSCI and SASB as a starting point. They do portfolio level stuff—then security level.”

THE DATA

Topics that have come up in nearly every workshop we have held are the quality and reliability of ESG data. There was agreement that ESG data have come a long way in recent years, though there is still a need for agreement on what data are material and therefore in need of collection.

One participant noted that there is a low correlation between the data of different providers and that they get data from a number of providers because each provides a unique take on ESG information. One participant noted that ESG analysis was largely impossible a decade ago and is just as difficult now.

One participant noted that ESG analysis was largely impossible a decade ago and is just as difficult now.

A number of questions still exist around ESG data, such as: What do we do with the data once we get them? What weighting do we put on them? There are lots and lots of data out there, but are they useable, comparable?

ESG PRODUCTS

Another potential barrier, but one of growing concern, is that there is increasing interest in ESG investing but a general lack of understanding among financial advisers and investors about exactly what ESG investing means. There is therefore often a mismatch between what investors want or perceive they want and the products they are being sold. This could be a problem in the future if large numbers of investments labeled as ESG products do not perform as expected and then sour investors on ESG investing.

There are very few true ESG products that incorporate ESG analysis into investment decision making, but many SRI products that simply rely on a negative screen. Many SRI products are sold as ESG products, which may cause problems in the future as people realize the ESG product they were sold is not what they thought it was.

WHAT IS THE GOAL OF ESG INTEGRATION?

The conversation eventually turned to what exactly the goal of ESG integration is and should be. Should the goal be to evaluate risk, generate alpha, simply better understand the whole story of a company, or promote change?

Others focused on the risk side of the equation and noted that ESG issues that are ignored are more likely to destroy value, and therefore, the benefits are not necessarily from discovering good ESG companies, but from avoiding negative outliers.

Some believed that ESG integration should have some activist's stance, noting that otherwise it is all about value and one can invest in companies that are undervalued and will produce returns not for ESG reasons. However, this stance does differentiate between SRI, which emphasizes values, and ESG integration, which emphasizes a more complete look at data to drive value.

There is no consensus on the exact value or goal of ESG integration. Many investors likely use it for some combination of risk assessment, alpha generation, fundamental analysis, or impact investing.

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CHAPTER 15

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 one environmental, social, and governance score. These are again aggregated to a combined ESG score. (For more information, see “Appendix: Methodology.”)

The United States has a well-diversified economy with many companies in each sector, although, as seen in **Figure 19**, financials is by far the largest sector in both the listed equity and fixed-income markets, with consumer discretionary coming in second.

Figure 20 shows the US ESG scores per sector for listed equity in 2011 and 2016. Financials (2011: 12.72, 2016: 12.72) is the only sector where there has been no change. Every other sector has seen increased disclosure scores at different levels of improvement. Materials (2011: 15.29, 2016: 21.69) improved significantly more than any other sector and now ranks as the sector with the second highest score. It is notable that the best-scoring sectors have stayed the best.

FIGURE 19: SECTORAL BREAKDOWN OF DATASET: US COMPANIES WITH LISTED EQUITY AND PUBLIC FIXED INCOME

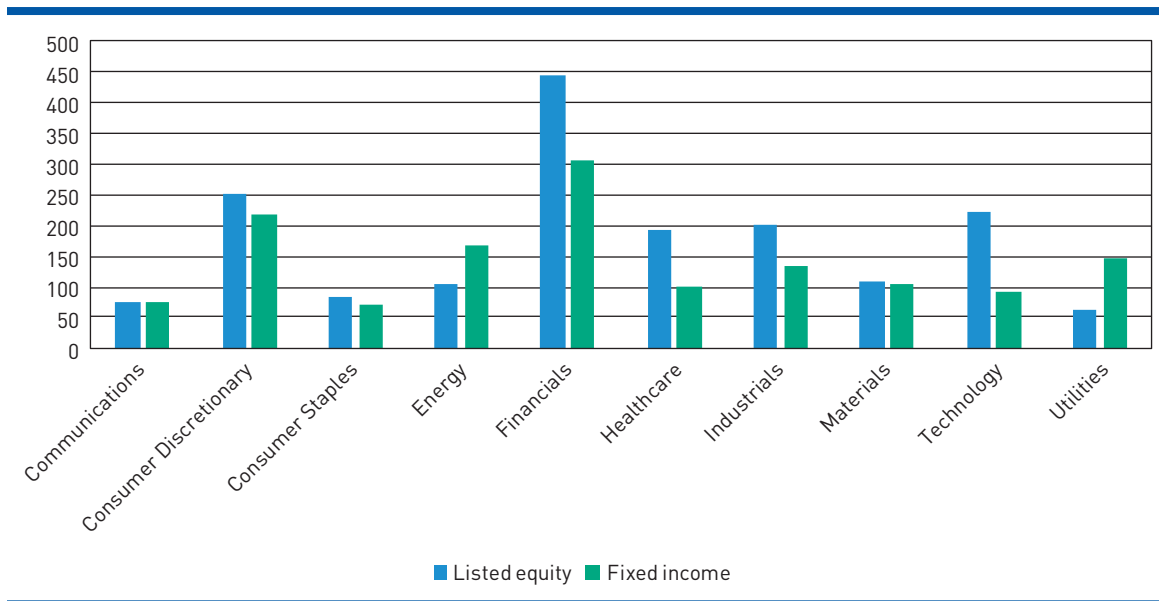


Figure 21 shows the breakdown of the 2016 environmental, social, and governance scores for listed equity. Governance scores are significantly higher and more even across sectors than are environmental and social scores. This is not surprising, as governance has been a focus area far longer than environmental and social issues. Overall, a significantly

FIGURE 20: MEDIAN COMBINED ESG SCORES FOR US COMPANIES WITH LISTED EQUITY PER SECTOR

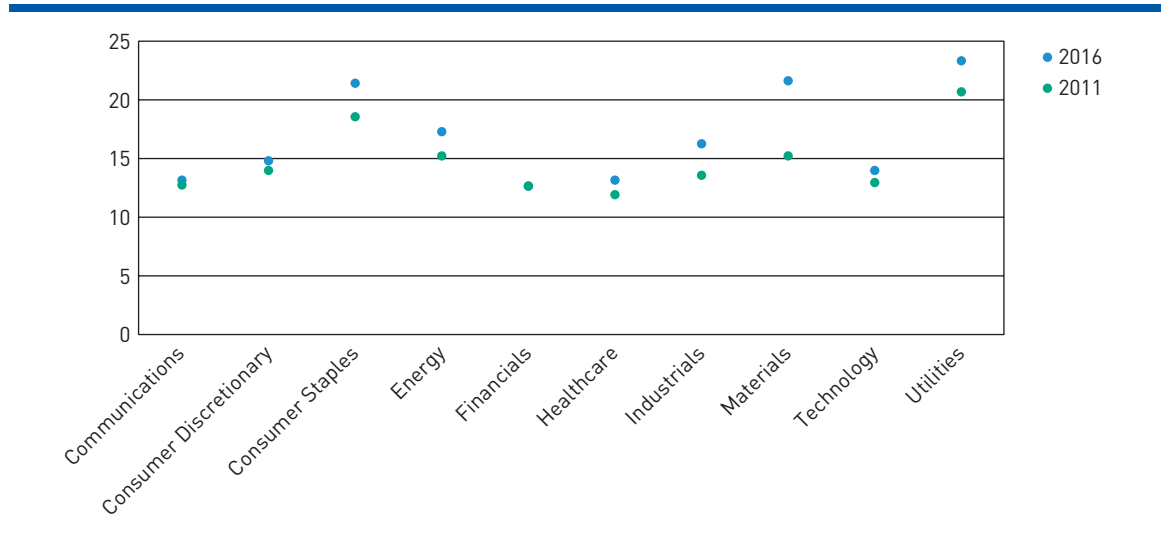
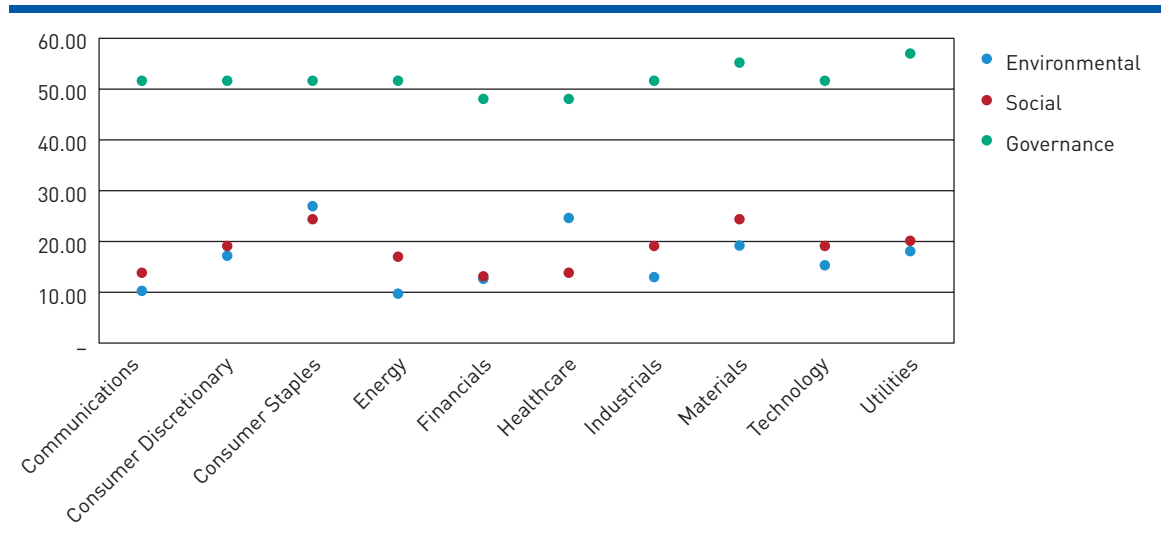
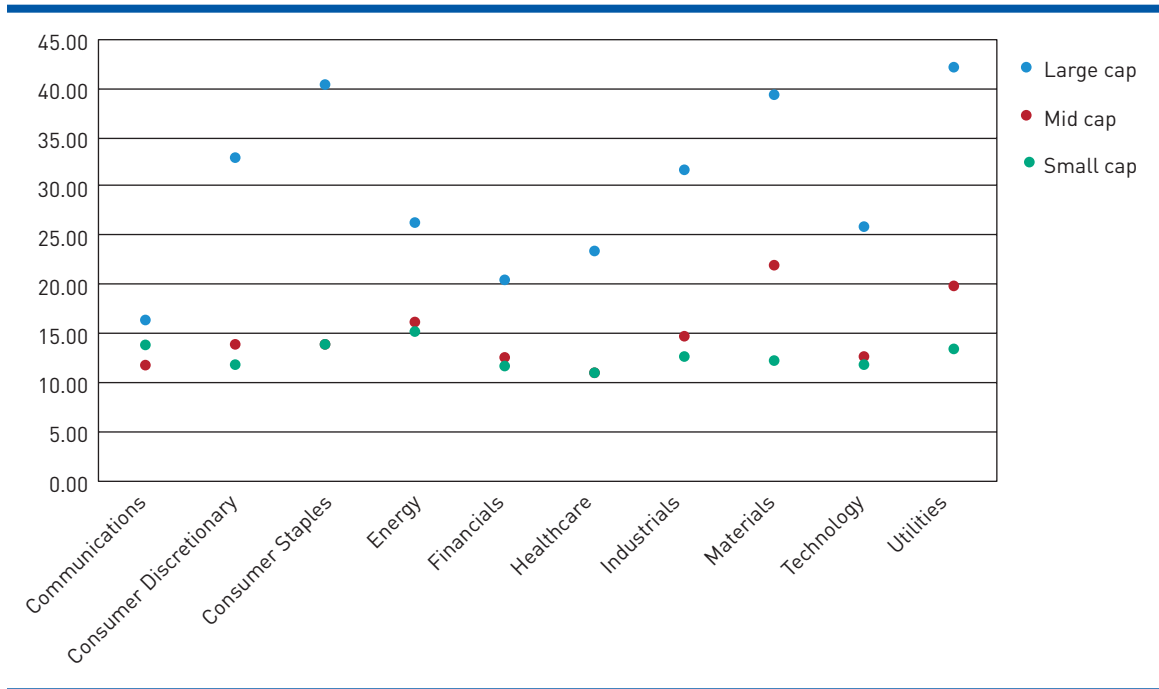


FIGURE 21: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR US COMPANIES WITH LISTED EQUITY PER SECTOR⁷



⁷Not all companies have an environmental or social score, which means that the sample size differs between scores

FIGURE 22: MEDIAN COMBINED ESG SCORES FOR SMALL CAP, MID CAP, AND LARGE CAP US COMPANIES PER SECTOR

higher governance score skews the combined ESG score, which then becomes less representative of environmental and social disclosure scores. Communications, consumer discretionary, consumer staples, energy, industrials, and technology all have the same governance score (51.79), which shows a high level of standardization.

To some degree, this is also true for the social score, although at a much lower level. For the most part, the social disclosure scores follow the governance scores, in that the worst performers on governance also have the lowest social disclosure scores. The environmental scores follow the social scores quite well across sectors. The environmental disclosure score is very close to the social score in most sectors, but only higher in the consumer staples (E: 27.13, S: 24.56) and healthcare (E: 24.81, S: 14.04) sectors.

When breaking down the combined ESG score per size of company, as shown in **Figure 23**, the large cap companies show significantly higher disclosure scores, but much more variation among sectors than small and mid cap companies across sectors. The lowest scoring sector is communications, with large cap medians at 16.53, and the highest scoring large cap industry is utilities with 42.26—almost three times the communications score. Communications (small cap: 13.99, mid cap: 11.93, large cap: 16.53) is also the only sector that does not follow small, medium, and large cap order in disclosure scores. **Figure 23** also shows that the high scores, especially in consumer staples, materials, and technology, seem to be driven by the large cap companies.

CHAPTER 16

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

Although fewer fixed-income practitioners are performing ESG integration techniques in the United States than their equity counterparts, the sophistication of the ESG integration practices performed by fixed-income practitioners is similar to those performed by equity practitioners (see **Table 18**). Fixed-income practitioners are integrating ESG factors into both credit analysis and portfolio construction techniques. Corporate bond investors favor fundamental credit analysis, possibly due to borrowing practices from their equity colleagues who also favor fundamental equity analysis. Sovereign debt investors like to integrate ESG factors into their credit analysis but are equally fond of integrating ESG factors into their portfolio construction techniques. **Figure 23** highlights the practices from the ESG Integration Framework that are applied in the United States.

EQUITIES

Practitioners in the United States are deploying advanced integration practices in their equity investments. However, most practitioners are still developing their processes to integrate ESG factors into their fundamental analysis and portfolio construction process.

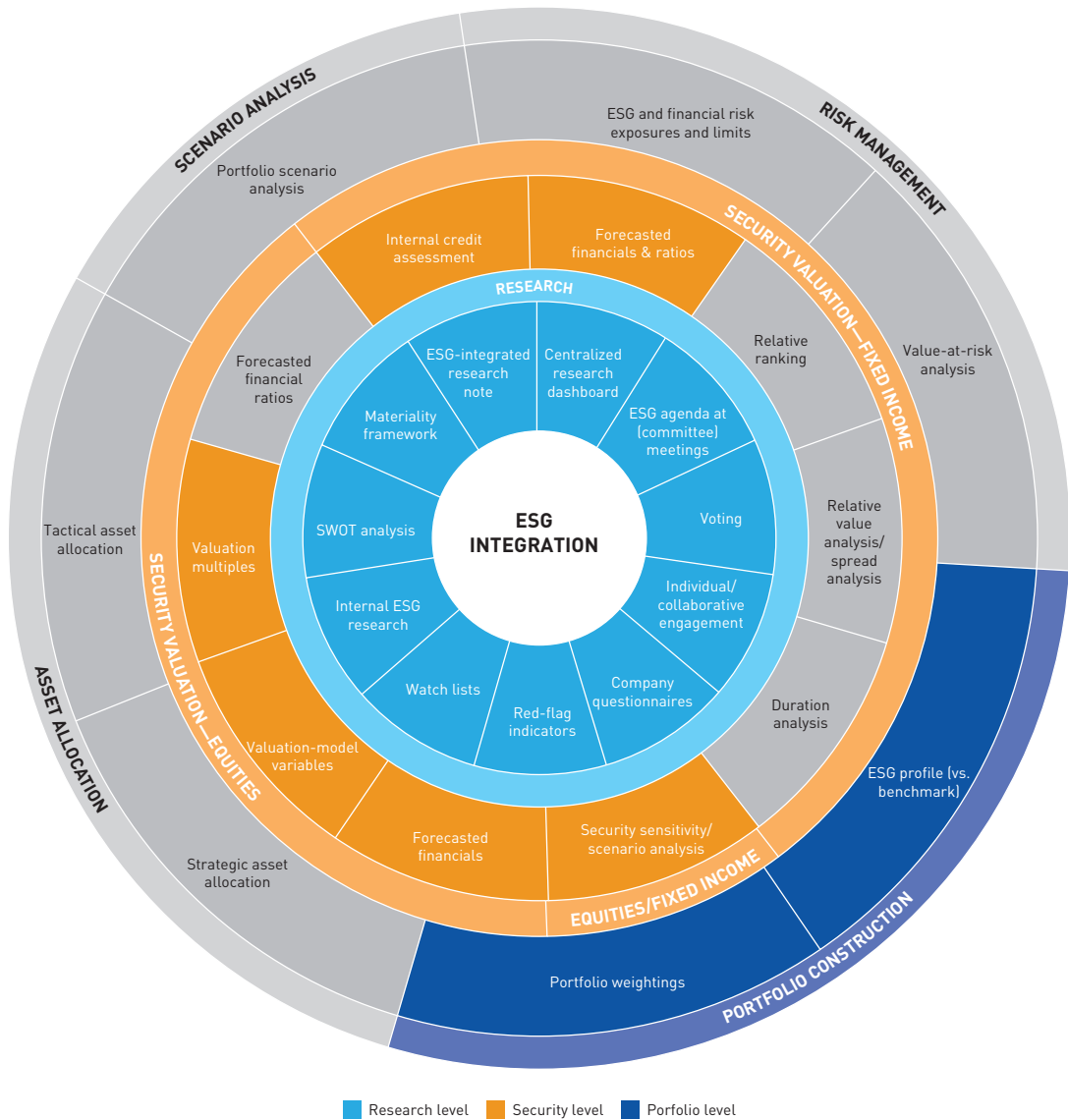
Proprietary ESG scores and dashboards tend to be the norm for practitioners who perform ESG integration. Less so are research sheets with ESG scores and commentary and standard agenda items on ESG risks in regular portfolio reviews. These tools and practices are popular choices for practitioners to feed ESG factors into their buy/sell/hold and overweight/underweight/neutral decisions. Practitioners will use them to identify whether the ESG risk is large enough to avoid investment or to cause them to divest. They will also analyze the ESG performance over time to understand whether it will create company value or destroy company value.

TABLE 18: HOW FREQUENTLY DO YOU [THE SURVEY RESPONDENT] FACTOR IN MATERIAL ESG ISSUES WHEN ADJUSTING YOUR VALUATION MODELS/TOOLS?

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	32%	33%
Environmental	22%	20%
Social	21%	22%

Note: Percentages represent respondents who answered “often” or “always.”

FIGURE 23: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY US-BASED INVESTORS



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

Those who integrate ESG factors into their fundamental analysis use a range of techniques. A popular method is adjustments to the risk premia and discount rate, especially for ESG factors that are hard to quantify—factors such as corruption, shareholder rights, quality of management, and litigation risk—for investments that may require a higher margin of safety. Another valuation tool adjustment is integrating ESG factors into price multiples to calculate the target price of a company, such as price-to-earnings multiples that will be multiplied with earnings per share.

Adjustments to forecasted financials are less popular but still used. Some examples are adjustments to revenue or cost growth rates, one-off cost or capital expenditure charges, and changes to operating margins.

Other advanced practices used by US practitioners to understand the impact of ESG factors on valuations are sensitivity analysis and scenario analysis. Practitioners will create a base-case valuation and then adjust line items, discount rates, and terminal values to reflect the ESG risk level of a company. They may adjust these variables one-by-one or create ESG scenarios to also understand the impact of ESG factors on a company valuation.

Some US practitioners are integrating ESG factors into their portfolio construction processes. ESG data, scores, and analysis are adjusting company, sector, and/or country weightings of portfolios. Practitioners are also adjusting expected returns for ESG risks, which in turn adjust portfolio weightings.

Finally, practitioners are adjusting portfolio risk budgets for ESG risk. The adjustments to portfolio risk budgets for ESG risk can allow practitioners to invest in companies that previously pushed the portfolio risk levels over their mandated risk limits. Equally, it can prevent practitioners from investing in companies that kept the portfolio risk levels below their mandated risk limits.

FIXED INCOME

Fixed-income practitioners in the United States who apply ESG integration practices to their fixed-income analysis are demonstrating leading practice. They deploy advanced techniques to understand and embed material ESG factors into their analysis and process.

Corporate bond investors and sovereign debt investors use multiple tools and practices to identify, analyze, and monitor ESG factors so that they can integrate them into their buy/sell/hold or overweight/underweight/neutral decisions. Popular tools and practices deployed by both investors include:

- proprietary ESG scores;
- “red-flag” indicators;
- centralized research databases;
- quarterly watch lists of high-ESG-risk issuers;
- credit research reports with ESG scores and commentary;
- standard agenda in credit meetings and/or committees; and
- qualitative assessment of ESG risks at the portfolio and sector levels.

Less common tools and practices include:

- inclusion of ESG scores into trading platforms; and
- the analysis of ESG features in indentures and covenants.

Corporate bond investors who work with equity investors will often use their tools and practices. They will share materiality/sustainability frameworks, which list the material ESG risks per sector, to guide them on potential hidden risks and opportunities in their holdings, portfolio, and investment universe. Sovereign debt investors and/or their dedicated ESG team will develop sovereign frameworks/country matrices that will feature the material ESG risks per country.

Sovereign debt investors are integrating ESG factors into their credit analysis and portfolio construction techniques, whereas corporate bond investors favor credit analysis. Both are feeding ESG scores into their internal credit assessments and adjusting their opinions of company outlooks. This is a common approach for integrating ESG factors into the creditworthiness of issuers.

Practitioners are also referring to ESG scores alongside their internal credit assessments. They will judge whether investing in an issuer with a positive ESG score and a negative credit rating could create value and whether investing in an issuer with a negative ESG score and a positive credit rating could destroy value.

Other approaches are relative ranking and relative value/spread analysis. Practitioners who integrate these into their relative ranking process will factor ESG scores and analysis into issuer rankings among their peers. This can have a direct impact on the practitioner's outlook of an issuer. With spread/yield analysis, a practitioner will assess whether the relative value/spread analysis of an issuer compensates for the level of ESG risk of an issuer. If the credit spread of a corporate bond has not priced in the ESG performance of a company, this may offer an attractive investment or a poor investment. For example, a practitioner may believe that a company that performs well from an ESG perspective may see its bond spreads tighten over time if ESG risk is not priced in. On the other hand, they may believe that a company that performs poorly from an ESG perspective may see its bond spreads widen over time if ESG risk is not priced in.

In addition, several sovereign debt investors are integrating ESG factors into their portfolio weightings. Sovereign credit analysis involves the evaluation of a number of governance and social issues as well as a few environmental issues (especially with resource-dependent countries). The final assessment can have an influence on the weighting of countries in the portfolio and result in complete restriction from investment.

CHAPTER 17

INTERVIEW WITH A US MAJOR MARKET PLAYER: RUSSELL INVESTMENTS

Interview with Yoshie Phillips, CFA, senior research analyst, Global Fixed-Income at Russell Investments, to learn more about ESG in the fixed-income world through a discussion about the firm's annual ESG Manager Survey and the money manager observations. Russell Investments is a global asset management firm.

Please tell us what you are seeing as far as ESG adoption in the fixed-income space.

Russell Investments' fixed-income manager research team has observed a rapid growth in environmental, social, and governance (ESG) awareness. This awareness has fostered a widespread willingness to incorporate ESG factors into fixed-income managers' investment processes over the past couple of years.

Can you tell us a bit more about the annual survey you do of fixed-income managers concerning ESG?

ESG has become increasingly important to many investors, so it is unsurprising to see growing interest in ESG among fixed-income managers, and a strong desire on the part of the managers to insert their branding on the topic. We have conducted an annual ESG Manager Survey among money managers across the globe. The survey provides us with a deeper understanding of the ways money managers consider ESG factors and their various approaches to the ESG investment integration. We include the ESG integration as a part of our evaluation process for the strategy-level assessment. The ESG Manager Survey results provide an important reference point for Russell Investments' manager researchers to have further dialogue in regular due diligence meetings with money managers.

What do you see in how fixed-income money managers are incorporating ESG analysis in the fixed-income world?

ESG consideration means different things to different people—in fact, there is no standard investment practice of ESG integration. We observe varying degrees and manners on how fixed-income managers integrate ESG factors into their investment practices. Previously, we had observed that a number of fixed-income money managers took the specific term “ESG” or “responsible investing” primarily in terms of their clients' ethical value judgments and sacrificing potential performance. However, we have observed an increasing number of the fixed-income managers have adopted a concept of ESG factor assessment as an integral part of their risk management exercise. This is understandable because capital appreciation opportunities are much more limited for bond prices than stock prices; therefore, downside protection is crucial to bond investing.

Many fixed-income money managers have started to incorporate explicit ESG factors through scoring methodology while others have a more integrated approach. Many fixed-income managers have their own explicit ESG scores for companies or countries in which they invest. The ESG scoring has become possible because there are more explicit ESG-related data available for the fixed-income market. ESG data providers have seen a tremendous growth in the fixed-income market over the past couple of years. In an attempt to obtain greater insights about the ESG integration, we broke this topic into several questions in the survey. Addressing the methodology of the ESG factor considerations by ascertaining their data sources and degree of the qualitative overlay into their investment decision-making practice is a part of the questionnaire. Many money managers use such explicit ESG scores to distinguish and separate inputs to their investment decisions, while others incorporate those ESG inputs as an integral element in the overall assessment of the companies in which they invest.

What are some of the differences between how managers see environmental, social, and governance factors?

ESG factors encompass a broad range of topics, such as climate change, sustainability, human capital, employee health and safety, corporate governance, and so on. Our ESG survey highlights how money managers treat the governance aspects as having the most important role in assessing the corporate fundamentals. The environmental and social factors are often considered as external risks or non-financial considerations where their direct impacts are less clear. We believe this is partially because the challenges in assessing the impact of these environmental and social factors on security prices, given the impact of many environmental and social factors may show up episodically—often observed through negative events. For instance, worker safety practice often becomes a forefront issue only when there is an accident. Conversely, when companies manage the environmental and social factors well, the precise financial connection with the ESG consideration is hard to make. We see money managers increasingly incorporating those so-called nonfinancial considerations as a part of their security analysis to obtain a more comprehensive view of the company or investment they're making. In other words, many money managers are treating ESG considerations as a risk management exercise to protect and enhance the economic value of the companies in which they invest.

Could you explain a bit about the ranking system you use?

Russell Investments employs a ranking system in its manager research process that incorporates factors that we believe impact the manager's ability to generate excess returns for our clients, both on an absolute basis and relative to peers. We have an ESG rank (scale of 1 to 5, with 5 being the highest) formally incorporated into our manager evaluation process. The annual ESG Manager Survey results are important inputs to our ESG assessments for money managers. The survey helps us address various aspects of how money managers incorporate ESG considerations, such as the level of the firm commitments, ESG investment policy implementations, the level of engagements, and the level of ESG integration. We carefully calibrate the ESG survey results and formulate which money managers stand out in their ESG integrations by assigning quantitative rankings to each manager that are based on the survey responses. Importantly, our manager researchers use the

survey results as a reference, but our regular due diligence meetings with money managers drive our final ESG ranks for individual strategy offerings.

What does this process ultimately tell you? What value is added?

Russell Investments integrates ESG considerations into our qualitative manager research practice, and the annual ESG Manager Survey has assisted us in gaining greater insights into the ways money managers integrate ESG factors into their investment practices. Although explicit ESG data are increasingly available for the fixed-income market, the market still lacks a common practice in the ESG integrations. However, we believe ESG considerations do provide a more comprehensive picture of a company's or country's risk. Companies or countries who are improving societal outcomes through environmental, social, and governance factors may find their credit ratings improving as well—hence, producing positive economic values over time. We believe understanding how money managers integrate ESG factors into their investment decisions is an important component in evaluating their security selection and portfolio construction processes.

CHAPTER 18

INTERVIEW WITH A US MAJOR MARKET PLAYER: STATE STREET GLOBAL ADVISORS

Interview with Rakhi Kumar, senior managing director, head of ESG Investments and Asset Stewardships, State Street Global Advisors (SSGA), to learn more about ESG integration from an asset manager point of view. SSGA is the investment management division of State Street Corporation and one of the world's largest asset managers.

How do you define ESG investing?

ESG investing is considering ESG data, beliefs, or metrics in the investing process. There are different styles of ESG investing. It is when you consider ESG in the investing process either from an active or indexed perspective.

How does your firm integrate ESG into the investment process?

It depends on the style of investing because we have many different styles of investing. In the index business, it is separate ESG products. It can mean anything from exclusionary to positive screening; it could be ESG integration, it could be thematic screening.

In the active fundamental process, it is alpha-seeking inclusion. In the active fundamental quantitative process, it is part of the analysis and quality score that individuals do.

In fixed income, it depends on the style of investing. Fixed income is similar to equities but looks at different data sources. It may not be as structured as equities, as ESG is considered, but in fixed income it may not be defined as an ESG-investing product.

What do you see as the main barriers and drivers of ESG integration?

Globally, quality and availability of data are concerns. Benchmarking—how do you make sure you are having the impact you mean to? What is the ESG profile of the company? How does it perform versus the benchmark? Terminology is a big issue, because ESG means different things to different people. There is a lack of understanding of what it means.

Drivers as we see them are:

1. research;
2. belief system that ESG matters;
3. wanting to have an impact; and
4. regulation and regulatory requirements.

What do you see as the level of ESG investing performed by US investors—how does this compare to ESG integration around the world?

The United States is a very big market, and we tend to compare against Europe but that is a very fragmented market.

Looking at Europe, the Nordics and Netherlands have more of an understanding about ESG and are more sophisticated about it. In the United Kingdom, France, and Germany, all get to ESG differently. Europe is ahead of the United States concerning developed views on ESG.

In the United States, more learning is going on. I see the United States as more of an integration market, less likely (more hesitant) to divest or have exclusionary screening. Performance is very important, and they don't want to limit their investment universe. Canada is closer to where the United States is; there is still a lot of learning going on.

Asia is coming to it more from an educational point of view. In Asia, they want more research on the evidence and impact of ESG on investments.

What impact are ESG issues having on equity analysis/credit analysis?

The idea of risk is changing. There are two impacts:

1. What are the risks facing companies—definition is widening to include ESG.
2. I don't think it is used for just focusing on the long term. ESG issues are requiring both a short-term and long-term analysis.

In credit analysis, it is more applicable because the time horizon is longer. In equity analysis, it depends on the time horizon.

Do you believe that ESG issues are impacting share prices more than corporate bond prices? Are ESG issues impacting corporate bond prices more than sovereign debt prices?

Clearly, ESG is very relevant in credit analysis. Governance is considered a lot, because you are making that bet on the long-term payback. I can't talk to what is the impact on share price versus bond price.

Whenever we see an ESG event at a company, we see the impact play out in bond yields also.

The data points you would be looking at for sovereign debt versus bond prices are very different. ESG issues impact corporate bonds more than sovereign debt on a macro level, because people are still trying to figure out what metrics to use when evaluating how ESG impacts sovereign bonds.

What are the differences between integrating ESG issues into equity analysis and credit analysis?

What are the data sources? Is there overlap in the data that is useful for both equity and bonds? It is all about reporting and the data that you can and cannot get. For example, a lot of private debt you can buy into—there are no data on ESG. For corporate bonds, these data are generally available. It's fine when you look at investment-grade companies, but when you start looking at high-yield companies you will find less data.

Consider large cap equities versus smaller and mid cap companies. What happens is that a lot of the data providers may do modeling and guestimates when it comes to smaller companies. It is not self-reported data, so data quality can be a problem at smaller companies.

Can you give an example of how ESG issues have impacted your investment decisions?

This is more of an active fundamental question. It depends. In active strategies, they do consider and engage on ESG. Analysis is done up front, and it is revisited—they constantly monitor companies. ESG information is not the only driving factor; it is one of many. Active managers will have an opinion on management.

In a quantitative perspective, it can impact design of a strategy or an index more systematically. In quantitative models, ESG gets more into the design of the product or an index. You need to have a more rules-based approach in these cases.

What's next for ESG investing? Where do you see ESG investing in five years?

The future of ESG is integrating ESG data into your investment process. True integration, not just screening. What is happening in finance and investing is that people are not just investing for returns but they are investing their values—but they don't want to give up returns. So, people will increasingly be looking at “how do you invest your values, but at the same time, get your returns.”

The growth of ESG will also lead to more transparency as more ESG products come out. Companies are waking up to the fact that these data are driving investment. Once it happens on an index level and impacts their flows you will see more interest in providing more transparency around ESG data—maybe on a time frame beyond five years, but it is already starting.

Things like the SASB framework on materiality are helping companies focus on the important data. When you have better data, you will have better ESG products.

In the long term people will wonder why wouldn't you consider ESG data as part of the investing process because there will be more evidence and more understanding of what is meaningful and relevant.

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.⁸ 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 Americas region is based upon 329 completed surveys from respondents based in:

- Brazil (n=28);
- Canada (n=84); and
- the United States (n=217).

Figure A.1 provides the demographics of the survey respondents from the Americas.

WORKSHOPS

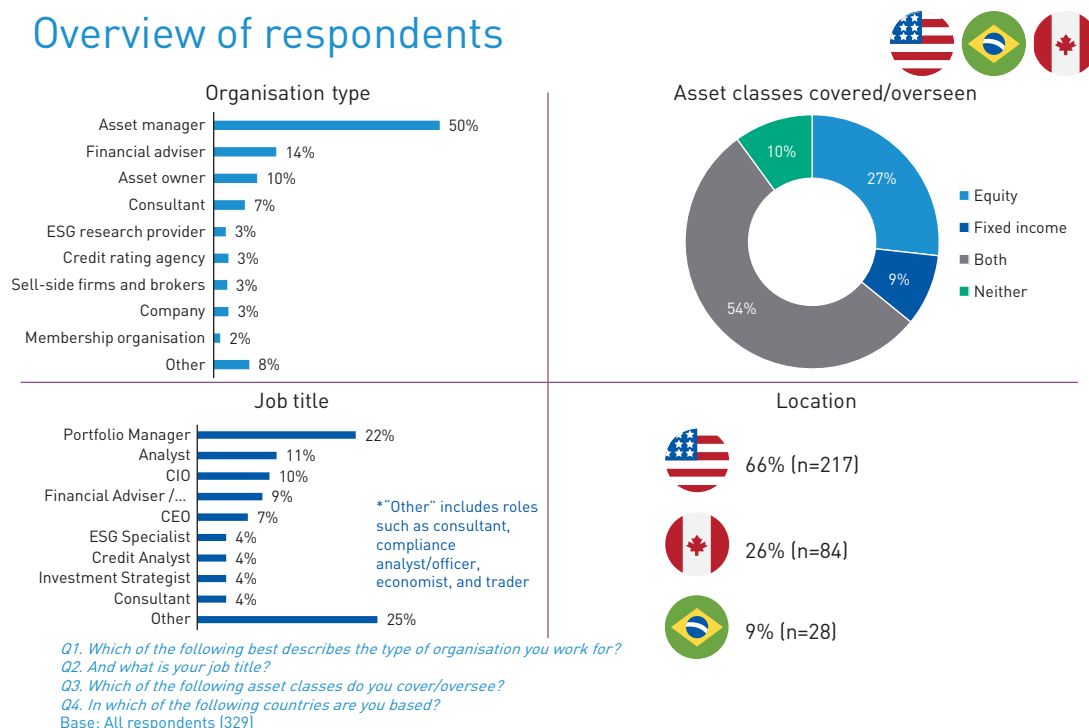
We held 23 workshops to accompany the survey. Four workshops were held in the Americas region, including workshops in Boston, New York, Toronto, and São Paulo.

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

⁸ 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 later in this report.

FIGURE A.1: DEMOGRAPHICS OF THE SURVEY RESPONDENTS FROM THE AMERICAS

Overview of respondents



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 Data: Equities and Fixed Income,” 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 one environmental, social, and governance score. These are again aggregated to a combined ESG score. Some factors are

FIGURE A.2: ESG WORKSHOP LOCATIONS

ESG WORKSHOPS ACROSS THE WORLD		
AMER	APAC	EMEA
Boston	Beijing	Amsterdam
New York	Hangzhou	Cape Town
Toronto	Hong Kong	Dubai
	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.

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; for example, “Total Power Generated” is counted into the disclosure score of utility companies only.

The dataset has combined ESG 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 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, as some countries have more listed companies.

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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ISBN: 978-1-942713-56-2

