CFA Institute

PRI Principles for Responsible Investment

ESG INTEGRATION IN ASIA PACIFIC: MARKETS, PRACTICES, AND DATA

ESG Integration in Asia Pacific: Markets, Practices, and Data

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EXECUTIVE SUMMARY

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

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

- surveying over 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 APAC region. 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 further along in the equity world than in fixed income.
5. Portfolio managers and analysts are more frequently integrating ESG into the investment process but are rarely adjusting their models based on ESG data.

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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 has 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 exchange traded funds (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:

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 SAR, China	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.

Australia

1. Australian practitioners perform advanced qualitative and quantitative analysis of ESG factors to add insights at multiple levels: company, industry, and overall market. Unlike most markets, the number of practitioners who adjust their security valuations is only slightly lower than the number of practitioners who directly overlay qualitative ESG factors into their portfolio construction decisions.

2. Corporate governance is far and away the ESG factor most integrated by investors in the investment process, although survey participants expect environmental and social issues to become much more integrated in the investment process in the near future.
3. Risk management and client demand are the main factors driving ESG integration in Australia, with fiduciary responsibility seen as a main factor among fixed-income investors. A lack of understanding of ESG issues and a lack of company culture around ESG integration are the main barriers in Australia to ESG integration.

China

1. China has seen a significant uptake of ESG investing in the last couple of years. Like other emerging markets, a major driver has been ESG integration demand from international investors. Unlike some other markets, regulation has also been a major driver.
2. The evolution of ESG investing in Chinese investment firms tends to start with developing ESG products first, such as a green thematic mutual fund. However, it can quickly advance to incorporating ESG terms into the investment philosophy and ESG factors into investment research, processes, and decisions.
3. A limited understanding of ESG issues, a lack of company culture around ESG investing, and lack of comparable historical ESG data are seen as the main barriers to ESG integration. The inclusion of the China A-share market in the major indices has improved the data coverage and encouraged local companies to develop databases on ESG information.

Hong Kong SAR, China

1. There is a growing awareness of ESG in Asia but a relatively low level of ESG integration in Hong Kong SAR. Asia hasn't completely bought into it yet and needs proof of alpha and a stronger framework around ESG before ESG integration becomes more widespread.
2. Corporate governance is the most impactful ESG factor according to survey respondents, with social and environmental factors becoming much more influential on share prices and bond yields over the next five years.
3. Risk management and client demand are the main drivers of ESG integration in Hong Kong SAR. Client demand for ESG is likely to continue its upward trajectory as institutional investors and some retail investors want ESG investments. The demographics are changing across Asia, increasing the demand.

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India

1. The buy-in for ESG investing in India has been slow over the last few years. While there are some early movers, most investment managers are not witnessing demand for ESG products or asset owners with policies that explicitly ask for ESG practices to be incorporated in an investment manager's process. Where there is demand, it is predominantly from multilateral institutions and European investors.
2. About two-thirds of financial professionals in India feel that corporate governance issues "often" or "always" impact share prices compared to one-third for environmental and social issues. In five years' time, however, well over half of those surveyed feel that environmental issues will "often" or "always" impact share prices and bond yields.
3. The main barriers to equity and fixed-income integration in India are a limited understanding of ESG issues, a lack of company culture around ESG integration and a lack of client demand. While the awareness is increasing due to foreign investors, there isn't the same level of interest from local investors. ESG investing is not receiving attention from the larger institutional investors in the Indian market, which has made a difference in other markets.

Japan

1. There was a recognition among workshop participants that ESG integration is just beginning to happen in Japan. Equity practitioners integrate ESG factors more frequently than fixed-income practitioners do. For both sets of practitioners, integrating ESG factors at the portfolio level is not yet commonly practiced.
2. Corporate governance is the ESG factor most incorporated into share prices and bond yields by investors by a factor of 2 to 1.
3. Fiduciary duty is a driver of ESG integration in the equity space, only behind risk management, while client demand for ESG integration mostly drives adoption in fixed income. Lack of understanding of ESG, limited data, and concerns about returns are barriers to ESG integration in Japan.

Singapore

1. There is increasingly more ESG integration in Singapore and Asia, and ESG issues are more frequently impacting prices. Asian economies are maturing. Asian countries are thinking more about the long term and not just about putting food on the table today. Asian countries are at the beginning of the journey but very eager to learn quickly about ESG.

2. Survey participants feel that environmental and social factors barely influence bond yields today but feel that those numbers will impact bond yields a great deal in five years' time.
3. A lack of comparable and historical data is the top barrier to incorporating ESG factors in equity investments in Singapore. The workshop participants were positive about data coverage and quality improving in the future, including for small companies, but there are still large gaps in the data that need to be filled.

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CONSIDERATIONS FOR THOSE INTEGRATING ESG INTO THE INVESTMENT PROCESS

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

- There is no single agreed-upon definition of ESG or best practice for ESG integration. Therefore, integrating ESG analysis into the investment process should be done in a manner that best fits each individual firm, its resources, and its clients. However, a set of common best practices is 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 market. 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 academic[1] and practitioner research that support the benefit of the inclusion of ESG analysis in traditional financial analysis.
- Investors should focus on ESG *analysis*, not ESG *investing*. ESG investing is often used as a marketing slogan, whereas ESG analysis is a fundamental part of investment analysis and requires a disciplined and tangible approach to be fully integrated into the investment process. In the long term, we expect the term “ESG investing” will fade away as ESG analysis becomes more accepted as simply a part of investment analysis.
- ESG integration is consistent with a manager’s fiduciary duty to consider all relevant information and material risks in investment analysis and decision making. Some confusion arises at times when people assume ESG integration is only a negative screen in the investment process that limits one’s investment universe. Most practitioners would agree (as do we) that ESG integration includes a more thorough application of traditional financial analysis.

[1] Gunnar Friede, Timo Busch, and Alexander Bassen, ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies, *Journal of Sustainable Finance & Investment* 5 (December 15, 2015): 210–233. DOI:10.1080/20430795.2015.1118917

- Buyers should beware of products that claim to be ESG investment products. Many products marketed as ESG compliant or sustainable will define ESG differently and make different assumptions about what investments to include and what not to include. Investors need to do research when investing in anything called "ESG" or "sustainable," to ensure they agree with the methodology behind those designations (see the companion report, *Guidance and Case Studies for ESG Integration: Equities and Fixed Income*).
- To date, one of the main drivers of ESG integration globally has been client demand, largely from institutional investors. Investors who want their asset managers to integrate ESG data into the investment process will have to demand it; when they do, asset managers are likely to respond. Likewise, investors who want better material ESG data from companies should also demand it.
- Asset owners and asset managers should strive to do a better job of educating each other about how and why they integrate ESG data 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 only and to promote the standardization of ESG data.

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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 markets:

1. Australia
2. China
3. Hong Kong SAR, China
4. India
5. Japan
6. Singapore

The first section, "Regional Analysis: APAC," provides an overview of our survey results for the entire region (APAC). The market sections that follow each have some or all of 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 capital markets. We analyze how investors in APAC as a whole, as well as in Australia, China, Hong Kong SAR (China), India, Japan, and Singapore 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 Australia, China, Hong Kong SAR (China), India, Japan, and Singapore 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 sizes.

d. **Investment Practices of Local Practitioners: Equities and Fixed Income**. These subsections provide readers with an overview of current investment practices in Australia and Japan, 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*.

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THE ESG INTEGRATION FRAMEWORK

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

FIGURE 1: THE ESG INTEGRATION FRAMEWORK

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

We recommend you refer to the ESG Integration Framework as you read the "Investment Practices of Local Practitioners" 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 are sent to companies to collect more ESG data and information where the company's level of public ESG disclosure is inadequate. These questionnaires are also used in parallel with regular company meetings, where investors and companies will meet to discuss the most material ESG issues.
- **Red-flag indicators:** Securities with high ESG risk are flagged in lists, research notes, dashboards, and databases.
- **Watch lists:** Securities with high ESG risk are added to a watch list for regular monitoring.
- **Internal ESG research**: Based on a variety of data sources, proprietary ESG research/views/scores are created for all securities in the portfolio and investment universe.
- **SWOT analysis**: ESG factors are included in the traditional SWOT (strengths, weaknesses, opportunities, and threats) analysis.
- **Materiality framework:** A materiality/sustainability framework is created that includes all the key ESG risks and opportunities for each sector/market. 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.

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Active Ownership

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

SECURITY LEVEL: THE MIDDLE CIRCLE

Security Valuation—Equities

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

Security Valuation—Fixed Income

- Credit analysis
  - **Internal credit assessments:** ESG analysis is used to adjust the internal credit assessments of issuers.
  - **Forecasted financials and ratios:** Forecasted financials and future cash flow estimates are adjusted for ESG analysis, and the effect on financial ratios is assessed.
  - **Relative ranking:** ESG analysis 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 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 are 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, markets, 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.

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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 12 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/MARKET	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 SAR, China	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)

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THE CASE STUDY TABLE (CONTINUED)

DOMICILE OF THE CASE STUDY AUTHOR	FIRM PROVIDING THE CASE STUDY	SECTOR/MARKET	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

SECTION 1

REGIONAL ANALYSIS: ASIA PACIFIC

REGIONAL ANALYSIS: ASIA PACIFIC

IMPACT ON PRICES AND YIELDS

When asked how often ESG issues affect share prices, respondents answered "often" or "always" 64% of the time for governance issues, 30% of the time for social issues and 24% of the time for environmental and issues (see **Figure 2**). This result was similar to what we found in our workshops with practitioners, where we found corporate governance was most often integrated into the investment process. In most markets, incorporating environmental and social factors in the investment process was in its early stages. This pattern was similar when reflecting on how often ESG issues affect corporate bonds and sovereign debt, with governance the factor most often incorporated in the investment process.

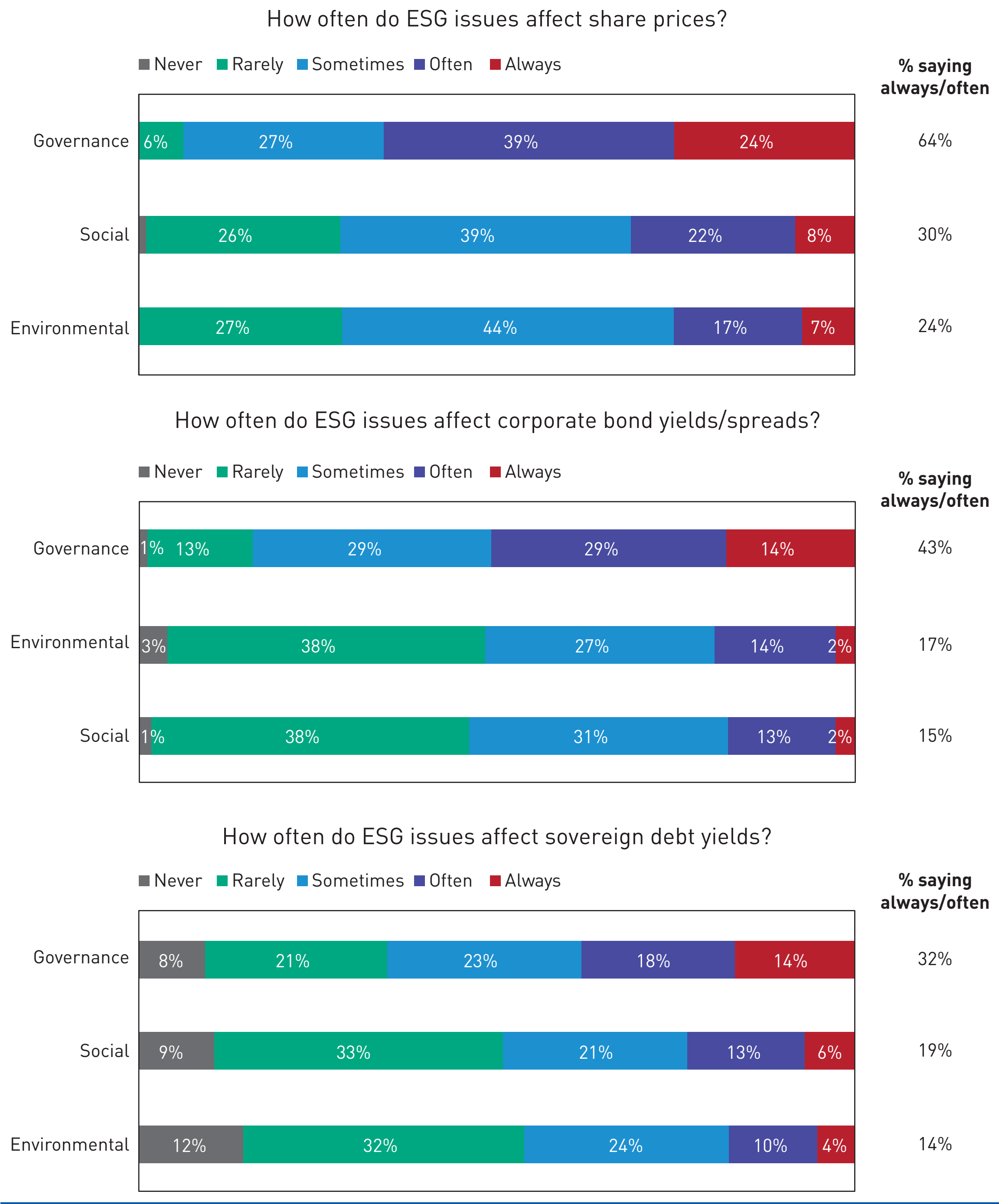
We also wanted to see whether survey respondents in APAC believed that ESG data would become more important in the future or stay relatively the same. We asked them how often they expected ESG issues to affect share prices and bond yields/spreads in 2022. We found that respondents expected ESG issues to become more influential in the coming years—especially for corporate and sovereign debt (**Table 1**). While respondents believe that social issues more frequently impacted share prices and bond prices in 2017, they

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	64%	73%
Environmental	24%	59%
Social	30%	55%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	43%	60%
Environmental	15%	48%
Social	17%	42%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	32%	49%
Environmental	14%	41%
Social	19%	41%

Note: Percentages represent respondents who answered "often" or "always."

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



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expect environmental issues will more frequently impact share prices and corporate bond prices in 2022.

ESG RISKS AND OPPORTUNITIES

Respondents in APAC were asked how they view ESG risks and opportunities in the investment analysis process. Interestingly, whether we asked about share prices, corporate yields/spreads, or sovereign yields, survey respondents in APAC always considered environmental, social, or governance risks more often affected market prices than environmental, social, or governance opportunities. This is consistent with results we have found all over the world (**Table 2**).

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	27%
Environmental opportunities	17%
Social risks	30%
Social opportunities	21%
Governance risks	64%
Governance opportunities	38%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	18%
Environmental opportunities	14%
Social risks	22%
Social opportunities	16%
Governance risks	39%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	18%
Environmental opportunities	13%
Social risks	21%
Social opportunities	16%
Governance risks	34%
Governance opportunities	26%

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 fewer than 20% of portfolio managers and analysts systematically include material ESG issues in their analyses and that fewer than 10% adjust their models based on ESG information.

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%. It is clear that ESG information is not systematically integrated into the investment process across APAC, but is often done on a case-by-case basis.

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)	18%	14%
Credit analysis (often, always)	14%	10%
Equity analysis (often, always, sometimes)	68%	54%
Credit analysis (often, always, sometimes)	58%	43%

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SECTION 2

MARKET ANALYSIS: AUSTRALIA

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 Australian investors consider that environmental, social, or governance issues affect share prices and bond yields in the Australian capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Not surprisingly, corporate governance is currently the ESG factor most impactful to share prices and bond yields, but this dynamic is set to change, according to survey respondents. Environmental factors are likely to impact share prices and bond yields to nearly the same extent as corporate governance by 2022, according to Australian financial professionals (**Table 4**).

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%	71%
Environmental	35%	61%
Social	32%	45%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	44%	61%
Environmental	11%	56%
Social	0%	39%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	33%	50%
Environmental	0%	39%
Social	11%	28%

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	26%
Environmental opportunities	13%
Social risks	32%
Social opportunities	16%
Governance risks	61%
Governance opportunities	35%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	6%
Environmental opportunities	6%
Social risks	6%
Social opportunities	0%
Governance risks	33%
Governance opportunities	17%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	0%
Environmental opportunities	0%
Social risks	6%
Social opportunities	6%
Governance risks	33%
Governance opportunities	22%

ESG RISKS AND OPPORTUNITIES

Respondents in Australia were asked how often ESG risks and opportunities affect share prices and bond yields in Australian capital markets (**Table 5**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for both shares and bonds, while environmental and social risks are rarely if ever considered in corporate bonds and sovereign debt.

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Australian practitioners, the survey asked how often Australian portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. As was the case globally, few survey respondents say 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 "sometimes" or "rarely" (**Figure 4**).

FIGURE 3: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

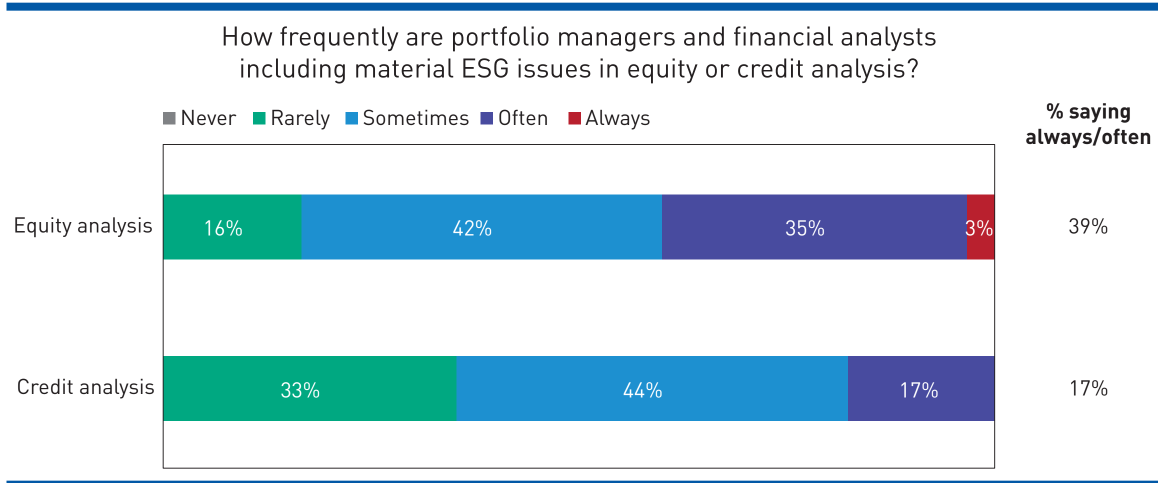
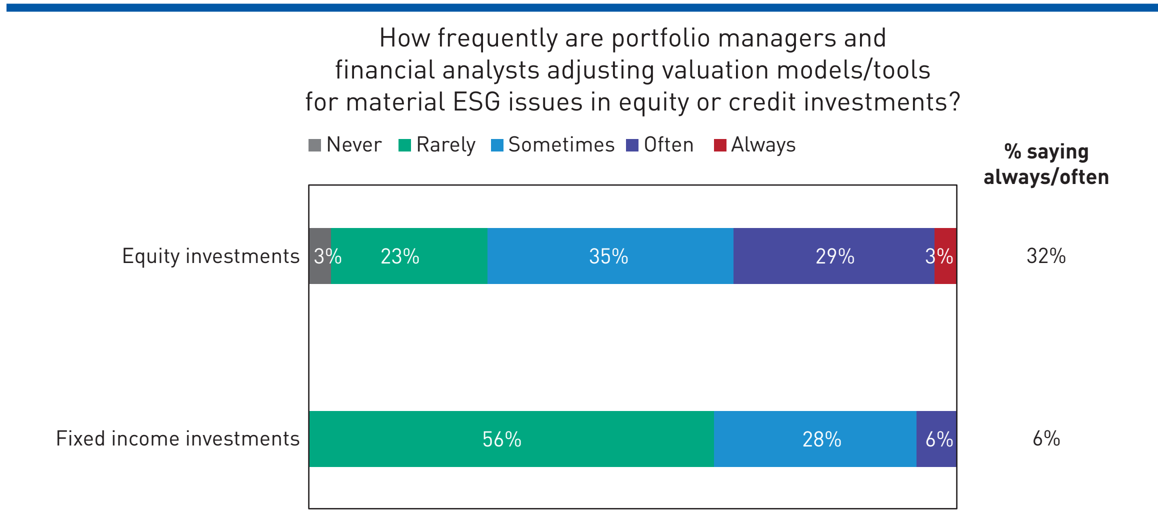


FIGURE 4: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank Dimensional Fund Advisors and MSCI for their help in organizing our ESG Integration workshops in Australia. 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 AUSTRALIA

There was a consensus among workshop participants in Australia that governance is the most important element of ESG. That said, there was agreement that there is more focus on environmental and social issues in the Australian market compared with markets in Asia. The focus in other Asian markets tends to be on governance, as Asian companies have a strong link between governance and returns. We learned that Australian financial professionals feel that ESG issues are always, if not knowingly, incorporated into the investment process, but not on a systematic basis.

There was a belief that ESG issues impact all the time- share prices, corporate bonds, and sovereign debt. However, it is difficult to identify the impact on prices as it doesn't always materialize into hard dollars or one-off, large price movements. We need a catalogue of examples for all sectors to understand it more fully.

One workshop participant noted that the impact of ESG issues on markets does depend on whether the market believes in the materiality of ESG issues and prices it in. In Europe, for instance, more ESG integration happens, which means ESG is driving share prices and bond prices.

For ESG factors to have material impact on the markets, it is necessary for all the sources of capital to work together. Shareholders can drive prices in the short term but for ESG factors to have a long-term effect, bondholders will also need to integrate ESG issues.

One workshop participant noted that the impact of ESG issues on markets does depend on whether the market believes in the materiality of ESG issues and prices it in.

One workshop participant asked whether ESG issues will have an impact on prices in a bear market. Would investors of alpha integrate ESG issues in a bear market? ESG integration can create outperformance in down markets and reduce volatility.

A few participants believed that many investors are buying in MSCI research and referring to this practice as "ESG integration." Investors tend to not integrate ESG factors into valuations; instead, the majority use a "box-ticking" approach. A participant believed that ESG integration is being applied but concerned about greenwashing through products

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labelled as "ESG" or "sustainability." The ESG products may screen out some companies, but they aren't applying ESG integration techniques.

ESG INTEGRATION IN PRACTICE

One workshop participant noted that he sees fantastic people doing governance work; not so much work is being done on environmental and social issues, however. It is a good strategy for investors new to ESG to start by systematically integrating governance issues, which tends to be embedded in the investment process already, and then move on to environmental and social issues.

Most fund managers are ESG-aware but not necessarily integrating. Participants believe that ESG integration is only having a small impact on fixed income and credit risk analysis. Most managers are doing ESG, especially screening, but ESG integration is happening to varying degrees of sophistication, as demonstrated in the following examples:

- An investor said that they started to integrate into valuation models a couple of years ago and have run funds with screening policy for quite some time.
- Another investor includes ESG research in investment-grade research as ESG factors affecting credit risk. This investor only utilizes ESG integration, not screening out sectors and companies. In the past, ESG used to be a box-ticking exercise, but now ESG research is formalized into the process.
- An investor said that ESG is fully integrated into their investment process, which includes creating ESG scores. This investor is adjusting valuations because governance is critical, ESG is correlated with quality, and ESG is impacting cash flows. For example, environmental penalties and fines are having a negative impact on cash flows of companies. The "holy grail" is to add alpha.
- An equity investor embeds ESG systematically in the template/research notes/dashboards with ESG scores displayed with traditional investment metrics. This investor also adjusts valuations: governance issues have a greater focus than environmental and social issues, with less transparent companies having a lower valuation; they look at growth opportunities such as China with its strong environmental initiatives and environmental stocks. If companies are exposed to environmental risks and have a history of controversies, their margins will be marked down, and if the ESG performance of a company is improving, it might lead to an increase in its valuation.
- An index manager stated that in their non-client mandates (ETFs) there is zero ESG integration and not many products based on ESG indices. For client mandates (segregated accounts), this investor has products that exclude tobacco, other sectors, and/or companies that manufacture or associate with cluster bombs.

An equity investor embeds ESG systematically in the template/research notes/dashboards with ESG scores displayed with traditional investment metrics. This investor also adjusts valuations.

CREDIT ANALYSIS VERSUS EQUITY ANALYSIS

ESG factors are naturally integrated in equities processes. It is harder to integrate into structured credit but easier into credit risk analysis, according to workshop participants.

With equities, it is clearer how to incorporate ESG issues. For example, you can vote, engage, screen out sectors more easily, and adjust discounted cash flow (DCF) models. As one cannot vote on one's fixed-income holdings and as the fixed-income markets are less transparent and less liquid than equity markets, it is less clear how to integrate ESG into fixed income.

The ESG approach is different for each asset class. One participant said:

- Australian equities: ESG is integrated into valuations, not screening.
- Fixed income: ESG is looked at from a risk perspective and assessing the level of downside risk; investors look at how ESG affects the value of the bond and the creditworthiness of the issuer.
- Global macro: Investors monitor the portfolio against an ESG benchmark.

ESG is more easily quantifiable in the real asset space, according to one workshop participant. Properties can demand higher rents for more sustainable buildings. Emission reductions through retrofits are measurable. Solar panels are measurable. New buildings require environmental permits and borrowers are inclined to adhere to environmental laws.

DATA AND REPORTING

We heard a theme in Australia that we had heard in most other markets, that there is not enough quality ESG information. It has improved significantly, but the breadth and depth of ESG data are low, prohibiting the quantification of ESG factors. Issuers need guidance on what to report on and how.

The level of ESG reporting is rising. More asset owners and investment managers are writing reports on their ESG practices and increasing their transparency.

There are many ESG questions coming from clients. Clients are assessing investment managers on their ESG expertise and experience. They like to have clear examples of how ESG has impacted investment decisions.

EDUCATION

Many participants said education is needed for investors. Clients have different awareness and understanding of ESG integration and the issues.

Also, there are different definitions for ESG investing and different interpretations of the ESG practices, which has muddied the playing field. Ethical screening is predominantly what investors believe to be ESG investing.

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MATERIALITY

Workshop participants asked many questions about materiality. Some examples are: Which issues are material? How does one quantify the externalities? How does ESG affect company performance? Is it affecting the investors' performance or company performance? How much value are you going to add with ESG integration?

Another issue that participants raised is that materiality is hard to define. For example: Is ESG reflected in financials and valuations? By how much should one adjust the discount rate: 1 percentage point, 2 percentage points, 10 percentage points? Would a difference of 10% between the valuation and the market price of an issuer be sufficient for an ESG issue(s) to trigger an investment decision?

There were also lots of questions from workshop participants around materiality. Which issues are material? How to quantify the externalities? How does ESG affect company performance?

Also, there is a lack of clarity of which E, S, and G issues are important to investors and how they materialize. Lack of clarity could have caused the low numbers on governance in the survey.

CONSTRAINTS

Participants discussed the constraints to implementing ESG integration.

Integrating ESG issues requires assessing the ESG issues against the investment period. The materiality of ESG issues depends on time frame, especially in fixed income, which can mean one invests a short-duration issuance from an issuer but not a long-duration issuance.

The issue of constraints due to benchmarks was mentioned by several participants. Investors are often reluctant to apply ESG integration techniques due to the risk of causing large tracking errors that breaches risk limits. Australian-based indices are concentrated on certain sectors, which means certain funds that apply exclusionary screens can deviate hugely from the benchmarks. One participant commented that it would help if we benchmark against ESG benchmarks.

Sell-side is not doing much to integrate ESG. There is a need for more fundamental investment research by the sell-side, as investors need it to integrate ESG issues and also because it sends a message to all investors—ESG investors and mainstream investors—that ESG issues are important and can improve company performance.

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**.

TABLE 6: DRIVERS OF ESG INTEGRATION IN AUSTRALIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	72%	Risk management	78%
Client demand	52%	Client demand	44%
Fiduciary responsibility	26%	Fiduciary responsibility	44%
Generate alpha	23%	Regulation	6%
Regulation	6%	Generate alpha	6%

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 AUSTRALIAN CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of company culture	58%	Limited understanding of ESG issues	56%
Limited understanding of ESG issues	55%	Lack of company culture	44%
Lack of comparable and historical data	45%	Limited amount of ESG research	39%
Concerns about negative returns	29%	Lack of comparable and historical data	28%
No evidence of investment benefits	19%	ESG issues are rarely material	22%

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

Drivers

As in most other markets, risk management and client demand are driving ESG integration in Australia.

As in most other markets, risk management and client demand are driving ESG integration in Australia.

There is lots of demand, but not all clients are asking for it, and not many are sophisticated. Often, clients will ask managers if they are a PRI signatory, and therefore it is a PRI tick-box. There is strong demand for ESG in equities from asset owners not for ESG in fixed income. There is a range of clients from full-blown ESG supporters to skeptics; it is possible to cater to all through different products.

A participant said that ESG integration can be driven by client demand, but they haven't been given a green mandate yet. One participant noted that ESG would go to the top of the list if it impacted performance. An investor said that they look at upside potential and downside risk.

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Barriers

The top two barriers to ESG integration in Australia are a lack of understanding of ESG issues and a lack of company culture that is conducive to integrating ESG into the investment process.

Culture is a low driver but a big barrier, as is senior management buy-in. There are cultural differences between Europe and Australia; for instance, Europe believes in climate change, whereas climate change is still under dispute in Australia.

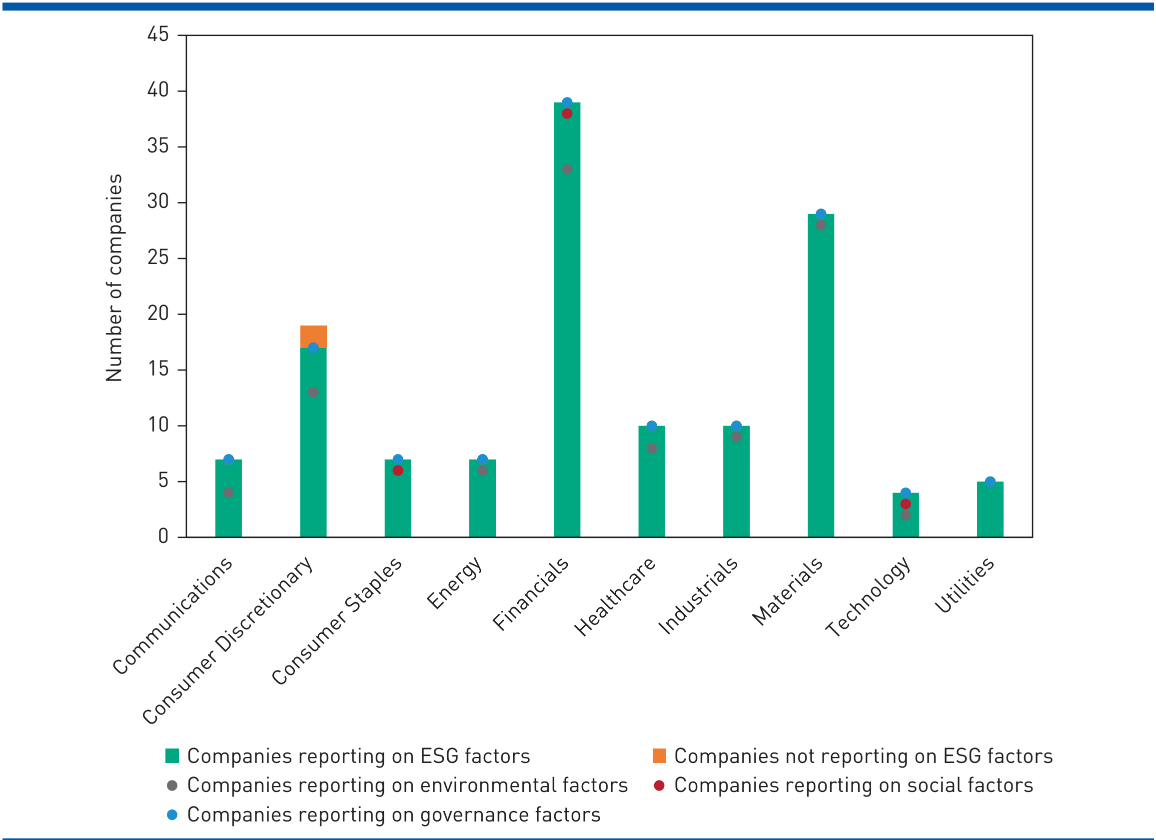
One workshop participant noted that while client demand is driving integration somewhat, that demand is relatively low. One participant noted that institutional clients are not clamoring to integrate ESG.

TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 5 shows the number of companies domiciled in Australia across sectors, which report and do not report on ESG factors. The market is fairly small with 135 primary listings in total. However, of those 135 companies, 133 report on ESG factors. All sectors

FIGURE 5: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN AUSTRALIA



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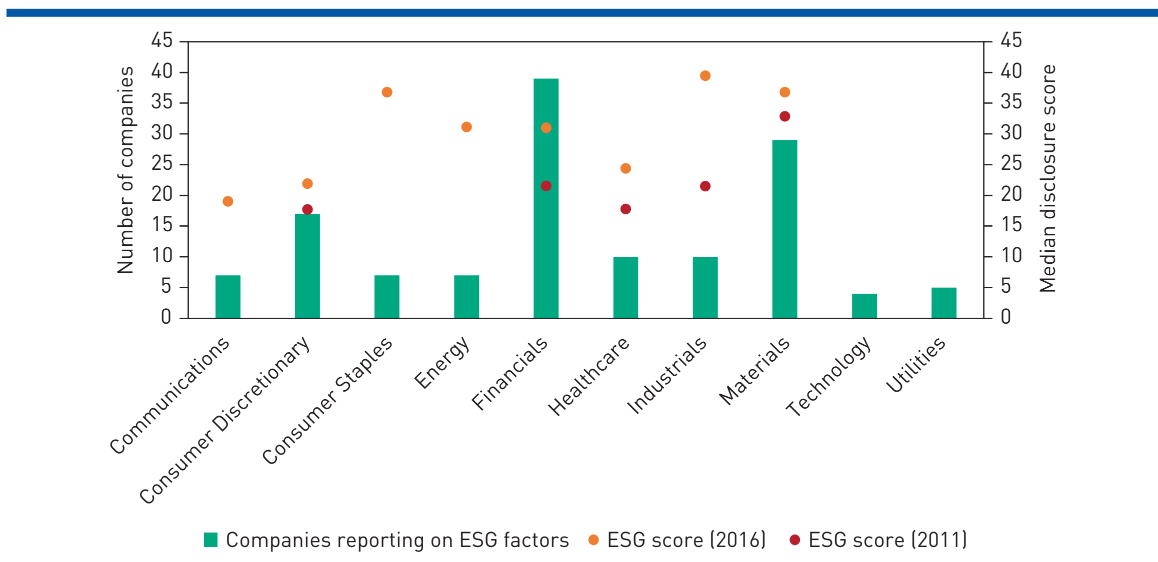
except the consumer discretionary sector have 100% coverage of ESG reporting, and only 2 out of 17 companies in consumer discretionary do not report. As with the other markets, the governance score coverage equals the coverage of the overall ESG disclosure score, i.e., 100% for all sectors except consumer discretionary.

Social disclosure is also well represented across the market. In the communications, energy, health care, industrials, materials, and utilities sectors, 100% of companies report on social factors. For the consumer staples, financials, and technology sectors, one company in each sector reports on governance but not on social factors. In total, this means that 132 of the 135 companies reporting on ESG factors report on social factors.

Environmental disclosure is not as common as governance and social disclosure in Australia. The utilities sector is the only sector where all listed companies disclose, whereas only one company in each of the consumer staples, energy, industrials, and materials sectors does not disclose on environmental factors. It looks different in the communications and technology sectors, where only half or just over half of the companies have environmental disclosure (57.1% and 50%, respectively). Environmental disclosure covers just over one-third of the consumer discretionary sector (68.4%), whereas the financial and health care sectors have higher coverage at 84.6% and 80%, respectively.

Figure 6 shows the development of the median ESG disclosure score from 2011 to 2016 per sector in Australia. As mentioned above, the number of companies in the technology and utilities sectors is too small, so they have been taken out of the analysis. Furthermore, as the number of companies reporting on ESG factors in 2011 was below seven in the communications, consumer staples, and energy sectors, their 2011 scores have been omitted. Interestingly, the size of the sector seems to not be correlated to the median ESG disclosure score. The highest-scoring sectors are industrials, materials, and consumer staples at

FIGURE 6: MEDIAN 2011 AND 2016 ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN AUSTRALIA

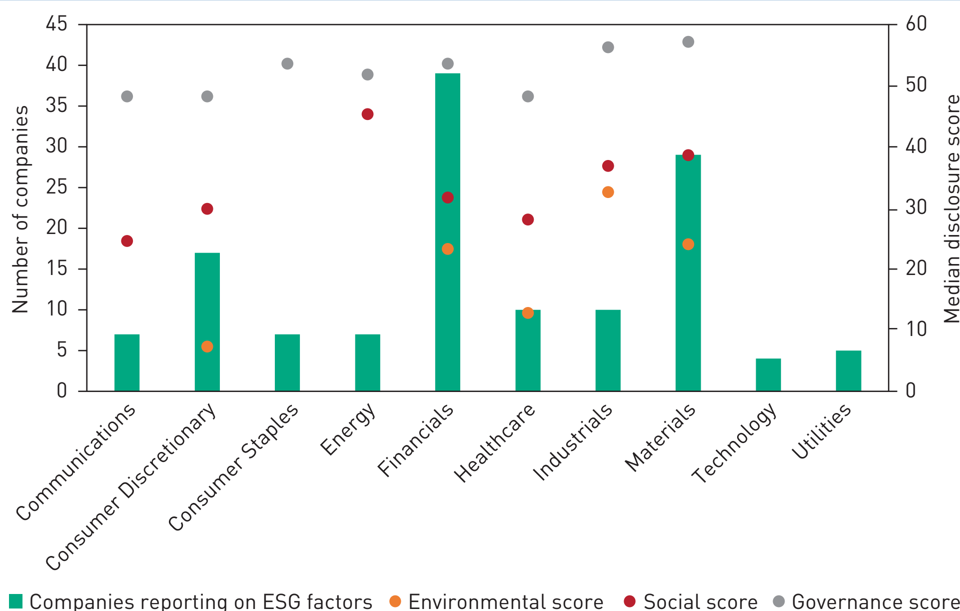


39.46, 36.78, and 36.78, respectively, whereas the energy (31.12) and financials (30.99) sectors are right behind them. The communications, consumer discretionary, and health care industries are in the bottom with scores of 19.01, 21.90, and 24.38, respectively. This is in line with the 2011 mean ESG disclosure scores, where the consumer discretionary (17.70) and health care (17.77) sectors were the two lowest-scoring sectors, with communications having been omitted. The materials had by far the highest 2011 median ESG disclosure score at 32.85, whereas the financial and industrials sectors have seen large increases in scores from 21.53 to 30.99 and 21.49 to 39.46, respectively.

Figure 7 shows the breakdown of the 2016 median environmental, social, and governance disclosure scores in Australia per sector (excluding technology and utilities). The median social disclosure score has been excluded from consumer staples because not enough companies disclosed information on social factors, as have the environmental disclosure scores for the communications, consumer staples, and energy sectors.

The trend among the scores across all sectors is that the median governance disclosure score is the highest score, social is second, and the lowest score is the median environmental disclosure score. However, the difference in scores varies a lot. Zooming in on the governance disclosure scores, all sectors have scores at or above 48.21 (the communications, consumer discretionary, and health care sectors all have median governance disclosure scores of 48.21). The highest-scoring sectors are industrials and materials sectors at 56.25 and 57.14, respectively, with consumer staples and financial taking third place at 53.57 for both sectors. This aligns well with the overall ESG disclosure scores, where consumer staples, industrials, and materials had the highest median disclosure scores.

FIGURE 7: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN AUSTRALIA IN 2016



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On the social side, there is much more variation in scores, with the lowest being the communications sector at 24.56 and the highest being the energy sector having a median social disclosure score of 45.31. These are also the two sectors with the largest and smallest difference between social and governance score, respectively. The sectors with the second and third highest median social disclosure scores are industrials and materials at 36.84 and 38.60, respectively, which aligns with the high governance and overall ESG disclosure scores.

This has also translated into the highest median environmental disclosure score (32.56 and 24.03, respectively) of the five sectors with enough companies to be analyzed, although the industrials sector score is quite a bit higher than materials. The financial sector is the sector with the third highest median environmental disclosure score at 23.26 and the fourth highest median social disclosure score of 31.67. The consumer discretionary and health care sectors both have very low median environmental disclosure scores at 7.29 and 12.79, respectively, which is not only low in absolute terms, but also much lower than the governance and social disclosure scores for the two sectors (consumer discretionary, 48.21 and 29.82; health care, 48.21 and 28.07).

Overall, the coverage of ESG reporting in Australian listed companies is very high, and almost all companies report on both governance and social factors. However, this does not materialize in the amount of reporting under each theme, where all sectors see much higher median disclosure scores for governance than social. In comparison to companies who provide social and governance disclosures, fewer companies disclose on environmental factors. Those that do have lower environmental disclosure scores than their governance and social disclosure scores.

INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Overall, equity practitioners are adjusting their valuation models/tools for material ESG issues more frequently than fixed-income practitioners **(Table 8).** For both equity and fixed-income practitioners, governance is the most frequently integrated ESG factor (41% for equity, and 31% for fixed income). Both groups of practitioners integrate social factors less frequently than environmental factors.
- **Figure 8** highlights the practices from the ESG Integration Framework that are applied in Australia. Australian practitioners generally perform advanced qualitative and quantitative analysis of ESG factors to add insights at multiple levels: company, industry, and overall market. Responsible engagement and voting are prominently deployed to manage risk and communicate expectations to companies. Unlike most markets, the number of practitioners who adjust their security valuations is only slightly lower than the number of practitioners who directly overlay qualitative ESG factors into their portfolio construction decisions.
- Fixed-income practitioners use ESG research primarily to enhance their assessment of an issuer's creditworthiness rather than its longer-term market value. Corporate fixed-income practitioners integrate ESG factors slightly less frequently than equity practitioners; however, some of their practices can be equally advanced. Despite not having the same voting rights as equity shareholders, bondholders consider they can still influence issuers through engagement when needed. Sovereign debt practitioners are still developing their ESG integration practices, which are currently focused on qualitative assessments of sovereign issuers' exposure to ESG risks and relying mostly on publicly reported data.

EQUITIES

Research

ESG analysis is seen by advanced practitioners to add insights at multiple levels: the specific company or asset, the industry sector in which it lies, and the market or economy in which it operates.

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FIGURE 8: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY AUSTRALIA-BASED INVESTORS

- At a macro level, ESG analysis may feed into domestic and international investment insights and form part of regular meetings with investment teams to develop conviction and idea generation.
- Detailed sector reports may include analysis of ESG growth and risk factors, such as the impact of new technologies, consumer preferences, resource constraints, new regulation, or systemic issues such as climate change.

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	41%	31%
Environmental	36%	23%
Social	32%	15%

Note: Percentages represent respondents who answered "often" or "always."

- At a stock level, ESG factors may directly impact a company's earnings/costs. The way a company manages key ESG risks can also be used as a proxy for management quality. ESG-integrated SWOT analysis may be conducted, and aggregated scores combining industry sustainability with company ESG performance may be monitored to help track risk and growth trajectories of investments and identify new investment opportunities. Practitioners note that ESG factors can affect a company's intangible assets such as its reputation and relationships with key stakeholders, and through them, the company's value and performance. According to practitioner estimates, up to 75% of a typical company's market value may be derived from such intangible assets.

Corporate governance is most frequently assessed and may include considerations such as:

- integrity of management's actions;
- adherence to standard business principles of transparency, honesty, and fair dealing;
- scrutiny of related party transactions to ensure they are kept to a minimum and accompanied by full disclosure; and
- effective functioning of an independent board.

Practitioners assess detrimental environmental activities that may increase a company's business risk at an industry or company level, both in countries that impose compliance requirements and in those that don't yet have strong regulations such as companies developing mining projects in remote locations in emerging market nations. Although social factors are least well understood, practitioners believe that corporate activities that do not respect human rights and have a detrimental impact on society can have a material impact on a company's performance.

Many Australian practitioners choose to develop proprietary ESG assessments based on a mix of externally and internally collected data. For example, ESG research teams may produce stock-specific ESG scores and detailed ESG research summaries, as key inputs to the investment team's stock summaries. Qualitative scorecards may also be developed based on a mix of economic and ESG factors, where governance is typically given a higher weighting. Social and environmental factors are typically seen to be more relevant when

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forecasting long-term investment performance. The ESG research may then be shared across all investment teams, who consider it when developing company value (or target price) and buy/sell/hold decisions or overweight/underweight/neutral decisions.

ESG items are also prominently discussed at (committee) meetings where material issues are discussed by the portfolio management team as part of the investment decision making process.

Practitioners will engage with company boards and operational management to understand how those risks are managed, with larger universal investors also confidently communicating their views and expectations to companies. Some practitioners engage in ESG issues via associations such as Regnan Governance Research & Engagement, the Responsible Investment Association Australasia (RIAA), and the Investor Group on Climate Change.

Advanced equity practitioners may also actively consider and vote on most or all resolutions put up by companies owned in the portfolio. Good practice includes having a formal proxy voting policy, maintaining a record of all votes cast, and reporting on them.

Security valuation

Unlike the case in most markets, the number of practitioners who adjust their security valuations is only slightly lower than the number of practitioners who directly overlay qualitative ESG assessments into their buy/sell/hold or overweight/underweight/neutral portfolio construction decisions. The valuation method used depends on the nature of the issue involved. Where ESG factors have been identified as material, they are incorporated into company valuation, either explicitly through a company's earnings and cashflow forecasts, or implicitly through the determination of the terminal value or discount rate valuation adjustments.

More quantitative ESG factors are incorporated into valuation through an adjustment to a dedicated line item or through an adjustment to the margin assumption. Capacity and costs associated with compliance to evolving ESG standards are essential considerations in assessing the future margins of a business. Similarly, changing consumer preferences and expectations as well as regulatory/policy shifts determine the sales performance of a business and thus are required considerations for estimating revenue forecasts. Specific pricing may be used where it is available or a best estimate where it is not available, e.g., actuarial assessment of asbestos liabilities or an assessment carbon pricing where no local market exists from global data.

Examples of issues explicitly factored into a company's earnings or cashflow include:

- revenue (lost volume from fatalities, license to operate, lost contracts, product recalls, and reduced/ increased demand),
- operating costs (energy costs, fuel efficiency, carbon costs, insurance, resilience planning, fines, regulatory compliance, employee engagement, industrial action, supply chain investment, R&D, local stakeholder engagement, and IT data security),

- capital costs (to meet regulatory emissions requirements and resilience and adaptation investment), and
- balance sheet accounts (litigation liabilities, asset write downs).

For less quantifiable ESG factors, practitioners may adjust the terminal value or discount rate, with the magnitude of the adjustment determined by factors such as the probability of the event and the materiality of the associated impact. In the case of a company with adverse social impact or poor corporate governance, practitioners may increase the discount rate in their discounted cashflow model or they may markdown their assessment of intrinsic value. One example of how this is achieved is for an ESG score to be incorporated into the company beta and discount rate calculation, which feeds into the company valuation.

Portfolio construction

A significant proportion of practitioners are integrating ESG factors into their portfolio construction processes. One approach used is to integrate ESG factors into their fundamental research or quality assessments which then influences portfolio weights. Another approach is to directly use inputs such as conviction, valuation upside, ESG, and momentum to produce a universe ranking, which then influences stock selection and weighting decisions for the portfolio. Proprietary portfolio risk management tools (e.g., holdings, carbon risk) may also be used to monitor exposure and adjust weights.

For some specific ESG strategies, the portfolio construction committee may use an ESG overlay to tilt portfolios, including thematic tilts, toward selected ESG or carbon exposures.

Asset allocation

While most practitioners do not factor in ESG at the asset allocation level, some recognize that ESG issues could impact strategic asset allocation (SAA) and therefore assess their materiality during regular reviews of SAA. For example, practitioners are monitoring the effect of climate change, war, social unrest, gender discrimination, and other risks on real GDP growth. Climate risk can impact the SAA for specific funds with a climate mandate. In this instance, practitioners assess the potential impacts of climate change on the fund's portfolio and conduct a quantitative scenario analysis.

Portfolio scenario analysis

Although not a common practice, some practitioners may assess the alignment of their portfolios against specific low-carbon transition/decarbonization scenarios.

Risk management

Advanced practitioners may carry out periodic assessments of their portfolios for thematic risks such as climate change. For some, ESG information may have an even larger impact on a stock's risk assessment compared to its valuation, which may be weighted at a certain percentage of the total stock risk-adjusted valuation ranking.

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FIXED INCOME

Research

ESG integration practices are less advanced for fixed-income practitioners compared with their equity counterparties, for reasons including the following:

- Bondholders typically do not have the voting rights or access to management that institutional shareholders do;
- Bonds can be issued by a variety of issuers, including unlisted entities or corporate subsidiaries, or be project-specific rather than entity-specific, so that management and accounting quality issues are often less transparent;
- Variety of time frames (duration) for fixed-income investments and the horizon over which some ESG issues might potentially play out may also be challenging to determine;
- Where companies or issuers are under financial stress, for example, bondholders may take a more risk-averse position than an equity investor; and
- Determining how ESG risks can be systematically priced into fixed-income instruments such as fixed-income derivatives (synthetics) may also be challenging.

Fixed-income practitioners use ESG research primarily to enhance their assessment of the issuer's creditworthiness rather than its longer-term market value. As such, the quality of the issuer's governance and risk management practices are considered to have a more material bearing than environmental and social factors on operating profits and cash flows as a measure of an issuer's ability to service its debt obligations. Nevertheless, practitioners recognize that materiality can vary significantly between sectors, companies, and host countries or economies. Material issues also differ for financial and nonfinancial corporate issuers. Financial issuer analysis may be focused on corporate governance, bank culture, different types of financial services they offer and the extent to which they integrate environmental and social impacts of borrowers into their lending decisions.

ESG research is usually qualitative in nature and based on a mix of internal data and third party data, particularly for international issuers. It can be routinely conducted or on-demand, focusing on specific themes deemed relevant by the investment team, such as an analysis of climate change policy and its potential impacts on debt instruments within the Australian power sector. ESG scores/scorecards/checklists may be derived and monitored against the company's past performance as well as against peers. Advanced practitioners produce ESG-integrated research notes that are then debated at (committee) meetings to decide whether to invest or not.

Where corporate bond practitioners consider that deeper analysis is required on a specific issue, they may engage with issuers on their management and monitoring of the issue. Despite not having the same voting rights as equity shareholders, bondholders consider they can still influence issuers through engagement when needed. Meetings are also being conducted jointly between equities and fixed-income investment teams, providing unique insights on investment and ESG performance that incorporate each of their perspectives. As well as raising ESG issues directly with issuers, some practitioners also discuss

relevant matters with banks and brokers. Others conduct independent and collaborative engagement with policymakers on regional and international frameworks and on emerging carbon markets.

Sovereign debt practitioners most frequently use ESG research to identify, assess, and monitor governance performance, which typically includes an assessment of politics and political rights, corruption, and business environment. For democratic states, they may explicitly assess the quality of their democracy, with some practitioners implementing investment restrictions for undemocratic states.

Environmental and social issues analysis may encompass whether the government is meeting specified standards for social and environmental performance, including specific standards relating to militarism, nuclear energy and weapons, and human rights violations. Some also consider investment restrictions put forward by national and supranational entities relevant to their universe including national foreign policy measures, United Nations sanctions, and European investment restrictions, among others. Other frequently assessed indicators deemed material to the overall risk/return characteristics of a sovereign issuer include work, education, human welfare and economic equality issues, civil liberties, gender inequality, water/land/air pollution, and biodiversity.

Most of the information required to analyze sovereign issuers is publicly available through national statistics offices. However, many deem it important for analysts to spend time on the ground and observe conditions firsthand to verify whether the statistics or the news is giving the full picture. Market visits can include meetings with government officials, as well as simply observing the surrounding environment.

Security valuation

Although ESG factors can sometimes be directly forecasted in the issuer's financials through their impact on its ability to generate sustainable revenues or manage future costs, most prominently they are integrated in security valuation within internal credit assessments. Practitioners may assign to issuers internal credit scores that are materially different from that assigned by the rating agencies.

Advanced practitioners also deploy ESG research to derive sharper insights into bond pricing—for example, to inform a view as to whether ESG risks are likely to impact an issuer's spreads and whether this is adequately reflected in current market pricing. For example, ESG analysis can impact the credit rating such that from a relative value perspective, it looks expensive and practitioners thereby do not purchase or they sell existing holdings.

Portfolio construction

Fixed income practitioners who deploy ESG-integrated internal credit scores often use those when making buy/sell/hold decisions as well as to determine the position size for the funds they manage. However, qualitative ESG research, such as ESG scorecards from external providers, can also be used directly to signal potential underweight/overweight securities. This is especially the case for severe ESG scores and events where other more quantitative signals (based on a range of macro, market, and idiosyncratic factors) are also

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indicating a potential sell/underweight decision for the portfolio. That is, ESG on its own does not always signal a sell/underweight but in combination with the other quantitative factors it can make the sell/underweight signal stronger or weaker.

Asset allocation

While most practitioners do not factor in ESG at the asset allocation level, some recognize that ESG issues could impact strategic asset allocation (SAA) and therefore assess their materiality during regular reviews of SAA. For example, practitioners are monitoring the effect of climate change, war, social unrest, gender discrimination, and other risks on real GDP growth.

Advanced practitioners report that they do not only adjust fixed-income duration (exposure to real rates) in their macro strategies, but also determine allocation to inflation, interest rate volatility, and the term structure of interest rates based in part on ESG factors and sensitivity modelling of them. Other practitioners report to have avoided assets that have high ESG risks altogether, such as correctional facilities, as well as geographies that may have high-risk factors like bribery and corruption.

Portfolio scenario analysis

Portfolio scenario analysis is not commonly deployed by Australian fixed-income practitioners, although it is a planned focus area of work going forward for many. The few who do analyze potential impacts of climate change on the fund's portfolio, qualitatively assess climate risks and opportunities, and conduct a quantitative scenario analysis of the potential impact of climate change on the portfolio.

INTERVIEW WITH AN AUSTRALIAN MAJOR MARKET PLAYER: AUSTRALIANSUPER

Interview with Andrew Gray, Director, ESG and Stewardship at AustralianSuper, on the subject of ESG integration.

What does ESG integration mean to AustralianSuper?

ESG integration at AustralianSuper is the inclusion of ESG considerations into our investment process so that we can deliver better long-term returns for our members. We have a fundamental belief that ESG risks and opportunities can impact on the performance and valuation of our investments, and so we must incorporate consideration of these in order to provide the best retirement outcome for our members.

Another element of ESG integration for AustralianSuper is what we call stewardship, which is using the ownership rights and responsibilities that we have. We engage directly with management and boards of companies and actively vote our shares, to encourage long-term thinking and improved ESG performance at the assets in which we invest, which will improve long-term investment performance.

What is your opinion of the current state of ESG integration in Australia?

We have a very strong superannuation system in Australia, with a large amount of capital coming into the system every year. This has led to a strong active asset ownership culture and a strong focus on ESG, which is consistent with delivering better long-term returns to superannuation fund members. These asset owners are also taking a leadership role on ESG and encouraging its proliferation throughout the investment chain.

The investment case to integrate ESG considerations into investment decisions is well accepted in Australia. Now, most investors are focused on how to properly execute this integration given their investment strategies.

Australia also has an active collaborative market in terms of ESG. Collaboration can amplify an investor's voice and make a bigger impact. We agree with this approach, and even though we engage in our own right, we are often part of various collaborative forums and initiatives, such as the PRI and Australian Council of Superannuation Investors (ACSI).

Australia also has a strong company engagement culture with boards willing to engage with shareholders. Companies in Australia have recognized the influence large shareholders can have, and engaging with investors on key ESG issues has become an important part of using that influence constructively. The high level of engagement and dialogue between investors and companies will only increase as ESG issues continue to gain prominence.

In your opinion, what is the state of ESG disclosures in Australia? How has this level of disclosures changed over the last five years?

The quality and substance of ESG disclosures has increased in the last five years. Companies are aware disclosure around ESG is necessary, and both investors and Australian companies

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have embraced formal disclosure mechanisms like the Task Force on Climate-related Financial Disclosures (TCFD) framework. Many companies have committed to reporting along these lines, and we already see early adoption of the framework. We also see companies engaging on implementing integrated reporting and using the Sustainable Development Goals as a reporting framework.

We are pleased with the increased level of information we are getting from disclosures, but ESG reporting is still quite young relative to traditional financial reporting, and more development is needed and inevitable.

Do you see any differences in the manner in which ESG integration is carried out in equities versus fixed income?

The nature of pricing of ESG issues in fixed income is materially different to equities. In equities, the share price of a company can fluctuate based on how ESG factors are managed. ESG factors can come into play at any point in holding an equity investment, and thus, a large suite of ESG factors can have an impact on the asset class. The financial risk in fixed income, however, is more typically based upon default risk. Using this scope of risk, a smaller subset of ESG factors are often prevalent for the investment.

Because of this, integration in equities has progressed at a faster pace than in fixed income. We are encouraged, however, by new areas of opportunity in fixed-income markets such as green bonds and social impact bonds. We see these products as potentially growing in prevalence in future as demand continues to rise, and they offer new avenues for ESG integration in the asset class.

What are the drivers of ESG integration?

The main driver for integrating ESG is the fundamental belief that environmental, social, and governance factors pose risks and opportunities that can impact the long-term performance and value of our investments.

Another driver is our members. We are a profit-for-members organization and as such, members are our focus. Members are becoming better versed on ESG issues and expect us, as their trustee, to address ESG issues when we invest.

ESG integration is also aided by the secondary benefits we can gain from effectively integrating ESG. Our approach is always investment focused: we are looking to integrate ESG to enhance long-term value. However, we also welcome the influence this has to improve the environment and society we live in. For instance, we have a strong belief that gender diversity on company boards drives better decision-making and thus boosts investment value. Over the last three years, we have engaged with ASX companies to encourage them to appoint women to their boards and have implemented a Single Gender Board voting policy where we will vote against the most senior director up for re-election at companies that have single-gender boards. This approach has significantly boosted the gender diversity on ASX200 boards. So, in seeking to improve returns there has also been a great alignment with and positive influence on the important issue of gender equity.

What are the barriers to ESG integration?

The traditional barrier to ESG integration was a view that ESG issues were not financially material, and therefore shouldn't be considered as part of the investment process.

Years of integration have proven this not to be the case, and this sentiment is fortunately largely gone from financial markets and companies in Australia.

There was also the barrier of investor's timeframe. Historically, many investors tended to think quite short term, and ESG risks and opportunities didn't seem relevant in shorter timeframes. However, the investment climate has changed, particularly with the growth in superannuation asset owners as noted previously, and investors are taking a longer-term view on their portfolios. In this context, ESG integration is material and becomes part of the process.

There was also the issue of the lack of information previously available on ESG issues to be adequately able to assess and address ESG in the investment process. The push for enhanced company disclosures on various issues, like the TCFD framework for climate change which we fully support, has helped minimize the information gap. As a growing discipline, there is still a way to go in respect of ESG disclosures, but we are on the right track.

Finally, another important barrier to ESG integration is the understanding of the investment process and the ability to integrate into already established investment processes. ESG integration occurs best if it is embedded in the processes of the mainstream analyst and portfolio manager and not sitting to one side. This requires a certain knowledge of finance and financial drivers on behalf of the ESG practitioner. Therefore, the training of investment professionals that combines traditional investment disciplines and ESG knowledge is crucial to the development of ESG integration going forward.

How do you see ESG integration and disclosure evolving in Australia over the next five years?

ESG integration and disclosure will continue to evolve, bolstered by new initiatives and reporting frameworks. Recently, we have seen major support for the TCFD and the Climate Action 100+ climate change engagement program, two initiatives we strongly support, and both have had a major impact on how companies are addressing climate change. It is these sorts of platforms that will help integration and disclosure progress in future.

The nature of ESG is that there will always be new issues on the horizon. Governance and traditional "E" risks and opportunities like climate change will continue to be a large focus; however, we see future disclosures focusing on other ESG factors as well, particularly "S" issues such as workforce issues, supply chain, and human rights. The "S" component is increasingly a consideration for investors and will be a part of future disclosures.

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SECTION 3

MARKET ANALYSIS: CHINA

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 Chinese investors consider that environmental, social, or governance issues affect share prices and bond yields in the Chinese capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Corporate governance is currently the ESG factor most impactful to share prices and bond yields, but this dynamic is set to change, according to survey respondents. Environmental factors are likely to impact share prices and bond yields nearly as much as corporate governance will by 2022, according to Chinese financial professionals (**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	34%	61%
Environmental	16%	53%
Social	18%	47%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	26%	57%
Environmental	13%	48%
Social	17%	43%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	39%	48%
Environmental	26%	35%
Social	22%	43%

Note: Percentages represent respondents who answered "often" or "always."

ESG RISKS AND OPPORTUNITIES

Respondents in China were asked how often ESG risks and opportunities affect share prices and bond yields in Chinese capital markets (**Table 10**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for both shares and bonds, while social risks and opportunities are seen as more important than environmental risks and 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	29%
Environmental opportunities	11%
Social risks	34%
Social opportunities	24%
Governance risks	53%
Governance opportunities	34%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	17%
Environmental opportunities	13%
Social risks	30%
Social opportunities	26%
Governance risks	30%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	17%
Environmental opportunities	17%
Social risks	30%
Social opportunities	26%
Governance risks	26%
Governance opportunities	30%

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Chinese practitioners, the survey asked how often Chinese portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Very few survey respondents say that they “often” or “always” include ESG issues in their analyses (**Figure 9**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either “sometimes” or “rarely” (**Figure 10**).

FIGURE 9: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

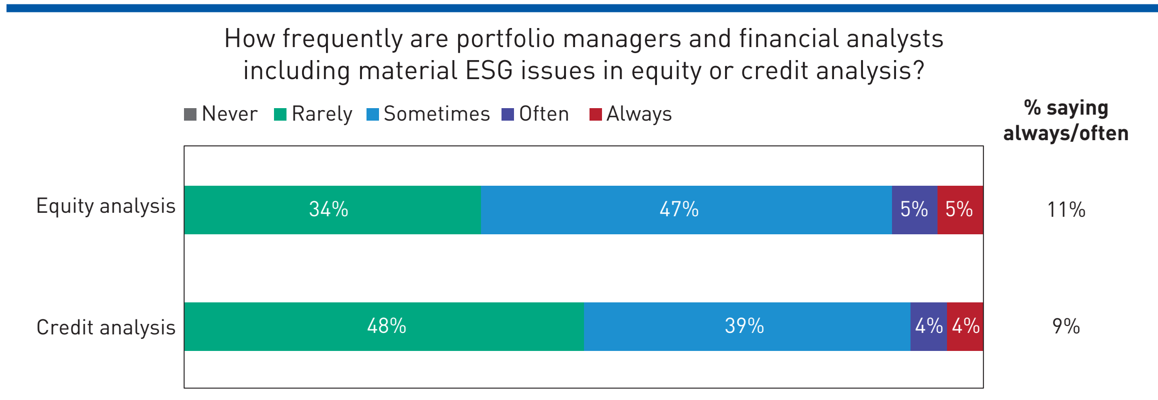
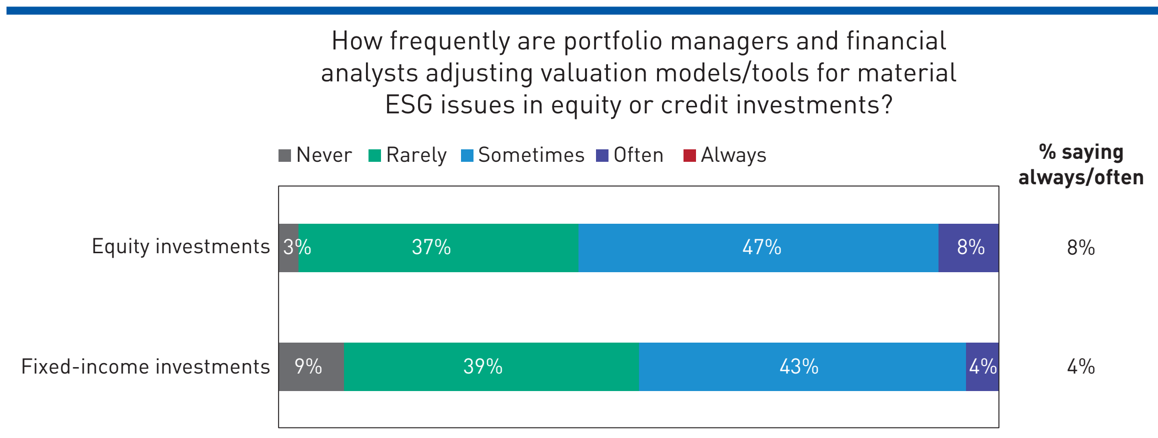


FIGURE 10: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank The Asset Management Association of China (AMAC) for supporting our ESG Integration workshops in China. 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 CHINA

China has seen a significant uptake of ESG investing in the last couple of years. Like other emerging markets, a major driver has been demand from international investors. Unlike some other markets, regulation has also been a major driver. Thanks to a combination of overseas demand and government policies, ESG investing is now a positive investment trend that has all major market players setting standards and/or providing training, including the government, regulators, associations, security exchanges, and investors.

Still, the level of ESG investing is low. The China market has not seen the same penetration as found in the developed markets, despite the leading Chinese investors deploying tools and techniques that can compete with advanced practitioners in other developed and emerging countries. Most Chinese investors are spending time on understanding ESG investing rather than implementing this investment approach. This is not only the case for local investment managers; it also applies to local asset owners such as pension funds and insurance companies.

Companies also have a low understanding of ESG investing. However, that is changing swiftly. The inclusion of the China A-share market in major emerging market and global indices has brought in new international investors to the market, which is traditionally dominated by domestic asset owners and retail investors. Some of these investors adhere to ESG policies and practices, which they apply to their portfolio and therefore their analysis of Chinese companies. They ask companies about their ESG performance and often educate them on ESG investing.

Another reason for the growing awareness of ESG investing by companies is new regulation on company disclosure, in particular environmental issues. This has also forced investors to analyze environmental issues, especially pollution by upstream companies, within their investment analyses and valuations. While governance issues are still the most material ESG issues for investors, environmental issues have increasingly become material.

Another reason for the growing awareness of ESG investing by companies is new regulation on company disclosure, in particular environmental issues.

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RISK MANAGEMENT IS THE MAIN APPROACH

Chinese investors are incorporating ESG investing into their philosophy, practices, products, and/or processes for risk management purposes and often in combination with exclusionary screens to meet client preferences. Participants believe that ESG issues are becoming increasingly material and can impact portfolio risk and long-term return.

The evolution of ESG investing in Chinese investment firms tends to start with developing ESG products first, such as a green thematic mutual fund. However, it can quickly advance to incorporating ESG terms into the investment philosophy and ESG factors into investment research, processes, and decisions.

Often, an ESG research framework/scorecard is developed and regularly updated to circumvent the issues with data availability and quality. The framework/scorecard creates a systematic structure to their ESG integration practices that ensures portfolio managers, research analysts, and ESG analysts are integrating all sector-specific factors—traditional factors and ESG factors—into their fundamental analysis of a security. The framework/scorecards are being used as red flag indicators that highlight high-risk securities and also as the foundation for calculating individual ESG scores for securities. Some investors deploy ESG risk monitoring and reporting at the portfolio level, which can be utilized as the basis of discussions on ESG issues/themes during weekly/quarterly investment meetings.

When leading Chinese investors started implementing ESG investing within their firm, they experimented with equities first. Some have applied their learning and expertise to other asset classes. The main application of ESG investing for equity and fixed-income practitioners is as a risk management tool. While the focus is predominantly on protecting from the downside risk for fixed income practitioners, equity practitioners will also look to find alpha. Some are utilizing ESG integration techniques to identify outperforming companies to generate enhanced returns.

However, most investors are at the stage where they are focused on learning about ESG and how it is practiced. Participants believe that more investors will apply ESG integration techniques once leading Chinese investors can demonstrate strong investment performance. At the moment, there isn't a track record for ESG products, and some Chinese investors care more about maximizing returns over than sustainability.

ESG ISSUES THAT MATTER

Most investors are assessing the corporate governance of companies. The confusion around ESG investing has meant that investors do not associate their governance analysis as a part of ESG analysis. In many cases, this is the same with social issues. Health and safety, employee training, and customer relations are social issues that many investors are assessing but are not being considered as social issues. Either way, leading Chinese investors will apply a systematic approach to ESG investing, whereas other investors will analyze certain ESG issues on an ad hoc basis.

Governance risks are considered more important than environmental and social risks by both equity and fixed-income practitioners. While governance risks are material for all companies, environmental and social risks are not universal and dependent on the sector, a situation that can lead to alpha-generation opportunities. One participant said that their

evaluation methodology for governance issues focuses on value creation. Environmental and social risks are also considered to have more influence on share prices compared with bond prices, which tend to be dominated by governance risks due to the focus on downside risk.

Although environmental and social issues are considered to have a lower influence on market prices, participants believe that their materiality will increase. Several factors were attributed to this view, including the development of government policies that force companies to manage their environmental footprint more sustainably. Regulators, security exchanges, and associations are also developing rules and standards for disclosures and product labelling. The top-down pressures are increasingly turning what were once exogenous costs to companies into environmental risks managed by companies. In particular, the regulator is enforcing tight regulation on companies' management of pollution and waste, focusing on upstream companies such as materials and manufacturing firms.

Although environmental and social issues are considered to have a lower influence on market prices, participants believe that their materiality will increase.

As a consequence of the top-down pressures, more investors are analyzing the ESG performance of companies. The surge of overseas client demand generated by the inclusion of the China A-share market in major indices has also brought international scrutiny of Chinese companies, especially by investors with ESG policy and practices. Companies are being asked more questions on their ESG risk exposure by their shareholders and bondholders.

LOW QUALITY OF ESG DATA

While there are significant improvements with ESG data availability and quality, the gaps in the dataset still make it difficult to assess the most relevant ESG factors for companies. This affects the materiality of ESG factors, as it is difficult to assess their performance over time and compared to their peers without an adequate amount of historical and comparable data. Some companies will have one or two years' worth of data, which is not insightful enough to form an opinion on how well they are managing their ESG risk exposure.

While there are significant improvements with ESG data availability and quality, the gaps in the dataset still make it difficult to assess the most relevant ESG factors for companies.

Participants felt that the lack of historical data prevented any kind of modelling or back-testing on ESG factors. It will take a few years to develop an ESG dataset that can allow investors to confidently analyze possible links between ESG and investment performance and/or develop models to inform their investment decisions. The mandatory disclosure requirements in 2020 and the reporting requirement by the China Securities Regulatory Commission (CSRC) will generate a solid set of figures that can rival the best countries in time. This has already been instrumental to the reporting and management of upstream companies. As the regulatory pressure continues to rise, more and more investors will assess the ESG performance of companies, and companies will pitch themselves against other companies in their industry.

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As is the case in other markets, there is variation in the level of ESG data between different-sized companies. Large-cap companies have better ESG disclosure than small-cap companies, and hence it is easier to analyze their ESG performance. This has been attributed to the larger budget that they are allocating to personnel and systems that collect and report on ESG issues. It is also attributed to the larger profile of the international companies that brings with it closer scrutiny and higher reputational risks.

The inclusion of the China A-share market in the major indices has improved the data coverage and encouraged local companies to develop databases on ESG information. Some investors use both sources. Where there are gaps in data, investors are carrying out their own ESG analysis. By developing proprietary ESG research frameworks/scorecards and analysis, they are able to feed in third-party research and scores and apply their own judgment into their fundamental analysis. Participants feel that due diligence and judgment are necessary; over-reliance on third-party research and scores with limited understanding of the underlying methodology can bring its own risks.

INCREASING AWARENESS FROM COMPANIES

Another important tool to gather material ESG information is company engagement. Leading investors are asking companies questions on environmental, social, and governance issues. As mentioned above, the inclusion of Chinese companies in major international indices has also boosted the awareness of ESG investing by companies, although most refer to it as corporate social responsibility (CSR).

As with investors, the understanding of ESG issues is low. Some Chinese companies are actively trying to work out which ESG issues are important to them and how to manage them; others treat ESG investing as a tick-box exercise or are not interested. They are also trying to understand which issues are important to their shareholders and bondholders, which is complicated by the fact that the majority of investors have limited understanding on ESG factors that are material to their portfolio.

Several investors are working with companies to help them build a better understanding of ESG investing and also on what ESG issues are important to them. Investors take this process slowly and often start with the least controversial aspects of ESG investing. Companies understand the need for good governance, and investors educate them on the benefits of independence on the board. One participant said that they do not start with requesting for more ESG disclosure. Their approach is to make suggestions, and they often find that this approach gets a positive response from companies.

Another motive for CSR reporting is regulatory requirements. Companies are publishing CSR reports. A participant said that one-third have posted CSR reports; another said 700 or 800 companies had disclosed their CSR reports. However, there is criticism of the amount of nonmaterial information in these reports. Again, participants have blamed it on the lack of knowledge on which issues are more important to investors.

EDUCATION IS ESSENTIAL

While there are leading Chinese investors that have fully integrated ESG factors and tools into their research process and are engaging with companies, the market as a whole is not so advanced. Most investors believe ESG investing is about doing good and investing in companies that are good for society. Some think that when you integrate ESG factors, your portfolio returns will be negatively affected. A participant stated that sell-side analysts do not know what ESG is.

Several participants expressed difficulties with quantifying ESG factors. This is not unusual in the developed markets. Not only does the coverage of ESG data create a barrier to evaluating the investment risks and opportunities, the limited understanding of the ESG integration techniques is preventing investors from factoring ESG information into their valuation models. Although the majority of investors adjust their existing assessments and models for ESG factors as they do with traditional factors—equally, investors are creating ESG research frameworks/scorecards and proprietary ESG scores—some participants are asking for industry-standard methodology to quantify ESG factors.

The need for education is across the investment chain, from asset owners to investment managers to companies. In particular, there is confusion around the material ESG issues. For example, an investor may consider climate change the biggest risk to a steel company, while the company is more concerned by the regulatory risk related to air pollution. To compound the problem, another investor may engage with the same company on health and safety. Such conflicting views can prevent investors and companies from managing their ESG risk exposure. Participants believe that an industry-wide framework will resolve this problem and boost the materiality of ESG issues.

The need for education is across the investment chain, from asset owners to investment managers to companies. In particular, there is confusion around the material ESG issues.

Various market players are trying to increase the transparency around ESG investing. Security exchanges and associations are running conferences and workshops on ESG investing. At the same time as discussing financial and ESG matters with companies, investors are providing training. These investors are also educating other investors. However, there is a shortage of ESG professionals in China, which can limit the success of ESG investing. A participant suggested that universities should offer courses and modules on the topic.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

Risk is by far the main driver of ESG integration for both equities and bonds, with client demand and regulation also important. The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 11** and **12**.

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TABLE 11: DRIVERS OF ESG INTEGRATION IN CHINA CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	74%	Risk management	65%
Regulation	37%	Client demand	43%
Client demand	26%	Regulation	43%
Generate alpha	26%	Fiduciary responsibility	17%
Fiduciary responsibility	13%	Generate alpha	13%

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 CHINA CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	55%	Lack of comparable and historical data	65%
Lack of company culture	47%	Limited understanding of ESG issues	48%
Limited understanding of ESG	42%	Lack of company culture	43%
Low client demand	26%	Limited amount of ESG research	35%
No evidence of investment benefits	21%	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.

CULTURE AND SHORT-TERMISM

Conferences, training, and other forms of education were noted as essential to address the limited understanding of ESG issues and ESG integration. Culture is also considered a barrier, which is not specific to China. Portfolio managers are often driven by short-term returns. Sustainability is either a secondary priority or not considered at all.

Participants sympathize with the returns mentality as they consider it as part of a portfolio manager's fiduciary duty to meet the mandate requirements, including any terms on risk, return, and ESG. Asset owners judge their external investment managers based on how much they make for them and review their quarterly performance. They believe that once investors learn about the opportunity to reduce risk and generate alpha through ESG investing, more will practice it. One practitioner stated that investors are more short-term focused but ESG should bring along opportunities for long-term sustainability and outperformance. However, there is a need for more evidence on the investment benefits from the China financial markets.

CLIENT DEMAND AND REGULATORY PRESSURES

What is undisputed is that ESG investing is a positive investment trend in China. International investors are driving the interest in ESG investing and coming to China with ESG mandates and practices. They have strong ESG discipline and are focused on managing portfolio risk through integrating ESG factors into their research and investment process. Their presence in the market has risen significantly since the inclusion of the China A-share market in major international indices, forcing them to increase their exposure to China. The knock-on effect is that companies are now being asked questions about their ESG performance by international and local investors, which has increased the awareness of ESG investing among companies.

What is undisputed is ESG investing is a positive investment trend in China. International investors are driving the interest in ESG investing and coming to China with ESG mandates and practices.

Top-down pressure has also been a major driver and will continue to be. Government policies and regulations have set the tone in China, and market players have followed suit. The Chinese government has developed Guidelines for Establishing a Green Financial System (GEGFS) and made it mandatory for listed companies to disclose environmental information by 2020. The CSRC has announced that, by 2020, it will require listed companies to disclose key environmental information in their annual or semi-annual reports. The Asset Management Association of China (AMAC) has been running workshops on the subject and released Green Investment Guidelines as of November 2018. Both the Shanghai Stock Exchange and Shenzhen Stock Exchange have signed up to the Sustainable Stock Exchanges initiative and have run ESG conferences and workshops.

The combination of international client demand and regulation has had a ripple effect on the investment chain. Local asset owners are researching the benefits of ESG investing and how new policies, regulations, and rules are likely to influence their investment performance. Local investment managers are responding to international investors' ESG demands and studying how to integrate ESG factors into their company holdings and portfolios. Local companies are looking into how to manage and report on their environmental footprint and trying to understand how to differentiate themselves from their peers.

ESG investing is still in the investigative stage for local investors. Insurance companies and local pension funds have shown an interest, but the demand has not been seen by local investment managers. Participants feel that once tougher regulation and rules are in place and local asset owners understand the practicalities and witnessed the investment benefits of ESG investing, this will create a huge demand for ESG products and investment managers who integrate ESG into their philosophy and research.

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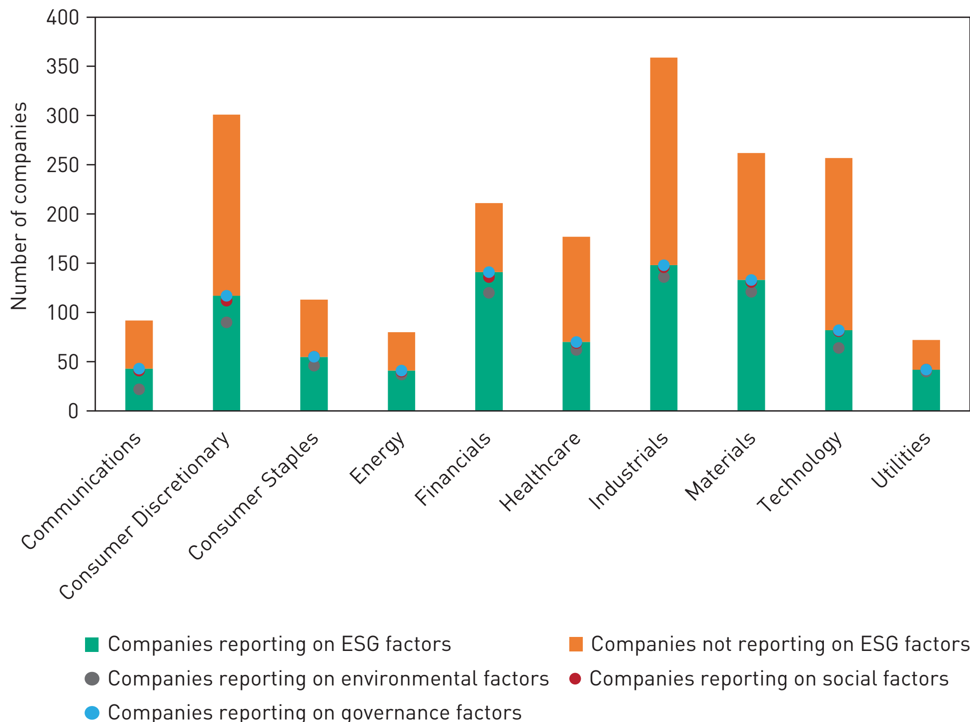
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100 and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.") PRI, UNEP FI, and SynTao Green Finance has recently released a complementary report entitled "ESG Disclosure in China: Recommendations for Primary ESG Indicators" that provides further analysis on ESG corporate disclosure in China.

Figure 11 shows the distribution of companies domiciled in China. Out of 1,924 primary listings, 872 (i.e., 45.32%) reported on ESG factors in 2016. When drilling down per sector, there seems to be a negative correlation between the size of the sector and the percentage of companies reporting on ESG factors. For example, the three sectors with the

FIGURE 11: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN CHINA

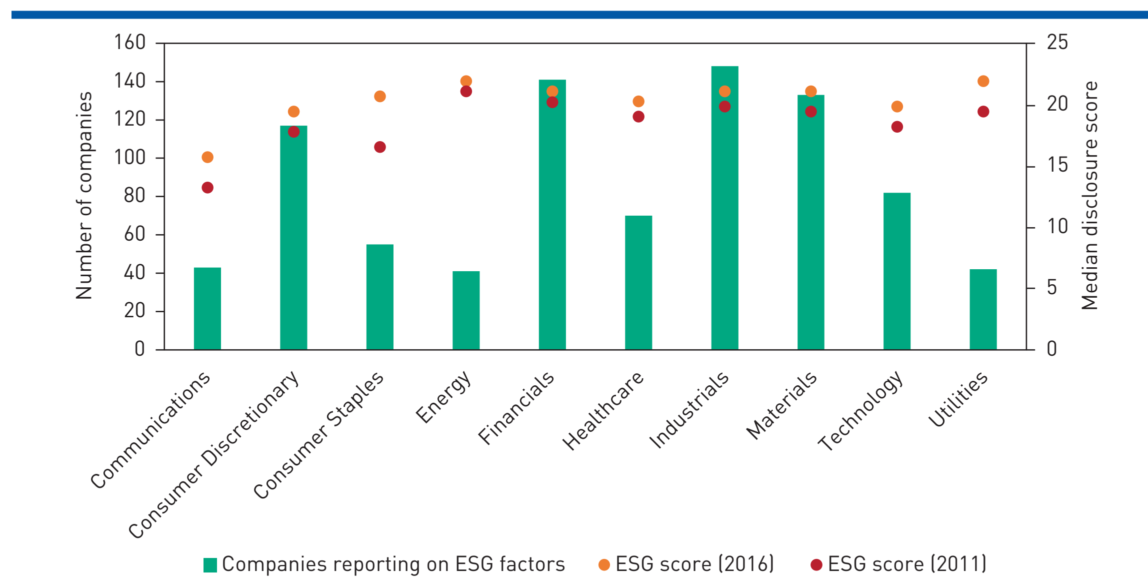


lowest coverage of ESG reporting, i.e., consumer discretionary (38.9%), industrials (41.2%), and technology (31.9%), are among the four largest sectors (consumer discretionary [301 companies], industrials [359 companies], materials [262 companies], and technology [259 companies]). At the other end, the two smallest sectors, energy (80) and utilities (72) are among the three sectors with the highest coverage with 51.3% and 58.3%, respectively. Energy and utilities being among the sectors with highest coverage is in alignment with the Japanese market, whereas surprisingly, the financial sector is the sector where the highest percentage of companies disclose on ESG factors, 66.82%, i.e., 141 of 211.

The coverage of governance disclosure equals the coverage of ESG overall. For social disclosure, the coverage is almost the same. In the consumer staples and utilities sectors all companies disclosing on ESG factors disclose on social factors, i.e., 48.7% and 58.3%, respectively. In the energy, health care, and technology sectors, only one company that reported on ESG factors did not report on social factors, which means a coverage rate of 50.0%, 39.0% and 31.5%, respectively. In the communications, industrials, and materials sectors, 2 of 43, 148, and 133 companies reporting on ESG factors, respectively, did not report on social factors. These numbers are very different for 2016 environmental reporting. Only 29.9% of companies in the consumer discretionary sector reported on environmental factors, while 38.9% of them reported on governance factors. The difference is also large in the communications (E, 23.9%; G, 46.7%), financial (E, 56.9%; G, 66.8%), and technology (E, 24.9%; G, 31.9%) sectors. The utilities (E, 55.6%; G, 58.3%) and energy (E, 46.3%; G, 51.3%) sectors are the two sectors in which most companies reported on environmental factors as compared with governance factors.

Figure 12 shows the development of the median ESG disclosure score per sector from 2011 to 2016. The 2016 median disclosure scores are similar across sectors with the

FIGURE 12: MEDIAN 2011 AND 2016 ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN CHINA



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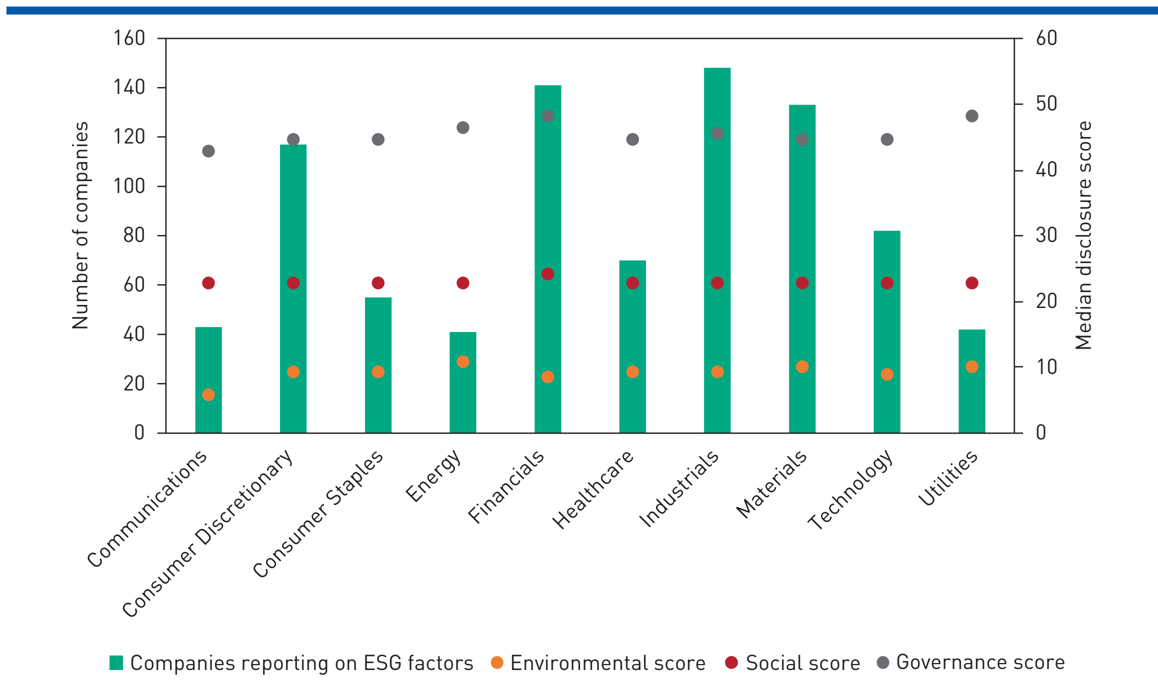
exception of communications, for which the score was 15.70. The rest of the sectors are within a band from the lowest median ESG disclosure score being in consumer discretionary (19.42) and the highest in utilities and energy (21.90). In 2011, the energy sector was alone in the top with a median ESG disclosure score of 21.07. In all sectors, the median ESG disclosure score has increased over the five years. The largest increase occurred in the consumer staples sector, where the median ESG disclosure score went from 16.53 to 20.66 over the five years. The communications sector has also seen an increase (13.22 to 15.70), although it had, by far, the lowest median score in both years. The consumer discretionary and technology sectors, which had the second and third lowest median disclosure scores in 2016, had the third and fourth lowest in 2011 at 17.77 and 18.18, respectively. The financials, health care, industrials, materials, and utilities sectors all had median ESG disclosure scores between 19.01 and 20.18 in 2011. Overall, the median ESG disclosure scores were very similar across sectors.

Figure 13 shows the breakdown of the 2016 median environmental, social, and governance disclosure scores across sectors. Looking at Figure 13, there is clearly a lot of standardization across the three themes. In all sectors, the median disclosure score for governance is the highest, social the second highest, and environmental the lowest. For governance disclosure, the median score is between 42.86 in communications and 48.21 in financials and utilities, with the score being 44.64 in consumer discretionary, consumer staples, health care, materials, and technology. For social disclosure, all sectors except

FIGURE 13: MEDIAN ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN CHINA IN 2016



financials have a median disclosure score of 22.81. The financial sector has a slightly higher median score of 24.17. In the bottom, the median environmental disclosure is also fairly converged, with communications being the lowest scorer with a median disclosure score of 5.81. The rest have scores ranging from 8.53 in financials to 10.85 in energy. Four sectors have a median environmental disclosure score of 9.30; these are consumer discretionary, consumer staples, health care, and industrials.

Overall, the proportion of Chinese listed companies disclosing on ESG factors is less than half. However, the companies that do report on ESG factors mostly report on both social and governance factors and also, to a large extent, environmental factors. The median ESG disclosure scores across sectors do not vary much, and this is the same for median environmental, social, and governance disclosure scores broken up by theme. This suggests standardization of disclosure. The median social scores were especially similar across sectors.

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ROUNDTABLE INTERVIEW ON ESG INTEGRATION IN CHINA

HOW PREVALENT IS ESG INVESTING IN CHINA?

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

ESG integration is becoming a popular trend. Compared to the developed markets investors, who are more mature in terms of practicing ESG investing, Chinese investors are still at the early stages.

Currently, most investors in China are focusing on understanding how to practice ESG investing rather than implementing. Roughly 80% or 90% of Chinese investors haven't come up with the structure for ESG investing. Only a few asset managers in China are applying ESG investing.

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

ESG investing is on the way of becoming a mainstream investment philosophy in China. More investment managers are realizing the tendency and the importance of ESG investment, and we believe that they will ultimately adopt this philosophy. Some pioneers have already started ESG study for a while. And so far, our company has taken a top down approach to integrate ESG into our investment philosophy and we launched our first ESG product in 2018. However, the current level of ESG investing is relatively low compared to Europe, the United States, and other Asian countries such as Japan. Most of the institutional investors are still in the process of understanding the meaning of ESG rather than implementing ESG in the investment procedure. Yet, it is believed that with the evolvement of Chinese market, the proportion of the investors who adopt ESG philosophy would increase rapidly in the near future.

Robert Li, MBA, China Asset Management Co., Ltd.

Depending on the definition of ESG investing and asset classes, Chinese-based investors implement varying degrees of ESG investing in their investment processes. In general, Chinese investors are subject to sanction lists as provided by their respective regulators. Most have yet to adopt global-focused, norm-based investing. On the other hand, most portfolio managers and analysts agree that corporate governance is an important aspect of nonfinancial analysis when conducting research. Areas such as non-arm's-length transactions, stock pledges by key shareholders, and accounting frauds are of key focus.

WHAT ARE THE MAIN ESG ISSUES FOR CHINESE INVESTORS?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

Chinese investors are paying more attentions on environmental and governance issues at the moment.

For the environmental issues, this is because following the 19th National Congress of the Communist Party of China in 2017, China has taken a top-down approach to governance on environmental protection. Its approach includes treating pollution prevention as one of the three national critical battles, establishing a long term supervision mechanism to monitor the environmental performance and so on. From these initiatives, we can conclude that environmental protection has become a "new normal" facet of China's economic growth, and that this trend will continue for a long time. Hence, a company's environmental performance would play an important role in the operation of the business.

On the other hand, the quality of the corporate governance is one of the decisive factors of the future performance of a company. A good corporate governance structure will not only ensure the growth of the company but also to ensure the organization is managed in a manner that fits the best interests of all. And as a result, a good corporate governance could be able to lead to a better outcome on share price.

Robert Li, MBA, China Asset Management Co., Ltd.

The most important ESG issues are corporate governance in nature, as these practices and the quality of management would have significant implications on how the company is run, and whether the company is long-term focused. Over the past two years, there has been an increasing focus on environmental issues and social issues. New and tougher regulatory standards and impact on financial performance are driving the change. We believe this is generally in line with progress in the developed markets, where environmental standards and social impact are becoming a major component of corporate initiatives.

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

The answer is different depending on which sector and which strategy the investor is focusing on, as well as data availability in the market. If there is no data on a particular ESG issue, then it is very difficult to measure the ESG issue and price it into the market.

Currently, governance issues are more important and valuable for our investment decisions; meanwhile, environmental issues are becoming emphasized by the regulator. The valuation methodologies for the two sets of issues are different. We regard governance issues from a value-creation perspective and environmental issues from a risk management perspective.

For environmental issues, pollution is more important than carbon emission in China. Although carbon emission data is extremely important for European investors, but not yet

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practical for China A-share market. The Chinese regulator is enforcing tight pollution regulation on companies, especially upstream ones. Any material issues related could become an investment risk. Therefore, we pay more attention to pollution data and regulations.

ARE COMPANIES BECOMING MORE AWARE OF ESG INVESTING? DO THEY RESPOND TO YOUR QUESTIONS ON ESG ISSUES?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

Following the trend of ESG investment rising among the institutional investors, more companies start to hear about ESG. However, after communicating with some listed companies, we found there are still quite a few companies who are not familiar with it. It appears that some companies are managing their ESG performance but are not aware that what they're doing is part of ESG. For example, companies are not considering certain environmental regulations that they must adhere to and the transitioning of nonrenewable assets to renewable assets as ESG investing.

Besides, in respect of the ESG engagement, since most of the companies are in the very early stage of understanding ESG, we have decided to start raising questions on those ESG issues which they are capable to answer, such as how much effort they have put to manage the environmental pollution. When the relationship with the companies are built and ESG investment becomes more mature in China, we will go deeper on ESG issues.

Robert Li, MBA, China Asset Management Co., Ltd.

We have engaged with five companies on sustainability issues, including environmental, social, and governance. From our experience, Chinese companies have heard of corporate social responsibility, but not necessarily ESG investing. Their primary motivation comes from regulatory requirements. Given the current regulatory efforts and pending disclosure requirements, many companies are beginning to learn about these concepts and practices.

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

Many companies do know about ESG investing. It is because MSCI included China A-share market into the emerging markets and global indices, and they have released ESG ratings for companies within these indices.

While Chinese companies are paying attention to ESG issues, their awareness is still relatively low. For example, when we engaged a company to disclose its emission targets, it took time to explain behind reasons. We try to raise the companies' awareness on ESG issues. The response is positive and they do agree that they should manage their environmental impact and try to include our suggestions in the next year annual reports.

CAN YOU TALK ABOUT THE CHALLENGES WITH ESG DATA DISCLOSURE?

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

Overall there is lack of structured good quality ESG data disclosure in China. 700 to 800 listed companies have disclosed their CSR reports, but investors find many information disclosed irrelevant for the moment. Companies have not realized what issues are more important to investors and what information they need to disclose to better reflect their ESG performance. The data quality of large-cap companies is better than small-cap companies. Large-cap companies, who can spend more resource on gathering, monitoring and disclosing ESG data, are easier to be evaluated.

I do believe that companies will disclose more ESG data. First, the regulators are moving forward to forcing companies to disclose ESG data now. Based on the *Standards for the Contents and Formats of Information Disclosure by Companies Offering Securities to the Public* released by China Securities regulatory Commission (CSRC) in Dec 2017, listed companies, especially upstream companies such as steel and manufacturing firms, are forced to disclose their environmental data due to increasing regulation pressure. Second, more investors are paying attention to the ESG performance of companies because it can differentiate themselves from their peers from investors perspective. We, as investor, have to work together to request for more useful ESG data disclosure.

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

The key challenges with ESG data disclosure are the availability and the quality of the data. The availability of ESG data started quite late in China compared with other countries. Only one-third of the companies are issuing CSR reports. Moreover, some specific data such as environmental data is compulsory for some sectors and companies but not all of them. Therefore, we have an incomplete dataset of ESG company data.

On the other hand, most ESG data we use are purchased from international companies but they can only provide the ESG data on companies covered by FTSE and MSCI indices. The coverage is relatively low comparing to the whole market. Even though, we have some local index companies who are starting to build up their ESG database, the problem is that we do not know what the methodology is behind their ESG ratings and there is no third party to ensure the quality of the data. Thus, the quality would be another challenge we are facing.

Robert Li, MBA, China Asset Management Co., Ltd.

We believe the key challenge is the lack of comparable historical data to perform extensive analysis. There is a lack of comparability, transparency, and a lengthy track record. We believe that after the mandatory disclosure requirements in 2020, there will be enough data for further analysis within a few years, after which ESG investments will be based on solid ground and investor adoption should improve.

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DO CHINESE INVESTORS THINK OF ESG INVESTING AS EXCLUSIONARY SCREENING OR FROM A RISK/RETURN PERSPECTIVE?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

I think it is both. Investors in China think of ESG investing as a combination of exclusionary screening and utilizing ESG analysis to identify outperforming companies and control risks.

In our own experience, we have incorporated ESG factors in our equities department to take advantage of ESG investing for risk-aversion purposes. Moreover, we are in the process of utilizing ESG practices to find alpha and identify outperforming industries and companies.

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

Chinese investors think of ESG investing as exclusionary screening and ESG integration. It is the same for our firm. We integrate ESG factors into the risk management process to generate alpha. This can help us improve our investment quality. If we look back over the longer term, we can see that ESG investing can generate profits. However, most Chinese investors think of ESG as doing good and investing in companies that are good for society.

IS COMPANY CULTURE A BARRIER TO ESG INVESTING?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

I do believe that there is a company culture issue with regard to ESG. Most asset managers still prioritize excess returns only, for instance, most portfolio managers' bonuses are simply bound up with investment returns. The result would be the managers pursue better outcomes on data only rather than concern about the need to be responsible for society. This culture is not just affected by the asset management companies, but the asset owners will also judge investment managers based on whether their products can generate strong returns instead of if their products will be helping society. Thus, education is necessary to explain what ESG is and how it can benefit them through long-term investment returns, which is what we are trying to do now. Consequently, company culture is a barrier across the investment chain.

WHICH INSTITUTIONAL CLIENTS ARE ASKING FOR ESG INVESTING? IS THERE ANY RETAIL DEMAND IN CHINA?

Robert Li, MBA, China Asset Management Co., Ltd.

The current client demand for ESG products is primarily from international investors. We are conducting investor education for domestic investors to improve awareness. Despite the lack of data, ESG investing makes sense intuitively, but extensive research and education is still needed to demonstrate effectiveness in the domestic markets. As investment horizon of domestic investors, both for institutions and individual investors saving for retirement, ESG will play an even bigger role in the ability to deliver long-term sustainable returns.

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

International investors from Europe and the US brought ESG investing to the market. After MSCI had included Chinese A market into their indices, there was a surge of interest from international investors to increase their exposure to China's economic growth. Some of these investors had an ESG policy and strategy that require local investment managers to adhere to.

Otherwise, both the local pension funds and insurance companies are supportive of ESG investing, so they're pushing investment managers to create more ESG products. ESG products have features of higher returns and lower volatility, which aligns with their investment philosophy.

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

Current demand is mainly from international investors, like institutional clients from Europe and US. In the Chinese market, it will take time for the insurance companies and pension funds to demand. They are likely to monitor the investment performance of ESG products first, assess the advantages and disadvantages, and then make a decision.

Institutional investors are more interested in ESG investing than retail investors. To cater for the potential demand from retail investors, , we are also positive for it.

HOW IS REGULATION DRIVING ESG INVESTING IN CHINA?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

We still don't have any formal regulation to force all asset managers to integrate ESG concepts. However, we believe that to mainstream ESG investing, the regulator and associations will need to put more pressure on investors to deploy ESG practices and on companies to

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manage their ESG risk exposures. The regulations will be able to facilitate ESG investing in China in some way. If we take environmental regulations as an example, we could tell that the regulations have not only driven the investment managers to take environmental performance as a criterion but also pushed those listed companies to think about their environmental impacts and disclose environmental data while running the business.

Robert Li, MBA, China Asset Management Co., Ltd.

The forces driving ESG awareness and integration in China are different from those in most developed markets, where asset owners were the primary drivers. The top-down approach to drive ESG investing in China prompts faster adoption and expedites the process for companies to disclose ESG-related data points for analysis. With this information, asset managers would be able to educate the investors on the benefits of ESG investing and insinuate positive change in the market place.

ARE THERE OTHER MAJOR MARKET PLAYERS PROMOTING ESG INVESTING?

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

To provide education on ESG investing, stock exchanges have put on some conferences and workshops on how to integrate ESG into our investments. AMAC is also running workshops. The conferences and workshops are important as ESG investing is still quite new to investors, and therefore training is necessary to guide institutional investors who are not familiar with ESG investing and keen to understand how to implement it into their processes and products.

While conferences and workshops will build awareness and understanding, regulations and standards will accelerate ESG investing and date disclosure. It is believed that if stock exchanges could draft more strict regulations and standards on ESG performance, it would improve both quality and quantity of ESG information released by the companies. This will lead to better practice of ESG data. Additionally, if associations could intervene and form compulsory standards and codes, it would encourage all investors adopt ESG investing into their philosophy and process.

WHAT DO YOU THINK IS NECESSARY TO CONTINUE THIS ESG INVESTMENT TREND IN CHINA?

Yixi (Wilson) Wei, E Fund Management Co., Ltd.

International investors introduced the ESG topic to China. They are the primary driving force for ESG investing in the country. Domestic clients and regulators will be the next driver of ESG investing. Currently, more clients are asking questions about ESG investing

and the regulators are also trying to shift the market toward this direction. These are good signals for the future of ESG investing in China.

Ms. Xu Yan, CIO, Hwabao WP Fund Management Co., Ltd.

The first driver would be the marketing and education. There are still quite a lot of investors who aren't familiar with ESG investing. Some investors think that when you integrate ESG factors into your portfolio, your investment performance will be negatively affected. Therefore, investors should be better educated about the benefits of integrating ESG.

The second driver is support from the government and associations. We believe that if a top down approach could be implemented, the ESG philosophy will expand more rapidly and accepted by more investors. and when there are more investors integrating ESG into their investment process, it will lead the listed companies to act better in their ESG performance, which will also benefit the whole society.

Robert Li, MBA, China Asset Management Co., Ltd.

It is necessary to have a clear demonstration of performance improvement and other forms of value-add to accelerate growth in ESG integration in China. Regulations (not just security regulation), market behavior, and investment practices need to coordinate and show that ESG does not compromise investment returns. The additional inflows driven by MSCI and FTSE Russell's inclusion of Chinese equities, and the high awareness of international investors as part of this conversation, will also drive the growth in China.

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INTERVIEW WITH A CHINESE MAJOR MARKET PLAYER: HARVEST FUND MANAGEMENT

Interview with Thomas Kwan, Chief Investment Officer of Overseas Investment at Harvest Fund Management about ESG integration in China.

What does ESG integration mean to you?

The core of ESG integration in investment is to integrate environmental, social and governance considerations into investment decision making processes and ownership practices. In the context of the many rising global environmental and social challenges such as climate change, environmental pollution, and an aging population, we believe we have a role to play in pivoting capital to companies and technologies that can address these issues in the long term, so as to support the sustainable growth of our economy and society. This is our inner driver to do ESG integration. At the same time, it is in line with our investment philosophy that ESG factors are economic in nature and can offer a more holistic and forward-looking view of a company's long-term prospects and sustainability. Thus by integrating material ESG factors, investment managers can manage ESG risks and opportunities and generate better risk-adjusted returns in the long term.

We believe the foundation of a successful ESG integration is in-depth understanding of ESG factors in investment and how they materialize in different time horizons. This requires us to develop understanding of the industrial competitiveness, corporate strategy, governance, and their capability to manage long-term intangible ESG risks and opportunities. Hence, we emphasize fundamental ESG analysis and have brought in experienced ESG specialists to work with investment analysts and portfolio managers to decipher financially material ESG risk and opportunity factors.

In fact, taking environmental, social, and governance considerations into account in investment is not new to China's asset management industry, though the term ESG integration is. We've seen that large institutional investors like us do consider some ESG factors in investment to some extent and on an ad-hoc basis. However, systematic and holistic ESG integration into investment processes is still rare in China. We believe what is needed by China's institutional investors is to integrate ESG factors systematically throughout the investment processes, in particular to formulate a holistic ESG research framework with local granularity to better capture risks and opportunities. From our own experience, holistic ESG integration indeed adds value to our fundamental-driven investment approach.

How do you integrate ESG data into your investment processes? Is it across different asset classes, i.e., equity, fixed income, private equity, infrastructure, etc.?

We have developed a proprietary ESG research framework, which empathizes on profiling the governance structures and performance of all companies, but also includes

material environmental and social opportunities and risks based on industry characteristics and investment relevance. By utilizing both external and internal ESG data, we profile material ESG risks and opportunities of companies in our investment universe, which our investment analysts and managers refer to when making their own judgement on how these risks and opportunities materialize in different time frames.

Risk monitoring is another feature in our ESG investment process. Besides ESG portfolio reporting, ESG-related controversies are also flagged in a timely manner for PMs to manage event risks. We are also working with our postdoctoral research station to develop internal artificial intelligence (AI), more specifically text mining capabilities, to actively monitor ESG events and risks. We hope the output of this project could also be integrated in our investment processes over time.

ESG integration is carried out across different asset classes at Harvest, mainly equity and fixed income. But our approach in integrating ESG factors in equity and fixed income varies. For example, due to the downside risk protection feature of credit analysis, governance is rather dominant compared to other ESG factors, and sometimes has veto power in determining the investability of bonds. For equity, the relative materiality of E/S/G issues varies by sector and sometimes by business growth cycle. So, the equity analysts or portfolio managers may weigh less on governance (of course still meeting our level of comfort) for a particular industry or company than on their environmental and social aspects. The different investment time frame between equity and credit investment also may result in different levels of materiality of ESG factors.

Though ESG assessment framework for credit and equity is largely the same, in particular for listed entities, some adaptations for credit are further required. For example, the credit governance framework is slightly modified to address a focus on ownership, transparency, and management quality. Credit ESG analysis is more challenging for small issuers due to lack of disclosure, but our qualitative analysis addresses these challenges in our framework.

Please give an example of a company where ESG factors impacted its investment decisions (you do not need to name the company).

A direct example is that our investments require a minimum level of comfort for governance over invested companies. Companies with high stock pledges and poor governance (e.g., ownership concerns) are excluded systematically in some of our strategies that have a high governance threshold.

Active portfolio managers may interpret ESG risks and opportunities differently, and make different investment decisions. Our ESG team discusses material ESG issues, with our active portfolio managers on a daily basis, taking into account of the time horizon within which these issues could materialize. We want to make sure material ESG angles and risks are sufficiently acknowledged and debated by portfolio managers. For example, we have developed a system automatically monitoring all environmental violations and fines issued by relevant regulatory bodies on all listed companies, and material and severe cases are alerted to portfolio managers and analysts in real time for risk prevention purposes.

We regularly discuss industry and company-level ESG issues with our relevant analysts to highlight investment risks and opportunities. An example would be we highlighted to our investment team the increasing compliance costs and reputational risks on account of

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privacy and data security issues facing the internet software and services industry. We also highlighted companies that face particularly high risks in this aspect, which have resulted in analysts' adjustment to their investment recommendation and thereafter the model portfolio weights.

What techniques and tools have you used to promote ESG integration in your firm?

Our senior management endorses ESG integration across our investment functions. Our ESG team first established a proprietary ESG research framework to address the lack of corporate ESG disclosure and unique cultural and ESG regulatory developments in the local market.

We believe in-depth ESG research and integration requires participation from industry analysts and portfolio managers. On the security level, the ESG team works closely with our investment analysts to provide in-depth ESG assessment and rating. On thematic research, the ESG team is rather independent but takes the investment team's view into consideration, particularly when it comes to investment horizon and materiality. On the portfolio level, we focus more on risk monitoring that highlights high-risk investments and discuss improvement opportunities together with portfolio managers regularly.

Company engagement is another tool for us both to communicate our ESG demand and sustainability standards to investee companies and to bring our portfolio managers to the table for ESG discussion with company management. By engaging companies together with our industry analysts and portfolio managers on ESG issues, our investment team can get a vivid idea of a company's long-term value creation vision and strategic planning capabilities.

Incorporating ESG data into our online research platform is also part of our group-level technology innovation and digitalization strategy at Harvest. The platform will make ESG data and recommendations accessible to investment as a research tool and risk management tool, leveraging our ESG framework, data, and insights contributed by both our internal research and external parties.

Building an ESG and responsible investing culture is an ongoing process. Our ESG team also leads the internal education and awareness-raising efforts. Our regular awareness-raising activities include annual ESG consultation with an internal investment team, quarterly ESG strategy meetings with the investment committee, monthly ESG training on ESG issues for the research team, weekly circulation of ESG newsletters featuring ESG trends and research, etc.

How do you see ESG integration develop in China over the next five years?

From process to impact and vice versa: local asset managers to become more active in developing ESG investment strategies and thematic funds for China A-share investors, which will allow investors to channel their portfolios and make an impact to contribute to sustainable development.

A more active role from owners of assets like insurance, sovereign wealth funds and pension funds can be expected driven by policy and peer pressure; however, performance of ESG investment strategies is still one of the main doubts and questions for local asset owners considering wide adoption of ESG.

More local large asset managers will follow suit to more formally integrate ESG factors into the investment process driven by client demand, policy development, and peer pressure.

There seems to be great momentum behind ESG integration in China. What do you think is necessary to accelerate this growth in ESG integration in China?

Leadership from large asset owners in China in promoting responsible investment. With substantial power in the asset management industry in China, these big names are expected to take a leading role and pass the requirements down to asset managers.

Clearer and implementable guidance from regulators. Guidance is needed that focuses on integrating ESG factors in the investment process.

Data infrastructure. Regulators should work on improving ESG reporting by listed companies; mandatory reporting framework and clear guidance are expected.

ESG human capital development. The shortage of the ESG talent supply is becoming a bottleneck for China's asset management industry to promote ESG investing. The government and universities should nurture more ESG students and graduates, and investment companies should offer better career development and incentives to attract and retain ESG professionals.

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INTERVIEW WITH A CHINESE MAJOR MARKET PLAYER: ASSET MANAGEMENT ASSOCIATION OF CHINA

Interview with Hua Yu, Board Director at the Asset Management Association of China and Managing Director, Morgan Stanley Investment Management, about ESG integration in China.

How do you define ESG integration?

ESG integration is the systematic inclusion of ESG factors into the firm's decision-making processes. The intensity of ESG integration may vary, but any kind of ESG integration requires the setting of clear ESG goals and an evaluation system. ESG goals detail not only what ESG factors the firm considers while making decisions, but also how the factors are to be considered. For example, the most basic ESG integration effort includes establishing a list of non-ESG stocks based on ESG factors for negative screening, while a more sophisticated effort may include constructing ESG ratings system as a part of equity research to more deeply incorporate ESG factors into fundamental analysis; the firm could even go so far as to establish protocols for stewardship.

Once goals have been set, there needs to be an evaluation system to provide reflection and transparency. This is most easily achieved in the form of a periodic ESG report, which may be standalone or a part of the firm's annual or quarterly reports. For mutual funds, it may also be prudent to include an ESG report or review as a part of the products' period reports. The reports should clearly detail the firm's ESG integration efforts, including any quantitative or qualitative impact that the efforts have had on portfolios, as well as any obstacles or difficulties that arose. Any changes to the firm's ESG integration effort should be reported, with justification and expected outcome. For example, a firm may disclose efforts to include ESG momentum considerations into its ESG ratings system, deepening selection criteria and possibly expanding the investment scope at the same time.

How is ESG integrated into the investment process at Chinese firms?

Chinese asset management firms are actively integrating ESG factors into their investment decision making process. On the mutual fund front, firms are integrating ESG factors into their fundamental analysis framework for both equity and fixed–income investments. Some private equity (PE) firms are not only actively setting up proprietary frameworks to systematically integrate ESG factors into their investment process, but also exploring stewardship.

In practice, ESG integration may be broken down into initial filter, due diligence, investment decision-making, and postinvestment management. During the initial filtering phase, the firm must classify ESG problems and identify ESG risks and opportunities. Once the initial filter has been completed, the firm must conduct due diligence

and further evaluate ESG risks and opportunities to ensure investment decision-making is fully informed. During this phase, it may be necessary to consult external ESG experts. After full consideration, an ESG action plan should be set. During investment decision making, the action plan is executed and ESG factors are incorporated into the process. Firms that have stewardship protocols should actively communicate ESG expectations with companies in the portfolio, setting ESG expectations and plans for achieving ESG goals. Finally, during postinvestment management, the implementation of the ESG action plan is to be evaluated and recorded, and later disclosed as an ESG report to investors.

As an example, CITIC PE sets different ESG focuses for different industries, sets further ESG requirements for companies it invests in, implements plans for them to achieve ESG goals, discloses annual ESG reports, and even goes so far as to ensure the ESG management system it established can persist after it exits.

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

In China, the ESG integration effort is primarily top-down, with the government and regulators strongly supporting ESG integration.

The central government has repeatedly emphasized ecological and environmental protection and sustainable development. Just last year, in July 2018, at the Eco Forum Global Annual Conference in Guiyang, the congratulatory letter from the head of government established a conviction that "lucid waters and lush mountains are invaluable assets." More recently in December 2018, the Green Finance Committee (GFC) of China Society for Finance and Banking and the City of London's Green Finance Initiative (GFI) jointly published "Green Investment Principles for the Belt and Road" (GIP), aiming to incorporate low-carbon and sustainable development into the Belt and Road Initiative. This national goal of establishing a green financial system is a very strong driver for ESG integration.

In the asset management industry, the Asset Management Association of China (AMAC) has actively promoted ESG investing, conducting industry research, hosting seminars, and providing training sessions. Regulatory action such as "(Trial) Guidelines on Green Investment" issued in November 2018 is a major driving force for ESG development, urging and facilitating ESG integration in asset management firms.

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

Currently, ESG integration efforts are hindered by a lack of information and experienced personnel. Effective ESG integration requires information infrastructure beyond a firm level, including regulatory reporting standards, data integrity standards, and transparency standards, all of which regulators and market participants are working on. The drive for ESG integration is also fairly recent, and therefore there are few experienced personnel. However, Chinese firms are proactively making up for shortcomings by drawing on international experience. Firms are relying on expertise and advisory services of international firms and experts to develop and operate their ESG-related products and processes. Currently, there are 18 UNPRI signatories from China, 11 of whom became signatories in 2018, and there are a lot more who are in the process of becoming signatories just in the fund management industry alone.

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

The government's systematic promotion of ESG integration has increased the amount of information available for equity analysis. Under the backdrop of the government's determined effort to promote ESG, especially environmentalism, the ESG disclosure requirements for companies increase transparency and allow for better analysis of risk and opportunity. CSRC's *Guidelines on Annual Report Content and Format* requires environmental disclosures, and both the Shanghai and Shenzhen stock exchanges (SSE and SZSE) have joined the Sustainable Stock Exchanges Initiative and issued guidance to listed companies on reporting ESG-related information. As such, equity analysts are able to gather more information and make more informed analysis, including policy risks or potential regulatory action on companies, such as when companies listed on these stock exchanges with serious pollution violations were investigated by the stock exchange, CSRC, and the Department of Environmental Protection, resulting in partial suspension of the company's production and arrest of some senior personnel.

However, there are still problems, including an as-yet imperfect information infrastructure and a lack of unified standards. Currently, though there are reporting requirements, there are not reporting standards, and the content has little comparability between peer companies, as most information is in the form of descriptions and less quantitative indicators. As such, the impact of ESG issues on equity analysis will become more apparent as the information structure matures. The China Association for Public Companies is taking the initiative to set up ESG rating standards.

On the credit end, ESG issues have always been a source of risk. Any violations, including environmental ones, set issuers up for litigation and/or penalties which may affect bond prices or even lead to default risk. Similarly, corporate governance issues, including accounting that lacks transparency or poor management, have always been considerations in credit analysis. Especially now that the government is focused on ESG, companies face increasingly heavy penalties for environmental violations or poor corporate governance. Compounded with the fact that a regulatory focus of the past two years has been breaking "rigid payment," credit analysts have to be increasingly aware of ESG issues and their impact on different regions, industries, and companies.

The green bond market has developed a great deal in China in recent years. Can you tell us a bit about the current state of green bonds in China?

Since the establishment of China's Green Finance Committee (GFC) in 2015, China's green bonds market has developed rapidly. Climate Bonds Initiative data shows that, regarding green bonds issuance around the world that adhere to international standards, China's global ranking in terms of green bonds issuance rose from 8th in 2015 (less than 1bn USD) to 1st in 2016 (23bn USD), 2nd in 2017 (22.5bn USD), and 2nd again in 2018 (30.9bn USD). According to GFC data and adjusted for exchange rate at the time of issue, domestic issuance values were RMB 30.6bn in 2016 (approximately 30.6bn USD), RMB 304.5bn in 2017 (approximately 30.5bn USD), and RMB 322.3bn in 2018 (approximately 32.23bn); the difference is accounted for by the differing standards between domestic standards and international standards for "green bonds." From the significantly shrinking difference, we observe that China's domestic standards are rapidly converging on international standards.

The rapid expansion and improvement are the result of a national effort to raise environmental awareness, which has permeated through the strategic decision-making of the government and policies of regulators. It is easy to observe a top-down effort starting from 2015's *Integrated Reform Plan for Promoting Ecological Progress* published by the CPC Central Committee and State Council. The government and regulators have quickly established a regulatory framework guiding the development of the green bond market and the green finance system as a whole, including but not limited to 2016's *Guidance on Green Bond Issuance* published by the National Development and Reform Commission, *Guidance on Building a Green Financial System* issued jointly by seven ministries (including the central bank), and *Notice on the Pilot Program of Green Corporate Bonds* by SSE, 2017's *Guiding Opinions on the CSRC on Supporting the Development of Green Bonds* by CSRC, as well as the establishment of various green finance reform and innovation pilot zones.

The current state of the domestic green bonds market is one of increasing scale and depth. According to GFC data, the volume of green corporate bonds and green debt financing instruments has grown steadily, showing the increasing initiative taken by corporate borrowers in issuing green bonds. The total issuance of green Asset Based Securities (ABS)/green Asset Based Notes (ABN), on the other hand, doubled between 2016 and 2017, but the pace of growth slowed down in 2018.

Both the number and diversity of issuers have steadily increased, with 2016, 2017, and 2018 having 31, 76, and 99 distinct green bond issuers, respectively, with the first A+-rated issuer successfully issuing a green bond in 2018. In terms of the value of green bonds issued, banks initially accounted for 78% of the value in 2016, but have dropped to and remained at around 60% in 2017 and 2018. Cumulatively, banks account for approximately two-thirds of the cumulative value of green bonds issued in China.

In particular, Industrial Bank of China is the most active issuer, having issued RMB 112.6bn in green bonds since 2016. Bank of Communications, Shanghai Pudong Development Bank, and Bank of Beijing have also each issued RMB 50bn in green bonds.

Investors are currently not as enthusiastic about green bonds as issuers. China's regulators have made green bonds easier to issue by opening designated channels and establishing facilitated approval processes, resulting in easier issuance and therefore lower coupon rates. Observing some overseas market practices like subsidized interest rates or tax credits for investing in green bonds, there are no such policies to incentive investors in China. Therefore, green bonds are relatively less attractive to investors as many green bond issuers have also issued nongreen bonds, which have higher coupon rates. As any ESG issue that impacts the issuer will equally affect its green bonds and nongreen bonds, investors have little incentive to choose green bonds over regular bonds. This systematic lack of enthusiasm for investing in green bonds can be observed from the relatively unchanged issuance amount each year. That being said, investors know that green bonds and the green financial system is a focus of the government and are cautiously observing the developments; it is expected that the government will soon be implementing investor incentives to bolster the green bond market.

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

We expect ESG integration to be relatively fast in China as the groundwork is currently being set for it to take off. The top-down driving force of ESG integration is not expected

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to change, and what has taken other markets a long time to implement is expected to be implemented much faster in China. With the government's efforts to establish a green financial system, China's regulatory environment will allow ESG integration to become deeply rooted in China's asset management industry.

Regulators will continue to draw on international experience and formulate policies to build a solid framework on which ESG integration can thrive. At the same time, the information infrastructure of the financial industry will accumulate, accelerated by the opening up of China to the likes of MSCI and FTSE Russell. As the industry's information infrastructure becomes more robust, as information becomes more reliable and transparent, companies will be able to truly develop systematic methodologies for ESG integration.

Initial efforts for ESG integration were mostly focused on the listed companies' end and have since spread to the asset managers' end. We are seeing information infrastructure initiative being taken by regulators and industry associations alike, such as reporting guidelines for listed companies and for asset managers. However, unlike in other markets where asset owners spearhead a lot of ESG integration efforts, asset owners in China have been relatively slow to become involved. When ESG integration becomes a core consideration at all levels, from asset owners to asset managers to listed companies, it will have successfully become a default social principle in China, and that is when it will have significant impact on the country and the world.

INTERVIEW WITH CHINA'S CENTRAL BANK: PEOPLE'S BANK OF CHINA

Interview with Yao Lei, Deputy Director General, Institute of Financial Research, the People's Bank of China.

Why is ESG investing important to China?

Promoting the concept of green development, green finance, and responsible investment, and encouraging market players to consider and implement the ESG principles in the investment process is a key task that China has attached great importance to in recent years.

Internationally, it is a responsibility of China as a responsible major power to promote ESG investment. Being the world's largest developing country, China has taken a growing role and gained increasing influence in global investment and financial markets over the years. It therefore has the duty to promote ESG investment to contribute to tackling climate change by mitigation and adaptation and advancing the sustainable development of the society. At the UN Climate Change Conference held in Paris in November 2015, President Xi Jinping made a commitment that China will achieve its carbon emissions peak in 2030 and strive to achieve it as soon as possible. To realize its commitments under the Paris Agreement, China should actively implement responsible investment by incorporating ESG factors in its overseas investment including the "Belt and Road Initiative," enhance the international community's understanding and recognition of its overseas investment activities, and should promote green development in related regions.

Domestically, promoting ESG investment is an inherent demand for China's economic transformation and upgrading. On the one hand, green development has become an important national strategy in China. Promoting responsible investment by taking into account environmental, social, and governance factors is an important measure to implement the new development concept of "lucid waters and lush mountains are invaluable assets" and build "Beautiful China." On the other hand, ESG investment can provide investors with new strategies and profit margins and help manage increasing environmental and social risks effectively, and therefore is in line with the inherent needs of the market players.

Therefore, in the long run, with the increasing attention of the international and domestic communities toward green and sustainable development, ESG investment will become an increasingly more important and mainstream investment concept.

What are the notable changes of ESG investment in recent years?

In China, the ESG investment concept has gradually emerged alongside the development of the green finance concept. *The Guidelines for Establishing the Green Financial System* jointly issued by the People's Bank of China (PBOC) and other Ministries in 2016 sought to "encourage long-term capital such as pension funds and insurance capital to implement green investment and encourage investors to publish green investment responsibility

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reports." Concepts of green and responsible investment have since then gradually emerged and been getting popular. There are two major advances in recent years.

First, a series of incentives and support measures have been introduced, creating a favorable policy environment for ESG investment. In September 2018, the China Securities Regulatory Commission (CSRC) revised the *Code of Corporate Governance for Listed Companies* and established the ESG disclosure framework. In October, the Shanghai Stock Exchange, as the chair member of the World Federation of Exchanges (WFE) led the development and published the *Principles for Sustainable Exchanges*, which recommends that its member exchanges publish ESG information disclosure guidelines. In November, the Asset Management Association of China (AMAC) released the *Guidelines for Green Investment (Trial)* to guide and standardize the green investment activities of securities investment funds. The *Guidelines* stressed that "ESG responsible investment is an emerging investment strategy for the asset management industry and also important measure for the fund industry to implement green development and build a green financial system."

Second, market players have been showing rising enthusiasm in implementing ESG investment. More and more fund managers pay more attention to ESG factors in their investment process. By the end of 2018, 20 institutions in mainland China have become signatories of the PRI, an increase of 185% year-on-year. The Industrial and Commercial Bank of China (ICBC) also participated in initiating and drafting of the UNEP FI's *Principles for Responsible Banking*. The size of responsible investment funds continues to grow. Take public fund as an example: as of the end of 2018, there were four "social responsible" investment funds with a total asset size of RMB 7.515 billion, and 58 funds investing in areas of low carbon, environmental protection, green development, new energy, Beautiful China, and sustainable development with a total asset size of RMB 31.698 billion. In addition, related index products continue to emerge, providing rich investment options in the market. For example, the China Securities Index Company has launched 39 green and ESG-related indices, covering both stocks and bonds assets.

How does the central bank promote ESG investment and encourage practitioners to consider ESG-related factors in their portfolios?

International experience shows that governments have always played an important role in encouraging institutional investors to make ESG investment, which is the same in China. The PBOC, as an advocate and promoter of green finance and responsible investment, also plays an active role in promoting ESG investment and has done so through several initiatives.

The first is establishing a standard system to promote the standardized development of ESG investing. In 2018, the PBOC led the establishment of the Green Finance Standards Working Group to study and build domestically harmonized, internationally convergent, clear, and implementable green finance standards system. ESG rating standards and related environmental information disclosure standards are the key tasks of the Working Group. The collaborative study and work between regulators and market players for developing scientific-based, fair and implementable ESG investing standards will lay the foundation for the subsequent introduction of incentives measures, and ultimately benefits the standardized and enduring development of responsible investment.

The second is improving the incentive mechanism and encouraging financial institutions to pay attention to ESG factors. Since 2017, the PBOC has incorporated the green credit performances of the deposit-taking institutions into the macro-prudential assessment (MPA), incentivizing financial institutions to actively expand green credit business and increase financial support to environmentally friendly projects. An important dimension for evaluating green credit performance is the ESG performance of the financial institutions.

The third is emphasizing the ESG concept in developing the local green finance reform and innovation pilot zones. In 2018, the PBOC encouraged the financial institutions in the pilot zones to pilot mandatory environmental information disclosure. The disclosure contents and format were studied and determined by using the self-regulatory mechanism of the green finance industry. Financial institutions could force corporates to disclose information and operate responsibly by disclosing their own ESG information.

The fourth is actively promoting and disseminating the green finance concepts, policies, and best practices through multilateral and bilateral frameworks such as G20, central bank and regulatory green financial network (NGFS), and China-UK Economic and Financial Dialogue. For example, pushing the central bank to implement the ESG concept in its own investment process is a priority of NGFS's work this year.

In the next step, the People's Bank of China will continue to vigorously support ESG investment, not only to popularize and promote the ESG investment concept in China, but also by aligning with key strategies such as the Belt and Road Initiative to actively implement responsible investment in the international investment process and enhance the level of sustainable development of the relevant regions. On the one hand, PBOC will take more consideration of the ESG factors into the central bank's investment portfolios and decision-making, and improve the implementation of the responsible investment principles in the international investment. On the other hand, PBOC will work together with the regulators to continue improving the policy framework, actively cultivate responsible investors groups, encourage market players to develop and invest in ESG products, and grow the ESG investment market.

How do you think ESG investing will develop in China in the next few years?

Looking ahead, ESG investment is promising in China. On the one hand, ESG investment has a huge "blue ocean" market. Green development has been raised as an important national strategy: winning the battle against pollution is one of the three major tasks for building a well-off society in the new era, and the traditional investment and economic growth mode with high pollution and high consumption is not sustainable. Under this context, responsible investment being increasingly in line with the economic restructuring, the demand for ESG investment will continue to grow. According to the research of the Ministry of Ecology and Environment and the China Council for International Cooperation on Environment and Development, China's green investment demand during the 13th Five-Year Plan period will reach 3-4 trillion yuan per year. On the other hand, ESG investment is more in line with the ecological environmental protection requirements of the local and social subjects.

In 2016, the General Office of the CPC Central Committee and the General Office of the State Council issued the "Measures for the Evaluation and Assessment of the

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Objectives of Ecological Civilization Construction." The evaluation of the local governments by the central government has shifted from focusing on economic indicators to including multiple objectives such as ecological civilization construction. In 2018, China began to try out the compensation system for ecological environmental damage. In January 2019, the Supreme People's Procuratorate and another 10 departments issued the "Opinions on Strengthening Collaboration in the Prosecution of Public Interest Litigation and Coordinating the Fight against Pollution by Law," which will significantly increase the environmental risks faced by various institutions. It is foreseeable that ESG investment will be implemented by more and more local governments and market players, especially the social security funds, insurance funds and other long-term funds. In addition, China is actively progressing the Belt and Road Initiative. With a strong sense of responsibility for protecting the environment of the countries involved and building a community of common destiny, China endeavors to build a green and harmonious Belt and Road that benefits all.

The Belt and Road construction should adhere to the sustainability principles, attach great importance to ESG factors in the investment process, and take into account of multiple objectives including economic growth and environmental protection. Therefore, with the further increase of international investment such as the Belt and Road Initiative, the Chinese government will further encourage domestic entities to implement ESG investing and promote mainstreaming of ESG investing.

With the great effort and active support of all parties, ESG investment will become an increasingly mainstream investment concept in China with improved supporting policies and relevant standards, enriched products, and growing investors groups and therefore become a key driving force to the sustainable development of China and the global economy.

SECTION 4

MARKET ANALYSIS: HONG KONG SAR, CHINA

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 Hong Kong SAR investors consider that environmental, social, or governance issues affect share prices and bond yields in the Hong Kong SAR capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Corporate governance is currently the ESG factor most impactful to share prices and bond yields, but this dynamic is set to change, according to survey respondents. Environmental and social factors are likely to impact share prices and bond yields much more by 2022, according to Hong Kong SAR financial professionals (Table 13).

TABLE 13: 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	71%	80%
Environmental	30%	64%
Social	33%	63%
ESG Issues Impact on Corporate Bond Yields/Spreads		
Governance	49%	67%
Environmental	18%	51%
Social	21%	49%
ESG Issues Impact on Sovereign Debt Yields		
Governance	44%	53%
Environmental	19%	44%
Social	30%	46%

Note: Percentages represent respondents who answered "often" or "always."

ESG RISKS AND OPPORTUNITIES

Respondents in Hong Kong SAR were asked how often ESG risks and opportunities affect share prices and bond yields in Hong Kong SAR capital markets (**Table 14**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for shares and bonds, while social risks and opportunities are seen as or more important than environmental risks and opportunities.

TABLE 14: 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	34%
Environmental opportunities	25%
Social risks	33%
Social opportunities	28%
Governance risks	70%
Governance opportunities	41%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	19%
Environmental opportunities	18%
Social risks	26%
Social opportunities	16%
Governance risks	37%
Governance opportunities	26%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	23%
Environmental opportunities	16%
Social risks	28%
Social opportunities	25%
Governance risks	40%
Governance opportunities	35%

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Hong Kong SAR practitioners, the survey asked how often Hong Kong SAR portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Very few survey respondents say that they "often" or "always" include ESG issues in their analyses (**Figure 14**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 15**).

FIGURE 14: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

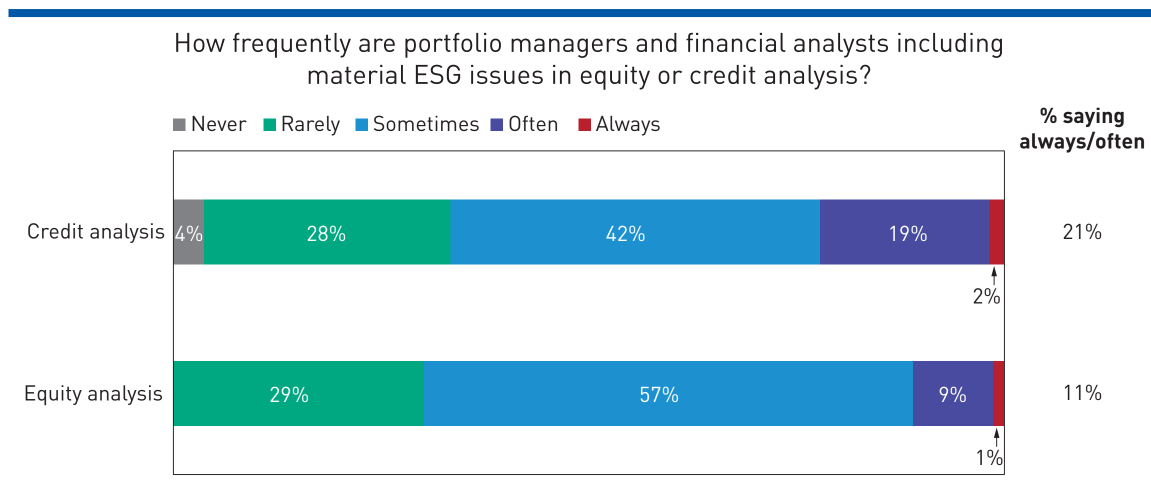
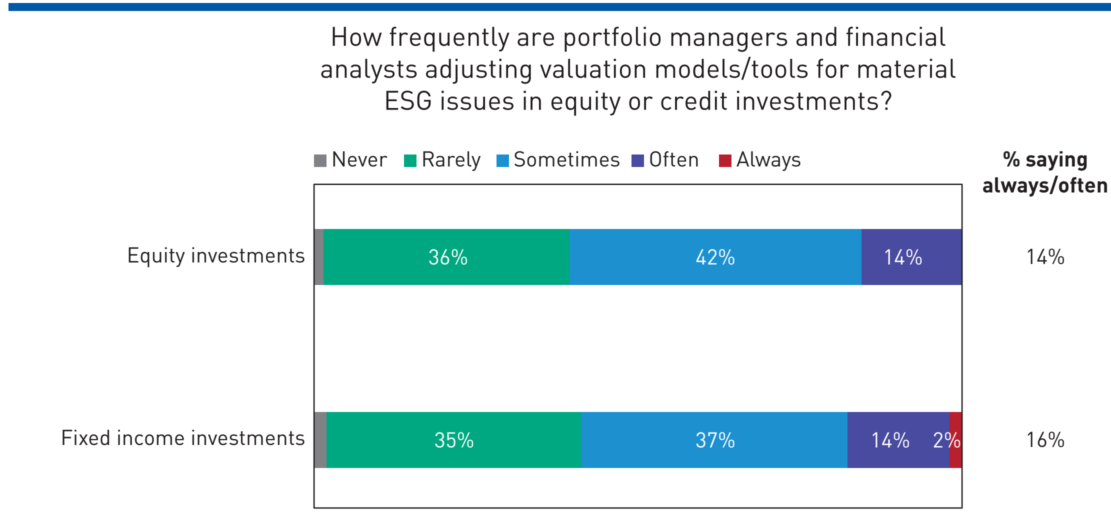


FIGURE 15: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank Deloitte for its help in organizing our ESG Integration workshops in Hong Kong SAR. With their assistance, we were able to work with investors and analysts to better understand the current state of ESG integration.

Deloitte.

THE STATE OF ESG INTEGRATION IN HONG KONG SAR

Workshop participants noted that there is a growing awareness of ESG in Asia but a relatively low level of ESG integration in Hong Kong SAR. Asia hasn't completely bought into it yet and needs proof of alpha and a stronger framework around ESG before ESG integration becomes more widespread.

There was agreement among workshop participants that governance is the most broadly material ESG input, while social and environmental factors are seen as more long-term data inputs in the investment process.

Governance is the main factor. The price differential between good companies and bad companies can be quite obvious. Environmental and social factors are expected to come more and more into play over time. Social issues are more of a priority than environmental issues in Asia. Therefore, their impact will be felt sooner than environmental issues. That said, environmental issues, such as the green finance initiatives by China and more recently Hong Kong SAR, are becoming more important to regulators.

> *There was agreement among workshop participants that governance is the most broadly material ESG input, while social and environmental factors are seen as more long-term data inputs in the investment process.*

One participant noted that environmental issues have a long-term impact, but environmental regulations can have an immediate impact, and therefore companies should be prepared. While environmental issues are a growing investment risk, their influence over the markets is likely to grow in the medium to long term.

There was also a concern about greenwashing among the group, with participants noting that a lot of companies view ESG as a compliance issue and therefore treat it as a tick-box exercise so they can say that they are ESG-compliant. For some companies, it is less about looking at ESG issues to understand how to manage them strategically and to finding best practices than it is a public relations exercise.

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Participants realize that ESG integration is not a simple process and that investors need to look deeply at companies and their practices to understand the ESG risks and opportunities that affect valuations.

CREDIT ANALYSIS VERSUS EQUITY ANALYSIS

There was consensus among the group that there is more integration in equities than in fixed income in the Hong Kong SAR market. One group said that more is happening in equities as it is easier to do, and there is less happening in corporate bonds, as bonds are still rated based on traditional factors that have a dominant influence on credit risk and credit ratings.

One participant would like to see more from the credit rating agencies (CRA) on ESG issues, as that can increase ESG integration in credit and sovereigns. Boutique firms suffer from a lack of ESG knowledge and expertise and don't integrate ESG, as they are mainly bond investors and they are reliant on CRAs. CRAs need to provide specific details on ESG issues and their impact on issuers' creditworthiness.

ESG INTEGRATION AND PERFORMANCE

It is hard to prove ESG issues impact prices. The clearest way to see the impact is in downside risk, especially tail events that cause significant destruction of value. It is harder to isolate and identify an ESG factor that has contributed to a positive sustainable performance, mainly because the performance is likely to be due to multiple factors that contribute to company performance, quality and operation, not just ESG factor(s).

Another investor noted that ESG integration may have long-term momentum on its side. Asset flows impact prices, not just fundamentals. As more and more ESG investors are going into the market seeking ESG products, they are pushing up the prices of good ESG companies. ESG investors are likely to direct the flow of capital to investments with good ESG performance and away from investments with bad ESG performance, which pushes the prices up for good ESG companies and markets and pushes them down for bad ESG companies and markets. Over time this may cause a dislocation between the market value of a company versus an accurate fundamental value of a company.

It is hard to prove ESG issues impact prices. The clearest way to see the impact is in downside risk, especially tail events that cause significant destruction of value. It is harder to isolate and identify an ESG factor that has contributed to a positive sustainable performance.

It is also important to consider when ESG factors will impact prices and valuations. ESG factors can either have long-term influences over prices or they can have an instant, large, one-off impact over prices. Over the short-term investors tend to only look at risk, but over the long term they open themselves up to ESG opportunity. An environmental

risk can be turned into an environmental opportunity when, say, a company manages its environmental risk well. This provides investors with investment opportunities.

As is the case in most markets, some investors need to see more information on the quantifiable link between performance and ESG. Fundamental research will help increase ESG in Asia. It seems the track record or historic background for ESG is not there to make it a case to encourage or convince investors on ESG. More proof will help incentivize people to do ESG. The asset management industry is very return driven and, as it is hard to quantify ESG, it is difficult to show the return element of ESG.

ISSUES ARE SECTOR SPECIFIC

Workshop participants noted that ESG issues, especially environmental and social issues, are sector-specific and company-specific, which means their weightings change for each sector and company. Environmental issues are more important in the energy and resource sectors, whereas social factors are more relevant in the data-intensive and customer-intensive sectors.

One participant asked whether we are valuing ESG risk properly. There are examples where impact events are hitting share prices and bond prices such as Equifax. But how are investors assessing the risk of these events happening in their valuations and models? The consensus in this group is that ESG issues will have an impact on prices but calculating an accurate value of companies based on traditional factors and ESG factors is difficult. It is less clear how this is done by investors.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 15** and **16**.

Drivers

Risk management and client demand were the main drivers of ESG integration in Hong Kong SAR, as they are in most markets. One participant noted that risk management and client demand can be considered the same by many investors, i.e., clients are demanding that investment managers monitor ESG risks.

This client demand is only likely to increase, as there is a rising awareness for ESG, which is market driven. Institutional investors and some retail investors want ESG investments. The demographics are changing across Asia, increasing the demand.

One thing not included in our survey in the list of drivers is “principle”—doing ESG integration because is the right thing to do. Lots of investors do it for the principle. No investors want to invest in companies that have horrendous social or environmental practices.

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TABLE 15: DRIVERS OF ESG INTEGRATION IN HONG KONG SAR CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	63%	Risk management	68%
Client demand	34%	Client demand	35%
Regulation	33%	Regulation	30%
Fiduciary responsibility	26%	Fiduciary responsibility	21%
Generate alpha	13%	Generate alpha	12%

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

Barriers

A limited understanding of ESG integration and ESG issues was the top barrier to ESG integration in Hong Kong SAR.

Education, awareness, and leadership were seen as significant issues. Investors aren't knowledgeable of ESG but awareness of it is on the rise. There is a need for more education on ESG in professional qualifications and university courses. There is a need to educate companies on how to translate ESG from a corporate perspective to an investor "materiality" perspective. It is also the case that investors need to learn how to clearly articulate material ESG issues to companies and how they would like to be communicated. Both speak a different language; for example, companies talk of CSR and investors talk of ESG.

A limited understanding of ESG integration and ESG issues was the top barrier to ESG integration in Hong Kong SAR.

The definitional problem around ESG integration was also a concern. There are lots of definitions and no common standards. There is a need for a taxonomy and better definitions. There is a need for an understanding of how investors price ESG.

The lack of comparable and historical data was cited as a concern by a number of participants. There is low level of disclosure on company ESG metrics. It is hard to find the information. Companies may not disclose all the information. Investors have to spend time also to assess which ESG information is relevant. Comparability of data is also an issue. In some instances, there is little data, and in other cases there is a lot but you don't know what it means and you can't benchmark it. No assurance of data means you have to take the data as gospel, which could be misrepresenting the value of the company. Participants asked whether that approach was wise.

TABLE 16: BARRIERS TO ESG INTEGRATION IN HONG KONG SAR CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Limited understanding of ESG issues	45%	Limited understanding of ESG issues	42%
Lack of comparable and historical data	39%	Low client demand	42%
Lack of company culture	37%	Lack of comparable and historical data	39%
No evidence of investment benefits	30%	No evidence of investment benefits	28%
Low client demand	25%	Lack of company culture	26%

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

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TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (*For more information, see "Appendix: Methodology."*)

Figure 16 shows the number of listed companies domiciled in Hong Kong SAR per sector that report on ESG factors and the breakdown of environmental, social, and governance factors. The total number of listed companies with a market cap of more than USD 1 billion is 204, with 68.1% of these companies reporting on ESG factors. The two largest sectors are consumer discretionary (43 companies) and financials (70 companies), with all other sectors consisting of less than 20 companies. Looking at companies reporting on ESG factors, the coverage is highest in some of the smaller sections, i.e., communications (90.0%), consumer staples (86.7%), energy (83.3%), materials (80.0%), and utilities (86.7%). The three largest sectors, consumer discretionary, financials, and industrials, are characterized by less coverage of ESG reporting at 69.8%, 61.4%, and 57.9%, respectively. The health care and technology sectors have the lowest coverage of ESG reporting at 28.6% and 55.6%, which takes them both under the minimum number of companies to be included in the ESG data analysis. Even though the energy sector's coverage of ESG reporting is high, the sector is very small and also falls under the limit.

When zooming in on the coverage of environmental, social, and governance reporting, all companies with an ESG disclosure score report on governance factors. The coverage of social and environmental factors is also very high. For instance, in the communications sector, 9 of 10 companies report on ESG factors, whereas 8 of 10 report on social and environmental factors, respectively. The consumer discretionary, consumer staples, financials, and industrials sectors all have slightly higher coverage of social reporting than environmental, going from 60.5% to 58.1% in consumer discretionary, 80% to 60% in consumer staples, 60% to 54.3% in financials, and 52.6% to 47.4% in industrials.

FIGURE 16: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN HONG KONG SAR

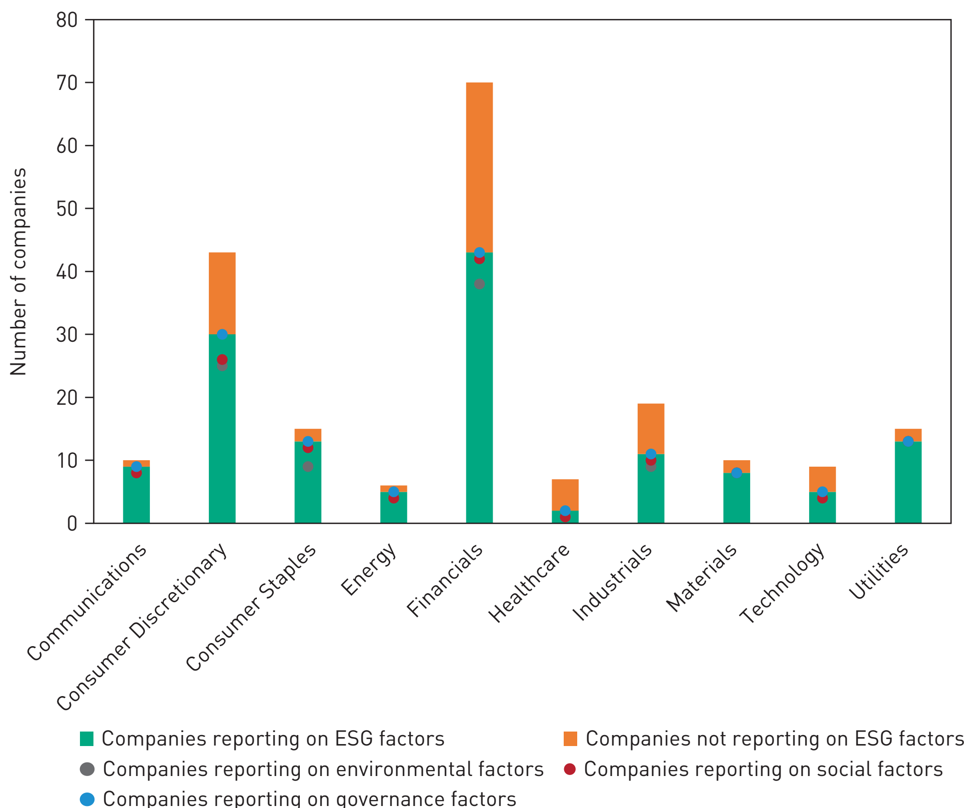

Figure 17 shows the development of the median ESG disclosure score from 2011 to 2016 for listed companies in Hong Kong SAR. As mentioned, the energy, health care, and technology sectors have been excluded, as the sectors are too small. The rest of the 10 sectors clearly show a large increase in ESG reporting from 2011 to 2016. All sectors have seen improvements, although the increase differs across sectors. The financial sector had the highest median ESG disclosure score both in 2011 and 2016 and almost saw a doubling in score from 18.8 to 34.3. The second highest absolute increase happened in the consumer staples sector, which went from having the lowest score in 2011 at 11.16 to the second lowest in 2016 at 23.67, which means that the median score more than doubled. The communications and utilities sectors increased from 14.88 to 27.16 and 15.5 to 26.86, showing large increases and ending as the sectors with the second and third highest median ESG disclosure scores in 2016. Compared with the rest of the sectors in Hong Kong SAR, the industrials and materials sectors showed lower growth in median ESG disclosure scores, as they went from 17.77 to 25.62 and 13.43 to 21.07, respectively. For the industrials sector, they went from having the second highest score in 2011 to the fourth highest in 2016, whereas the materials went from having the second lowest score in 2011 to the lowest

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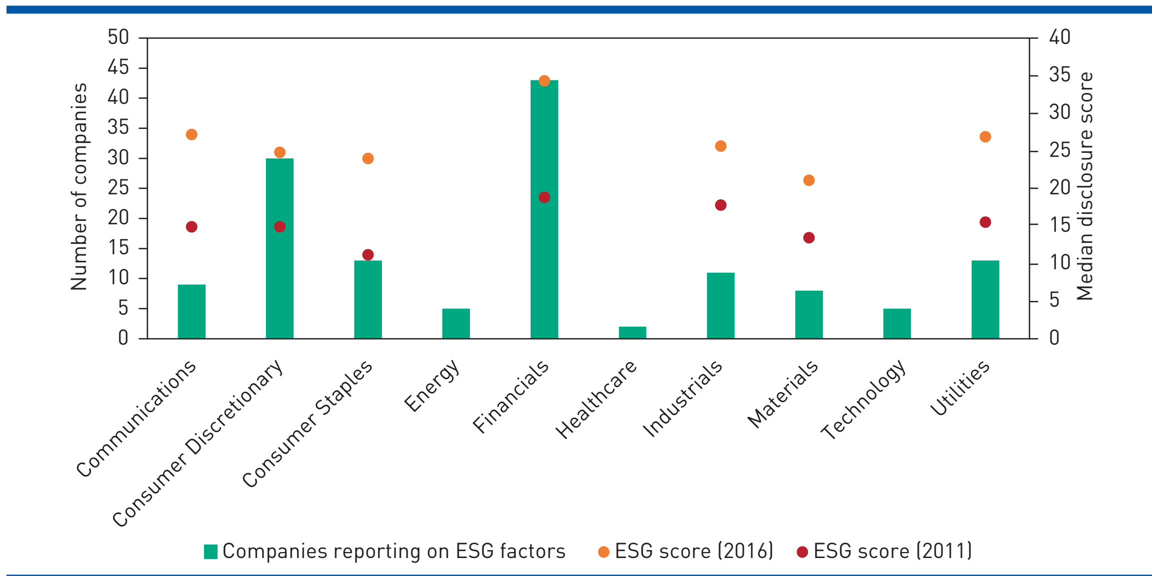
FIGURE 17: MEDIAN 2011 AND 2016 ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN HONG KONG SAR

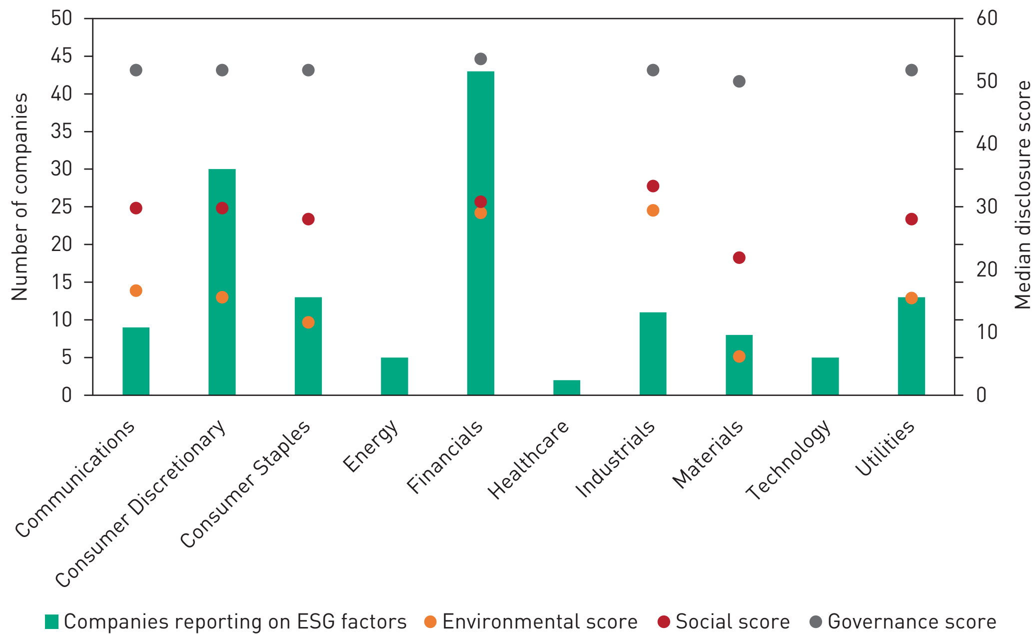


median ESG disclosure score in 2016. Interestingly, the scores do not seem correlated to the number or coverage of ESG disclosure scores for the different sectors.

Figure 18 shows the breakdown of the 2016 median environmental, social, and governance scores for listed companies based in Hong Kong SAR. As with all other markets, the governance score is the highest in all sectors. Furthermore, the social score is higher than the median environmental disclosure score in all sectors. Starting with the governance score, the score for the communications, consumer discretionary, consumer staples, industrials, and utilities sectors is 51.79, indicating high standardization in governance disclosure in Hong Kong SAR. The financial sector scores a bit higher at 53.57 and the materials sector a bit lower at 50.

The median social disclosure score is also standardized across sectors, although not to the same degree as governance reporting. The materials sector falls behind other sectors with a median social disclosure score of 21.93. The consumer staples and utilities sectors both have median scores of 28.07, and the communications and consumer discretionary sectors have a score of 29.82. The highest-scoring sectors are financials and industrials at 30.83 and 33.33, respectively. These are also the two sectors with the lowest difference between social and environmental reporting, as the median environmental disclosure scores for financials and industrials are 29.07 and 29.46. The sector with the third highest median environmental disclosure score is the communications sector at 16.68, and the consumer discretionary (15.63) and utilities (15.50) sectors are not far behind. The two sectors with the lowest environmental disclosure scores were also the sectors with the lowest overall median ESG disclosure score, i.e., consumer staples and materials. Their median environmental scores were at 11.63 and 6.20, respectively.

FIGURE 18: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN HONG KONG SAR IN 2016



To sum up, the proportion of companies in Hong Kong SAR reporting on ESG factors is the second lowest in APAC at 68.1%. However, it is the only market where the median governance disclosure score of the companies that do report on ESG factors is at 50 or above in all sectors. It is also the only market where the financial sector has the highest median ESG disclosure score as well as highest or second highest environmental, social, and governance disclosure score.

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INTERVIEW WITH THE HONG KONG SECURITIES AND FUTURES COMMISSION—A MAJOR FINANCIAL REGULATOR IN HONG KONG SAR

Interview with Christine Kung, Senior Director, Head of International Affairs at the Hong Kong Securities and Futures Commission

Why is ESG investing important to Hong Kong SAR?

Globally, green finance has gathered momentum since the Paris Agreement, which calls for "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." This is particularly relevant since the Paris Agreement also applies to Hong Kong SAR, and mainland China has made green finance an important priority as it transitions to a sustainable economy.

Mainland China and Europe have been taking the lead in pursuing a common goal of establishing a green financial system. As China's international financial centre, Hong Kong SAR is well-positioned to connect green finance flows between the Mainland and the rest of the world, and complement the Mainland's green finance development.

Given the expansion of the mutual market access, we recognize that Hong Kong SAR needs to properly align itself with the Mainland's ambitious initiatives on green finance. It is imperative for Hong Kong SAR to have a comprehensive ecosystem for green finance, and to enhance its green finance cooperation with the Mainland and overseas jurisdictions. This would require Hong Kong SAR to be at the forefront of global development in green finance, and to go beyond green bond issuance to cover ESG investing and other important aspects such as environmental and climate-related disclosures.

What changes have you seen with regard to ESG investing during recent years?

We have seen a noticeable increase during 2018 in the number of new fund applications and applications for a change of investment strategy to adopt an ESG investment theme. Currently, there are over 20 SFC-authorized funds with an investment focus on climate, green, environmental, or sustainable development. On April 11, 2019, the Securities and Futures Commission (SFC) issued a circular to provide guidance to management companies of SFC-authorized unit trusts and mutual funds on enhanced disclosures for SFC-authorized green or ESG funds.

Is ESG investing popular among local investors? Are foreign investors influencing local ESG practices?

As part of our initiatives under the SFC's Strategic Framework for Green Finance, the SFC is working closely with the Investor and Financial Education Council to support investor awareness of and capacity building in green finance and investment-related matters. On March 15, 2019, the Investor and Financial Education Council launched a dedicated web page on The Chin Family website to introduce green finance to the general public. The SFC will also create a central database of SFC-authorized green or ESG funds on its website to enhance the visibility of these funds.

Foreign investors do play an important part in influencing local ESG practices. Many institutional investors who participate in Hong Kong's markets are becoming more vocal in asking ESG-related questions as part of hiring or retaining asset managers.[1]

How do you see your role as the regulator of financial market in promoting ESG investing? How are you encouraging practitioners to consider ESG factors into their portfolios?

As a regulator, we approach green finance a bit differently from the others. A few years ago, one would say it's a corporate social responsibility to invest responsibly or to reduce pollution. There has been a shift—it is often said that more frequent unusual weather and climate events globally, such as extreme temperatures, wildfires, floods, and storms, are increasingly disrupting resource availability, production capacity, supply chains, and increase business operational and maintenance costs. These could affect energy and commodity prices, corporate bonds, equities, and derivatives contracts, and may lead to a reappraisal of prices of certain sectors.

If the environment and climate change are giving rise to financial risks, are those risk factors properly assessed and managed? Another question is whether there should be greater transparency of these risks and greater disclosure on how these activities are being handled by asset managers.

As part of the SFC's Strategic Framework for Green Finance announced in September 2018, we have launched a survey on March 29, 2019 to better understand the current practices of licensed asset managers on how they integrate environmental and climate factors into their investment, risk management processes, post-investment ownership practices, and disclosure. The survey covers asset managers of different types and sizes, as well as those using different investment strategies. A similar survey will also be conducted among asset owners who participate in Hong Kong's financial markets. Based on the survey outcome, we will consider appropriate policies, codes, and guidance in relation to how and to what extent asset managers disclose the integration of ESG factors into their investment and risk analysis processes.

[1] Hong Kong Securities and Futures Commission. "Strategic Framework for Green Finance," September 21, 2018. https://www.sfc.hk/web/EN/files/ER/PDF/SFCs%20Strategic%20Framework%20for%20Green%20Finance%20-%20Final%20Report%20(21%20Sept%202018.pdf.

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Are companies taking sustainability issues seriously? What are the requirements on ESG reporting for companies?

In 2013, The Hong Kong Exchanges and Clearing Limited (HKEX) introduced the ESG Reporting Guide (Appendix 27 to the Listing Rules) as a voluntary guide. Following a market consultation in 2015, the Listing Rules were amended to require issuers to report on ESG matters in accordance with the disclosure requirements of the ESG Guide on a "comply or explain" basis. The ESG Guide contains 11 Aspects under two subject areas: three Aspects under "Environmental" and Eight aspects under "Social," The amendments came into effect in two phases:.

Phase 1: For financial years commencing on or after 1 January 2016, each aspect requires general disclosures on a "comply or explain" basis about the issuer's policies, and in some cases, information on compliance with the relevant laws and regulations that have a significant impact on the issuer.

Phase 2: For financial years commencing on or after 1 January 2017,, the "comply or explain" requirement to report on the key performance indicators under "Environmental" became effective

Recent reviews by the HKEX[2] and the industry[3,4] both called for enhanced board involvement in ESG reporting. ESG is a governance matter, and the tone has to be set from the top. Studies also show that a majority of companies still do not consider ESG as a principal risk. ESG risks are not widely discussed, and disclosures do not focus on material issues. Also, many ESG reports fail to provide a balanced view, as they focus more on positive achievements.

There is an increased demand for effective ESG reporting frameworks as more market participants become interested in sustainable economic development. As a result, the SFC signed up as a supporter of the disclosure recommendations of the international Task Force on Climate-related Financial Disclosures (TCFD), and the HKEX recently updated its guidance on ESG reporting, taking into account the TCFD's disclosure recommendations. The HKEX has reviewed the ESG reporting framework in Hong Kong SAR and conducted soft consultation with a number of stakeholders on proposed changes to the Listing Rules/ESG Guide. HKEX is finalizing a draft consultation paper with a view towards consulting the market in mid-2019.

[2] HKEX Group. "Analysis of Environmental, Social and Governance Practice Disclosure in 2016/2017." May 2018https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Other-Resources/Exchanges-Review-of-Issuers-Annual-Disclosure/ESG-Guide/esgreport_2016_2017.pdf?la=en.

[3] KPMG. "The ESG Journey Begins." November 2017. https://assets.kpmg/content/dam/kpmg/cn/pdf/en/2017/11/the-esg-journey-begins.pdf.

[4] EY. "A Review of Hong Kong Listed Companies' Progress in Environmental, Social and Governance (ESG) Disclosure." October 2018. https://www.ey.com/cn/en/newsroom/news-releases/news-2018-ey-a-review-of-hong-kong-listed-companies-progress-in-esg-disclosure.

How will ESG investing develop in Hong Kong SAR over the next few years?

Mainland China has made green finance an important priority as it transitions to a sustainable economy. It is also part of the Outline Development Plan for the Guangdong-Hong Kong SAR–Macao Greater Bay Area to support the development of Hong Kong SAR into a green finance center in the Greater Bay Area.[5] This is a valuable opportunity for Hong Kong SAR to position itself as China's international financial center to complement the Mainland's green development ambitions and to connect green finance flows between the Mainland and the rest of the world.

Hence, any credible plan for Hong Kong SAR to develop green finance would need to be comprehensive and far reaching. Various authorities and organizations in Hong Kong SAR have been formulating policies and initiatives which aim at developing a comprehensive ecosystem for green finance. ESG investing will be a core part of this ecosystem, and it is important that asset managers start integrating environmental and climate change considerations into every aspect of their own strategic direction, governance, management of risks and opportunities, and disclosure.

[5] Greater Bay Area, Hong Kong. "Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area." February 2019. https://www.bayarea.gov.hk/filemanager/en/share/pdf/Outline_Development_Plan.pdf.

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INTERVIEW WITH A HONG KONG SAR MAJOR MARKET PLAYER: FINANCIAL SERVICES DEVELOPMENT COUNCIL

Interview with Laurence Li Lu-jen, Chairman at the Financial Services Development Council (FSDC)

What does ESG integration mean to you?

ESG integration is a rather broad term that refers to the use of ESG data/information in the investment decision-making process, may it be at the portfolio or at the investor level. It is one of the many globally recognized approaches to sustainable investing.

What is the state of ESG integration in Hong Kong SAR?

In terms of ESG reporting, Hong Kong SAR is not a late starter within the region, and indeed with a particular focus on corporate governance reporting, Hong Kong SAR can crown itself as one of the pioneers. However, we should also note that the competition in this regard has become unprecedentedly stronger in the last few years.

Against the backdrop that sustainable investment has globally shifted from a niche area of investment into the mainstream, Hong Kong SAR should step up the efforts in improving the ESG performance and ESG reporting (of companies), as well as the overall ESG investment ecosystem.

What is the role of the Financial Services Development Council in the Hong Kong SAR market, and what is the FSDCs role in ESG integration in Hong Kong SAR?

As a high-level, cross-sectoral advisory body to the Hong Kong SAR Government, the FSDC has the mission to engage the industry in formulating proposals to promote the further development of Hong Kong SAR's financial services industry.

ESG is one of the matters that the FSDC has been keen to look into. We published a paper on green finance in 2016 and then a paper on ESG strategy a few months ago. Going forward, we will continue to organize events with industry associations and other stakeholders to present the value proposition of ESG integration, with an aim to promoting the joint efforts of the public and private sectors for the further development of an ESG investment ecosystem in Hong Kong SAR.

The FSDC recently wrote a paper on ESG strategy in Hong Kong SAR. Could you tell us how this report came about and what recommendations it makes?

Sustainable investment has become one of the fastest growing areas in recent years. The FSDC believes Hong Kong SAR needs a comprehensive ESG strategy in order to stay competitive as a preferred international financial center. In view of this, a working group was formed in early 2018 to study the subject matter, and subsequently the ESG paper was issued in November of the same year.

The paper seeks to present a number of recommendations on the part of the policymakers, including (1) the Government to take the leadership role in encouraging public funds' support for ESG integration, (2) the Hong Kong Monetary Authority to scale up ESG requirements on their external investment managers, (3) the Mandatory Provident Fund Schemes Authority to incorporate ESG factors into its trustee approval and monitoring process and to encourage trustees to take into account international ESG standards, (4) the Securities and Futures Commission (SFC) to strengthen the emphasis on ESG through upgrading the Principles of Responsible Ownership to at least "comply or explain," (5) the SFC and the other regulators to provide more guidance on ESG thematic investment products, and (6) the Hong Kong Stock Exchange to strengthen the emphasis on ESG for both listing applicants and listed companies.

With this being said, the effort of the private sector is also crucial in developing a robust ESG investment ecosystem in Hong Kong SAR.

What organizations in Hong Kong SAR are doing a good job at ESG integration and what still needs to be done?

Instead of pinpointing a few organizations, I'd rather to share my observation that ESG integration has become more widespread in the last few years in Hong Kong SAR, both in terms of companies' adoption and quality of ESG reporting and in terms of the investors' awareness of the importance of ESG integration. For the further enhancement of this ESG investment ecosystem, different key stakeholders should collaborate and cooperate—for example, financial investors can be more expressive for their demand in the types of ESG information while investee companies should keep on improving the quality of their ESG disclosure. Other stakeholders, such as policymakers and the large cluster of services providers (including sell-side researchers/brokers, ESG index publishers, and ESG analysis providers) also play a pivotal role.

What do you see as the benefits of ESG integration?

As proven by a series of studies and track records, ESG integration enables financial investors and investee companies to enjoy enhanced risk-adjusted returns through identification, mitigation or management of key risks. According to some findings, high ESG-rated companies generally experience lower levels of beta and thus lower costs of capital. Further, ESG integration helps attract new sources of capital and assets under management (AuM). Globally, financial investors have increasingly expressed a commitment to adopt ESG integration, which opens unprecedented sources of capital and assets to companies with a strong ESG profile.

What are the drivers and barriers to ESG integration in Hong Kong SAR?

The benefits of ESG integration I have just mentioned are definitely drivers to ESG integration in Hong Kong SAR. Meanwhile, the regulatory push is also a possible cause for the uptake of ESG integration.

According to a number of surveys, the board's commitment to ESG, possibly due to a lack of discussions on the board's role in the ESG reports, is one of the key obstacles for the companies in Hong Kong SAR to improve their disclosure quality. Knowledge in conducting ESG integration (for example in terms of doing materiality assessment) and the cost incurred in adopting ESG integration are also some common barriers.

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SECTION 5

MARKET ANALYSIS: INDIA

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 Indian investors consider that environmental, social, or governance issues affect share prices and bond yields in the Indian capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Corporate governance is currently the ESG factor most impactful to share prices and bond yields, but this dynamic is set to change, according to survey respondents. Environmental and social factors will nearly catch up to governance factors as far as impact on market prices by 2022 (**Table 17**).

TABLE 17: 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	66%	76%
Environmental	29%	61%
Social	29%	55%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	48%	64%
Environmental	30%	55%
Social	30%	45%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	36%	64%
Environmental	32%	59%
Social	27%	59%

Note: Percentages represent respondents who answered "often" or "always."

ESG RISKS AND OPPORTUNITIES

Respondents in India were asked how often ESG risks and opportunities affect share prices and bond yields in Indian capital markets (**Table 18**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for shares and bonds, although environmental risks and opportunities are seen as just as important as governance risks and opportunities when it comes to sovereign bonds.

TABLE 18: THE IMPACT OF ESG RISKS AND OPPORTUNITIES ON SHARE PRICES, CORPORATE BOND YIELDS/SPREADS, AND SOVEREIGN DEBT YIELDS

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	29%
Environmental opportunities	29%
Social risks	29%
Social opportunities	26%
Governance risks	61%
Governance opportunities	53%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	41%
Environmental opportunities	32%
Social risks	36%
Social opportunities	32%
Governance risks	59%
Governance opportunities	41%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	50%
Environmental opportunities	41%
Social risks	32%
Social opportunities	23%
Governance risks	50%
Governance opportunities	41%

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Indian practitioners, the survey asked how often Indian portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Very few survey respondents say that they "often" or "always" include ESG issues in their analyses (**Figure 19**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 20**).

FIGURE 19: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

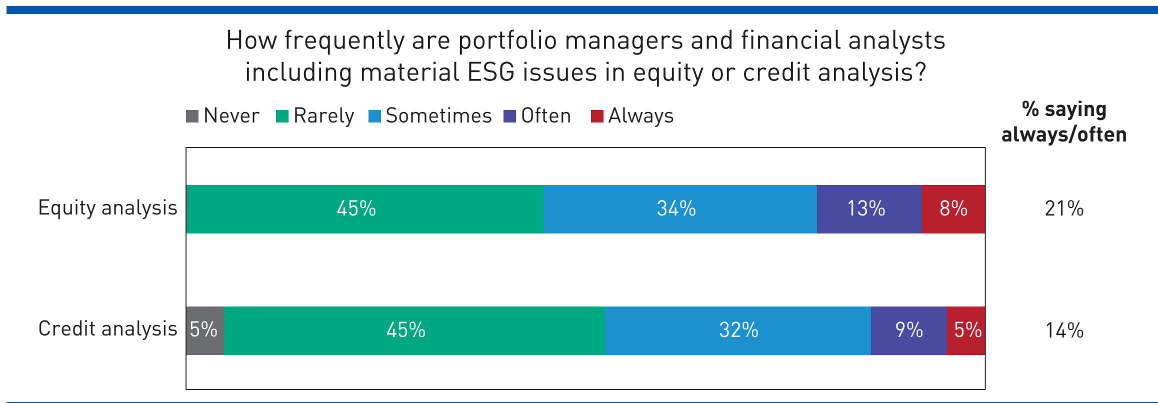
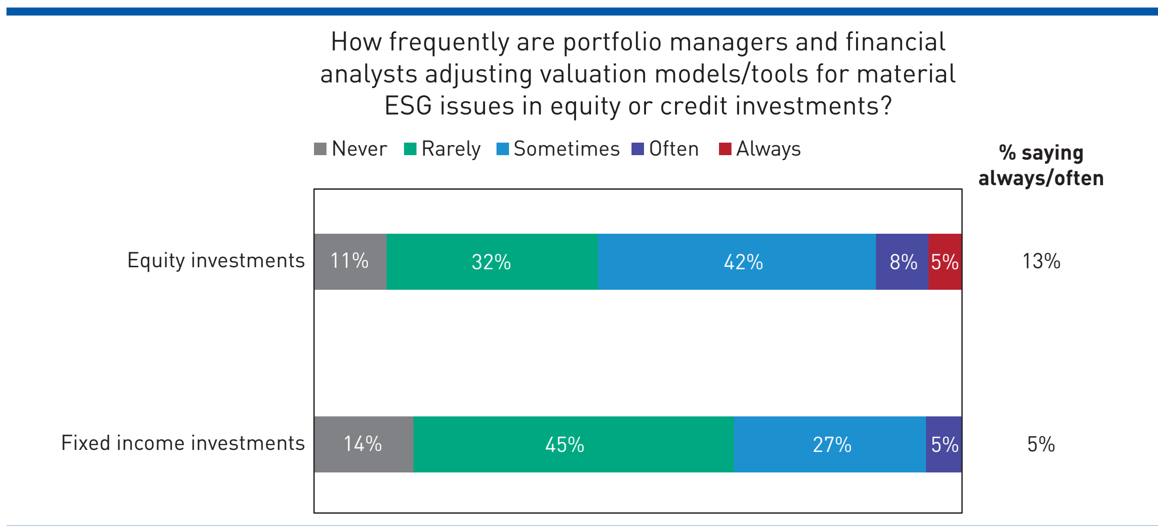


FIGURE 20: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank the Bombay Stock Exchange for its help in organizing our ESG Integration workshops in India. 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 INDIA

The buy-in for ESG investing in India has been slow over the last few years. While there are some early movers, most investment managers are not witnessing demand for ESG products or asset owners with policies that explicitly ask for ESG practices to be incorporated in an investment manager's process. Where there is demand, it is predominantly from multilateral institutions and European investors.

The investment industry has a small supply of ESG products that are not able to cater for these investors. When compared with other countries, where investors can allocate capital to active ESG products and passive ESG products, there are only a handful of Indian investors that are applying ESG investing techniques to their active portfolios. An index provider revealed that mutual funds are inquiring after passive ESG funds. While there are several ESG indices that would be suitable for these mutual funds—for example, S&P India ESG 100, S&P BSE Carbonex index, S&P BSE Greenex, and Nifty 100 ESG index—they are not investable as there are no corresponding index products.

ESG investing is moving more slowly in the fixed-income space compared with equity as is the case across most markets. Where there is growth, it is within the green bond asset class, although the size of green bond issuance in India is low compared with other Asian countries, especially China. Yes Bank issued India's first-ever green bond in accordance with Green Bond Principles in February 2015, and Axis bank issued their debut green bond in June 2016. Green bonds have already been listed on Bombay Stock Exchange's (BSE's) India International Exchange (India INX). A representative from a bank said that what they have seen in the market is that companies who issue green bonds either derive some marketing mileage out of it or have discovered a genuine opportunity to diversify the investor base among institutional investors, predominantly foreign investors.

> *While "ESG" is an unknown entity in India, investors are cautiously optimistic that ESG investing will become popular, noting that "ESG" will become the new buzzword in India as it is outside of the country.*

While "ESG" is an unknown entity in India, investors are cautiously optimistic that

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ESG investing will become popular, noting that "ESG" will become the new buzzword in India as it is outside of the country. There are mutual funds that have already started their ESG journey and are exploring the different approaches to integrating ESG factors into their investment process. There are some investors reporting on their ESG activities that align with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

MATERIAL ESG ISSUES

Governance issues are the most important issues to investors, such as concentrated ownership, family ownership, succession planning and royalty payments above dividends. Investment firms recruit governance specialists due the large amount of data and analysis needed.

Environmental issues and social issues are less prominent in investment analysis. As fewer investors investigate these factors, less environmental and social analysis is done, and therefore these issues have less influence on market prices. Some examples of environmental and social issues specific to India that were given during the workshop were air quality, water scarcity, child labor in the supply chain, and food shortages. Participants were keen to stress that there were ESG opportunities as well as ESG risks. There are a fairly large number of companies suitable for ESG investors, such as clean energy, clean transportation, and clean technology. As half the population doesn't have electricity, clean energy can contribute to filling the gap. A large contribution to carbon emissions is from livestock and slaughterhouses, so technology can change the way that we produce food.

FOREIGN DEMAND OR LOCAL DEMAND

Through increasing their exposure to the country, multilateral institutions and European investors are driving ESG investing in India. Foreign investors are requesting that ESG policies be put in place and demanding membership in ESG nonprofit organizations, such as PRI. At the same time, they are offering their knowledge and expertise to help local investors develop their processes to incorporate ESG issues.

One participant stated that they are going down the ESG path because of the influence of foreign investors, such as foreign pension funds and multilateral institutions like the International Finance Corporation (IFC). What became a catalyst for a bank was a multilateral institution offering funds to invest in India securities. Although it is a small amount, it encouraged the bank to adopt the equator principles and integrate ESG into its lending practices. Over time, the principles and ESG were spread across the whole balance sheet. Several foreign investors also encouraged the bank to issue green bonds. Another private bank had a similar story; that bank started employing ESG practices because it was trying to get a loan from a development finance institution (DFI). A condition of the loan was to include an ESG policy/ESG screening checklist.

While the awareness is increasing due to foreign investors, there isn't the same level of interest from local investors. ESG investing is not receiving attention from the larger

institutional investors in the Indian market, which has made a difference in other markets. One participant said that they can only count one or two domestic asset owners doing it. Another participant said there is no pressure to be ESG-compliant or to put money in a green fund. As there have been a lack of ESG demands made on investment managers—such as rules to restrict investments or an ESG-integrated risk management process—investment managers are not developing ESG products or becoming ESG-compliant.

While the awareness is increasing due to foreign investors, there isn't the same level of interest from local investors. ESG investing is not receiving attention from the larger institutional investors in the Indian market.

ASSET OWNERS NEED A VALUE PROPOSITION

To persuade local asset owners to make ESG demands on their investment managers, it requires convincing them that ESG investing adds value to their portfolio. Asset owners select investment managers based on outperformance and risk-adjusted returns and therefore put returns above sustainability. A participant stated that we need evidence based on the Indian markets, which we don't have, to convince others that ESG is not just an imposition or just risk management. Another participant said that once we have this evidence and more premium security valuations exist, then there will be more acceptance from asset owners on ESG.

One workshop participant reported having spoken to 15 investors about ESG investing about 10 years ago. At the time, they all rejected it. When they asked 10 investors the same questions 3 years ago, the same dismissive response was received. However, when they mentioned that their client, a large European investor, was interested in investing in Indian securities, the investors were willing to consider it.

Some workshop participants expressed reservations about being able to find evidence supporting the link between ESG factors and improved investment performance. There was a belief that the quantification of the impact of ESG factors is difficult to do. An example given was regarding whether the cost of debt for green bonds is higher or lower than their non-green equivalent bonds. The participant said that unless the same company issues two identical bonds on the same day, one green and one non-green, it is impossible to assess.

LOW AWARENESS; LOW UNDERSTANDING

The ESG community needs to do more to educate asset owners and investment managers on the risk/return benefits of ESG integration, according to some workshop participants. More evidence of ESG integration enhancing returns—such as the study highlighted by IFC which found that the companies in their portfolio that scored higher based on their ESG criteria outperformed the company that scores lower by 210 basis points (bps)—will increase client demand.

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Foreign investors are training their Indian investment managers on ESG investing. However, nearly all domestic institutional investors, retail investors, and people on the street do not know what people are talking about when we refer to "ESG investing." Some confuse ESG investing with corporate social responsibility (CSR); others will think purely about exclusionary screening.

The many acronyms, definitions, and practices related to ESG investing is a cause of misunderstanding in India. In addition, the variety of ESG-related reporting frameworks—such as PRI (Principles for Responsible Investment), IIRC (International Integrated Reporting Council), and GRI (Global Reporting Initiative)—are also causing confusion and are considered a burden and another layer of bureaucracy. Another participant noted that when you are talking to the regulator, you find people talking in different terms to the regulator and asking for different information. Despite all having the same goal to mainstream all the environmental and social issues in all financing activities, it has the opposite effect.

The many acronyms, definitions and practices related to ESG investing is a cause of misunderstanding in India. In addition, the variety of ESG-related reporting frameworks—such as PRI, IIRC, and GRI—are also causing confusion and are considered a burden and another layer of bureaucracy

ESG REPORTING

Some participants believe that the level of ESG disclosure is improving. Many industries are starting to show their air quality data on their website. Even the regulators are disclosing air, noise, and water pollution statistics on their website. Disclosing environmental data is becoming more prominent.

However, the increasing levels of ESG data are starting from a low baseline. One participant said that hardly any corporations are paying attention to climate, and only the large ones. In addition, much of the reported ESG data is related to nonmaterial issues. Participants would like to see more integrated reporting focused on material issues.

Companies are using ESG reporting standards such as GRI, although investors are seeing companies treat ESG issues differently. Some think of ESG reporting as a compliance, box-ticking exercise. Others believe that it adds a financial burden. One company said that they have 300 meetings every year with investors and only one investor has talked about ESG issues. Some investors see a lot of interest from companies to align to the demand of ESG investors.

REGULATION

There have been some improvements with the current environmental standards, but the positive shift is not fast enough, according to some. Environmental due diligence is very complicated, with multiple acts covering different environmental issues. One participant

felt that ESG standards and regulations are increasing delays to completion of projects. For example, permission to create a new airport could be delayed because of environmental and social checks, even though the delay is for all the right reasons.

However, most participants felt that ESG issues improves the ease of doing business in India, and the delays come from mechanical process of permission granting/permit granting, which needs streamlining. Participants felt that if one is implementing ESG regulation well, one is helping business. Although environmental legislation may help the environment at the expense of social standards in the short term, it will protect people over the long term.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

Risk management and regulation were the top drivers of ESG integration in India. Limited understanding of ESG issues, low client demand, and a lack of company culture around ESG integration serve as the main barriers to ESG integration. The top five drivers of and barriers to ESG integration as identified by the survey are presented in **Tables 19** and **20**.

Drivers

Screening techniques are a common ESG incorporation approach in India. Risk management seems equally popular among investment managers. Due to pressure from the World Bank, an investor put in place an ESG policy in 1994. After enacting the policy, the investor started to learn more about ESG investing through doing it. After several years, their approach to ESG investing is to apply techniques that are used as a mechanism for managing risk.

Another investor said that ESG factors are just one set of factors that they analyze. Their ESG analysis is used in their risk management tools and screening processes and utilized in company engagements. A private equity manager looks at ESG solely from perspective of value creation. They interact with stakeholders and help the business integrate ESG practices to mitigate risks and produce long-term positive returns.

TABLE 19: DRIVERS OF ESG INTEGRATION IN INDIA CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	63%	Risk management	55%
Regulation	39%	Regulation	50%
Client demand	26%	Client demand	23%
Fiduciary responsibility	26%	Fiduciary responsibility	23%
Generate alpha	24%	Generate alpha	14%

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

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Among the participants, client demand was considered a strong driver of ESG investing in India. It was also considered necessary for regulation to achieve acceptance among investors. As supported by the survey, some participants felt that regulation would be a bigger driver than client demand.

By creating a level playing field for all companies, ESG regulation can ensure that all companies start to report on and manage their ESG performance. Consequently, all investors will review their investee companies' adherence to the ESG regulations and ESG investors would engage with an entity to encourage them to do more beyond the requirements of regulation, pushing the bar up even higher.

Barriers

As is the case in most markets covered by the CFA-PRI study, Indian-based respondents to the survey considered limited understanding of ESG issues and ESG integration as a top barrier. Investors are not clear on what the ESG issues are that are material. One participant mentioned that when they have talked about ESG, the response is generally, "Why is governance attached to 'ESG'? Governance encompasses everything, including environmental and social issues. Is it environmental governance and social governance or are E, S, and G three separate pillars?" These valid questions highlight the mystery surrounding ESG investing.

Limited data has also prevented investors from looking at environmental and social issues. The variety of reporting standards has also been a barrier. The big international players are demanding environmental and social policies and reporting frameworks from companies. They are looking for Indian companies to meet international standards, not country-specific standards, which can be very challenging as companies want to use the national standards. Without consensus on a reporting standard, comparisons of companies' ESG performance will remain difficult.

Without consensus on a reporting standard, comparisons of companies' ESG performance will remain difficult.

TABLE 20: BARRIERS TO ESG INTEGRATION IN INDIA CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of company culture	45%	Limited understanding of ESG issues	45%
Limited understanding of ESG issues	42%	Low client demand	45%
Low client demand	42%	Lack of company culture	36%
Lack of comparable and historical data	34%	Low amount of ESG research	32%
Low amount of ESG research	29%	Lack of comparable and historical data	32%

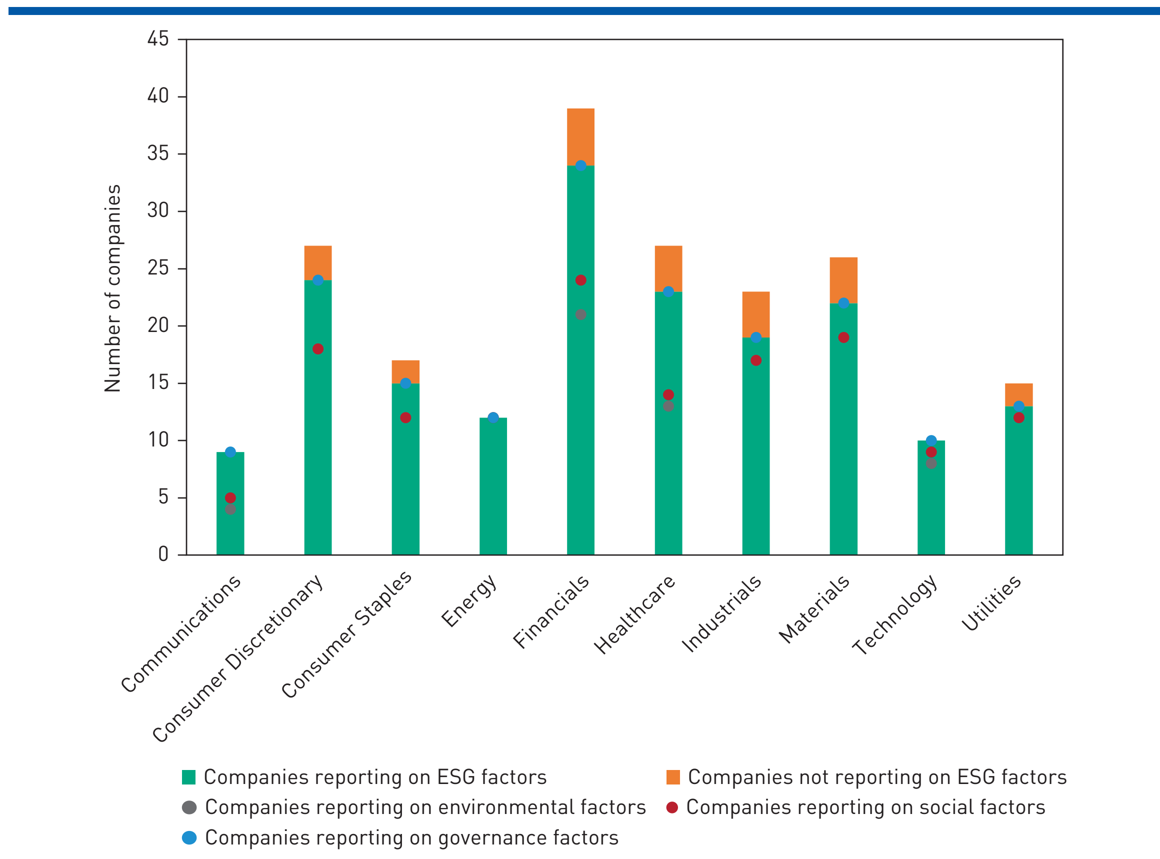
Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 21 shows the number of listed companies at the end of 2016 with a market cap above USD 1 billion domiciled in India per sector that report on ESG factors and a

FIGURE 21: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN INDIA



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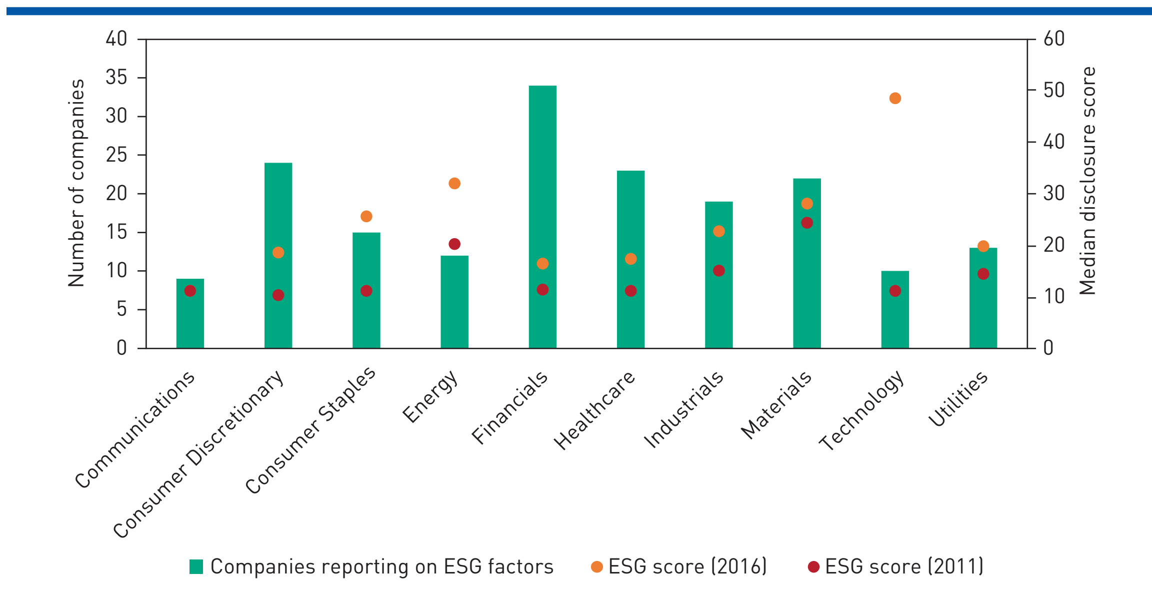
breakdown of environmental, social, and governance factors. Out of 205 listed companies, 181, i.e., 88.3%, reported on ESG factors. The distribution among sectors is fairly even, with all sectors having a coverage of more than 80% (consumer discretionary, 88.9%; consumer staples, 88.2%; financials, 87.2%; health care, 85.2%; industrials, 82.6%; materials, 84.6%; and utilities, 86.7%) and communications, energy, and technology having 100% coverage of ESG reporting.

Drilling down into the specific themes, all companies reporting on ESG factors, report on governance. In the energy sector, 100% of companies report on environmental, social, and governance factors, making it the best covered sector in all the analyzed markets in APAC. In the remaining sectors, social reporting is either done by the same number of companies or more compared to environmental reporting. In the consumer discretionary (66.7%), consumer staples (70.6%), industrials (73.9%), materials (73.1%), and utilities (80.0%) sectors, the social and environmental reporting coverage is equal. In the technology sector, 9 of 10 companies report on social factors, whereas 8 report on environmental factors. The last three sectors, communications, financials, and health care, have much lower coverage for both social and environmental reporting than the other sectors. Of the three, the financial sector coverage is 61.5% for social factors and 53.9% for environmental factors. The communications sector has a higher social coverage at 55.6% compared with 51.9% in the health care sector, but lower environmental coverage with 44.4% versus 48.2% in health care.

Figure 22 shows the development of the median ESG disclosure score for listed Indian companies from 2011 to 2016. As seen in **Figure 22**, the communications sector is the only one that has stayed the same at a median disclosure score of 11.16. This makes it the sector

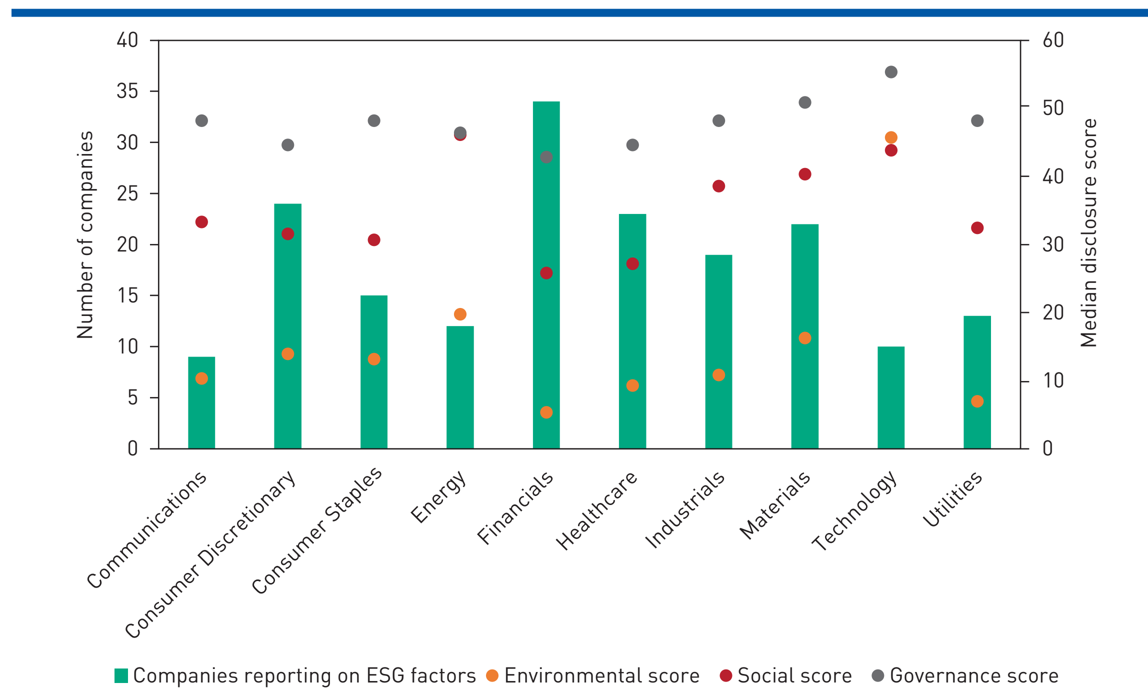
FIGURE 22: MEDIAN 2011 AND 2016 ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN INDIA



with the lowest score in 2016, as well as the second lowest median ESG disclosure score in 2011, although in 2011, the consumer staples, health care, and technology sectors also had scores of 11.16. The sector with the lowest 2011 median ESG disclosure score was consumer discretionary, with a score at 10.33, but the sector saw a significant increase to 18.60 in 2016, surpassing the financials and health care sectors, which increased from 11.40 and 11.16 to 16.45 and 17.36 from 2011 to 2016, respectively. The energy and materials sectors had the highest 2011 median ESG disclosure scores (20.25 and 24.38), and were both in the top three in 2016 at 32.02 and 28.10. The largest increase in the median ESG disclosure score happened in the technology sector, where the score went from 11.16 to 48.55 in just five years, indicating significant improvement of ESG disclosure in that sector. Overall, the median ESG disclosure score improved significantly over the five years. Apart from the already-mentioned sectors, the consumer staples sector saw more than a doubling of the median ESG disclosure score from 11.16 in 2011 to 25.62 in 2016. The industrial and utilities sectors are a bit more static, as they have gone from 15.08 and 14.46 to 22.73 and 19.83, respectively.

Figure 23 shows the breakdown of the 2016 median environmental, social, and governance scores per industry for companies domiciled in India. The distribution of scores is consistent with other markets in the Asia Pacific region in that companies in India report most on governance factors and generally second most on social factors, and least on environmental factors. The technology sector is an anomaly, with a median environmental disclosure score slightly higher than the social score. Starting with governance, there

FIGURE 23: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN INDIA IN 2016



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is some standardization across sectors, although not as much as seen in other markets. At the lower end, the median governance disclosure score was 42.86 in the financials sector and 44.64 in both the consumer discretionary and health care sectors. The communications, consumer staples, industrials, and utilities sectors all have governance reporting that gives them a score of 48.21. The two sectors with most reporting on governance factors, according to the median governance disclosure score, are materials (50.89) and technology (55.36).

The energy sector's median governance disclosure score (46.43) is just below the majority of sectors, but the median social disclosure score is the highest at 46.15, which is the closest to the governance score in all of the sectors, both in India and in the other markets analyzed. At the bottom, the financials sector's median social disclosure score is 25.83, with health care being the only other sector with a score of less than 30 (27.19). The communications (33.33), consumer discretionary (31.58), consumer staples (30.07), and utilities (32.46) sectors all had scores in the low 30s for social reporting, which aligns with the governance scores in the same sectors not being among the highest, but also not the lowest. In the materials sector, the median social disclosure score was third highest at 40.35, which is a similar distance to the technology sector's social score of 43.86, as the two sectors' governance scores were from each other.

Interestingly, in spite of having the second highest median social disclosure score at 43.86, the median environmental disclosure score for the technology sector is higher at 45.74. This means that the technology sector has more than twice the disclosure score of any other sector, indicating much more environmental reporting. The sector with the second highest median environmental disclosure score is the energy sector at 19.77, which is consistent with also having a high social disclosure score—although the governance disclosure score was relatively low compared with the other sectors. The sector with the lowest score is, again, the financial sector, which shows a median environmental disclosure score of 5.35 and the utilities sector not being far behind at 6.98. The communications, health care, and industrials sectors report a bit more on environmental factors, showed by a median environmental disclosure score of 10.34, 9.30, and 10.85, respectively. The consumer discretionary and consumer staples sectors again have similar medium scores of 13.96 and 13.18, whereas the materials sector, consistent with social and governance disclosure, reports a bit more on environmental factors, illustrated by a higher median environmental disclosure score (16.28).

Analyzing ESG reporting by Indian listed companies with a market cap above USD 1 billion, there is a clear trend that the materials and energy sectors are doing well across environmental, social, governance, and combined ESG disclosure, with the technology sector really outperforming all other sectors—seemingly driven by extensive environmental reporting relative to the other sectors. At the other end, the financial sector was consistently underreporting in all themes. But as only four of the nine companies reporting on ESG factors in the communications industry report on environmental factors and only five of nine report on social factors, the combined median ESG disclosure score underperformed the financial sector's.

SECTION 6

MARKET ANALYSIS: JAPAN

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 Japanese investors consider that environmental, social, or governance issues affect share prices and bond yields in the Japanese capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Corporate governance is currently the ESG factor most impactful to share prices and bond yields, but social and environmental issues will become significantly more impactful in five years' time according to survey respondents (**Table 21**).

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

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	63%	69%
Environmental	17%	55%
Social	37%	61%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	36%	51%
Environmental	15%	41%
Social	19%	39%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	14%	36%
Environmental	8%	31%
Social	12%	32%

Note: Percentages represent respondents who answered "often" or "always."

ESG RISKS AND OPPORTUNITIES

Respondents in Japan were asked how often ESG risks and opportunities affect share prices and bond yields in Japanese capital markets (**Table 22**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for shares and bonds; social risks and opportunities are considered to impact share prices and bond prices more frequently than environmental risks and opportunities.

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

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	23%
Environmental opportunities	11%
Social risks	31%
Social opportunities	20%
Governance risks	66%
Governance opportunities	38%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	14%
Environmental opportunities	12%
Social risks	22%
Social opportunities	15%
Governance risks	34%
Governance opportunities	25%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	12%
Environmental opportunities	7%
Social risks	17%
Social opportunities	8%
Governance risks	24%
Governance opportunities	14%

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Japanese practitioners, the survey asked how often Japanese portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Very few survey respondents say that they "often" or "always" include ESG issues in their analyses (**Figure 24**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 25**).

FIGURE 24: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

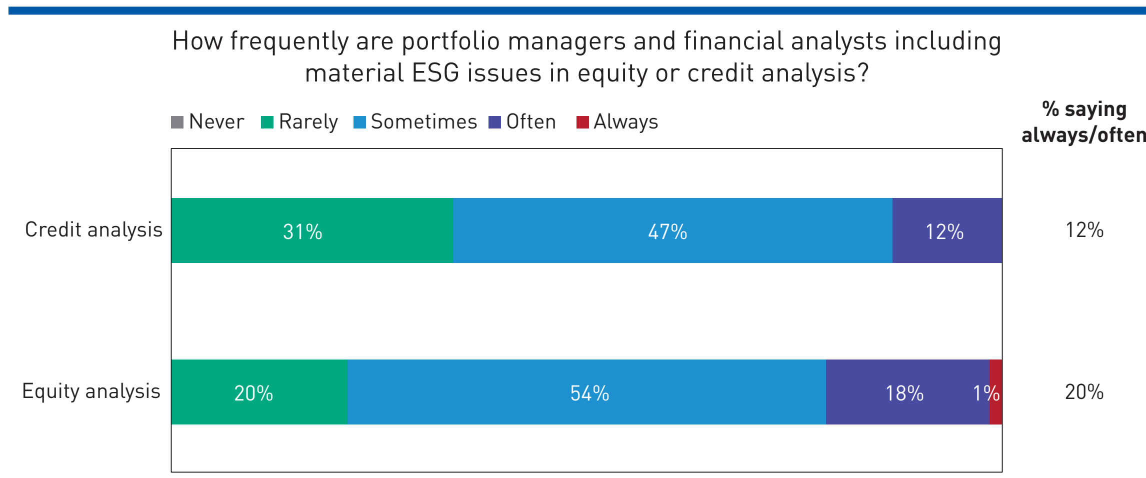
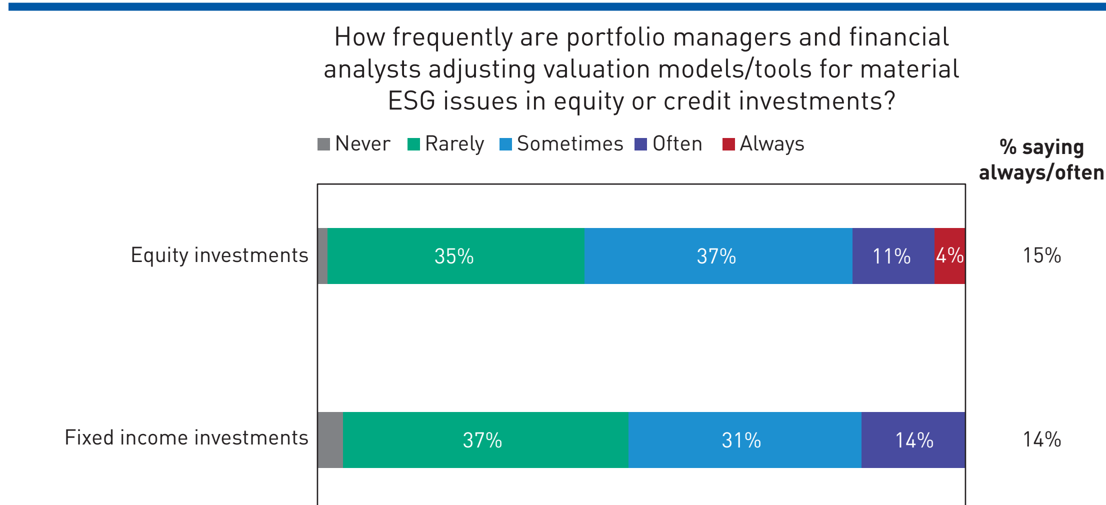


FIGURE 25: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank the CFA Society of Japan for its help in organizing our ESG Integration workshops in Japan. 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 JAPAN

Workshop participants agreed that ESG issues do have an impact on prices, noting that governance always has an impact, while environmental and social factors have varying degrees of impact.

The group felt that ESG issues impact prices more when they materialize as negative events—ESG controversies—reinforcing the notion that ESG analysis is primarily done as a risk mitigation exercise. Third-party research and company disclosures are only updated annually, and therefore it can take a year to identify whether a company is mismanaging its ESG risks. In the meantime, a high-probability negative event/ESG controversy may take place, which the market hasn't priced in.

The governance issues most prominent in Japanese equity and fixed income analysis are shareowner rights and the relationship between board member incentives and performance. On the social front, primary issues are women's participation in the workplace and on boards as well as an aging society, while environmental concerns focus on climate change and energy security.

Governance

The focus is more on the negative side of governance (potential governance red flags), and there is less concern about the positive attributes. Poor governance can destroy value and have a big impact on share prices and bond prices. Good governance will provide upside, but the benefits are less apparent.

The focus is more on the negative side of governance (potential governance red flags), and there is less concern about the positive attributes. Poor governance can destroy value and have a big impact on share prices and bond prices.

Governance is factored in subconsciously when the financial performance of a company is stable and more actively when the financial performance is erratic. Consistently positive performance is often the result of good corporate governance that is implicitly assumed and factored into valuations. Erratic performance could be due to bad

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governance and encourages investors to assess the overall level of (good/bad) governance and for any improvements or deterioration in governance.

Investors want to mitigate downside risks and avoid ESG controversies; bad governance is a proxy for bad environmental and social management and vice versa.

The level of ESG integration by an investor depends on the clients' model. Passive models do not allow as much for ESG integration, as they tend to apply voting and engagement policies. Active management models can integrate ESG factors in the portfolios and allow for divestment from investments that are overvalued due to ESG factors.

CREDIT ANALYSIS VERSUS EQUITY ANALYSIS

Inclusion of material ESG issues is likely to be more frequent in equity analysis than credit analysis, according to workshop participants. Investors are adjusting valuations and pricing in ESG factors. ESG issues are reflected in operating costs, capital expenditure, revenue, and cash flows.

In credit analysis, ESG risks are often incorporated in an "organic manner," rather than explicitly or systematically.

There is different impact on equities and credit, as follows.

Inclusion of material ESG issues is likely to be more frequent in equity analysis than credit analysis, according to workshop participants. Investors are adjusting valuations and pricing in ESG factors.

Equities

Valuation for environmental and social issues vary. Reputational risk can be valued through models by adjusting different forecasted financials/ratios either explicitly or implicitly. Alternatively, reputational risk can be valued through impact on share prices, which are sensitive to news flow such as ESG controversies.

Credit

Fixed-income investors look at delta and the change in value/risk/ESG. Environmental and social issues are factors to investigate when analyzing the creditworthiness of issuers, as these issues can affect their "ability to pay" and "willingness to pay." As fixed-income markets are less liquid, investors are likely to analyze ESG factors to ensure that they don't buy bonds that are highly likely to default, just in case they can't sell the bonds before an ESG event.

Liquidity risk can affect a company's governance component and vice versa. If the liquidity of a company's issuances is low or reduces significantly, it is more important for investors to ensure that the company has very good governance and a strong relationship with its bondholders (if the company doesn't, then the spread should compensate for low

corporate governance). If the governance of a company is poor or deteriorating, then that can be the cause of the low liquidity of the company's issuances or could make a liquid issuance less liquid.

A participant said that there are many active fixed-income investors in Japan. There are not as many active equity investors, which they attribute to the difficulties in getting value when many big-asset owners run passive portfolios. The market doesn't tend to look for cheap companies and potential ESG risks and opportunities.

DATA COVERAGE

There was a consensus among workshop participants that the current coverage of ESG data is poor. There is a need for more comparable ESG data to increase the level of ESG integration.

Japanese companies are incorporating ESG issues into their business but not always disclosing it, according to one workshop participant. While there is limited data, this can offer upside potential/alpha from unrealized company value.

ESG disclosure is still limited because companies may not realize the materiality of ESG issues. ESG disclosure and value are not always connected by companies. More education is needed here for companies as well as investors.

Finally, third-party research and company disclosures are only updated annually. One needs to wait 11 months before seeing the latest research and ESG company disclosure. Therefore, there is an issue with disclosure not being regularly updated, especially when it is a company that starts reporting ESG data, and there is nothing to compare it with until the company reports again in a year.

EDUCATION

There was a recognition among workshop participants that ESG integration is just beginning to happen in Japan. There is a need for clear taxonomy of ESG terms and practices. The mainstream is still not bought in fully on ESG, which could be due to a majority of investors believing that ESG is socially responsible investing (SRI) or screening, which reduces the investment universe. If people knew that ESG integration doesn't reduce the investment universe, then there would be more buy-in.

ESG risks and opportunities must be understood correctly, which is not always the case. How does one value ESG? Is it purely from a qualitative assessment or does it need to be quantified? Is it appropriate to adjust the discount rate?

There is a need for clear taxonomy of ESG terms and practices.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

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

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TABLE 23: DRIVERS OF ESG INTEGRATION IN JAPANESE CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Risk management	58%	Client demand	53%
Fiduciary responsibility	46%	Risk management	39%
Client demand	35%	Fiduciary responsibility	27%
Generate alpha	23%	Regulation	19%
Regulation	13%	Incentives	12%

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

Drivers

Risk management was the clear driver for ESG integration in the equity space in Japan, though client demand seemed to drive demand on the fixed income side.

There is more concern over the possibility of downside risk caused by ESG issues. ESG issues are considered more in negative events and less so in positive events. Environmental and social factors can have a negative effect on prices, but environmental issues are being studied to identify positive valuations.

For both equities and bonds, client demand is key in Japan. Client demand and fiduciary duty are interrelated. The participants who believe fiduciary duty is a driver are likely to be asset owners.

Asset flow is an incentive, as it generates fees for investment managers. If managers are incentivized to conduct ESG integration, then more ESG integration will happen plus more ESG products will be available with more asset owners allocating capital to them. This will then have an impact further down the investment value chain as more capital will flow to companies that have good or improving ESG performance and away from companies with bad or deteriorating ESG performance.

TABLE 24: BARRIERS TO ESG INTEGRATION IN JAPANESE CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	51%	No evidence of investment benefits	46%
No evidence of investment benefits	48%	Lack of company culture	39%
Limited understanding of ESG issues	44%	Lack of comparable and historical data	34%
Lack of company culture	31%	Limited amount of ESG research	32%
Concern of negative returns	25%	Low client demand	27%

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

Barriers

Lack of understanding of ESG in Japan coupled with a lack of data and lack of ESG products delivering returns are barriers to ESG integration in Japan. Credit rating agencies are already including governance issues but doing little on environmental and social issues.

There needs to be more evidence of investment benefits for investors to integrate ESG more.

There needs to be more evidence of investment benefits for investors to integrate ESG more.

One workshop participant noted that more case studies are needed that are relevant to Japanese investors and based on Japanese companies/issuers.

Drivers and barriers differ between active (more opportunity-driven) and passive investors. Smart beta offers a playing field for passive investors, i.e., the opportunity to create new ESG products. The survey should look at passive and active investors separately especially the impact of lower fees on the prevalence of ESG integration.

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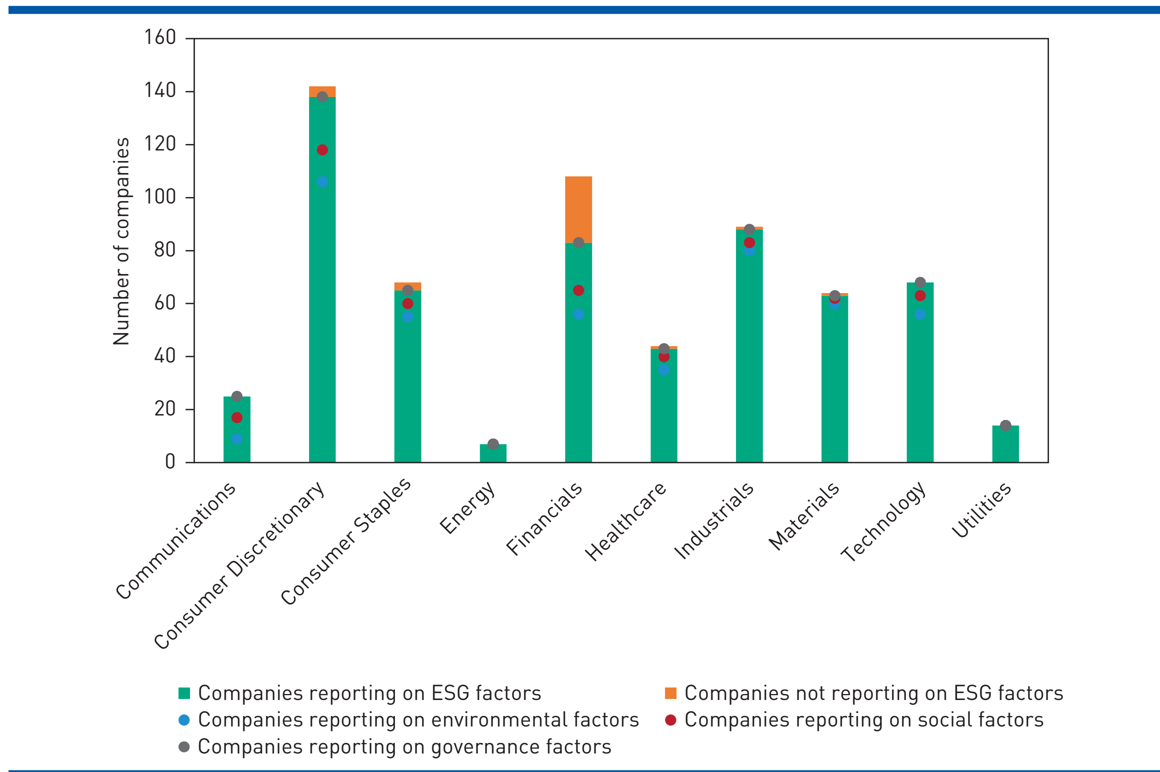
TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 26 shows the number of companies per sector in Japan with and without an ESG disclosure score. The Japanese equity market is dominated by companies in the consumer discretionary and financial sectors with 142 and 108 companies in each, respectively.

FIGURE 26: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN JAPAN



Consumer staples (68), industrials (89), materials (64), and technology (68) are also large. All sectors have more than the seven companies marking the limit as to whether they are included in our analysis of the median ESG disclosure scores.

Overall, the coverage of ESG reporting is very high, with 94.4% of listed Japanese companies reporting on ESG factors in 2016. Broken down into sectors, 100% of communications, energy, technology, and utilities companies reported on ESG factors, whereas consumer discretionary (97.2%), consumer staples (95.6%), health care (97.7%), industrials (98.9%), and materials (98.4%) are all above 95%. For health care, industrials, and materials, these high percentages meant that only one company in each sector did not disclose on ESG factors. The only sector pulling the average down is the financial sector, where only 76.9% of companies reported on ESG factors in 2016. When broken down into environmental, social, and governance scores, it is evident that all companies with an ESG disclosure score have reported on governance factors.

Social disclosure is also common. In the energy (100%), health care (90.9%), industrials (93.3%), materials (96.9%), technology (92.7%), and utilities (100%) sectors, more than 90% of companies report on social factors. The coverage in consumer discretionary and consumer staples is also relatively high, with 83.1% and 88.2% coverage, respectively, whereas only 68.0% and 60.9% of companies in the communications and financials sectors report on social factors. The least reported theme is environmental factors. The energy (100%), materials (93.8%), and utilities (100%) sectors are the only sectors with more than 90% of companies reporting on environmental factors, with the industrials sector being just behind at 89.9%. Communications and financials also have the lowest coverage in environmental reporting, with coverage of 36.0% and 51.9%, respectively, whereas the remaining sectors have coverage around 80%.

Figure 27 shows the development of the median ESG disclosure score across sectors from 2011 to 2016. As seen in the figure, the scores are similar across sectors and did not develop significantly in those five years. The largest increases happened in the consumer staples, energy, and financials sectors. These sectors saw increases from 30.58 to 33.88, 37.81 to 41.74, and 16.67 to 20.61, respectively. Three sectors experienced a fall in the median disclosure score, namely, communications (13.84 to 13.64), health care (37.6 to 34.71), and industrials (35.54 to 34.92).

In 2016, the sectors with the highest median ESG disclosure score were energy (41.74), materials (40.08), and utilities (41.32) sectors, with technology taking fourth place at 36.98, whereas the sectors with the lowest median disclosure scores are in the communications and financials sectors at 13.64 and 20.61, respectively. There is a clear connection between reporting on ESG factors and the median ESG disclosure score. The three sectors with 100% coverage, as seen in Figure 26, were three of the four highest scorers, and the same is true for the bottom.

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FIGURE 27: MEDIAN 2011 AND 2016 ESG DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN JAPAN

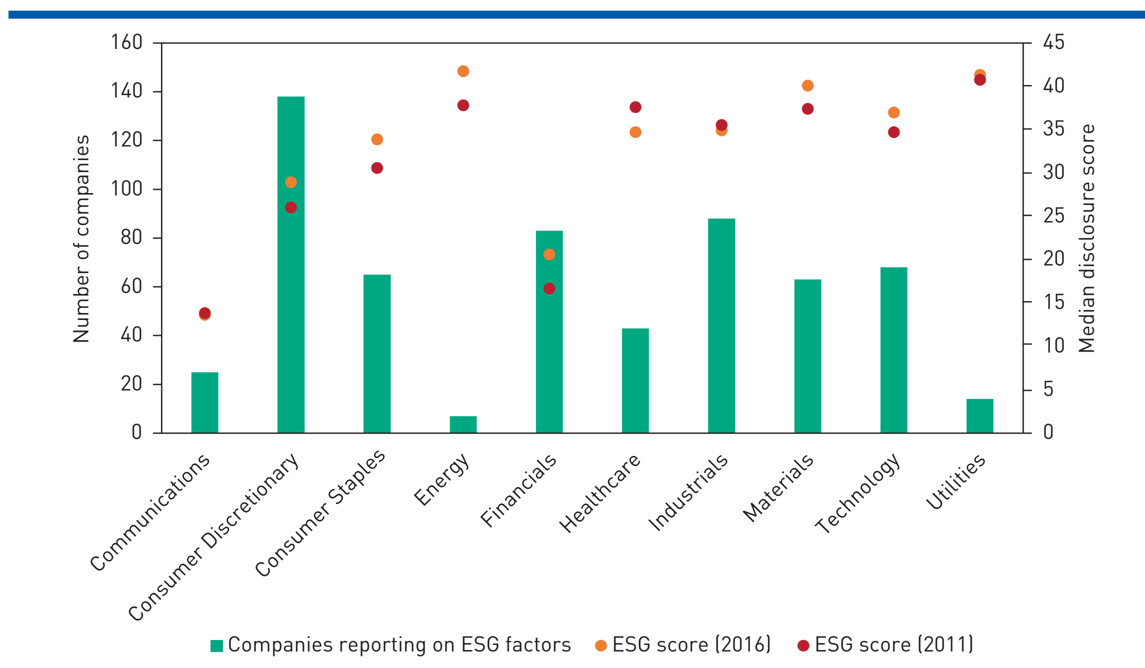
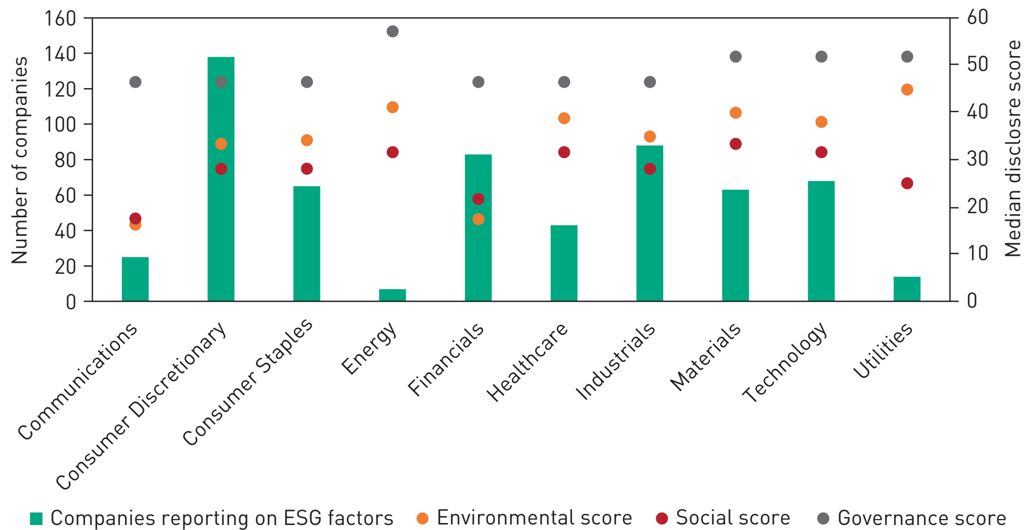


Figure 28 shows the breakdown of the 2016 median environmental, social, and governance disclosure scores. The governance disclosure scores are higher than the environmental scores and social scores. The governance score is very similar across sectors, with the communications, consumer discretionary, consumer staples, financials, health care, and industrials sectors all having a median governance disclosure score of 46.43. The materials, technology, and utilities sector scores a bit higher at 51.79, and the energy sector has the highest median governance disclosure score at 57.14. The convergence indicates strong standardization across the Japanese market.

Despite having lower coverage, the median environmental disclosure scores are higher than the social scores in all sectors except communications and financials. However, the environmental scores are significantly lower than the governance score, with the lowest difference being in the utilities sector (governance, 51.79; environmental, 44.83). The consumer discretionary, consumer staples, energy, health care, industrials, materials, and technology sectors have similar median environmental disclosure scores ranging between 33.33 to 41.09. As mentioned, the communications and financial sectors have lower environmental disclosure scores than social disclosure scores and are both very low at 16.26 and 17.41, respectively.

FIGURE 28: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE DISCLOSURE SCORES FOR LISTED COMPANIES DOMICILED IN JAPAN IN 2016



The median social disclosure scores follow the environmental disclosure scores, as seen in **Figure 28**. Apart from communications and financials still being outliers with low scores, the most striking score is that of the utilities sector, which has a median social disclosure score of 25. Interestingly, the utilities sector had a median governance disclosure score among the second highest band and the highest median environmental disclosure score (44.83) of all 10 sectors. The other sectors have relatively similar median social disclosure scores at 28.07 (consumer discretionary, consumer staples, and industrials), 31.58 (energy, health care, and technology), and 33.33 (materials). Except for the utilities sector, the pattern follows governance, environmental, the overall ESG disclosure score, and the coverage of ESG disclosure in general, i.e., the energy and materials sectors being among the highest scorers and the communication and financials at the bottom.

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INVESTMENT PRACTICES OF LOCAL PRACTITIONERS: EQUITIES AND FIXED INCOME

SUMMARY

- Overall, equity practitioners are adjusting their valuation models/tools for material ESG issues nearly twice as often as fixed-income practitioners **(Table 25).** For both equity and fixed-income practitioners, governance is the most frequently integrated ESG factor (40% for equity and 24% for fixed income). Equity practitioners integrate environmental factors more frequently than social factors.
- **Figure 29** highlights the practices from the ESG Integration Framework that are applied in Japan. Equity practitioners integrate ESG factors in their investment research and security valuation more frequently than fixed-income practitioners do. For both sets of practitioners, integrating ESG factors at the portfolio level is not yet commonly practiced. Japanese equity practitioners have a strong focus on the capacity of ESG analysis to help assess risk as well as identify alpha. Sovereign debt practitioners are still developing their integration techniques.

EQUITIES

Research

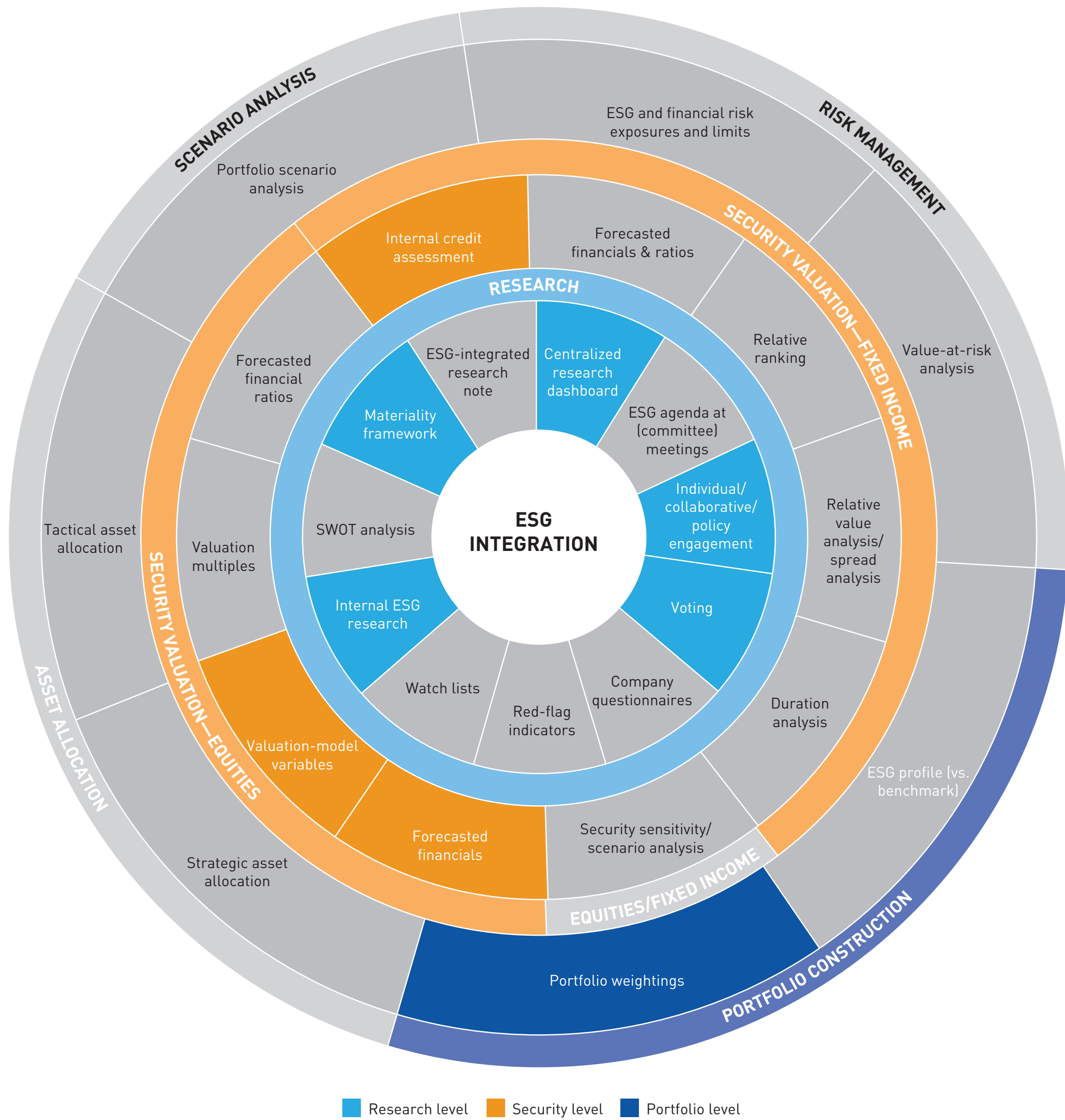
Japanese equity practitioners frequently integrate qualitative ESG factors into their investment research from both a risk and an opportunity perspective. Many consider that an improving ESG profile is conducive to the sustainable growth of enterprise value, while a rapid deterioration could increase the likelihood of damage to enterprise value.

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

	EQUITY INVESTMENTS	FIXED-INCOME INVESTMENTS
Governance	40%	24%
Environmental	24%	15%
Social	22%	15%

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

FIGURE 29: THE ESG INTEGRATION FRAMEWORK: APPLICATION BY JAPAN-BASED INVESTORS



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As such, advanced practitioners include ESG factors in company research criteria to inform engagement activities and to integrate into their investment analysis and fair-value calculations. In-house analysis is usually conducted by dedicated ESG analysts rather than investment staff. It can result in proprietary ESG scores that measure the extent to which the company may increase its cashflow and shareholder value through efficient corporate management as well as through its environmental and social activities.

ESG research can be shared with all staff via internal ESG platforms, and directly used to inform buy/sell/hold and overweight/underweight/neutral recommendations made by equity analysts. To ensure quality control, some practitioners organize internal annual reviews of ESG methodology for ESG and investment staff to discuss and potentially raise the level of analytical ability.

Advanced practitioners interact directly with companies to influence corporate practice on ESG issues and encourage improved ESG disclosure through engagement and proxy voting.

Security Valuation

Equity practitioners sometimes integrate ESG factors quantitatively in their forecasted financials but mainly through direct adjustments of valuation model variables. For example, governance-related information obtained through engagement can be incorporated in profit growth estimations. Analysts may adjust 3–5-year earnings estimates to integrate ESG and competitive scores. Others expect that higher-scoring ESG companies are likely to outperform the market in the long term and deliver higher return on equity (ROE).

Where the impact of ESG factors on corporate performance is more diffused, practitioners may reflect ESG factors by adjusting the premium or discount of enterprise fair value/discounted cash flow valuation. Some advanced practitioners conduct scenario analysis on a company's cashflows and discount rates based on its ESG scores.

Portfolio Construction

Some Japanese practitioners are integrating ESG factors into their buy/sell/hold and overweight/underweight/neutral decisions, predominantly through adjustments to weightings given to companies and sectors. For example, companies expected to achieve sustainable long-term growth and trading at prices lower than practitioners' valuations can be prioritized for inclusion. Another mechanism for ESG factors to feed through is via the recommendation ratings made by equity analysts/investment committee, which already include financially material ESG factors. ESG factors such as a company's competency to satisfy social needs can also be used as a proxy for a source of alpha in different active strategies.

FIXED INCOME

Research

Fixed income practitioners integrate ESG factors less frequently than their equity counterparties. Where they do, their practices are mostly still being developed. Sovereign practitioners make use of ESG research less frequently than do corporate bond practitioners.

Most integrate ESG factors qualitatively; for example, environmental and social factors may be seen to increase reputational and headline issuer risk, while weak governance may have a detrimental impact on corporate bond prices via compliance issues. As is the case for most fixed-income practitioners, the main focus is on the contribution of ESG factors to financial downside, and in particular to significant events and systematic risks that may affect issuer creditworthiness.

Fixed-income investment managers and research analysts typically collect ESG data through different sources such as internal ESG teams, equity research analysts, and databases provided by a third parties, as well as through direct discussions with bond issuers.

Frequently assessed governance factors across the board include the presence of controlling shareholders, the composition ratio of independent directors and independent auditors. For sovereign issuers, it may include budgetary prudence of sovereign issuers. However, practitioners also recognize that the materiality of ESG factors varies by industry. For sectors such as power generation, energy, and manufacturing, future business development may be assessed in relation to any environmental risks and the company's ability to minimize/manage those. Regulated industries such as banks and insurance companies may be scrutinized for their ability to meet regulations.

Security Valuation

Fixed-income practitioners do not often integrate ESG factors in their security valuation. The few that do will reflect ESG analysis in their internal credit scores. Selected practitioners try to assess the impact of ESG factors on the issuer's fundamentals. Integrating ESG factors into buy/sell/hold and overweight/underweight/neutral decisions is not common for Japanese fixed-income practitioners.

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INTERVIEW WITH A JAPANESE MAJOR MARKET PLAYER: GOVERNMENT PENSION INVESTMENT FUND (GPIF)

Interview with Yasuhiro Sato, Director and Spokesperson, Planning and Communication Department, Government Pension Investment Fund (GPIF).

What does ESG integration mean to GPIF?

The mission of GPIF is to retain sufficient pension reserves for future pension beneficiaries, as long as 100 years. Since our fund is as much as 160 trillion Japanese yen (JPY), 80% of the fund is passively managed, and we hold approximately 5,000 companies' shares, both domestic and global. In this sense, we are a "universal owner," owning the universe for the long term. For universal owners like us, the sustainability of the capital market is crucial, because a negative impact on environment or society would affect the whole market, which eventually would damage our portfolio. Integrating ESG is a way to minimize negative externalities as well as to improve the governance of investee companies.

What is your opinion of the current state of ESG integration in Japan?

ESG has become a common term for communication among Japanese companies these days. In our survey to the listed companies in Tokyo Stock Exchange, many respondents pointed out they become increasingly aware of ESG. Some also started cross-departmental discussion in order to improve their ESG scores. Investors also show more proactive ESG integration. It indicates that every actor in the investment chain is advancing in the right direction.

In your opinion, what is the state of ESG disclosures in Japan? How has this level of disclosures changed over the last five years?

In the past, Japanese companies might have been a little too humble to disclose their nonfinancial information to outside investors. However, based on an idea that ESG disclosure is an important tool for the companies to have a constructive engagement with stakeholders, GPIF has promoted information disclosure in several ways, such as incentivizing companies to disclose more information so that it gets easier for them to be incorporated in ESG indices, or asking external asset managers to select excellent and most improved integrated reports and highlighting them in GPIF's website. As a result, our survey shows more and more companies are on their way to disclosing ESG information. Many companies have already prepared to publish integrated reports, or at least have planned such. GPIF also has begun to publish an "ESG Report" yearly, reviewing our own ESG activities. This review requires information provided by every actor in the investment chain, so that this publication itself is a way to encourage disclosure.

Do you see any differences in the manner in which ESG integration is carried out in equities versus fixed income?

In the equity, GPIF has two major channels in terms of ESG integration: ESG indices and ESG-themed engagement activities, and we are already working on it. In fixed income, on the other hand, we have just started to study how to incorporate ESG. Working with the World Bank Group, we published the final report last April. This report points out some constraints in the wider adoption of ESG considerations in fixed-income markets compared with that in equities, such as difficulty of promoting engagement with issuers, or shortage of bond indices and investment products. You can find the details in the report and the press release on the GPIF website as well as the World Bank Group website.

What are the drivers of ESG integration?

If you mean the drivers of ESG integration in Japan, it would be ESG indices. GPIF launched three ESG indices for Japanese equities in July 2017, and recently introduced two E (Environmental) indices for Japanese and global equities last September. As previously mentioned, GPIF owns almost all the listed companies. This means that the more companies come to improve their ESG activities, the more the entire capital market becomes sustainable, which would benefit our long-term performance. In other words, the implementation of ESG indices aims to increase risk-adjusted returns over the long term by improving ESG evaluations of our portfolio companies. In this sense, ESG indices would be the driver of ESG integration.

Engagement activity between external asset managers and portfolio companies would be another driver. GPIF is not allowed to invest directly in equities, and we outsource the management of our entire equity portfolio to external asset managers. Therefore, GPIF encourages asset managers to conduct constructive dialogue with companies on critical ESG issues.

What are the barriers to ESG integration?

One of the barriers could be insufficient disclosure, although companies are definitely moving in the right direction.

How do you see ESG integration and disclosure evolving in Japan over the next five years?

Since the law does not allow GPIF to directly invest in equities, we cannot intervene in companies' ESG integration or disclosure. However, we continue to encourage our external asset managers to have constructive dialogue with portfolio companies, and to examine the impacts of our own ESG activities. We hope this movement will not end up as a mere trend.

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SECTION 7

MARKET ANALYSIS: SINGAPORE

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 Singaporean investors consider that environmental, social, or governance issues affect share prices and bond yields in the Singapore capital markets in 2017, and how often they believe these factors will impact share prices and bond yields in five years' time (2022). Corporate governance is currently the ESG factor most impactful to share prices and bond yields; however, social and environmental issues will become more impactful to share prices and bond yields in five years' time, according to survey respondents (**Table 26**).

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

	AFFECTED IN 2017	WILL AFFECT IN 2022
ESG ISSUES IMPACT ON SHARE PRICES		
Governance	71%	78%
Environmental	22%	56%
Social	22%	47%
ESG ISSUES IMPACT ON CORPORATE BOND YIELDS/SPREADS		
Governance	55%	62%
Environmental	3%	45%
Social	3%	31%
ESG ISSUES IMPACT ON SOVEREIGN DEBT YIELDS		
Governance	34%	55%
Environmental	3%	48%
Social	10%	41%

Note: Percentages represent respondents who answered "often" or "always."

ESG RISKS AND OPPORTUNITIES

Respondents in Singapore were asked how often ESG risks and opportunities affect share prices and bond yields in Singapore capital markets (**Table 27**). As was the case in all markets we visited, ESG risks were seen as more important than ESG opportunities. Corporate governance risks are the main risks for shares and bonds, with social and environmental risks and opportunities barely registering in some instances.

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

	AFFECT "OFTEN" OR "ALWAYS"
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SHARE PRICES?	
Environmental risks	22%
Environmental opportunities	11%
Social risks	22%
Social opportunities	13%
Governance risks	64%
Governance opportunities	29%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT CORPORATE BOND YIELDS/SPREADS?	
Environmental risks	17%
Environmental opportunities	7%
Social risks	7%
Social opportunities	7%
Governance risks	48%
Governance opportunities	24%
HOW OFTEN DO ESG RISKS AND OPPORTUNITIES AFFECT SOVEREIGN DEBT YIELDS?	
Environmental risks	7%
Environmental opportunities	3%
Social risks	7%
Social opportunities	7%
Governance risks	34%
Governance opportunities	24%

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ESG USE BY PORTFOLIO MANAGERS AND FINANCIAL ANALYSTS

To understand the investment practices of Singaporean practitioners, the survey asked how often Singaporean portfolio managers and financial analysts are including material ESG issues in equity and credit analysis. Very few survey respondents say that they "often" or "always" include ESG issues in their analyses (**Figure 31**). It appears that the use of ESG information to adjust valuation models is rare among portfolio managers and analysts, with most respondents answering either "sometimes" or "rarely" (**Figure 32**).

FIGURE 31: THE IMPACT OF ESG ANALYSIS ON INVESTMENT ANALYSIS

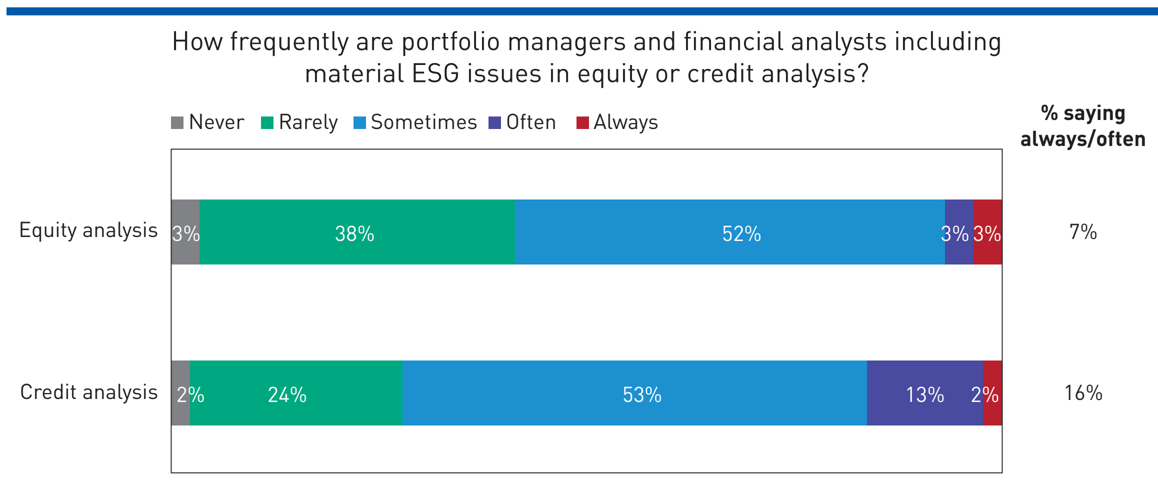
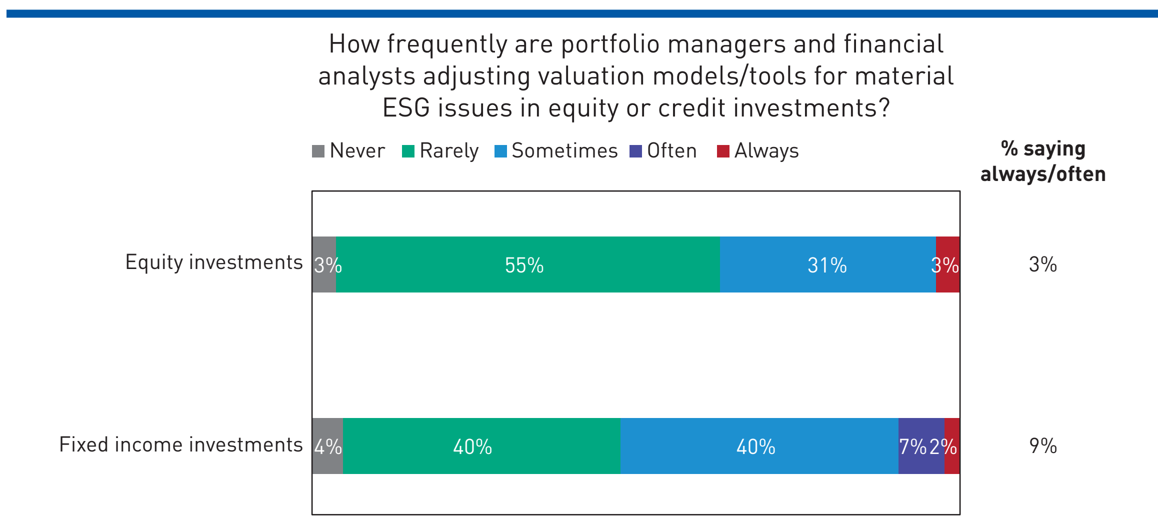


FIGURE 32: THE IMPACT OF ESG ANALYSIS ON VALUATION MODELS/TOOLS



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

CFA Institute and PRI thank the Singapore Exchange for its help in organizing our ESG Integration workshops in Singapore. 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 SINGAPORE

Workshop participants in Singapore agree with financial professionals in other markets we visited, noting that corporate governance is the main ESG factor driving prices and yields. Environmental and social issues sometimes impact prices, with environmental issues more material than social except for sovereign debt. For governance, in the Asian region, it is important for the profits to come back to the investors. Governance is the basis of a good company, and this can bring long-term sustainable returns.

Environmental and social issues are sector-specific. On the fixed-income side, governance issues has a dominant effect. Environmental and social issues are dependent on sector and matter on a case by case basis.

Environmental and social are sector-specific. On the fixed-income side, governance issues have a dominant effect.

There was agreement that ESG issues materialize more in the long term. It is not so apparent in the short term. ESG provides long-term, incremental returns that are often not noticeable due to being embedded in the underlying strategy and business model of companies. If companies do not manage their ESG risks, the underlying strategy and business model is not likely to be sustainable. ESG is a proxy for quality.

Judgment is also key to how ESG issues impact prices. How you deal with these issues? Is it a qualitative judgment/assessment or a quantitative judgment/assessment? Are the issues likely to impact in the investment period or after? Do you look at it from a risk or opportunity perspective? More clarity on how investors judge ESG can lead to a more consistent, regular impact from ESG issues rather than large, one-off price movements.

The drive for ESG came from Europe and the West. These are early days for ESG in Singapore. Even so, the group feels that we are in a time and age where change will happen very quickly, and Singapore will catch up. More engagement among investors and more ESG education will encourage governments and organizations to quickly catch up with the West.

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ESG INTEGRATION GROWING IN ASIA

There is increasingly more ESG integration in Singapore and Asia, and ESG issues are more frequently impacting prices. Asian economies are maturing. Asian countries are thinking more about the long term and not just about putting food on the table today. Asian countries are at the beginning of the journey but very eager to learn quickly about ESG.

There is a strong drive from investment managers to start integrating ESG factors into investment analysis, as there are incentives being made in mandates. Investors are responding to those mandates.

A venture capitalist in the workshop said that they can actively engage by voting and thus have influence over management on ESG issues. They believe that ESG is a very good industry tool to use to spread best practices across companies looking to issue IPOs.

MATERIALITY AND TIME HORIZON

Different ESG issues can be material over different time horizons. For example, governance is a key issue in Asia now, but environmental issues such as water scarcity and climate change are likely to be key issues in the medium and longer term.

Time horizon is very important when integrating ESG. The upside potential of ESG integration can also be time horizon dependent. For example, considering environmental standards, if a company invests in environmental management before any environmental regulations come into force, it can mean higher operating costs in the short term. However, once the regulation is in effect, the company is in a better place (especially relative to peers who haven't planned for the long term) and will have lower operating costs in the long term due to lower/no implementation costs and avoidance of fines and penalties.

Investors might have to wait a while to reap the benefits of ESG integration. This makes longer investment horizons and lower portfolio turnover more significant for ESG investing.

It is hard to estimate when additional value from ESG factors will be realized or when ESG factors devalues a company. This makes the integration of ESG factors into risk management even more essential. As far as materiality is concerned, there needs to be a consensus on what the definition of materiality is. The definition of materiality is really important in order to understand how frequently ESG issues impact prices and valuations. What's the threshold for materiality: 5% price movement or 10%; 5% impact on valuations or 10%?

As far as materiality is concerned, there needs to be a consensus on what the definition of materiality is.

One workshop participant stated that if we think an ESG issue is material and are not integrating it, we are not fulfilling our fiduciary duty. Investors are concerned about fiduciary duty, and this drives them to consider ESG as a best-practice risk management tool.

DRIVERS OF AND BARRIERS TO ESG INTEGRATION

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

TABLE 28: DRIVERS OF ESG INTEGRATION IN SINGAPORE CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Client demand	62%	Client demand	66%
Risk management	51%	Risk management	48%
Regulation	29%	Regulation	28%
Fiduciary responsibility	13%	Fiduciary responsibility	14%
Generate alpha	13%	Senior management buy-in	10%

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

Drivers

Client demand is seen as the main driver of ESG integration in Singapore, while in most other markets client demand was seen as the second most important driver—after risk management. The asset management business is driven by clients. Investors are driven to do ESG integration for ESG-conscious clients.

Risk management is still seen as a key driver of ESG integration, just not the main driver. The risk approach is almost always to look at ESG with a risk lens, i.e., avoid large, one-off hits on prices. The "opportunity" approach doesn't cross people's minds and is not properly understood. It is not clear what an ESG opportunity is—an ESG opportunity can be either generating alpha from an ESG theme or generating alpha from best-in-class company(ies) in a sector.

There were divergent views on how regulation can affect the levels of ESG integration. Some were in favor of regulation to drive integration into the culture of society and the investment industry. But others felt that it would put ESG in a negative light because it would be thought of as another compliance exercise or an increase in the costs that the fund must bear.

One workshop participant noted that ESG is a differentiator that can attract assets and clients. This drives investors who are aware of the benefits of doing ESG, i.e., it can win ESG mandates and ESG-conscious clients.

One workshop participant noted that ESG is a differentiator that can attract assets and clients. This drives investors who are aware of the benefits of doing ESG, i.e., it can win ESG mandates and ESG-conscious clients.

Barriers

A lack of historical and comparable ESG data and a lack of proof that ESG integration drives performance were the main barriers to ESG integration cited by workshop participants.

There were several conversations among workshop participants around the complexities of ESG and how difficult it was to get consensus. For instance, does ESG need to be so complicated? Why so many terms? It would be easier if there were harmonization and better

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taxonomy to bring standardization of data and terminology. ESG is still a highly ambiguous term to many people, and it is thought of simply as negative screening in many circles.

There is not enough ESG information in professional courses and qualifications, according to many participants. Educational and training efforts need to be improved. This would help achieve buy-in from younger generations.

Performance attribution of the benefits of ESG is too vague and not clear. Studies on outperformance focus on Europe and the United States. More studies are needed on Asian companies and funds. One participant noted that we have case studies that show the benefits of ESG but do not highlight the opportunity costs, which should be done hand-in-hand.

The lack of comparable and historical data is a universal problem that came up in the conversations in Singapore. Data coverage is low. The group members were positive about data coverage and quality improving in the future, including for small companies, but there are still large gaps in the data that need to be filled. At the same time, there is a lot of data but it is difficult to make sense of the data sometimes. It is unclear about the links, relationships, and causation between ESG and performance.

One conference participant stated that data is actually available, and not just from the sell-side; there are also many models that companies can adopt and are freely available. So, there is data available and there are models that can be adopted, but has not become a systematic part of the investment process.

Demand is the key driver of ESG integration in Singapore, but demand is still relatively low. ESG mandates are needed. Asset owners are not making explicit demands for ESG practices in their mandates. If they did, investment managers would respond. There is a concern that more education is needed from a client perspective as well. Many clients don't understand ESG; it overcomplicates investment for them.

Finally, workshop participants noted that there isn't a culture at the moment in certain parts of Asia for ESG integration. Singapore may be slightly more advanced on ESG integration than other parts of Asia and have more advanced understanding of ESG. Asset owners have responsibility in Asia to drive that culture, and some countries are more developed and have a better culture than others.

Demand is the key driver of ESG integration in Singapore, but demand is still relatively low. ESG mandates are needed.

TABLE 29: BARRIERS TO ESG INTEGRATION IN SINGAPORE CAPITAL MARKETS

EQUITY INVESTMENTS		FIXED-INCOME INVESTMENTS	
Lack of comparable and historical data	47%	No evidence of investment benefits	48%
Limited understanding of ESG issues	44%	Limited understanding of ESG issues	48%
No evidence of investment benefits	36%	Low client demand	41%
Low client demand	36%	Limited amount of ESG research	34%
Lack of company culture	27%	Lack of comparable and historical data	34%

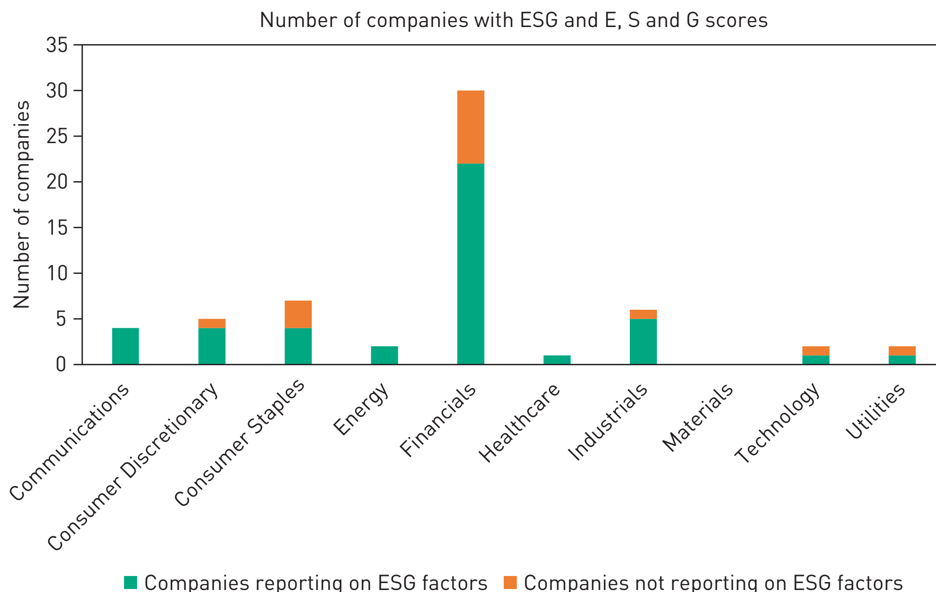
Note: Percentages represent those who thought each item was a main barrier. Survey respondents could choose more than one answer.

TRENDS IN ESG COMPANY DATA

We partnered with Bloomberg to analyze the transparency of ESG disclosure in each market for companies with a market cap of above USD 1 billion. The information in these figures comes from the analysis of Bloomberg's ESG disclosure scores, which are based on publicly available data; they are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on different environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG score. We have only included scores for sectors with more than seven listed companies. (For more information, see "Appendix: Methodology.")

Figure 33 shows the distribution and number of listed companies domiciled in Singapore in 2016 with a market cap of more than USD 1 billion. As seen, the market is very small and only has 59 companies in total, of which 44 (74.6%) report on ESG factors. With a limit of seven companies to analyze the median ESG disclosure score, all sectors except the financial sector are under the limit. Of the few companies in the market, most report on ESG factors. In the communications, energy and health care sectors, all companies (four, two, and one, respectively) report on ESG factors. In the consumer discretionary sector, four of five companies report, and in the industrials sector five of six companies report. In the technology and utilities sectors, one of two companies report in each sector.

FIGURE 33: LISTED COMPANIES REPORTING AND NOT REPORTING ON ESG FACTORS IN SINGAPORE



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The consumer staples sector consists of seven companies, of which four report on ESG factors. The financial sector is the largest sector in Singapore per number of listed companies domiciled there, with 33 companies. Of these, 20 report on ESG factors, which is just under two-thirds of companies.

Due to the low number of companies both in total and in each sector, the analysis will be done on an aggregate level of the entire Singaporean market. **Figure 34** shows the median environmental, social, and governance disclosure score for 2011 and 2016 for the entire aggregated market. Consistent with other markets, the governance score is higher than the social and environmental scores. All three themes have seen increased reporting over the five years, although social reporting has grown much more than the two other themes. The governance score went from 48.21 to 51.79, showing an aggregate median governance disclosure score similar to the Australian and Hong Kong SAR markets. The median social disclosure score went from 14.04 in 2011 to almost double that, 28.07, in 2016, whereas the median environmental disclosure score went from 11.63 to 17.45.

Overall, among the companies that report on ESG factors: governance disclosure is the most common practice; there is more reporting per company; and relatively extensive reporting dates back to before 2011.

Figure 35 shows the breakdown of the 2016 median environmental, social, and governance scores based on the size of the companies. Of the 44 companies reporting on ESG factors, 8 were small-cap (market cap, USD 1-2 billion), 29 were mid-cap (market cap, USD 2-10 billion), and 7 were large-cap (market cap, USD >10 billion). All companies

FIGURE 34: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR 2011 AND 2016 FOR LISTED COMPANIES DOMICILED IN SINGAPORE

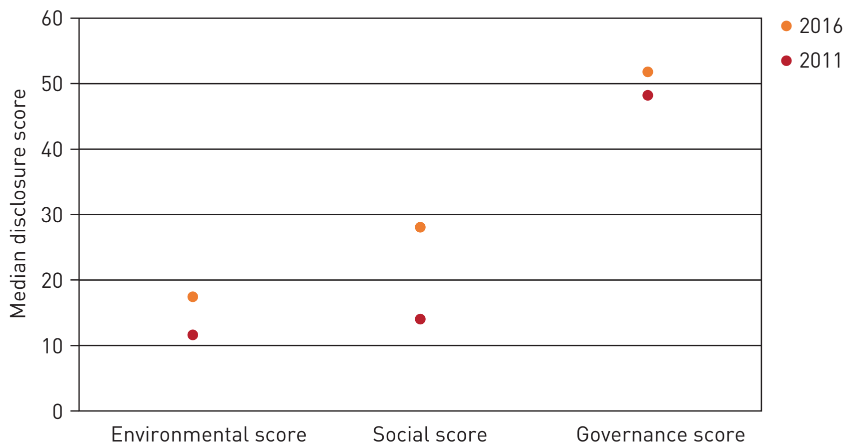
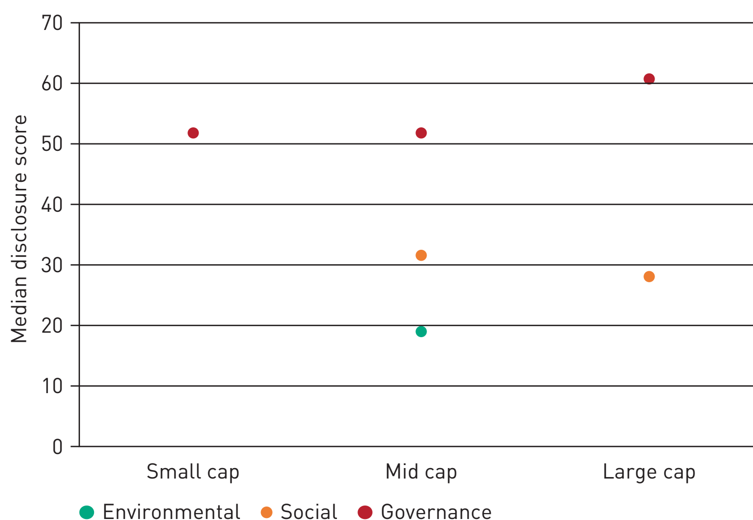


FIGURE 35: MEDIAN ENVIRONMENTAL, SOCIAL, AND GOVERNANCE SCORES FOR LISTED COMPANIES DOMICILED IN SINGAPORE PER SIZE



reported on governance issues, which shows high median disclosure scores of 51.79, 51.79, and 60.71 for small-, mid-, and large-cap, respectively. Furthermore, all large-cap companies reported on social factors, making it possible to show the median social disclosure score of 28.07. This score is slightly lower than the mid-cap social disclosure score of 31.58, although the coverage in mid-cap was not as good, with 26 of 29 companies reporting on social factors.

For small-cap, six of eight companies reported on social and environmental factors, leaving both median scores out of the analysis. For large-cap companies, the coverage also fell to 6 companies for environmental reporting, leaving them out of the analysis. Of 29 mid-cap companies, 26 reported on environmental factors, giving it the same coverage as social reporting. The median environmental disclosure score is lower than the social score at 18.99 and 31.58 respectively.

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INTERVIEW WITH A SINGAPORE MAJOR MARKET PLAYER: MANULIFE INVESTMENT MANAGEMENT

Interview with Murray Collis, Portfolio Manager and Head of Fixed Income, Manulife Investment Management

What does ESG integration mean to you?

At Manulife Investment Management, ESG integration means that environmental, social, and governance (ESG) factors are an integral part of our investment process. We believe ESG factors contribute to the overall profile of an investment and that strong management of ESG risks and opportunities can lead to long-term sustainable, attractive risk-adjusted returns. We are committed to integrating ESG analysis into our existing fundamental research processes and see ESG as a natural complement to our strengths as a boutique active investment manager.

For example, our Asian fixed-income team currently undertakes in-house ESG research for over 400 corporate bond issuers within the Asian region. The ESG analysis is a core consideration for our overall Manulife internal credit rating, which we utilize to manage more than US$50 bn worth of investment in the region.

How do you integrate ESG data into your investment processes?

Our credit analysts work together with our dedicated ESG research team to review the material ESG factors by issuer, as part of the traditional research and financial analysis we conduct on every single issuer.

In our ESG internal risk rating framework, we communicate the extent to which issuers are exposed to ESG risks by categorizing them into one of the four risk-intensity rankings (Very High, High, Medium, Low) for each of the E, S, and G factors based on various qualitative attributes. The risk-intensity rankings focus on the ESG risks that we consider to have a meaningful impact on the credit profile of a company, such as reduced cash flow, weakened protection of creditors' interests, or other credit considerations that may influence the risk of default. ESG reports from third-party data providers can be used as a reference to assist credit analysts to flag the ESG exposures and management deficiencies of a company. Each intensity ranking corresponds to an estimated impact (in notches) to the internal risk rating. This analysis forms the basis of our internal credit rating, which we then utilize to judge the relative merits of issuers, the fair value of their bonds, and whether the bonds are investable.

The research reports of credit analysts on each issuer include a specific focus on each ESG factor; these are passed to portfolio managers, who consider the report thoroughly when making investment decisions. In some cases, we may decide to exclude a potential issuer from our portfolios if we deem any single or combination of E, S, and G risks to

be too high. When appropriate, we also seek to have regular engagements with issuers to understand their ESG risk profiles more comprehensively, particularly where ESG issues negatively impact our internal ratings.

Please give an example of a company where ESG factors impacted its investment decisions (you do not need to name the company).

Production of palm oil in Asia is a controversial ESG issue because of the association with many negative environmental and social impacts, including deforestation, water usage, loss of biodiversity, devastating impact on the underlying peatland, labor safety, etc. We believe these negative impacts caused by unsustainable palm oil production could result in credit risks to companies in the palm oil sector, because of market access risks and operational risks where sustainability certifications of plantations cannot be maintained.

In order to capture these ESG risks in our internal credit rating framework, palm oil producers generally receive one notch-down to reflect the potential impacts of ESG risks to the credit profiles. We have also excluded some Asian companies within the palm oil sector based on our analysis.

What techniques have you used to promote ESG integration in your firm?

We believe that strong collaboration between the ESG and investment team is the key to promote effective ESG integration. Since establishing a dedicated ESG team in Asia in September 2016, the ESG team has worked with the investment team to implement several initiatives to promote ESG integration.

For example, we have rolled out an ESG research note template for recording ESG research and ESG company engagements, which are published to a central research platform. ESG data and ratings received from our core external research provider are integrated into our key IT platforms, including FactSet and Bloomberg, so that portfolio managers and analysts can see and use this data seamlessly in their investment process and in portfolio monitoring. The investment team also collaborated with the ESG team to develop industry-specific ESG handbooks that help investment teams to assess a company's ESG risks and opportunities in the context of the factors that are most material to that industry. Periodic ESG training on current trends and specific themes are organized and led by the ESG team as well as external experts. Further, our participation and leadership in industry groups such as the Asian Corporate Governance Association and the Asia Investor Group on Climate Change has enabled us to participate in several collaborative engagements with Asian companies, which have resulted in information about our peers' collective views on ESG to inform our investment team and their ongoing efforts.

Our efforts in Asia mirror the strategies being employed globally at Manulife Investment Management to advance ESG integration among our global boutique teams.

How do you see ESG integration developing in Singapore over the next five years?

Integration of ESG within investment management has been accelerating across the Asia region, including Singapore, during the past few years. We have seen ESG advance from an esoteric concept in Asia a decade ago to something that can no longer be ignored. The growth has coincided with improving data and disclosure from our issuers. However, there is still much work to be done. With institutional clients and consultants now placing ESG

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integration as a focus within their investing decision process, investment managers will need to continue to develop and evolve. We see education and acceptance by clients, particularly at a retail fund level, as a key driver for continued development. We also see increasing demands from millennials for ESG funds and products.

At the issuer level, there will be more standardization on environmental and social data from issuers, so that it will be easier for investors to evaluate and integrate ESG data to their fundamental analysis. We have seen how the data on governance has become relatively more mature, and we expect that environmental and social data will follow a similar journey. We believe issuers, instead of disclosing a patchwork of nonstrategic ESG data, will focus on disclosing ESG data that is material to investor investment decisions in the future.

What do you think is necessary to accelerate this growth in ESG integration in Singapore?

The Asian investment management industry is gradually moving in the right direction. Firms are building up resources, and we are beginning to see more institutional clients demanding ESG best practices from their managers. To accelerate this growth, major asset owners in the region, who sit atop the investment chain with long-term investment horizons, must start to recognize the importance of ESG and integrate ESG factors throughout the investment cycle, starting with the manager selection process. Manulife Investment Management is part of this growth in ESG integration in Singapore—we have been talking with the Singaporean Government and its agencies on various topics related to ESG integration in asset management.

In addition, we believe more education would be very helpful to build the awareness of individual finance practitioners, particularly with reference to the overseas experience, such as in the European Union.

INTERVIEW WITH A SINGAPORE MAJOR MARKET PLAYER: SGX REGCO

Interview with Tan Boon Gin, CEO of SGX RegCo.

Why is ESG investing important to Singapore?

As an international financial center, Singapore caters not only to its domestic economy, but also the wider Asia Pacific region. The Singapore capital markets serve to connect domestic and international investors and companies in their fundraising activities. It is thus important that Singapore meets the needs of businesses and investors.

International trends indicate that long-term investors are increasingly looking beyond financial metrics of success, and are considering sustainability and the ESG aspects of their investments. In an article in the *Financial Times* in November 2018, it was reported that ESG funds now manage US$1 trillion of assets, up 60% from 6 years ago. Morningstar—whose data are used in the report—also counted 372 socially conscious funds last year, 2.5 times the 140 of 2012. To continue to be a relevant player in international markets, Singapore is directing its efforts to facilitate sustainable investments into and from Singapore.

What changes have you seen with regard to ESG investing during recent years?

ESG investing has increasingly gained traction in recent years. In Singapore, there is anecdotal evidence that Singapore consumers and investors increasingly care about sustainability. Most recently in November 2018, in the Sunday edition of the local broadsheet the *Times* highlighted a trend among millennials investing in firms or funds that target specific social or environmental outcomes. Green bond issuances in Singapore have also continued to grow since the first green bond issuance in 2017 by City Developments Limited, one of Singapore's largest developers. It has been estimated that the Association of Southeast Asian Nations (ASEAN) will need US$200 billion in green investments annually till 2030. There is an immense opportunity to be tapped by all.

What is your role as a securities exchange in promoting ESG investing? How are you encouraging practitioners to consider ESG factors in their portfolios?

Besides our role as a regulator in the financial market, we also have a duty to ensure that the market develops to meet the expectations and needs of the future. We believe that widespread adoption of sustainable business practices needs to be driven by both market forces and government and regulatory bodies like ourselves. In a speech in November 2018, the Deputy Prime Minister of Singapore, Tharman Shanmugaratnam, emphasized the need for governments, businesses, and citizens to work together to achieve sustainability. Such tripartite partnerships have been proven to yield more efficient and effective results than relying on either market forces or regulatory intervention alone.

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We consistently raise awareness about sustainability topics and promote regional and global sharing. For example, SGX supports, and works with, international organizations such as the CFA Institute, the Principles for Responsible Investment, and the Task Force on Climate-related Financial Disclosures in organizing conferences to connect SGX-listed companies with investors on sustainability issues, to bridge expectations on the matter.

SGX also launched four equity indices based on measurements of sustainability to provide a transparent avenue through which investors can assess the sustainability practices of SGX-listed companies.

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

As a market regulator, it is our responsibility to ensure that all information which is material and relevant for investors to make investment decisions is disclosed. As the linkages between sustainability performance and corporate financial performance become better understood, one is drawn to the irresistible conclusion that ESG sustainability is one of the critical aspects of a company's business that investors need to know.

We have seen a marked increase in the level of ESG disclosure since Singapore Exchange Ltd (SGX) mandated sustainability reporting in 2016—SGX-listed issuers are required to prepare an annual sustainability report in respect of financial years ending on or after 31 December 2017. The inaugural sustainability reports by first-time reporting companies are progressively being published, and we are happy to report that almost all SGX-listed companies with December year-ends have issued a sustainability report.

Going forward, we intend to review companies' sustainability report from this first round of reporting and will actively engage with companies to understand the difficulties that some companies may have and how we can help them, for example, by providing more resources. Through this review, we also hope to better understand investors' expectations on the level and standard of sustainability reporting, and seek to improve and enhance companies' disclosures so as to align their disclosures with investors' demands.

Are you aware of investors asking companies questions about ESG issues and for them to provide more ESG data?

We are aware of increased engagements between investors and companies on ESG issues. As a market regulator, we are interested to ensure that our listed issuers are producing decision-relevant information that investors want. As much as companies are adapting to the new world, so are investors. It is not clear to us if all investors want the same thing. Sustainability has become a broad topic that encompasses a wide spectrum of interest, from climate change to no plastic, from fair wages to diversity. At the same time, these diverse areas do not lend themselves naturally to easy standardization and comparability. We believe that with more dialogue between and greater consensus among all stakeholders, we will arrive at generally acceptable standards of disclosure that would help everyone.

How will ESG investing develop in Singapore over the next three years?

ESG investing will only become increasingly relevant due to the region's urgent environmental concerns. This is also illustrated by the Singapore Government's focus on the sustainability agenda through the introduction of measures such as implementing a carbon tax (which just came into force on 1 January 2019), regularly enhancing vehicular emission standards, and providing grants to help businesses more sustainable. Businesses and investors will need to manage the ESG impacts to their business or investments alike, while leveraging the sustainability opportunities that abound. The level of ESG investing will only grow.

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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.[1] 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.

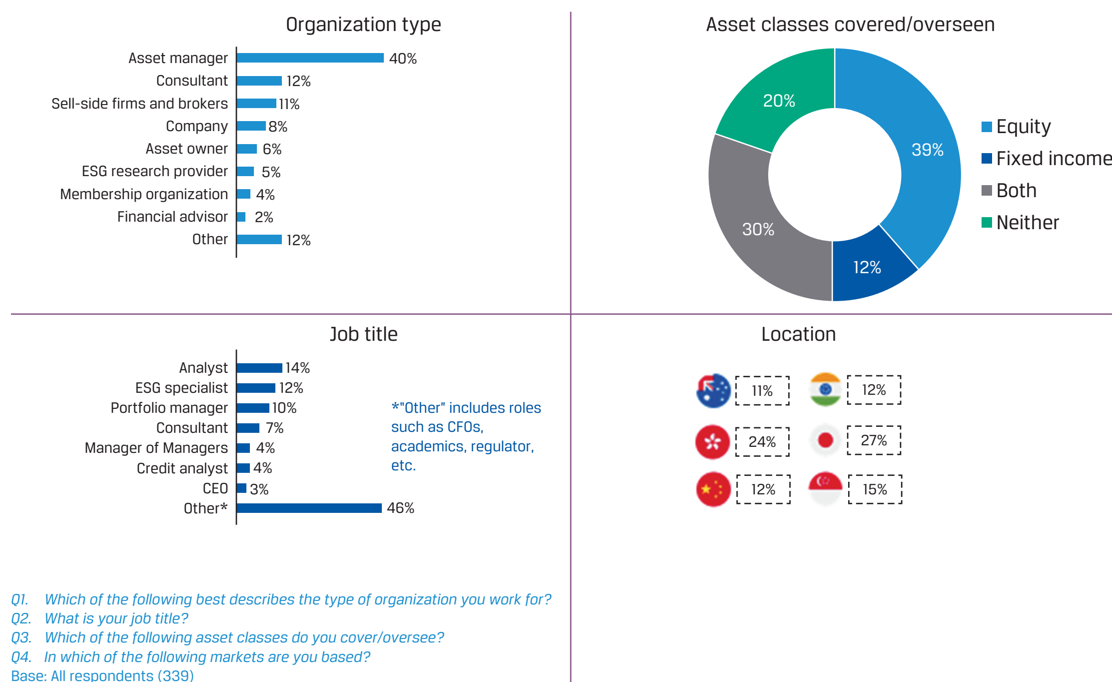
Research was carried out among stakeholders in 17 different markets. The findings for respondents in the APAC region are based upon 339 completed surveys from respondents based in:

- Australia (n=36);
- Mainland China (n=40);
- Hong Kong SAR, China (n=80);
- India (n=42);
- Japan (n=91);
- Singapore (n=50).

Figure A.1 provides the demographics of the survey respondents from the APAC region.

[1] PRI commissioned YouGov to set up and host the online survey on YouGov's bespoke, secure survey platform. The survey was available to complete in a variety of languages. PRI and CFA Institute promoted the survey via invitations to the workshops discussed later in this report.

FIGURE A.1: APAC SURVEY RESPONDENT DEMOGRAPHICS



WORKSHOPS

We held 23 workshops to accompany the survey. Ten workshops were held in the APAC region, including workshops in Australia, Mainland China, Hong Kong SAR, China, India, Japan, and Singapore (figure A.2).

The purpose of these workshops was to provide color to the results of the survey. Workshop participants were split into groups of six to eight and discussed and contributed their views on the preliminary results of the survey. From the workshops, we were able to collect insights from local practitioners who are predominantly non-ESG investment professionals.

BLOOMBERG'S ESG DISCLOSURE SCORES

CFA Institute and PRI asked Bloomberg if the firm would like to partake in this ESG integration project by contributing a dataset of its ESG disclosure scores. We considered that the analysis of ESG company data, found in the subsections "Trends in ESG Company Data," would further help investors when they integrate ESG data into their investment analysis and process.

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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 SAR	Dubai
Sao Paulo	Melbourne	Frankfurt
	Mumbai	Johannesburg
	Shanghai	London
	Shenzhen	Moscow
	Singapore	Paris
	Sydney	Zurich
	Tokyo	

Note: AMER = Americas; APAC = Asia Pacific; EMEA = Europe, Middle East, and Africa

The dataset includes companies with a FY2016 market cap above USD 1 bn extracted on 21 January, 2019. 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 dataset has combined ESG disclosure scores for 2011 and 2016 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.

Bloomberg's ESG disclosure scores are based on publicly available data and are a score of how companies report on ESG, not necessarily how they perform. The score is based on company disclosures on over 100 environmental, social, or governance disclosure points. Each type of disclosure is scored from 0 to 100, and then aggregated to a single environmental, social, or governance score. These are again aggregated to a combined ESG disclosure score. Some factors are given a higher weight depending on their importance, and the scores are also tailored to each industry. Bloomberg accounts for industry-specific disclosures by normalizing the final score based only on a selected set of fields applicable to the industry type; for example, "Total Power Generated" is counted into the disclosure score of utility companies only.

The ESG disclosure scores shown in the regional reports are median scores to avoid skewing of the data with extreme values. Due to the scores being medians, they cannot be aggregated across sectors. The representativeness of the data varies among markets, as some markets 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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