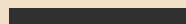




# ESG STANDARDIZATION AND MEASUREMENT ACROSS REGIONS

COLUMBIA UNIVERSITY SCHOOL OF  
INTERNATIONAL AND PUBLIC AFFAIRS



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# Acknowledgements

The Columbia SIPA Capstone team would like to extend our gratitude to our mentors, interviewees, participants, and advisors who made our research possible.

We would like to thank all the asset managers, pension funds, ESG service providers, experts, and professionals who took time to share their perspectives and experiences. Their participation in our research has furthered our understanding of the status quo of global ESG regulations and standards, the challenges the industry is facing, and directly informed our future outlook on ESG investment.

We are particularly grateful to our capstone advisor Professor Alicia Ogawa, Columbia University, whose advising and feedback guided us throughout this research project. We are also grateful to Suzanne Hollmann, Saleha Awal, and SIPA faculty members Cary Krosinsky, Carol O'Cleireacain, and Thomas O. Murtha.

Finally, we would like to thank our client Citi Private Bank for the opportunity to pursue this project. We are especially grateful to Charles L. Reinhard and his team.



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## PROJECT PURPOSE

Environmental, social, and governance (ESG) is gaining significant attention among both investors and regulators. However, the lack of standardization of ESG metrics is creating confusion and hindering wide-scale integration of ESG into investment strategies.

The purpose of this report is to evaluate the growing consensus around ESG standardization and identify the standards in today's global market that are likely to gain favor in the future. While there exists a rich body of literature on ESG, this report coalesces the current state of ESG measurement and regulation across a range of geographies into one report.

To prepare this report, the Columbia University School of International and Public Affairs (SIPA) Capstone team conducted desk research and interviewed more than a dozen asset managers, owners, and service providers from around the world to gain a unique, first-hand perspective on this issue. The ultimate goal of this analysis is to support Citi Private Bank's Investing with Purpose (IwP) platform and help Citi clients navigate the evolving ESG measurement and regulatory landscape.

## KEY THEMES FROM RESEARCH AND INTERVIEWS

There is broad consensus among asset managers, owners, service providers and regulators that the standardization of ESG metrics is critical to assess materiality and comparability across companies and funds.

Asset managers, owners, and service providers rely on a range of third-party ESG measurement and ratings tools in addition to conducting in-house research and engaging with companies directly to integrate ESG into the investment process.

While ESG is truly a global phenomenon, Europe is leading the way in terms of the depth of the ESG market as well as the regulatory environment. U.S.-based asset managers and owners were optimistic on the future of ESG measurement and disclosure requirements under the Biden Administration. ESG is a nascent, but growing trend in Asia Pacific (Japan) and Latin America.

## GLOBAL THEMES

**Entrance of New Investors:**

Finance is not insulated from changing demographics and social norms in many countries. Demographics groups such as millennials and women that are accruing or inheriting wealth are pushing for change and are influencing decisions with their wallets and investment funds.

**Role of the private sector:**

As with other ESG considerations, the role of the private sector in advancing and standardizing ESG measurement varies geographically. Should new regulations and standards be developed and put into practice, the questions will then be: which firms in the private sector are able to influence the new regulations, and which norms will be codified? Public companies, proxy advisory services, and asset managers will all have a stake in these discussions.

**Technology & Data:**

As more countries and their financial regulators require increased ESG reporting, both the quantity and quality of ESG data will continue to grow. Artificial intelligence (AI) will play a greater role in helping investors to gather and analyze large amounts of ESG data that were previously considered unusable.

**Climate Change:**

Climate change has emerged as a priority for market participants, including companies, regulators, investors, and consumers. One can expect that as regulation on this topic increases across jurisdictions, more companies will make net-zero emissions commitments.



## WHAT IS ESG?

ESG investing is the latest in a series of strategies in which investors better align their investments to their values. Although no singular definition for ESG investing has yet gained international recognition, the concept centers around deciding to incorporate environment, social, and governance (ESG) risks into investment and decision making processes. This can take the form of ESG screening, ESG positive selection, or ESG integration.

The most traditional strategy, ESG screening or negative screening, excludes investment in select companies or sectors not aligned with investors' values. The second, ESG selected or themed funds, chooses companies that either outperform peers in ESG measures or are improving quicker in ESG metrics. Companies can also be sorted by theme such as gender diversity based on ESG measurements aligned with investor preferences. Last is ESG integration, which builds on the traditional model of calculating business value by adding non-financial risks that impact a company's worth.<sup>[1]</sup> In addition to these strategies, there are also funds that include engagement with companies to improve their ESG practices to generate return. All of these differ from impact investing, which has a more widely agreed upon definition and requires a measurable positive non-financial impact.

## WHY IS ESG RELEVANT?

In an era of rising sea levels, climate change, evolving market dynamics, and social movements, it is increasingly important to integrate both finance and development worlds. In addition to better modeling our current world, ESG strategies can incentivize companies to increase their sustainability standards. In addition to a growing awareness of climate challenges, private investment is essential to achieve the Sustainable Development Goals (SDGs).

The United Nations estimate that in order to achieve the SDGs between 2.5 and 3 trillion dollars per year is needed, far higher than any government can provide.<sup>[2]</sup> As ESG gains momentum given its risk mitigation qualities and strong stock performance, more investors are shifting to this approach. The COVID-19 pandemic highlighted a relevant aspect in the equation. S&P Global Market Intelligence analyzed ESG performance and determined ESG-focused performance outpaced the S&P 500 - ESG rose 27-55% while S&P500 27%<sup>[3]</sup>

In 2004, Secretary-General Kofi Annan invited twenty financial institutions--- which held over \$6 billion USD in assets--- from 9 countries to develop an initiative to better integrate environmental, social and corporate governance issues in asset

management, securities brokerage services and research.<sup>[4]</sup> The result was “Who Cares Wins: Connecting Financial Markets to a Changing World,” which served as a stepping stone for launching of the UN PRI- UN Principles for Responsible Investments and paved the way for a new era of perspectives and practices in finance.

Despite UN PRI does not have an enforcing mechanism and can be improved by requiring signatories to disclose internal practices and reports, the initiative serves as a tool to promote ESG and implement non-pecuniary considerations into investment strategies. By the end of 2020, ESG-Environmental, Social and Corporate Governance Investments made up about a third of total assets under management in the United States - approximately \$17 trillion USD.<sup>[5]</sup> Not only this trend increased by 42% from last year but it is expected to continue growing and expanding globally

From civil society movements, private foundations, academia, multilateral organizations, and financial entities to government regulators, the definitions and considerations of ESG differ from one to another. While there are strict considerations, guidelines, and principles issued by major institutions, credit rating agencies and policy regulations play an important role and are key actors in this dynamic.

## WHAT CONCERNS EXIST?

Milton Friedman argued that social responsibilities were the sole responsibility of individuals and the goal of a business should always be to increase profits in order to enrich its shareholders.<sup>[6]</sup> Friedman further argues that any decreased returns associated with social actions, represent a form of tax. However, the claim that there is a trade-off between financial and non-financial return and is being challenged. Proponents promote ESG as a long-term risk mitigation tool.<sup>[7]</sup> This works because ESG risks can present significant financial risks that decrease profit. This has been shown in the short-term as companies that suffer ESG-related controversies often see a decrease in share price.

There are two primary issues with ESG investing today: i) investor confusion leads to hesitation to invest in ESG; and ii) a lack of comparable ESG data prevents investment from reaching companies and projects that are improving in ESG factors. Lack of comparable data, as well as reliable third-party audits of such data, leaves room for greenwashing - companies' misrepresentation of environmental efforts to get lower borrowing rates and boost reputation. Bond investors have shown a willingness to pay a premium and accept a lower coupon in exchange for being a provider of eco-friendly debt. Increasing demand incentivizes

companies to consider environmental concerns.

According to James Rich, a portfolio manager at Aegon Asset Management, a third of green bonds contain elements of greenwashing.<sup>[8]</sup> Thus, it presents a reputational risk that can damage the attractiveness of ESG investment. The answer to both, investor confusion and the lack of comparable ESG data leading to greenwashing, is regulation and standardization. However, this is not without potential danger. Improper or too stringent regulations could drive investors away from the market. Similarly, standards that are unclear could be misinterpreted and abused.

[7]

[8]



### WHY IS ESG STANDARDIZATION IMPORTANT?

Standardizing ESG metrics is important for two main reasons: materiality and comparability. The current metric morass makes it difficult for investors to effectively compare sustainability disclosures across companies. It also complicates investor efforts to adequately measure relevant ESG risks that may impact a firm's long-term growth and market valuation. Establishing a common standard for ESG reporting and ratings will help improve the quality, comparability, and transparency of disclosures and mitigate greenwashing.

A study published by MIT Sloan in May 2020 underscores the extent to which existing ESG scores among ratings agencies in the U.S. differ and the challenge this poses to investors. The study found that ESG ratings from KLD (MSCI Stats), Sustainalytics, Vigeo Eiris (Moody's), RobecoSAM (S&P Global), Asset 4 (Refinitiv) and MSCI differ substantially in terms of scope - the type of attributes being measured (i.e. carbon emissions or labor practices) and measurement - the indicators used to measure attributes. Only 60 percent of the time do these agencies agree with one another on a firm's ESG score. Such divergence has important implications for investors, as ESG ratings increasingly influence financial decisions. As the

authors point out, this divergence means that "information that decision makers receive from ESG rating agencies is relatively noisy" and ESG performance is "less likely to be reflected in corporate stock and bond prices" as investors face challenges in trying to identify "outperformers and laggards."<sup>[9]</sup> To mitigate this divergence, greater transparency and common measurement practices are needed to enable investors to accurately evaluate company risk.

### WHAT ARE THE DISADVANTAGES OR RISKS TO ESG STANDARDIZATION?

The vast majority of industry professionals interviewed for this report welcomed efforts by regulators and non-profits like the International Financial Reporting Standards Foundation (IFRS) to develop standardized ESG metrics. However, some experts interviewed cautioned pursuing a "one-size-fits all" approach. A New York-based asset manager told the SIPA Capstone team that it is important to make a distinction between "dynamic materiality" versus "universal materiality," meaning that it is critical to look at the ESG topics that are material and relevant at the industry level.

This argument echoes recent remarks made by the former Governor of the Bank of England Mark Carney on the European Union's Sustainable Finance

Disclosure Regulation (SFDR). Speaking at a Financial Times event in March 2021, Carney pointed out that while the goals of a universal ESG classification system are laudable, the reality is that companies are engaged in a transition that is far more complex than any binary green versus non-green taxonomy can reflect.<sup>[10]</sup> Carney argued that the EU should instead embrace “50 shades of green” and build a framework that allows for flexibility.

Similarly, Ike Brannon, former senior economist for the U.S. Treasury, wrote in a recent article in *Forbes* that the SEC should resist “precise prescriptions” for formalizing ESG reporting requirements as it will “unlikely benefit investors” and “increase compliance costs.”<sup>[11]</sup> Some asset managers interviewed for this report also mentioned that new government standardization requirements would indeed increase compliance costs.

Additionally, a representative from a leading service provider in New York spoke to the SIPA Capstone team about the risks that companies face in meeting government reporting requirements. According to the individual, there is tremendous “pressure to incorporate ESG quickly” but many firms do not “understand what the data is or what they need.” Thus, a base level competency is needed for companies and investors to truly understand ESG factors. Overall,

while many of the asset managers, owners and service providers the SIPA Capstone team spoke with agreed on the need for better reporting requirements, there is concern that a top-down approach to create an exhaustive, one size fits all solution may be too costly and counterproductive.

Similarly, there appears to be broad consensus among asset managers that accounting standards and the methodologies used by ESG ratings companies should be transparent to allow managers to customize information for their own set of assumptions and client demands. Finally, some interviewees noted that a verification and audit process will eventually be needed in order to ensure the veracity of a company or fund’s ESG claims.

#### HOW IS ESG INTEGRATED INTO THE INVESTMENT PROCESS?

Many of the asset managers, asset owners and service providers interviewed for this report stated that they rely on a range of third-party sources such as MSCI, Sustainalytics, S&P, and Bloomberg among others to evaluate a company’s ESG scores. Existing accounting like standards such as the Sustainability Accounting Standards Board (SASB), International Integrated Reporting Council (IIRC), and Task Force on Climate-related Financial Disclosures (TCFD) were also frequently mentioned

by interviewees as being useful. Several stated that they rely on their own in-house proprietary ESG evaluation system.

In addition, the majority of interviewees indicated that they conduct their own in-house due diligence and hold one-on-one conversations with companies on their ESG practices. One partner at a New York-based ESG advisory firm stressed that while standards such as SASB and TCFD do a lot of value add, sometimes they lead to confusion among newcomers into the field. The individual believes that “this is the year of great alignment” as regulators and international non-profits work to standardize ESG frameworks.

Moreover, KPMG found in its December 2020 Sustainability Report that in a survey of more than 5,000 companies across the globe, the majority stated that they used the Global Reporting Initiative (GRI) as well as the Sustainability Accounting Standards Board (SASB).<sup>[12]</sup>

Overall, asset managers, owners and service providers appear to rely on a broad range of third-party ESG metrics and standards to evaluate a company’s ESG performance. The following section describes in more detail the standards and processes that resonate across different geographic regions.



## GLOBAL STANDARDS

Increasingly, there is growing consensus on the need to establish a globally-accepted system of corporate ESG disclosure. For years, the United Nations Sustainable Development Goals (SDGs) have served as a base framework for ESG standards.

Perhaps the most significant development to date in terms of establishing a global system for ESG reporting came this past March when the World Economic Forum (WEF) endorsed the International Financial Reporting Standards (IFRS) Foundation's initiative.<sup>[13]</sup> IFRS, which oversees the International Accounting Standards Board (IASB) that is accepted in 140 countries, proposed the creation of a Sustainability Standards Board (SSB) in September 2020 to improve the global consistency and comparability of sustainability disclosure.

The WEF's support for IFRS and the creation of a new Sustainability Standards Board (SSB) is significant and underscores the growing momentum behind IFRS. In February 2021, IFRS indicated it may formally reveal the SSB's formalized reporting framework by as early as the Nations Climate Change Conference COP26 in November 2021.<sup>[14]</sup>

KPMG reviewed the comment letters from a selection of 20 of the largest and most influential investor respondents to IFRS'

initiative, 18 global institutional investors with close to \$24 trillion of assets and two major investor associations. KPMG found that within the investor community, there is "broad appetite" for IFRS to pave the way to establish a globally accepted, mandatory standard for sustainability reporting. Additionally, the report found that "investors frequently emphasize the need for the IFRS Foundation to act quickly and to advance, rather than replace, the work done by existing owners of voluntary disclosure frameworks."<sup>[15]</sup>

To this last point, WEF members, including the International Business Council (IBC), recently backed efforts to coordinate the work of the Carbon Disclosure Project, the Climate Disclosure Standards Board, the Global Reporting Initiative, the International Integrated Reporting Council, and the Sustainability Accounting Standards Board. Moving forward, there is likely to be greater cooperation and consolidation among these leading non-profit institutions on a global scale. Even as regulators across the global create their own taxonomies and disclosure requirements, experts believe these non-profit initiatives will likely remain relevant and indeed complement future regulations, similar to the International Accounting Standards Board (IASB).

EUROPEAN UNION STANDARDS

Europe is by far the most developed market in ESG investment, accounting for close to 70 percent of the global sustainable fund universe. Last year, sales of sustainable funds in the Europe stood at \$233 billion, far beyond other regions, according to figures from Morningstar.<sup>[16]</sup> Despite the EU's efforts on promoting ESG, some of the regulations are criticized for being too vague or too strict for fund managers and companies to comply with. In the following section, spotlights will be put on the EU Taxonomy, the EU Disclosure Regulation

(aka. "Sustainable Finance Disclosure Regulation," or "SFDR"), and Non-financial Reporting Directive (NFRD), which are the most frequently mentioned ESG regulations by the interviewees. These regulations will have a wide-range impact on global investors.

EU TAXANOMY

The EU taxonomy is a classification system which entered into force in July 2020, establishing a list of environmentally sustainable economic activities. The taxonomy aims to provide businesses and investors with clarity and

TIMELINE OF EUROPEAN REGULATION



transparency on what is “sustainable” to scale up sustainable investment and implement the European Green Deal. An economic activity is environmentally sustainable if it meets the four requirements in Table 1.

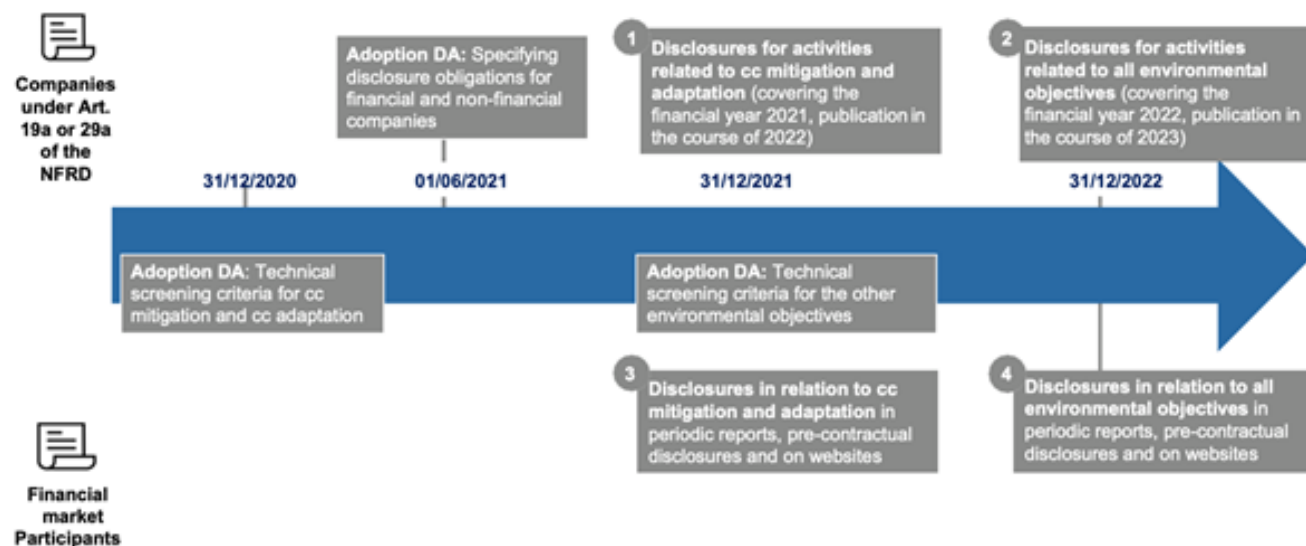
The taxonomy will have the impact on both entities within the EU and non-European asset managers offering products into the EU. However, the taxonomy is not being applied on a global basis due to other countries also racing to establish green investing frameworks.

More importantly, the taxonomy is criticized as a “one-size-fits-all” solution since it is hard to assess the sustainability of every economic activity covering such a broad scope and using strict methodologies stated in the technical reports.<sup>[19]</sup> It is also too binary in supporting only what is the purest shade of green, and there is no category for

**Table 1: Knowledge Box of EU Taxonomy<sup>[17]</sup>**

- It makes a “substantial contribution” to one of the following environmental objectives;
  - Climate change mitigation;
  - Climate change adaptation;
  - Sustainable use and protection of water and marine resources;
  - Transition to a circular economy;
  - Pollution prevention and control;
  - Protection and restoration of biodiversity and ecosystems.
- It does “no significant harm” to any of those six environmental objectives
- It avoids violation of minimum “social safeguards” (i.e., avoids adverse social impacts).
- It complies with “technical screening criteria” (TSC) which will be developed.

DISCLOSURE OBLIGATION TIMELINE<sup>[18]</sup>



firms in transition!<sup>[20]</sup> Moving forward, the commission is required to establish a platform on sustainable finance, consisting of experts who will advise on the technical screening criteria and improve the taxonomy's usability while exploring its extension to social subjects.

## SUSTAINABLE FINANCE

### DISCLOSURE REGULATION (SFDR)

SFDR was published on December 9, 2019 in the Official Journal and entered in force from March 10, 2021. The regulation lays down sustainability disclosure obligations on both entity level and product level for manufacturers of financial products and financial advisers toward end-investors. In other words, the financial market participants (i.e. asset managers, institutional investors, etc.) must disclose how sustainability risks are considered in their investment process; what metrics they use to assess ESG factors; and, how they consider investment decisions that might result in negative effects on sustainability factors on websites, pre-contractual documents, and periodic reports.

SFDR is called "the most rigorous effort" to clarify the fund manager's ESG disclosure duties and prevent greenwashing. Under the Level 1 SFDR rules applied from March 2021, all asset managers are required to publish information on their sustainability processes on the websites. They have to

put investment products into three categories recognized as dark green, light green, and non-sustainable depending on their climate and social impact. As part of the Level 2 stage, funds will have to report on issues such as carbon footprint and investments that may have "principal adverse impacts" to society.

In February, the European Supervisory Authorities published their final report on the draft regulatory technical standards (RTS) on the detailed Level 2 disclosure obligations under the SFDR, which the Europe Commission is expected to endorse by May 2021. But after heavy lobbying from the fund industry, the implementation of the RTS was delayed to 2022. The RTS identifies a catalogue of mandatory and voluntary adverse sustainability indicators. For large entities and parents of large groups over 500 employees, the disclosure of adverse sustainability impact is mandatory. These entities need to start considering the principal adverse impact by June 30, 2021 at latest. The first mandatory reporting is required by July 30, 2022 for the reference period in 2021.

SFDR's impact will be felt across the world. It will have a direct impact on EU entities and indirect impact on non-EU entities through EU subsidiaries and provision of services in the EU. For example, if a non-EU fund manager wants to market a fund to European

investors directly, they will have to comply with the rules but may not be subject to entity level reporting. Businesses from the US to India will also need to provide information to EU fund managers on issues from climate change to labor rights.<sup>[21]</sup> SFDR is not solely targeting sustainable funds - all asset managers will have to consider sustainability risks alongside other financial risks, transforming ESG integration into a baseline requirement.

### NON-FINANCIAL REPORTING DIRECTIVE (NFRD)

The EU NFRD (also known as “Directive 2014/95/EU”) was passed in 2014 and came into effect in 2018, requiring companies to disclose non-financial and diversity information. The directive has completed two public consultations in 2020 to strengthen the foundation of sustainable investment after the introduction of the Green Deal. The results along with a legislative proposal are planned for the first quarter of 2021.

The NFRD applies only to large public-interest companies over 500 employees. Currently, it covers approximately 6,000 large companies and groups across the EU, including listed companies, banks, insurance companies, and other companies designated by national authorities as public-interest entities. The directive gives companies significant flexibility to disclose relevant information

the way they consider most useful. Companies may use international, European or national guidelines (e.g., the UN Global Compact, the OECD guidelines for multinational enterprises, and ISO 26000) to produce their statements. The directive also integrated a set of supplemental guidelines with the Task Force on Climate-related Financial Disclosures (TCFD) in 2019.

Table 2: The Non-Financial Reporting Directive covers disclosures in both E, S, and G areas.

Environment (E)	Social (S)	Governance (G)
Environmental protection	Social responsible and treatment of employees	Anti-corruption and Bribery
	Respect for human rights	Diversity on company boards

### COMMENTS AND CONCLUSION

The disclosure obligations in the Taxonomy Regulation supplement the rules on sustainability-related disclosures in the Disclosure Regulation. Together, the Taxonomy and Disclosure Regulations will require firms to disclose the degree of environmental sustainability of funds and pension products that are promoted as environmentally friendly, and to include disclaimers where they do not (articles 8 and 9 of the Disclosure Regulation). In addition, firms which are subject to the Non-Financial Reporting Directive (NFRD) will be required to disclose, in their financial statements, information on the proportion of their activities that are classified as environmentally sustainable according to the Taxonomy Regulation.

Although most interviewees admit that Europe is more likely to come up with cross-country ESG regulations, the complex disclosure process adds burden to both companies and fund managers.

Asset managers are struggling with SFDR and confused about what data to disclose, and how they fit together. Under the NFRD, companies will need increased investments of time and money to comply with the disclosure requirements. In

addition, the regulations are made by economists instead of practitioners. As one asset manager said, "Some definitions in the framework are too vague, so that people can interpret as they want, while others may be too strict to comply with. When the EU adds new disclosure regulations, everyone freaks out." But it is true that these imperfect regulations still make up the milestone of the industry.

"EU framework is trying to do the right thing, but struggling to come up with something that is both useful and rigorous without stifling the sector."

- interview with an asset manager



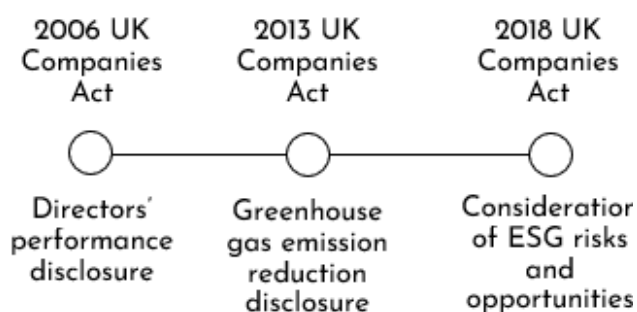
## UNITED KINGDOM

Setting a target to achieve carbon net zero by 2050, the UK is moving surely towards more transparent ESG disclosures and comprehensive regulations. In 2019, the UK Government made an announcement, as a part of its Green Finance Strategy, that listed companies and large asset owners are expected to provide ESG disclosures according to TCFD recommendations by 2022.<sup>[22]</sup> While the UK intends to have stricter regulations than the EU, it will allow for smoother adoption of regulatory requirements, unlike the EU that received a backlash for overwhelming companies with a plethora of ESG regulations. The UK's ambitious goal is to become the leader in sustainable finance, including origination of a robust and comprehensive regulatory framework and mandatory requirements to provide ESG disclosures.

### UK COMPANIES ACT

Under the UK jurisdictions some existing climate related disclosure requirements are already included in the legal framework. The 2006 UK Companies Act (CA) required companies to disclose their directors' performance including how well they promoted companies' success with regard to environmental issues. The 2013 and 2018 CA required companies to disclose their information on their greenhouse gas emissions reduction.<sup>[23]</sup> Under the 2018 UK Corporate

Governance Code companies are required to consider and address risk and opportunities related to ESG.



### TASK FORCE ON CLIMATE RELATED FINANCIAL DISCLOSURES (TCFD)

In March 2020, the UK Financial Conduct Authority (FCA) released a Proposal to Enhance Climate-Related Disclosures, which stated new climate-related disclosure rules applicable to the industry stakeholders.<sup>[24]</sup> According to this proposal, all commercial companies primarily listed in the UK - currently 480 commercial companies and all companies on the FTSE 100 index - would be required to include a section on ESG disclosure in their annual financial reports. In particular, this section should address ESG disclosures in accordance with TCFD recommendations and instances in which TCFD recommendations were not followed and why. Any documents other than the annual report containing ESG disclosures should be listed in the statement. The UK is to be the first country to require mandatory TCFD disclosures as early as in 2021. According

to Her Majesty’s Treasury proposal, in 2021 TCFD disclosures shall become mandatory for 66 percent of listed companies, 57 percent of banks and building societies, 63 percent of insurance companies and 42 percent of operational pension schemes. Failure to comply may result in penalty of up to £50,000 according to UK Department for Work and Pensions Chapter 5.<sup>[25]</sup> Legislative measures are expected to come into force for most organizations by 2023.

TCFD’s four core elements of recommended climate-related financial disclosures focus on governance, strategy, risk management and metrics and targets. FCA particularly emphasizes

TCFD recommendations on governance and risk management.

### UK GREEN TAXONOMY

In 2019, Chancellor Rishi Sunak announced development of the UK’s own green taxonomy to have a clear definition of environmentally sustainable practices. He stated, “[o]ur plans will ensure the UK moves forward as an open, attractive and well-regulated market, and continues to lead the world in pioneering new technologies and shifting finance towards a net zero future.”<sup>[26]</sup>

According to Dr Ben Caldecott, who is a founding director of the Oxford Sustainable Finance Programme, the

### TCFD RECOMMENDED DISCLOSURES:

Recommendations and Supporting Recommended Disclosures			
Governance	Strategy	Risk Management	Metrics and Targets
Disclose the organization's governance around climate-related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
Recommended Disclosures	Recommended Disclosures	Recommended Disclosures	Recommended Disclosures
a) Describe the board's oversight of climate-related risks and opportunities.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	a) Describe the organization's processes for identifying and assessing climate-related risks.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.
b) Describe management's role in assessing and managing climate-related risks and opportunities.	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	b) Describe the organization's processes for managing climate-related risks.	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

planned taxonomy will be based on metrics of the EU taxonomy and will adopt these thresholds to its own market.<sup>[27]</sup> In addition, the UK green taxonomy will have a strong scientific expertise and is expected to be more rigorous than the EU taxonomy. To support sustainable finance goals, the Chancellor outlined several proposals in addition to establishing own green taxonomy. He proposed an introduction of a mandatory climate-related financial disclosures framework and issuance of the first Sovereign Green Bond in 2021 - subject to investors' demand. These green bonds will be aimed at financing projects related to climate change, financing critical infrastructure and creating jobs in the environmental sector.<sup>[28]</sup>

In addition to the Chancellor's announcement, Andrew Bailey, governor of the Bank of England stated that "The Bank of England welcomes the government's decision to make disclosures related to climate change risk mandatory for firms by 2025."<sup>[29]</sup> The Bank of England has also announced the first climate stress test exercise taking place in June 2021. The stress test, previously scheduled for 2020 and postponed due to the pandemic, will have three climate scenarios to assess risk management processes.

## UK 2020 STEWARDSHIP CODE

In 2020 Financial Reporting Council released the updated UK Stewardship Code which focuses on long term sustainable value for beneficiaries. The Code includes 12 principles for asset managers and owners divided into four sections - purpose and governance, investment approach, engagement and exercising rights and responsibilities - and six principles for service providers.<sup>[30]</sup> When undertaking stewardship, investors consider material issues such as governance, environmental, particularly climate change, in addition to and social factors such as diversity and equality. To note, among the factors signatories should address while applying the principles are compliance with Governance Code, environmental and social issues, including climate change, and diversity, remuneration and workforce interests.

## THE PENSION REGULATOR

In 2016 and 2017, The Pensions Regulator (TPR) announced that trustees need to consider financially-material factors including ESG.<sup>[31]</sup> According to the Department for Work and Pensions (DWP) funds should take ESG factors into account in their Statement of Investment Principles and disclose a stewardship policy. In 2019 TPR issued a new requirement that mandates trustees to consider ESG factors in their investment decisions. In their Statement

of Investment Principles (SIP) trustees are required to include:

- financially material considerations including ESG factors they consider in their investment decision-making;
- the engagement activities they pursue and the way in which they exercise rights that attach to their investment;
- assessment of non-financial matters taken into account in the selection and realization of investments.

The SIP implies that trustees are to assure their investment advisers and asset managers of their serious consideration of ESG. Assuming they can't show this, trustees risk confrontations from both the Pensions Regulator (TPR) and plan individuals, and also reputational harm and legal difficulties, such as a failure to comply with the Pension Act of 1995 and the Pension Schemes Bill 2019 to 2020 and resulting in penalties in the amount of up to £50,000.<sup>[32]</sup>

#### UK GREEN FINANCE STRATEGY

In 2019 the UK adopted the Green Finance Strategy initiative aimed at reducing its carbon footprint and becoming a leading country in climate finance. The strategy is based on three pillars: "greening finance", "financing green" and "capturing the opportunity" to establish the UK as a center of sustainable finance.<sup>[33]</sup> The goal of "greening finance" involves changes

in the decision-making process in the financial sector. To align with Paris Agreement goals, the financial industry will need to consider risks associated with climate change. TCFD is one of the major frameworks the greening finance strategy adopts, and as soon as it becomes mandatory financial institutions will be expected to disclose ESG and climate-related initiatives.

"Financing green" and "capturing the opportunity" involves the mobilization of capital in the environmental sector in the UK and abroad. Since 2010 more than £92 billion has been invested in UK clean energy according to the Green Finance Strategy report!<sup>[34]</sup> In response to the COVID-19 crisis Boris Johnson announced a recovery initiative known as Ten Point Plan, according to which the British government will mobilise £12 billion of investment into the green sector.<sup>[35]</sup> The plan is a part of a bigger framework, ambitiously called the Green Industrial Revolution, which is a reference to the UK's leadership in the first Industrial Revolution. In its strategy the UK puts emphasis on development of offshore wind and nuclear power, growth of green hydrogen and carbon capture and shift towards electric vehicles and green jet fuel.

However, in its race towards leadership in green finance the UK has a long way to go. Japan, the US, South Korea, and

Germany are leading in the number of low-carbon patents according to MSCI report.<sup>[36]</sup> Outcompeting its peers will require from the UK challenging and drastic moves including and not limited to divesting from traditional coal and oil companies and prioritizing investment in renewable energy sources, funding R&D and investing in early stage companies focused on innovation of low-carbon technologies.

## SUMMARY

As with Brexit, the UK has chosen its own path when it comes to ESG standards and regulations. The overall goal is UK competitiveness with the EU in terms of disclosure standards and green finance. The UK announced its refusal to align with EU legislation including SFDR regulations. This can lead to further confusion in an already complex ESG standardization field. It would also result in real challenges for companies that have operations in both, the UK and the EU. In addition, the UK states that ESG disclosure regulations need to be more rigorous. As a consequence, there is a risk of ESG disclosure currently being created by the UK policy makers to be more complex and focused on different priorities than the standards already promulgated in the EU. On the positive side, the 2020 UK Stewardship Code, which focuses particularly on corporate governance, provides a clear guidance for asset managers, asset owners and service

providers. It includes principles of how investment and stewardship should be integrated in focusing on ESG concerns. Among the 12 principles, the signatories are encouraged to consider the effectiveness of their chosen governance structure in supporting stewardship.<sup>[37]</sup> However, adherence to the code is voluntary, which serves as a guide rather than as a regulatory framework.

The UK's strong aspiration to leadership in the green finance field distinguishes it in the ESG space. However, its ambitious goals will require drastic actions such as prioritizing investment in alternative sources of energy and early-stage innovative low-carbon technologies, calling for a higher risk premium. In addition, in the world of fragmented ESG standards and regulations another complex rigorous framework may indeed be an impediment to leadership and not a benefit.



UNITED STATES OF AMERICA

Following a delayed trajectory compared to the European markets, the United States market has seen a rapid growth in both ESG funds and ESG integrated assets under management. The Forum for Sustainable and Responsible Investment estimates that investors are considering ESG factors across \$17 trillion of professionally managed assets. This represents a 42 percent increase since 2018 and around 33 percent of total assets under management in the US.<sup>[38]</sup>

ESG and sustainable investing has historically been met with skepticism by U.S. government agencies prior to 2021. However, this is changing under the Biden Administration. After significant backlash against the November 2020 announcement by the US Department of Labor limiting ESG incorporation for fiduciaries, the agency backtracked and the rule was scrapped.<sup>[39]</sup> In addition, there

are significant ongoing efforts in the U.S. Securities and Exchange Commission (SEC) to set ESG and climate disclosure standards. This coincides with the Biden Administration’s push for increased focus on climate change and renewable energy.

This section is divided into two main parts: the first focusing on the history and future prospects of U.S. regulation efforts, the second focusing on the potential impacts of standardization efforts.

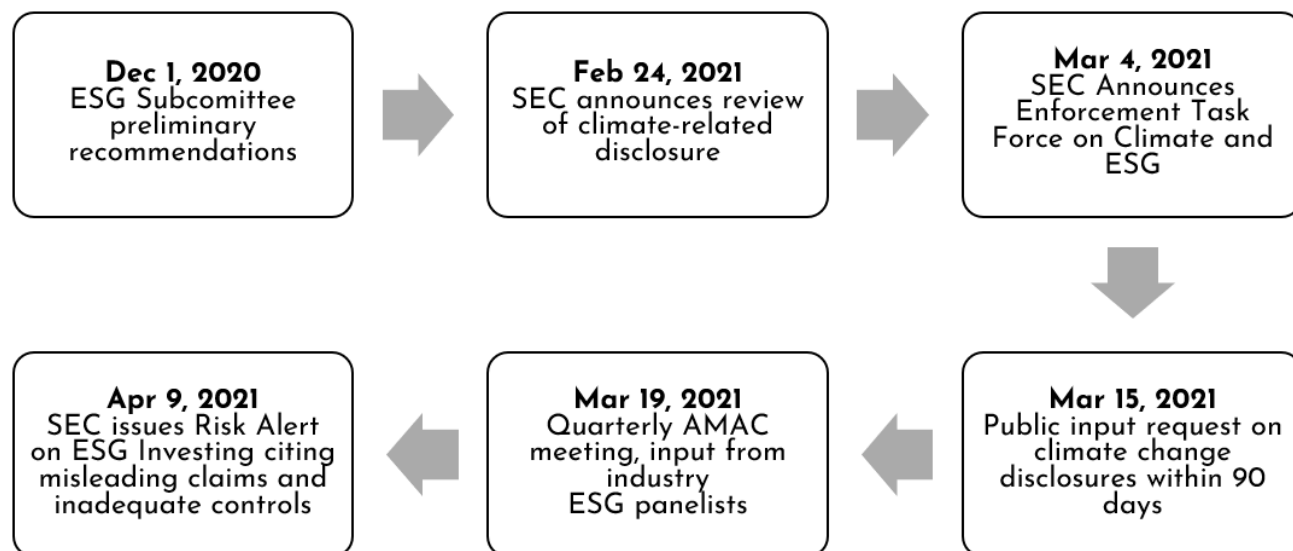
U.S. SECURITIES AND EXCHANGE COMMISSION (SEC)

With the SEC’s last major action related to ESG coming over a decade ago when they released their Climate Change guidance, this newest round is all the more notable. See SEC regulatory timeline for recent key actions.

SEC ACTIVITY

ESG has seen a rise in popularity in the United States. At the same time, other

SEC REGULATORY TIMELINE



geographies such as the European Union have been busy creating standards to regulate ESG disclosure and labeling.

In response, the SEC has taken a variety of actions including the creation of an ESG subcommittee which presented its recommendations for ESG standards on Dec 1, 2020. In addition, in April 2021, the

SEC's Division of Examinations issued an ESG risk alert. It warned of inconsistent ESG disclosures, inadequate controls, and misleading claims about portfolio management practices, potential returns, and proxy voting. The alert suggested using simple, clear disclosures which consider ESG alongside other factors and were tied to global ESG frameworks.<sup>[40]</sup>

### WHAT WERE THE LATEST RECOMMENDATIONS FROM THE ESG SUBCOMMITTEE? <sup>[41]</sup>

Issuer Disclosure: Consistent, mandatory standards for disclosures similar to GAAP

1. No additional disclosure laws
2. Standards:
  - a. Less prescriptive standards than Europe
  - b. Consistent with presentation of other financial disclosures
  - c. Focus on limited number of material metrics, tailored by industry, overseen by independent standard setting entity like SASB
  - d. Potential exceptions for smaller issuers which may suffer undue burden
3. Other:
  - a. Identified the G in ESG as having the most accurate and reliable data to date
  - b. Encouraged use by the SEC of principle based standard setters' frameworks to determine metrics and disclosures

Investment Product Disclosure: Suggest best practices and align with Investment Company Institute (ICI) ESG taxonomy

1. Description of product strategy and investment priorities including non-financial objectives
2. Recommended description includes
  - a. Internal or external research input
  - b. Investment selection criteria
  - c. Risk adjusted return and non-financial objectives
  - d. Time horizon
  - e. Engagement strategy: proxy voting, individual v. collective engagement, shareholder motions
3. Three categories: Inclusionary, Exclusionary, and Impact
4. No separate performance measurements suggested

## HOW WOULD THESE RECOMMENDATIONS AFFECT ASSET MANAGERS AND ISSUING COMPANIES?

### Asset Managers:

If the SEC adopts these recommendations, asset managers would see a greater harmonization of standards which would decrease the costs of collecting certain ESG issuer information. In addition, the investment product disclosure requirements would create a way of discussing the desired value and values of each investment product with clients. By preemptively creating clear internal ESG procedures and ensuring alignment between marketing and action, Asset managers can avoid bad press while capitalizing on ESG interest. One way of accomplishing this, is by adopting these standards and policies before they are mandated by the SEC. Another important trend is the Acting Commissioner's agenda to make the proxy voting records of asset managers more accessible to the public. Although some asset managers already publish this information, having more accessible records would allow investors to better hold large asset managers accountable.

### Issuing Companies:

Issuers are likely to see a mandatory value based and industry specific disclosure standards focusing on materiality in the near term. Currently, issuers are simultaneously managing questionnaires from specific investors, ESG rating firms, and trying to meet disclosure requirements from various regulatory jurisdictions. These disclosures will increase the burden to provide data, but they may save some time responding to individual questionnaires. Additionally, the sense within the SEC ESG Subcommittee is that it is premature to think about prescriptive requirements and there is support for safe harbor for future-looking disclosures. This means issuers will likely not have to deal with standards as strict as those in the European Union.

## WHAT QUESTIONS REMAIN?<sup>[42]</sup>

- Mandatory vs. voluntary disclosures
- Global comparability
- Which disclosures are material
- Best verification methods
- Use of existing standards such as SASB

## LATIN AMERICA

In recent years, ESG has gained momentum in Latin America. From government regulations, initiatives from multilateral organizations, and demands from investors and consumers, the region is building a solid foundation for ESG investments. Despite the economic downturn of the pandemic, 2020 was a year of positive developments for ESG in the region - Ecuador and Guatemala issued their first sovereign bonds utilizing ESG considerations while Mexico also issued a bond focused on sustainable development, and a bank in Colombia issued the first gender social bond.<sup>[43]</sup> Multilateral development banks have been key actors introducing the concept of ESG for Latin American countries. For this project, the Capstone team focused on Brazil and Mexico.

## THE CASE OF BRAZIL

With a GDP of \$1.84 trillion,<sup>[44]</sup> Brazil is the largest economy in Latin America and one of the pioneers of ESG in the region. The first steps to implement regulations date back to 1981, when a new Environmental Policy introduced corporate liability for industrial pollution.<sup>[45]</sup> From active social movements to protect its rich and diverse natural resources to private sector led initiatives that promote sustainable practices in the finance industry, the development of ESG frameworks in Brazil has been progressive and comes with support from local and international regulators. The stepping

stone for ESG regulations in Brazil was the *Protocol o Verde* or The Green Protocol. In 1995, five state-owned banks together with the Ministry of the Environment defined a set of principles to ensure banking policies and practices take into consideration socio-environmental issues and impacts.<sup>[46]</sup> The goal of this initiative was to raise awareness on sustainable development and foster cooperation between financial institutions. The protocol was revised in 2008<sup>[47]</sup> and sparked a series of new regulations from the Central Bank of Brazil, which include:<sup>[48]</sup>

### Reg. No 3,545

Introduced in 2008, this resolution aims to protect the Amazon biome and prevent deforestation by requiring borrowers of financial institutions to submit documentation of environmental compliance.

### Reg. No. 3,876

In 2010, the Central Bank of Brazil implemented a regulation to prevent slavery and poor working conditions.

### Reg. No. 4,327

A new layer of ESG regulations became an important step for Brazil in 2014. The new regulation strengthened governance for risk exposure and developed a self-regulating framework that also considers monitoring risks and improving internal capacities of financial institutions.<sup>[49]</sup>

Reg. No. 3,846

In 2017, the Central Bank introduced mandatory disclosures of exposure to social and environmental risks.

While it is not a surprise that environmental regulations were the main catalyst to develop ESG frameworks, Brazil has made significant progress in social and governance aspects as well. An asset manager from a world-renowned institution noted, "Brazil has one of the strongest ESG regulations... rules and laws are stronger than in the United States and other regions." However, the country faces challenges enforcing regulations, which has gained international attention, and ESG equity investments are still unexplored - only 0.12 percent of assets under management in domestic funds.<sup>[50]</sup>

The future of ESG in Brazil relies on fostering accountability, preventing greenwashing, and attracting foreign and domestic investors. In a country where financial institutions, civil society, and private investors are interested in advancing ESG, improving accountability is essential to yield better ESG standards and considerations. Active participation from asset managers and investors is necessary to improve the ESG atmosphere and enforcement mechanisms.

## THE CASE OF MEXICO

The development of ESG frameworks and regulations in the second largest economy of Latin America is still a work in progress. The recent launch of several ESG indexes as well as the issuance of \$910 million of sovereign sustainable bonds are positive signs.<sup>[51]</sup> The interest in these indexes is mainly driven by foreign investors and a few private sector domestic investors. It is important to mention that Multilateral Development Banks have played a role in motivating large private sector entities to consider ESG in their practices. In addition, the current administration has not been particularly active pushing forward the ESG agenda. Numerous private investors and fund managers have signed the UN Principles for Responsible Investment.<sup>[52]</sup> While this is a relevant step and demonstrates interest from investors in ESG, UN PRI does not have an enforcement mechanism.

ESG efforts in Mexico began in 2012. In that year, the Mexican Congress approved the Climate Change General Law,<sup>[53]</sup> which fosters integration of environment and climate change mitigation considerations in corporate practices. The next big step took place in 2017, when the National Commission of Pension Funds encouraged the integration of ESG considerations in fund investments and decision making protocols. In addition, the Mexican Green

Finance Advisory Board joined the International Network of Financial Centers for Sustainability in 2019.<sup>[54]</sup> These initiatives have encouraged private investors to consider ESG strategies, but regulations lack specific considerations on reporting practices or disclosing mechanisms. For many experts, governance is the key concern in the Mexican case. The Inter-American Dialogue's Advisor publication highlighted institutional integrity, corruption, transparency and accountability are key for Mexico's ESG development as well as introducing regulations to disclose environmental impacts of energy investments.<sup>[55]</sup> The

future of ESG for Mexico is dependent on introducing regulations that require disclosing information and political will to transition towards a more sustainable economy.



JAPAN

The Capstone team focused on Japan as a representative in Asia Pacific because Japan is the largest ESG market in Asia, and ESG in other countries are still in a nascent stage. More importantly, Japan is the second largest stock market by market capitalization in the world.

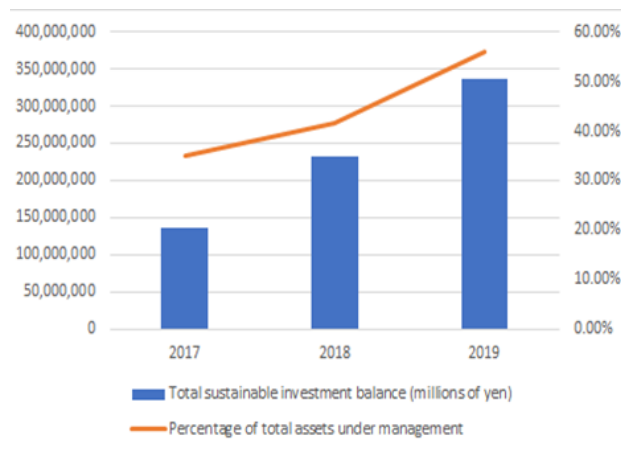
CURRENT SITUATION OF ESG INVESTMENT IN JAPAN

Rapidly growing market, slow progress:

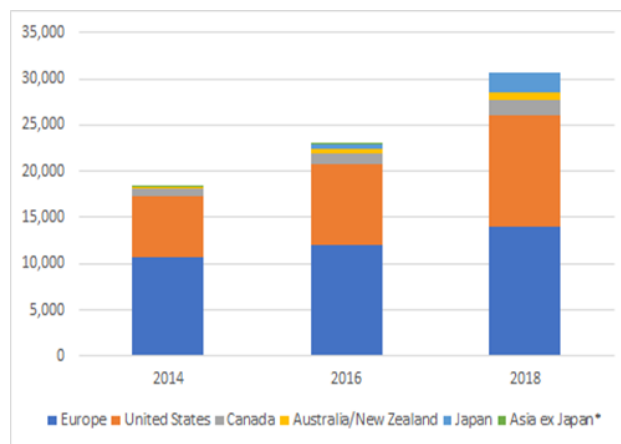
According to the Japan Sustainable Investment Forum (JSIF) Fifth Sustainable Investment Survey 2019, sustainable investment assets in Japan grew by 55.9 percent year-over-year to ¥336 trillion in 2019.<sup>[56]</sup> From 2016 to 2019, Japan’s sustainable investment assets grew at a CAGR of 1,786 percent, becoming the third largest sustainable investment center after Europe and the United States (figure 1).<sup>[57]</sup> However, it is still small in proportion (figure 2).<sup>[58]</sup>

Most survey participants indicated that they primarily use the Principles for Responsible Investment (PRI) initiative. The leading ESG investment strategy in Japan is engagement and use of shareholder proposals, deployed by assets totaling ¥218 trillion, followed by exercising of voting rights and ESG integration, which is utilized across ¥187 trillion and ¥177 trillion respectively.

TOTAL SUSTAINABLE INVESTMENT BALANCE IN JAPAN (2017-2019)



VALUE OF SUSTAINABLE INVESTMENT ASSETS GLOBALLY IN 2014, 2016, AND 2018, BY REGION (IN BILLION U.S. DOLLARS)



## REASONS FOR SLOW PROGRESS

### GPIF does not “manage” ESG funds.

Government Pension Investment Fund (GPIF) is the world’s largest pension fund. As of December 2020, GPIF had over ¥177 trillion (\$1.68 trillion) assets under management. However, GPIF does not directly manage those funds. Instead, they allocate their funds to private sector asset managers who manage the money for them. GPIF asks them to consider ESG factors, however, it does not actively participate in any decision-making or engagement activities once it has allocated funds to asset managers. It is therefore different from some very active public pension funds and sovereign wealth funds such as Norges Bank, Calpers (California Public Employees’ Retirement System) and the NYC Comptroller’s office.

### Principle-based compliance with ESG

regulations: Most of the ESG regulations are principle-based, rather than rule-based, which means that market participants will not be penalized for noncompliance, as long as they provide an explanation for their unwillingness or inability to comply. Both the Stewardship Code and the Corporate Governance Code are voluntary codes of conduct and the Practical Handbook for ESG Disclosure published by Japanese Exchange Group (JPX) is also a voluntary initiative. The fact that almost all the ESG regulations are voluntary

and non-binding is an important reason for the reluctance of asset managers to engage with their investees and the slow progress of ESG development in Japan.

### Cross-shareholding protects management:

Cross-shareholdings refers to “interlocking share ownership between Japanese companies.”<sup>[59]</sup> Companies and customers hold each other’s shares in the name of “maintaining business relationships”, which protects underperforming managements from being voted against by investors. In Japan, about 11 percent of listed companies own over 30 percent of shares in other listed companies, compared to 0.9 percent in the US and 0.2 percent in the UK.<sup>[60]</sup> Not surprisingly, the return on equity of Japan’s listed companies was low compared to listed companies in the US and Europe.<sup>[61]</sup> It is expected that in April 2022, the Tokyo Stock Exchange (TSE) will abolish some stock indices, and streamline the six boards into three sections: prime, standard, and growth. The prime board will have stricter listing criteria, which takes into account the number of free-floating shares on March 31, 2021, and thereby excludes cross-held shares.<sup>[62]</sup> This move is expected to reduce cross-shareholding and empower the investors to improve the efficiency of corporate governance.

## CORPORATE GOVERNANCE IN JAPAN

Corporate governance remains the area of focus in Japan, overshadowing the environment and social issues. Since 2013, after the Abe administration set corporate revitalization as one of the main agendas in growth strategy, the regulators have been frequently making amendments to codes and pushing for several key reforms to improve corporate governance.<sup>[63]</sup> The most prominent issues on corporate governance in Japan are increasing the qualifications of independent directors, the number of independent directors on boards, and the willingness of inside management to enfranchise them. Cross-shareholding, better disclosure on related party transactions, and more information on cost of capital and capital deployment, are the other critical issues. Moreover, Bank of Japan, as a result of its aggressive monetary policies, now owns 7 percent of all shares in Japan, which affects the price-discovery mechanism of the market.

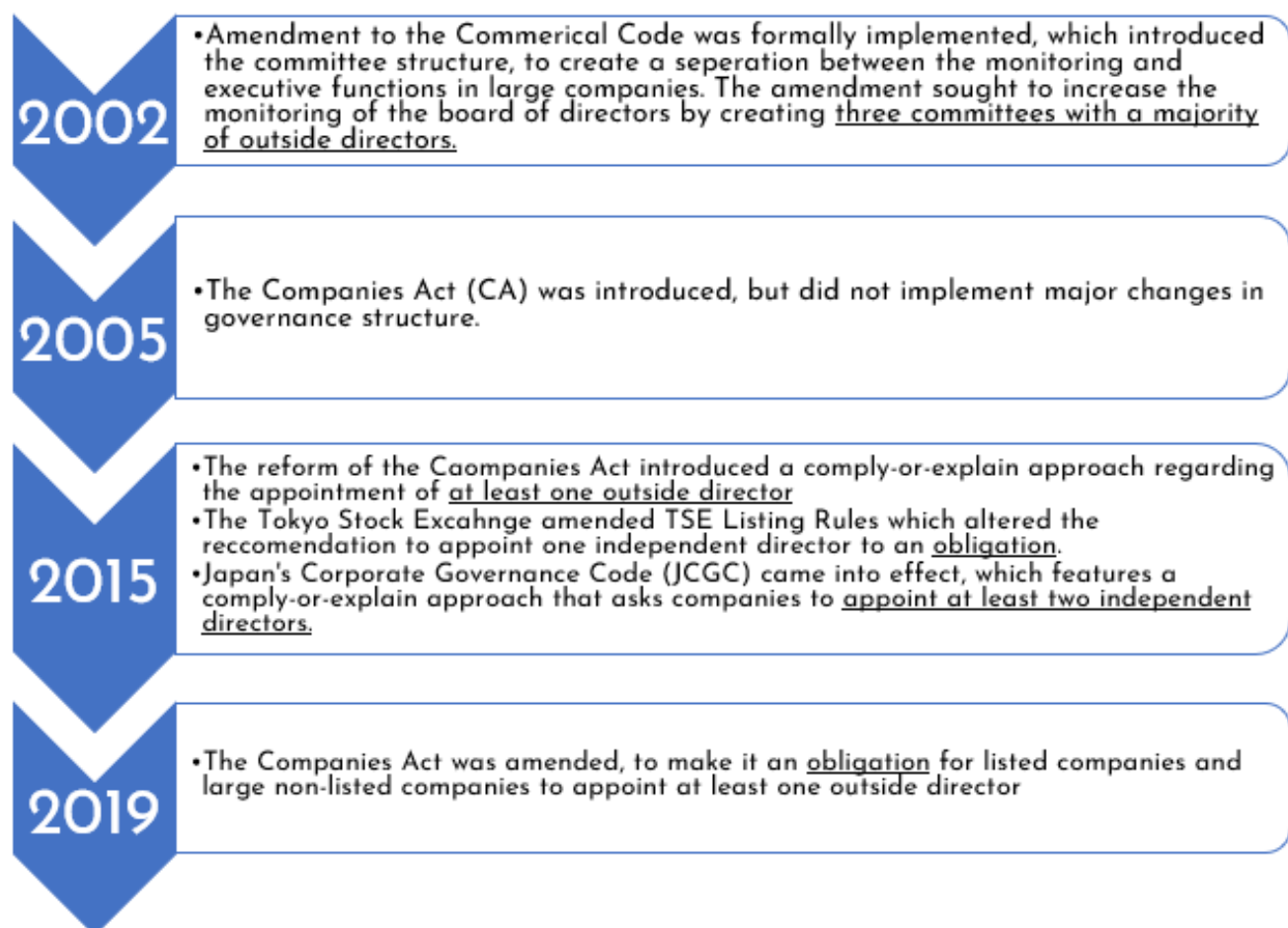
## THE ISSUE OF INDEPENDENT DIRECTORS

In 2005, the Companies Act (CA) was introduced, but did not implement major changes in governance structure. In 2015, the reform of the Companies Act introduced a comply-or-explain approach regarding the appointment of at least one outside director.<sup>[64]</sup> The Tokyo Stock Exchange amended TSE Listing Rules which elevated the recommendation to appoint one independent director to an obligation. In June 2015, Japan's Corporate Governance Code (JCGC) came into effect, which features a comply-or-explain approach that asks companies to appoint not one outside but at least two independent directors. In December 2019, the Companies Act was amended, to make it an obligation for listed companies and large non-listed companies to appoint at least one outside director.<sup>[65]</sup> According to Japan Exchange Group, in 2014, only 21.5 percent of the companies listed on Tokyo Stock Exchange had at least two independent directors, and by 2020 this percentage was 95.3.<sup>[66]</sup> By contrast, in the U.S., 78 percent of directors on S&P companies are independent.

## CONCLUSION

Pressure is ramping up: the revision of TSE listing rules, coupled with increasing pressure from international investors is expected to expedite Japan's reform in corporate governance and progress in environmental and social issues. Japan is facing more pressure from international investors. For instance, Sony has been pushed by Apple shareholders to meet the green energy promise and will have to move manufacturing out of Japan if the company cannot source the level of alternative energy inputs required by Apple.<sup>[67]</sup> Moreover, in October 2020, Prime minister Yoshihide Suga announced that Japan will aim for net zero greenhouse gas emission by 2050, which is also expected to press for a change in Japan's energy industry.<sup>[68]</sup>

## EVOLUTION OF REGULATION ON INDEPENDENT DIRECTORS



Given previous discussion of relevant regulatory regimes, frameworks, and considerations on a geographic basis, the Capstone team then examined the main global themes across the ESG investment space that are likely to gain traction. The following key topics are areas of focus shaping the ongoing conversation regarding standardization and regulation.

### OVERALL TRENDS

Data improvements: Of the 90 percent of S&P 500 companies who currently publish sustainability reports, only 16 percent mention ESG factors in their regulatory filings. This significant gap in which information companies voluntarily disclose versus information that is required also creates a divergence in meaningful data that helps market participants use that information to analyze and act on. As more countries and their financial regulators require greater ESG reporting, both the quantity and quality of ESG data will continue to grow. Increasing pressure from both the regulatory side and the investor side demanding high quality ESG data reported in streamlined frameworks will drive companies to provide more standardized and actionable data.<sup>[69]</sup> Spending on ESG related indexes and content like research, data, and analytics are growing, with about \$505 million spent in 2018 (estimated to grow to \$745 million, or 48 percent, in 2020).<sup>[70]</sup>

Standardization can also provide opportunities to reduce greenwashing by ensuring that companies are providing transparency and full information in comparable Key Performance Indicators (KPIs) and language that decision-makers can use to compare companies.<sup>[71]</sup>

Role of technology: The role of technology in the ESG world is also growing and can help provide alternative sources of data with materiality and validity. For example, Robeco, has been an early user of “spatial” information, which uses machine learning and satellite data to physically track companies’ operations and environmental performance in real-time.<sup>[72]</sup> Similarly, in our interview with a global asset manager, when discussing their focus in Latin America, where rainforest preservation is one of the most important ESG issues, they mentioned that satellite georeferencing of forests is one of the best ways to observe and validate what companies are saying they are doing. Artificial intelligence (AI) will also play a greater role in helping investors to gather and analyze large amounts of data that were previously considered unusable due to their poor quality or sheer size. Potential AI applications include sentiment analysis algorithms, natural language processing, etc. Use of AI can also make ESG investing more accessible and methodical. For example, the Dow Jones

Sustainability Index, will use AI technology to power faster analysis that supplements traditional research methods.<sup>[73]</sup>

## ENVIRONMENTAL TRENDS

Climate change: As previously mentioned, climate change is one of the biggest topics emerging as a focal point for all market participants, including companies, regulators, central banks, investors, consumers, etc. Almost every single interview the Capstone team conducted mentioned the growing importance and interest in climate change, especially driven by women and millennials. It is expected that as regulation on this topic increases across jurisdictions (especially under the Biden Administration), more companies will make net-zero emissions commitments joining the likes of Ford Motor Company, BP, American Airlines, PGE, Woolworths, and so on.<sup>[74]</sup> Financial institutions, including the “big six” US investment banks<sup>[75]</sup> and asset managers like BlackRock<sup>[76]</sup> have committed to achieving net-zero emissions by mid-century. The Net Zero Asset Management Initiative, founded in December 2020, brings together asset managers committing to support net zero emissions by or before 2050. As of March 2021, 73 investors have joined as signatories--- including BlackRock, Macquarie, Vanguard, Brookfield --- representing \$32 trillion assets under management.<sup>[77]</sup> Climate Action 100+, an

investor-led initiative to tackle the largest corporate GHG emitters already includes 575 investors, 167 companies, representing 80 percent of global industrial emissions!<sup>[78]</sup> It is likely that by the end of the decade, net-zero pledges by companies and investors will become a standard activity, as the energy transition to a low-carbon economy becomes a key risk and opportunity driver.<sup>[79]</sup>

Given these commitments, companies will need to actually develop strategies for meeting ambitious targets, which will require challenging discussions and business decisions. For example, Laurence Pessez, head of CSR at BNP Paribas, has stated the bank will have to “exit the relationship with at least 30 to 50 percent of our current clients in the power generation business.”<sup>[80]</sup>

This sentiment was echoed in our interview with an ESG advisory firm, who acknowledged that standardization is necessary but actually mitigating the impacts of climate change will require rigor and nuance to understand companies’ carbon footprints, emissions channels, etc. This kind of understanding will likely require relevant climate and sustainability expertise on corporate boards.<sup>[81]</sup> Lastly, there is great anticipation for the 2021 UN Climate Change Conference, COP 26, which will take place in Glasgow later this year and will be an important event that furthers the conversation.<sup>[82]</sup>

Biodiversity: An analysis of 3,500 companies that represent 85 percent of global market capitalization highlighted that 65 percent of companies' business models are in alignment with the UN SDGs. However, less than 1 percent are in alignment with SDGs 14, "life below water," and 15, "life on land." The World Economic Forum estimates that \$44 trillion, more than half of global GDP, is dependent on nature for economic value generation. French bank Natixis is an early leader in this space and has been considering the challenges related to biodiversity across its asset management, insurance, and financing businesses. Natixis is working to add biodiversity to its next strategic plan and have set a few goals including pledges to structure at least five new transactions that include biodiversity objectives by 2022 and to reach 2 billion euros of assets under management for natural capital and water preservation strategies.<sup>[83]</sup>

The TaskForce on Nature-related Financial Disclosures (TNFD), a working group of governments, financial institutions, think tanks, and regulators are working to put together a framework for financial institutions and companies to report and manage their impacts and needs related to the natural environment. A key issue that investors have highlighted in a survey by the Nature Conservancy and Environmental Finance is a lack of actionable data to

measure impact of investments in projects that enhance natural capital. Data is particularly lacking regarding plants, fish, and fungi, which makes it challenging to justify consumption reductions being used for food, medicine, and other products. One tool that is gaining traction is the Integration Biodiversity Assessment Tool (IBAT), which provides access to three of the largest biodiversity data sets in the form of an online map and reporting tool.<sup>[84]</sup> The UN COP 15 to the Convention on Biological Diversity will take place in May 2021 and play a critical role in shaping what a global biodiversity framework might look like.<sup>[85]</sup>

Water: Issues like water pollution, scarcity, and insecurity pose significant long-term threats to economic development, increasing famines and conflict. A survey conducted by RBC in 2019 found that water was a top-three issue for the 800 institutional investors surveyed. The World Economic Forum has also highlighted the role of water in driving large global risks across multiple issues like health crises and mass migration.<sup>[86]</sup> CDP's 2020 global water report found that the cost to companies of not addressing risks related to water is worth \$301 billion in lost value, significantly higher than the \$55 billion estimated cost of addressing them. Already, more than 3 billion people across the globe are affected by water shortages, given the amount of

freshwater available per capita has declined by 20 percent over the last twenty years. In the future, companies will have to consider strategies for addressing their top water risks, e.g., water scarcity, severe weather events, droughts, flooding, and worsening water quality. These include water conservation, recycling and reuse practices, water efficiency measures, and creating emergency flood plans. Companies and investors will also need to consider additional spending needed for increased capex, infrastructure and technology investments, and pollution abatement and controls.<sup>[87]</sup>

## SOCIAL AND GOVERNANCE TRENDS

Governance: Everything begins with good governance. Without the strength of good governance ensuring the transparency that allows shareholders to hold management accountable for meeting ESG goals, the “Social” and “Environment” components of ESG will not be adequately supported. This includes the perspective of a large foreign pension fund, which sees having a strong Board and governance as fundamental to having good environmental and social programs as well. Although governance drives ESG capabilities overall, there has been a longer track record of focus on governance. Governance structures enable the ability of the board of directors and shareholders to keep

management accountable. These structures differ among regions and therefore lead to differing concerns. In the United States, executive compensation and dual class voting shares are issues that receive substantial investor pushback, whereas in France the Florange Act created automatically granted dual voting shares for some shareholders.<sup>[88]</sup>

Given this, one U.S. based global asset manager still sees governance as the real driver of stock performance among ESG metrics. Without the participation of experienced board members, it is easy to question how a Board would implement effective social and environmental standards. A recent NYU Stern Center for Sustainable Business report found that only 29 percent of board members of Fortune 100 companies have any ESG related experience. Even then, the report detailed that experience is siloed to specific factors of ESG, such as diversity, while other issues such as human rights or ethics are underrepresented.<sup>[89]</sup>

Geography: Differences in regulation and ESG standards among various regions of the world have increased competition as well as confusion among investors, asset managers and reporting companies. Interviewees consistently called out the significant part that geography plays across several factors: the regulatory environment, engagement

of the private sector in advancing ESG standards, and even which standards or metrics should be applied to the region and how.

While Europe is considered to be a leader in ESG commitments and standardization, the beginning of the Biden Administration has led many to believe that significant changes in reporting standards will be implemented in the U.S. Still, in a globalized world, regulations in one country will impact companies headquartered in other countries. Recently, U.S. fund managers with global operations have come under pressure to comply with Europe's Sustainable Finance Disclosure Regulation.<sup>[90]</sup>

Questions such as "what constitutes diversity?" can produce different answers in the United States compared with Japan, for instance. One emerging market-focused asset manager believes that emerging markets will also need different standards than developed markets. The question then becomes, how will global standardization factor in the inherent differences that exist among regions to ensure that standardized metrics will not lose their meaning?

New investors: Finance is not insulated from the changing demographics and social norms in many countries. New demographics, including millennials and

women, that are accruing or inheriting wealth are pushing for change and are voting with their wallets as well as their investment funds. The worldview of many in these younger generations has been shaped by two significant economic crises within their lifetimes, contributing to significant discussions around wealth, social and environmental issues and the role of the state in everyday life. Much has been discussed regarding the upcoming intergenerational wealth transfer from Baby Boomers to younger generations.

In 2015, Deloitte reported a \$24 trillion wealth transfer in the U.S. alone through 2030,<sup>[91]</sup> with other reports citing even larger figures in smaller time frames.<sup>[92]</sup> One global bank notes that these changes are not limited to the United States and Europe, but are taking place across the globe, including in countries such as Brazil. Given these changing demographics, the social and environmental issues that matter to these demographics will become hot-button issues for public companies' governance considerations, ranging from diversity and gender pay equality, harassment and working conditions, to environmental emissions standards and supply chains.

Role of the private sector: As with other ESG considerations, the role of the private sector in advancing and standardizing ESG measurement varies

geographically. A U.S. based emerging market-focused asset manager sees the private sector as having driven much of the ESG agenda to date in the U.S., compared with other regions. More U.S. public companies are electing (in some cases, pushed by investor sentiment) to follow the lead of large U.S. tech companies that have for many years reported diversity and sustainability metrics of their own accord.<sup>[93]</sup> In December 2020, Nasdaq filed a proposal with the SEC to increase board diversity disclosures for companies listed on the exchange.<sup>[94]</sup> However, this dynamic

may shift with the Biden Administration, should new regulations and standards be developed and put into practice. The question will then be, who in the private sector is able to influence the new regulations, and which norms will be codified? Public companies, proxy advisory services and asset managers will all have a stake in these discussions.



- "2020 ESG Trends to Watch ." [www.msci.com](https://www.msci.com/documents/10199/02f6473f-6fd8-aa8f-be72443196478ec3). MSCI, January 2020.
- Adams, Melanie. "Drip, Drip, Drip: Water Is a Leading ESG Concern." *GreenBiz*, February 17, 2020. <https://www.greenbiz.com/article/drip-drip-drip-water-leading-esg-concern>.
- Attracta Mooney and Patrick Mathurin, "ESG funds defy havoc to ratchet huge inflows," *Financial Times*, February 6, 2021, <https://www.ft.com/content/8e9f8204-83bf-4217-bc9e-d89396279c5b>.
- Attracta Mooney, "Greenwashing in finance: Europe's push to police ESG investing," *Financial Times*, March 10, 2021. <https://www.ft.com/content/74888921-368d-42e1-91cd-c3c8ce64a05e>.
- Azizuddin, Khalid. "ESG Data Quality Tops List of Investor Concerns in 2020." *Responsible Investor*, December 15, 2015. <https://www.responsible-investor.com/articles/esg-data-quality-tops-list-of-investor-concerns-in-2020>.
- Berg, Florian and Kölbl, Julian and Rigobon, Roberto. *Aggregate Confusion: The Divergence of ESG Ratings*. Massachusetts Institute of Technology (MIT) - Sloan School of Management, May 17, 2020. Available at SSRN: <https://ssrn.com/abstract=3438533>.
- "BNamericas - The State of ESG Adoption in Mexico." *BNamericas.com*, [www.bnamericas.com/en/news/the-state-of-esg-adoption-in-mexico](http://www.bnamericas.com/en/news/the-state-of-esg-adoption-in-mexico).
- Brannon, Ike. "Standardizing ESG Reporting Requirements Would Not Benefit Investors." *Forbes*, March 23, 2021. <https://www.forbes.com/sites/ikebrannon/?sh=f7662b464537>.
- Caldecott, Ben. "UK Green Taxonomy: What We Should Learn from the EU Taxonomy and How the UK Can Create a Race to the Top." *Responsible Investor*, January 25, 2021. <https://www.responsible-investor.com/articles/uk-green-taxonomy-what-we-should-learn-from-the-eu-taxonomy-and-how-the-uk-can-create-a-race-to-the-top>.
- "Chancellor Sets out Ambition for Future of UK Financial Services." *GOV.UK*, November 9, 2020. <https://www.gov.uk/government/news/chancellor-sets-out-ambition-for-futureof-ukfinancial-services>.
- "Chapter 5: Penalties and Impacts." *GOV.UK*, August 26, 2020. <https://www.gov.uk/government/consultations/taking-action-on-climate-risk-improving-governance-and-reporting-by-occupational-pension-schemes/chapter-5-penalties-and-impacts#fnref:90>.
- Cheung, Martina. "Seven ESG Trends to Watch in 2021." *S&P Global*. Accessed March 21, 2021. <https://www.spglobal.com/en/research-insights/featured/seven-esg-trends-to-watch-in-2021>.
- Climate Action 100+. April 7, 2021. <https://www.climateaction100.org/>.
- "Climate-Related Corporate Reporting." October 2019. <https://www.frc.org.uk/getattachment/85121f9f-15ab-4606-98a07d0d3e3df282/FRC-Lab-Climate-Change-Final.pdf>
- Comtois, James. "BlackRock's Fink Urges Others to Join in Net-Zero Commitment." *Pensions & Investments*, January 26, 2021. <https://www.pionline.com/esg/blackrocks-fink-urges-others-join-net-zero-commitment>.
- Cooper, Rachel. "UK Government Issues First Ever Sovereign Green Bond." *Climate Action*, November 10, 2020. <https://www.climateaction.org/news/uk-government-issues-first-ever-sovereign-green-bond1>.
- "Demystifying the UK ESG ecosystem." March 2021. [https://www.philanthropyimpact.org/sites/default/files/downloads/demystifying\\_the\\_uk\\_esg\\_ecosystem\\_-\\_march\\_2021.pdf](https://www.philanthropyimpact.org/sites/default/files/downloads/demystifying_the_uk_esg_ecosystem_-_march_2021.pdf)
- "Discussion Draft: Potential Recommendations of ESG Subcommittee," December 1, 2020. <https://www.sec.gov/files/potential-recommendations-of-the-esg-subcommittee-12012020.pdf>.
- Eaglesham, Jean and Hirtenstein, Anna. "ESG Disclosure Rules from Europe Challenge U.S. Fund Managers." *The Wall Street Journal*, March 22, 2021. [www.wsj.com/articles/esg-disclosure-rules-from-europe-challenge-u-s-fund-managers-11616405401?mod=hp\\_lista\\_pos1](http://www.wsj.com/articles/esg-disclosure-rules-from-europe-challenge-u-s-fund-managers-11616405401?mod=hp_lista_pos1).
- Eltobgy, Maha and Janine Guillot. "Yes, ESG is complicated. Together, we can simplify it." *World Economic Forum*, March 26, 2021, <https://www.weforum.org/agenda/2021/03/yes-esg-is-complicated-together-we-can-simplify-it/>.
- "Environmental, Social and Governance (ESG) Funds - Investor Bulletin," February 26, 2021. <https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins-1>.
- "ESG Interest Driving Data Spending Higher." *Pensions & Investments*, February 13, 2019. <https://www.pionline.com/article/20190213/INTERACTIVE/190219949/esg-interest-driving-data-spending-higher>.
- Esther Whieldon, Robert Clark. "ESG Funds Beat out S&P 500 in 1st Year of COVID-19; How 1 Fund Shot to the Top." *Accelerating Progress*, 6 Apr. 2021, [www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/esg-funds-beat-out-s-p-500-in-1st-year-of-covid-19-how-1-fund-shot-to-the-top-63224550](http://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/esg-funds-beat-out-s-p-500-in-1st-year-of-covid-19-how-1-fund-shot-to-the-top-63224550).
- EU, "Regulation(EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088," 18 June 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0852>.

- Fender, Rebecca, Rhodri G. Preece, Robert Stammers, Roger Urwin. "The Operating Model to Enable Sustainable Investing." CFA Institute, November 10, 2020. <https://www.cfainstitute.org/en/research/industry-research/esg-operating-model>.
- Feliba, David. "How ESG Investment Can Drive a Post-COVID-19 Recovery in Latin America." *Accelerating Progress*, 2 Sept. 2020, [www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-esg-investment-can-drive-a-post-covid-19-recovery-in-latin-america-59850738](http://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-esg-investment-can-drive-a-post-covid-19-recovery-in-latin-america-59850738).
- Francis, Theo, Pacheco, Inti and Gryta, Thomas. "Big Companies Disclose Details on Gender, Race in Workforces." *The Wall Street Journal*, March 1, 2021. [www.wsj.com/articles/big-companies-disclose-details-on-gender-race-in-workforces-11614594601?mod=article\\_inline](http://www.wsj.com/articles/big-companies-disclose-details-on-gender-race-in-workforces-11614594601?mod=article_inline).
- Friedman, Milton. "A Friedman Doctrine-- The Social Responsibility Of Business Is to Increase Its Profits." *The New York Times*, 13 Sept. 1970, [www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html](http://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html)
- "GDP (Current US\$) - Brazil." n.d. *The World Bank* (blog). <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=BR>.
- Geck, Marshall. "Seven Major Companies That Committed to Net-Zero Emissions in 2020." UN PRI, December 15, 2020. <https://www.unpri.org/pri-blog/seven-major-companies-that-committed-to-net-zero-emissions-in-2020/6909.article>.
- "Green Finance Strategy ." *www.gov.uk*. Her Majesty Government , July 2019. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/820284/190716\\_BEIS\\_Green\\_Finance\\_Strategy\\_Accessible\\_Final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf).
- Honda, Keiko. "ESG Investing." Lecture 1, Columbia School of International and Public Affairs. "How Can AI Help ESG Investing?" S&P Global, February 25, 2020. <https://www.spglobal.com/en/research-insights/articles/how-can-ai-help-esg-investing>.
- "How to save the planet - and rethink the global economy." *Financial Times*, March 19, 2021. <https://ftweekend.live.ft.com/agenda/session/435060?emailId=605b07bc32dbb0000498cle3&segmentId=a8cbd258-1d42-1845-7b82-00376a04c08f>.
- Huw van Steenis, "Climate Change Won't Be Stopped By 593 Pages of Green Tape," March 18, 2021, <https://www.bloomberg.com/opinion/articles/2021-03-18/european-green-deal-climate-change-won-t-be-stopped-by-reams-of-esg-tape?sref=fJAu55w2>.
- Jones, Huw. "Global blueprint for climate disclosures by companies due in September." *Reuters*, February 2, 2021. <https://www.reuters.com/article/us-climate-change-accounts/global-blueprint-for-climate-disclosures-by-companies-due-in-september-idUSKBN2A210E>.
- Keating, Cecilia. "Wells Fargo Is Latest U.S. Bank to Adopt Net-Zero Financing Pledge." *Greenbiz*, March 10, 2021. <https://www.greenbiz.com/article/wells-fargo-latest-us-bank-adopt-net-zero-financing-pledge>.
- Latin America Advisor - The Inter-American Dialogue*. 2021. "Is Mexico Ensuring the Intended Use of ESG Investments?" January 19, 2021. <http://www.thedialogue.org/wp-content/uploads/2021/01/LAA210119.pdf>
- "Mexico's Green Finance Advisory Board Joins FC4S - FC4S - Financial Centres for Sustainability." FC4S, 22 July 2020, [www.fc4s.org/mexicos-green-finance-advisory-board-joins-fc4s/](http://www.fc4s.org/mexicos-green-finance-advisory-board-joins-fc4s/).
- "Nasdaq to Advance Diversity through New Proposed Listing Requirements." *Nasdaq*, December 1, 2020. [www.nasdaq.com/press-release/nasdaq-to-advance-diversity-through-new-proposed-listing-requirements-2020-12-01](http://www.nasdaq.com/press-release/nasdaq-to-advance-diversity-through-new-proposed-listing-requirements-2020-12-01).
- "Natixis Mobilizes Its Business Lines in Support of Biodiversity." *Natixis*, June 15, 2020. <https://pressroom-en.natixis.com/news/natixis-mobilizes-its-business-lines-in-support-of-biodiversity-0b30-8e037.html>.
- Osterland, Andrew. "What the coming \$68 trillion Great Wealth Transfer means for financial advisors." *CNBC*, October 21, 2019. [www.cnb.com/2019/10/21/what-the-68-trillion-great-wealth-transfer-means-for-advisors.html](http://www.cnb.com/2019/10/21/what-the-68-trillion-great-wealth-transfer-means-for-advisors.html)
- Papadopoulos, Kosmas, and Rodolfo Araujo. "Top 10 ESG Trends for the New Decade." *The Harvard Law School Forum on Corporate Governance*, March 2, 2020. <https://corpgov.law.harvard.edu/2020/03/02/top-10-esg-trends-for-the-new-decade/>.
- "Pensions Act 1995." *Legislation.gov.uk*. Queen's Printer of Acts of Parliament. Accessed March 17, 2021. <https://www.legislation.gov.uk/ukpga/1995/26/section/10/enacted>.
- "Potential Recommendations from the ESG Subcommittee," December 1, 2020. <https://www.sec.gov/files/update-from-esg-subcommittee-12012020.pdf>.
- "Proposals to Enhance Climate-related Disclosures by listed issuers and clarification of existing disclosure obligations." March 2020. [https://www.wlrk.com/docs/FCA\\_-\\_Consultation\\_Paper.pdf](https://www.wlrk.com/docs/FCA_-_Consultation_Paper.pdf).
- "Public Input Welcomed on Climate Change Disclosures." *SEC*, March 15, 2021. [https://www.sec.gov/news/public-statement/lee-climate-change-disclosures?utm\\_medium=email&utm\\_source=govdelivery](https://www.sec.gov/news/public-statement/lee-climate-change-disclosures?utm_medium=email&utm_source=govdelivery).
- "Recommendation of the SEC Investor Advisory Committee Relating to ESG Disclosure," May 21, 2020. <https://www.sec.gov/spotlight/investor-advisory-committee-2012/esg-disclosure.pdf>.
- "Risk Alert: The Division of Examinations' Review of ESG Investing," April 9, 2021 <https://www.sec.gov/files/esg-risk-alert.pdf>

- "A Roadmap towards Mandatory Climate-Related Disclosures." HM Treasury, November 2020. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmet\\_data/file/933783/FINAL\\_TCFD\\_ROADMAP.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmet_data/file/933783/FINAL_TCFD_ROADMAP.pdf)
- Rogerson, Miles. "UK Government Announces Post-Brexit Plans for Green Finance, as EU Ramps up Investment." *Asset Finance International*, December 1, 2020. <https://www.assetfinanceinternational.com/index.php/equipment-finance/news-emea/emea-articles/19840-uk-government-announces-post-brexit-plans-for-green-finance-as-eu-ramps-up-investment>.
- "Report on US Sustainable and Impact Investing Trends 2020." US SIF Foundation, n.d. <https://www.ussif.org/files/Trends%20Report%202020%20Executive%20Summary.pdf>
- Roisman, Elad. "Speech by Commissioner Roisman on ESG Regulation." The Harvard Law School Forum on Corporate Governance, March 21, 2021. <https://corpgov.law.harvard.edu/2021/03/21/speech-by-commissioner-roisman-on-esg-regulation/#more-137097>.
- Sacristán, Gema. 2021. "How the Way Was Paved for Sustainable Investment in Latin America and the Caribbean." *IDB Invest* (blog). January 15, 2021. <https://idbinvest.org/en/blog/financial-institutions/how-way-was-paved-sustainable-investment-latin-america-and-caribbean>.
- "SEC Announces Enforcement Task Force Focused on Climate and ESG Issues." SEC, March 4, 2021. <https://www.sec.gov/news/press-release/2021-42>.
- Segal, Mark. "BlackRock, Vanguard Among New Net Zero Asset Management Signatories." *ESG Today*, March 29, 2021. <https://www.esgtoday.com/blackrock-vanguard-among-new-net-zero-asset-management-signatories/>.
- Segal, Mark. "CDP: Lack of Action on Water Risks Could Cost Companies More than \$300 Billion." *ESG Today*, March 2, 2021. <https://www.esgtoday.com/cdp-lack-of-action-on-water-risks-could-cost-companies-more-than-300-billion/>.
- "Social and Environmental Responsibility." Banco Central Do Brasil. <https://www.bcb.gov.br/en/about/socialresponsibility>
- Solomon, Steven Davidoff. "France Answers Hostile Bids with the Two-Vote Share." *The New York Times*, May 19, 2015. <https://www.nytimes.com/2015/05/20/business/dealbook/france-answers-hostile-bids-with-the-two-vote-share.html>
- Srinivas, Val and Goradia, Urval. "The Future of Wealth in the United States: Mapping Trends in Generational Wealth." Deloitte Center for Financial Services, 2015. [www2.deloitte.com/content/dam/insights/us/articles/us-generational-wealth-trends/DUP\\_1371\\_Future-wealth-in-America\\_MASTER.pdf](http://www2.deloitte.com/content/dam/insights/us/articles/us-generational-wealth-trends/DUP_1371_Future-wealth-in-America_MASTER.pdf).
- "Statement on the Review of Climate-Related Disclosure." SEC, February 24, 2021. <https://www.sec.gov/news/public-statement/lee-statement-review-climate-related-disclosure>.
- Stewart, Lindsey. "Global Institutional Investors on the IFRS Foundation's Sustainability Standards." Harvard Law School Forum on Corporate Governance, March 27, 2021. <https://corpgov.law.harvard.edu/2021/03/27/global-institutional-investors-on-the-ifsrs-foundations-sustainability-standards/>.
- "Sustainable Banking Network: Country Progress Report - Brazil." 2018. The World Bank IFC. P.5 <https://www.ifc.org/wps/wcm/connect/59183359-f50b-4641-98dc533fe46b47aa/SBN+Country+Progress+Report+Brazil.pdf?MOD=AJPERES&CVID=m745yw9>.
- Taxonomy Report: Technical Annex, March 2020, [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf).
- Technical Report, Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020, [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf).
- "The BNDES and the Green Protocol." BNDES, [www.bndes.gov.br/SiteBNDES/bndes/bndes\\_en/Hotsites/Annual\\_Report\\_2011/Capitulos/institutional\\_operations/the\\_bndes\\_and\\_the\\_green\\_protocol.html](http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Hotsites/Annual_Report_2011/Capitulos/institutional_operations/the_bndes_and_the_green_protocol.html).
- "The ESG Data Files, Part Nine: Biodiversity - the New Frontier," April 7, 2020. <https://www.environmental-finance.com/content/analysis/the-esg-data-files-part-nine-biodiversity-the-new-frontier.html>.
- "The Ten Point Plan for a Green Industrial Revolution " [www.gov.uk](http://www.gov.uk). HM Government, November 2020. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmet\\_data/file/936567/10\\_POINT\\_PLAN\\_BOOKLET.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachmet_data/file/936567/10_POINT_PLAN_BOOKLET.pdf).
- "The Time Has Come: The KPMG Survey of Sustainability Reporting 2020." KPMG, December 2020, page 25. <https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf>.
- "The UK Stewardship Code 2020." FRC.org.uk. The Financial Reporting Council, 2020. <https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code-Dec-19-Final-Corrected.pdf>.
- Umunna, Chuka. "Take ESG Sceptics' Claims with a Lorry Load of Salt." *Financial Times*, 2 Sept. 2020, [www.ft.com/content/c11c87e7-38a0-4d49-84d6-c2e8de271410](http://www.ft.com/content/c11c87e7-38a0-4d49-84d6-c2e8de271410).
- UN Secretary-General's Strategy for Financing the 2030 Agenda - United Nations Sustainable Development. United Nations, [www.un.org/sustainabledevelopment/sg-finance-strategy/](http://www.un.org/sustainabledevelopment/sg-finance-strategy/).

- "US Department of Labor Releases Statement on Enforcement of Its Final Rules on ESG Investments, Proxy Voting by Employee Benefit Plans." U.S. Department of Labor, n.d.  
<https://www.dol.gov/newsroom/releases/ebsa/ebsa20210310>.
- Villamil, Justin. "Mexico's ESG Bond Has Skeptics Questioning Do-Good Bona Fides." *Bloomberg.com*, Bloomberg, 14 Dec. 2020, [www.bloomberg.com/news/articles/2020-12-14/as-esg-tests-new-frontiers-mexico-s-bond-sale-raises-concerns](http://www.bloomberg.com/news/articles/2020-12-14/as-esg-tests-new-frontiers-mexico-s-bond-sale-raises-concerns).
- Whelan, Tensie. "U.S. Corporate Board Suffer From Inadequate Expertise in Financially Material ESG Matters." NYU Stern Center for Sustainable Business, January 2021.  
[www.stern.nyu.edu/sites/default/files/assets/documents/U.S.%20Corporate%20Boards%20Suffer%20From%20Inadequate%20Expertise%20in%20Financially%20Material%20ESG%20Matters.docx%20%282.13.21%29.pdf](http://www.stern.nyu.edu/sites/default/files/assets/documents/U.S.%20Corporate%20Boards%20Suffer%20From%20Inadequate%20Expertise%20in%20Financially%20Material%20ESG%20Matters.docx%20%282.13.21%29.pdf).

## LIST OF INSTITUTIONS INTERVIEWED

Artisan Partners (USA)  
 Bank of America Merrill Lynch (USA)  
 Blue Dot Capital (USA)  
 Cartica Management, LLC (USA)  
 Ceniarth (UK)  
 Centerbridge Partners (USA)  
 Citco Group Limited (USA)  
 Eaton Vance (U.S.)  
 HSBC (UK)  
 Jaguar Growth Partners (USA / Brazil)  
 New York State Pension Fund (USA)  
 Pension Fund Association (Japan)  
 S&P Global Market Intelligence (USA)  
 Sands Capital (USA)  
 UBS (Brazil)

## SELECT RESULTS FROM INTERVIEWS

Attitude towards ESG	<ul style="list-style-type: none"> <li>- Widely regarded as increasing returns and seen as an additional step in the risk screening process.</li> <li>- Some firms stress that governance is the most important.</li> <li>- Firms expected ESG to continue to grow and eventually become standard.</li> </ul>
ESG in the investment process	<ul style="list-style-type: none"> <li>- Incorporated in investment selection as well as monitoring and reporting processes</li> <li>- Often used multiple ESG rating agencies/ data providers as well as proprietary internal processes</li> </ul>
ESG data sources in order of how often mentioned	<ul style="list-style-type: none"> <li>- MSCI, Sustainalytics, Truvalue Labs, Arabesque, S&amp;P</li> </ul>
Leading standards in order of how often mentioned	<ul style="list-style-type: none"> <li>- SASB/IIRC, NFRD/SFDR/EU standards, TCFD, UN PRI, GRI</li> <li>- Overall, strong use and support of SASB</li> </ul>
Attitude towards standardization	<ul style="list-style-type: none"> <li>- Overwhelming positive, see some standardization in the United States as necessary and inevitable</li> <li>- However, concerned about too strict standards</li> <li>- America is behind Europe but ahead of Asia and other emerging markets</li> </ul>
ESG Reporting	<ul style="list-style-type: none"> <li>- Reporting through ESG/Sustainability reports and integrated reporting</li> </ul>
ESG themes in order of how often mentioned	<ul style="list-style-type: none"> <li>- Climate Change, Diversity and Inclusion, Human rights (related to supply chain), water, biodiversity</li> </ul>
Other	<ul style="list-style-type: none"> <li>- Important to outline the financial and social objectives of ESG strategy</li> </ul>

- [1] Honda, Keiko. "ESG Investing." Lecture 1, Columbia School of International and Public Affairs.
- [2] UN Secretary-General's Strategy for Financing the 2030 Agenda - United Nations Sustainable Development. United Nations, <https://www.un.org/sustainabledevelopment/sg-finance-strategy/>
- [3] Esther Whieldon, Robert Clark. "ESG Funds Beat out S&P 500 in 1st Year of COVID-19; How 1 Fund Shot to the Top." *Accelerating Progress*, 6 Apr. 2021, [www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/esg-funds-beat-out-s-p-500-in-1st-year-of-covid-19-how-1-fund-shot-to-the-top-63224550](http://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/esg-funds-beat-out-s-p-500-in-1st-year-of-covid-19-how-1-fund-shot-to-the-top-63224550).
- [4] The Global Compact. 2004. "Who Cares Wins: Connecting Financial Markets to a Changing World." United Nations Department of Public Information. P. 1 [https://d306pr3pise04h.cloudfront.net/docs/issues\\_doc%2FFinancial\\_markets%2Fwho\\_cares\\_who\\_wins.pdf](https://d306pr3pise04h.cloudfront.net/docs/issues_doc%2FFinancial_markets%2Fwho_cares_who_wins.pdf).
- [5] "Report on US Sustainable and Impact Investing Trends 2020" US SIF Foundation - Calvert Research and Management. 2020. <https://www.ussif.org/files/US%20SIF%20Trends%20Report%202020%20Executive%20Summary.pdf>
- [6] Milton Friedman, "A Friedman Doctrine-The Social Responsibility Of Business Is to Increase Its Profits," *The New York Times*, September 13, 1970, [www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html](http://www.nytimes.com/1970/09/13/archives/a-friedman-doctrine-the-social-responsibility-of-business-is-to.html).
- [7] Chuka Umunna, "Take ESG Sceptics' Claims with a Lorry Load of Salt," *Financial Times*, September 22, 2020, [www.ft.com/content/c11c87e7-38a0-4d49-84d6-c2e8de271410](http://www.ft.com/content/c11c87e7-38a0-4d49-84d6-c2e8de271410).
- [8] "Bond Investor Revolt Brews Over Bogus Green Debt Flooding Market," *Bloomberg Green*, 2021, <https://www.bloomberg.com/news/articles/2021-03-29/bond-investor-revolt-brews-over-bogus-green-debt-flooding-market>.
- [9] Florian Berg, Julian Kölbel and Roberto Rigobon, "Aggregate Confusion: The Divergence of ESG Ratings," *Massachusetts Institute of Technology (MIT) - Sloan School of Management*, May 17, 2020, page 2, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3438533](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3438533).
- [10] "How to save the planet - and rethink the global economy," *Financial Times*, March 19, 2021, <https://ftweekend.live.ft.com/agenda/session/435060?emailId=605b07bc32dbb0000498c1e3&segmentId=a8cbd258-1d42-1845-7b82-00376a04c08f>.
- [11] Ike Brannon, "Standardizing ESG Reporting Requirements Would Not Benefit Investors," *Forbes*, March 23, 2021, <https://www.forbes.com/sites/ikebrannon/?sh=f7662b464537>.
- [12] "The Time Has Come: The KPMG Survey of Sustainability Reporting 2020," *KPMG*, December 2020, page 25, <https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf>
- [13] Maha Eltobgy and Janine Guillot, "Yes, ESG is complicated. Together, we can simplify it," *World Economic Forum*, March 26, 2021, <https://www.weforum.org/agenda/2021/03/yes-esg-is-complicated-together-we-can-simplify-it/>
- [14] Huw Jones, "Global blueprint for climate disclosures by companies due in September," *Reuters*, February 2, 2021, <https://www.reuters.com/article/us-climate-change-accounts/global-blueprint-for-climate-disclosures-by-companies-due-in-september-idUSKBN2A2IOE>
- [15] Lindsey Stewart, "Global Institutional Investors on the IFRS Foundation's Sustainability Standards," *Harvard Law School Forum on Corporate Governance*, March 27, 2021, <https://corpgov.law.harvard.edu/2021/03/27/global-institutional-investors-on-the-ifrs-foundations-sustainability-standards>.
- [16] Attracta Mooney and Patrick Mathurin, "ESG funds defy havoc to ratchet huge inflows," *Financial Times*, February 6, 2021, <https://www.ft.com/content/8e9f8204-83bf-4217-bc9e-d89396279c5b>.
- [17] EU, "Regulation (EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088," 18 June 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0852>.
- [18] Technical Report, *Taxonomy: Final report of the Technical Expert Group on Sustainable Finance*, March 2020, [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf)
- [19] *Taxonomy Report: Technical Annex*, March 2020, [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf)
- [20] Huw van Steenis, "Climate Change Won't Be Stopped By 593 Pages of Green Tape," March 18, 2021, <https://www.bloomberg.com/opinion/articles/2021-03-18/european-green-deal-climate-change-won-t-be-stopped-by-reams-of-esg-tape?sref=fjAu55w2>
- [21] Attracta Mooney, "Greenwashing in finance: Europe's push to police ESG investing," *Financial Times*, March 10, 2021, <https://www.ft.com/content/74888921-368d-42e1-91cd-c3c8ce64a05e>.
- [22] "Climate-related Corporate Reporting", October 2019, <https://www.frc.org.uk/getattachment/85121f9f-15ab-4606-98a0-7d0d3e3df282/FRC-Lab-Climat-Chang-Final.pdf>
- [23] "Demystifying the UK ESG ecosystem," March 2021.

- [24] "Proposals to Enhance Climate-related Disclosures by listed issuers and clarification of existing disclosure obligations," March 2020, [https://www.wlrk.com/docs/FCA\\_-\\_Consultation\\_Paper.pdf](https://www.wlrk.com/docs/FCA_-_Consultation_Paper.pdf).
- [25] "A Roadmap towards mandatory climate-related disclosures", November 2020. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/933783/FINAL\\_TCFD\\_ROADMAP.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933783/FINAL_TCFD_ROADMAP.pdf)
- "Pensions Act 1995"  
<https://www.legislation.gov.uk/ukpga/1995/26/section/10/enacted>
- [26] "Chancellor sets out ambition for future of UK financial services", November, 2020, <https://www.gov.uk/government/news/chancellor-sets-out-ambition-for-future-of-uk-financial-services>.
- [27] "UK green taxonomy: what we should learn from the EU taxonomy and how the UK can create a race to the top", January 2021, <https://www.responsible-investor.com/articles/uk-green-taxonomy-what-we-should-learn-from-the-eu-taxonomy-and-how-the-uk-can-create-a-race-to-the-top>.
- [28] "UK Government issues first ever Sovereign Green Bond", November 2020  
<https://www.climateaction.org/news/uk-government-issues-first-ever-sovereign-green-bond1>
- [29] "UK Government announces post-Brexit plans for green finance, as EU ramps up investment", December 2020.  
<https://www.assetfinanceinternational.com/index.php/equipment-finance/news-emea/emea-articles/19840-uk-government-announces-post-brexit-plans-for-green-finance-as-eu-ramps-up-investment>
- [30] "The UK Stewardship Code 2020," 2020. [https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code\\_Dec-19-Final-Corrected.pdf](https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code_Dec-19-Final-Corrected.pdf)  
Table 1 in Appendix
- [31] "Demystifying the UK ESG ecosystem," March 2021.
- [32] "Chapter 5: Penalties and Impacts", August 2020.  
<https://www.gov.uk/government/consultations/taking-action-on-climate-risk-improving-governance-and-reporting-by-occupational-pension-schemes/chapter-5-penalties-and-impacts#fnref:90>  
"Pensions Act 1995"  
<https://www.legislation.gov.uk/ukpga/1995/26/section/10/enacted>
- [33] "Green Finance Strategy", July 2019.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/820284/190716\\_BEIS\\_Green\\_Finance\\_Strategy\\_Accessible\\_Final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf)
- [34] "Green Finance Strategy", July 2019.  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/820284/190716\\_BEIS\\_Green\\_Finance\\_Strategy\\_Accessible\\_Final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf)
- [35] "The Ten Point Plan for a Green Industrial Revolution", November 2020  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/936567/10\\_POINT\\_PLAN\\_BOOKLET.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf)
- [36] "2020 ESG trends to watch", January 2020  
<https://www.msci.com/documents/10199/02f6473f-6fd8-aa8f-be72-443196478ec3>
- [37] "The UK 2020 Stewardship Code", 2020. [https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code\\_Dec-19-Final-Corrected.pdf](https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814a-d14e156a1d87/Stewardship-Code_Dec-19-Final-Corrected.pdf)
- [38] "Report on US Sustainable and Impact Investing Trends 2020" (US SIF Foundation, n.d.), <https://www.ussif.org/files/Trends%20Report%202020%20Executive%20Summary.pdf>.
- [39] "US Department of Labor Releases Statement on Enforcement of Its Final Rules on ESG Investments, Proxy Voting by Employee Benefit Plans" (U.S. Department of Labor, n.d.), <https://www.dol.gov/newsroom/releases/ebsa/ebsa20210310>.
- [40] "Potential Recommendations from the ESG Subcommittee," December 1, 2020, <https://www.sec.gov/files/update-from-esg-subcommittee-12012020.pdf>  
"Discussion Draft: Potential Recommendations of ESG Subcommittee," December 1, 2020, <https://www.sec.gov/files/potential-recommendations-of-the-esg-subcommittee-12012020.pdf>
- [41] "Risk Alert: The Division of Examinations' Review of ESG Investing," April 9, 2021  
<https://www.sec.gov/files/esg-risk-alert.pdf>
- [42] Elad Roisman, "Speech by Commissioner Roisman on ESG Regulation," The Harvard Law School Forum on Corporate Governance, March 21, 2021, <https://corpgov.law.harvard.edu/2021/03/21/speech-by-commissioner-roisman-on-esg-regulation/#more-137097>.
- [43] Gema Sacristán, "How the Way Was Paved for Sustainable Investment in Latin America and the Caribbean," IDB Invest (blog), January 15, 2021, <https://idbinvest.org/en/blog/financial-institutions/how-way-was-paved-sustainable-investment-latin-america-and-caribbean>.
- [44] "GDP (Current US\$) - Brazil." n.d. The World Bank (blog). <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=BR>.
- [45] "Sustainable Banking Network: Country Progress Report - Brazil," 2018, The World Bank - IFC. P.5, <https://www.ifc.org/wps/wcm/connect/59183359-f50b-4641-98dc-533fe46b47aa/SBN+Country+Progress+Report+-+Brazil.pdf?MOD=AJPERES&CVID=m745yw9>.
- [46] "The BNDES and the Green Protocol," BNDES, [www.bndes.gov.br/SiteBNDES/bndes/bndes\\_en/Hotsites/Annual\\_Report\\_2011/Capitulos/institutional\\_operations/the\\_bndes\\_and\\_the\\_green\\_protocol.html](http://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Hotsites/Annual_Report_2011/Capitulos/institutional_operations/the_bndes_and_the_green_protocol.html).
- [47] "Ibid.

- [48] "Social and Environmental Responsibility," Banco Central Do Brasil, <https://www.bcb.gov.br/en/about/socialresponsibility>.
- [49] "Sustainable Banking Network: Country Progress Report - Brazil," 2018, The World Bank - IFC. P.8 <https://www.ifc.org/wps/wcm/connect/59183359-f50b-4641-98dc-533fe46b47aa/SBN+Country+Progress+Report+-+Brazil.pdf?MOD=AJPERES&CVID=m745yw9>.
- [50] Feliba, David. "How ESG Investment Can Drive a Post-COVID-19 Recovery in Latin America." *Accelerating Progress*, 2 Sept. 2020, [www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-esg-investment-can-drive-a-post-covid-19-recovery-in-latin-america-59850738](http://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/how-esg-investment-can-drive-a-post-covid-19-recovery-in-latin-america-59850738).
- [51] Villamil, Justin. "Mexico's ESG Bond Has Skeptics Questioning Do-Good Bona Fides." *Bloomberg.com*, Bloomberg, 14 Dec. 2020, [www.bloomberg.com/news/articles/2020-12-14/as-esg-tests-new-frontiers-mexico-s-bond-sale-raises-concerns](http://www.bloomberg.com/news/articles/2020-12-14/as-esg-tests-new-frontiers-mexico-s-bond-sale-raises-concerns).
- [52] "BNamericas - The State of ESG Adoption in Mexico." *BNamericas.com*, [www.bnamericas.com/en/news/the-state-of-esg-adoption-in-mexico](http://www.bnamericas.com/en/news/the-state-of-esg-adoption-in-mexico).
- [53] "Mexico's Green Finance Advisory Board Joins FC4S - FC4S - Financial Centres for Sustainability." *FC4S*, 22 July 2020, [www.fc4s.org/mexicos-green-finance-advisory-board-joins-fc4s/](http://www.fc4s.org/mexicos-green-finance-advisory-board-joins-fc4s/).
- [54] *Ibid*.
- [55] Latin America Advisor - The Inter-American Dialogue. 2021. "Is Mexico Ensuring the Intended Use of ESG Investments?" January 19, 2021. <http://www.thedialogue.org/wp-content/uploads/2021/01/LAA210119.pdf>
- [56] "Global Sustainable Investment Review 2018." *Global Sustainable Investment Alliance*, 2019. [http://www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR\\_Review2018F.pdf](http://www.gsi-alliance.org/wp-content/uploads/2019/06/GSIR_Review2018F.pdf).
- [57] "Sustainable Investment Survey 2019." *Japan Sustainable Investment Forum*, 2020. <http://japansif.com/2019survey-en.pdf>.
- [58] "Value of sustainable investment assets globally in 2014, 2016, and 2018, by region(in billion U.S. dollars)." *Statista*, 2020. <https://www-statista-com.ezproxy.cul.columbia.edu/statistics/742097/sri-assets-value-by-region/>
- [59] "Japan's Cross-Shareholding Legacy: the Financial Impact on Banks," Accessed April 1, 2021, <https://www.frbsf.org/banking/files/August-2009-Japans-Cross-Shareholding-Legacy-the-Financial-Impact-on-Banks-august-09-FINAL.pdf>.
- [60] Kana Inagaki, "Japan Inc Faces Potential Forced Sell-off of Cross-Shareholdings," *Financial Times*, January 20, 2021, <https://www.ft.com/content/e027bb9e-a57d-4e80-b444-70e13f68cdaa>.
- [61] "Are Japan's Corporate Governance Reforms Working?" Accessed April 1, 2021, [https://www.lazardassetmanagement.com/docs/product/-sp10-/66807/AreJapan%C3%A2%E2%82%AC%E2%84%A2SCorporateGovernanceReforms\\_LazardResearch\\_en.pdf](https://www.lazardassetmanagement.com/docs/product/-sp10-/66807/AreJapan%C3%A2%E2%82%AC%E2%84%A2SCorporateGovernanceReforms_LazardResearch_en.pdf).
- [62] Kana Inagaki, "Japan Inc Faces Potential Forced Sell-off of Cross-Shareholdings."
- [63] "Are Japan's Corporate Governance Reforms Working?" Accessed April 1, 2021, [https://www.lazardassetmanagement.com/docs/product/-sp10-/66807/AreJapan%C3%A2%E2%82%AC%E2%84%A2SCorporateGovernanceReforms\\_LazardResearch\\_en.pdf](https://www.lazardassetmanagement.com/docs/product/-sp10-/66807/AreJapan%C3%A2%E2%82%AC%E2%84%A2SCorporateGovernanceReforms_LazardResearch_en.pdf).
- [64] Torsten Spiegel, "Independent Directors in Japan - Changing Corporate Governance?" *SSRN*, December 12, 2018, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3299495](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3299495).
- [65] "Japan Legal Update Vol. 49." *Japan Legal Update Vol. 49 | Jones Day*. Accessed April 1, 2021. <https://www.jonesday.com/en/insights/2020/01/japan-legal-update-vol-50>.
- [66] Kazuaki Nagata, "Abenomics Improved Japan's Corporate Governance, but More Work Remains," *The Japan Times*, Accessed April 1, 2021, <https://www.japantimes.co.jp/news/2020/09/14/business/corporate-governance-abenomics-japan/>.
- [67] Harding, Robin. "Sony Warns It Could Move Factories over Japanese Energy Policy." *Subscribe to read | Financial Times*. *Financial Times*, November 27, 2020. <https://www.ft.com/content/bbd59494-ac64-4dda-8da5-a2990d8936d3>.
- [68] "Japan's Net-Zero by 2050 Announcement a Step Forward, but 2030 Target Revision Now Crucial," *Climate Action Tracker*, Accessed April 5, 2021, <https://climateactiontracker.org/press/japans-net-zero-2050-announcement-step-forward-2030-target-revision-now-crucial/>.
- [69] Martina Cheung, "Seven ESG Trends to Watch in 2021," *S&P Global*, December 15, 2020, <https://www.spglobal.com/en/research-insights/featured/seven-esg-trends-to-watch-in-2021>.
- [70] "ESG Interest Driving Data Spending Higher," *Pensions & Investments*, February 13, 2019, <https://www.pionline.com/article/20190213/INTERACTIVE/190219949/esg-interest-driving-data-spending-higher>.
- [71] Rebecca Fender et al., "The Operating Model to Enable Sustainable Investing," *CFA Institute*, November 10, 2020, <https://www.cfainstitute.org/en/research/industry-research/esg-operating-model>.
- [72] Khalid Azizuddin, "ESG Data Quality Tops List of Investor Concerns in 2020," *Responsible Investor*, December 15, 2015, <https://www.responsible-investor.com/articles/esg-data-quality-tops-list-of-investor-concerns-in-2020>.
- [73] "How Can AI Help ESG Investing?," *S&P Global*, February 25, 2020, <https://www.spglobal.com/en/research-insights/articles/how-can-ai-help-esg-investing>.

- [74] Marshall Geck, "Seven Major Companies That Committed to Net-Zero Emissions in 2020," UN PRI, December 15, 2020, <https://www.unpri.org/pri-blog/seven-major-companies-that-committed-to-net-zero-emissions-in-2020/6909.article>.
- [75] Cecilia Keating, "Wells Fargo Is Latest U.S. Bank to Adopt Net-Zero Financing Pledge," Greenbiz, March 10, 2021, <https://www.greenbiz.com/article/wells-fargo-latest-us-bank-adopt-net-zero-financing-pledge>.
- [76] James Comtois, "BlackRock's Fink Urges Others to Join in Net-Zero Commitment," Pensions & Investments, January 26, 2021, <https://www.pionline.com/esg/blackrocks-fink-urges-others-join-net-zero-commitment>.
- [77] Mark Segal, "BlackRock, Vanguard Among New Net Zero Asset Management Signatories," ESG Today, March 29, 2021, <https://www.esgtoday.com/blackrock-vanguard-among-new-net-zero-asset-management-signatories/>.
- [78] "Climate Action 100+," Climate Action 100+, April 7, 2021, <https://www.climateaction100.org/>.
- [79] Kosmas Papadopoulos and Rodolfo Araujo, "Top 10 ESG Trends for the New Decade," The Harvard Law School Forum on Corporate Governance, March 2, 2020, <https://corpgov.law.harvard.edu/2020/03/02/top-10-esg-trends-for-the-new-decade/>.
- [80] Martina Cheung, "Seven ESG Trends to Watch in 2021."
- [81] Kosmas Papadopoulos and Rodolfo Araujo, "Top 10 ESG Trends for the New Decade."
- [82] Martina Cheung, "Seven ESG Trends to Watch in 2021."
- [83] "Natixis Mobilizes Its Business Lines in Support of Biodiversity," Natixis, June 15, 2020, <https://pressroom-en.natixis.com/news/natixis-mobilizes-its-business-lines-in-support-of-biodiversity-0b30-8e037.html>.
- [84] "The ESG Data Files, Part Nine: Biodiversity - the New Frontier," April 7, 2020, <https://www.environmental-finance.com/content/analysis/the-esg-data-files-part-nine-biodiversity-the-new-frontier.html>.
- [85] Martina Cheung, "Seven ESG Trends to Watch in 2021."
- [86] Melanie Adams, "Drip, Drip, Drip: Water Is a Leading ESG Concern," GreenBiz, February 17, 2020, <https://www.greenbiz.com/article/drip-drip-drip-water-leading-esg-concern>.
- [87] Mark Segal, "CDP: Lack of Action on Water Risks Could Cost Companies More than \$300 Billion," ESG Today, March 2, 2021, <https://www.esgtoday.com/cdp-lack-of-action-on-water-risks-could-cost-companies-more-than-300-billion/>.
- [88] Steven Davidoff Solomon, "France Answers Hostile Bids with the Two-Vote Share," The New York Times, May 19, 2015, <https://www.nytimes.com/2015/05/20/business/dealbook/france-answers-hostile-bids-with-the-two-vote-share.html>
- [89] Tensie Whelan, "U.S. Corporate Board Suffer From Inadequate Expertise in Financially Material ESG Matters," NYU Stern Center for Sustainable Business, January 2021, [www.stern.nyu.edu/sites/default/files/assets/documents/U.S.%20Corporate%20Boards%20Suffer%20From%20Inadequate%20%20Expertise%20in%20Financially%20Material%20ESG%20Matters.docx%20%282.13.21%29.pdf](http://www.stern.nyu.edu/sites/default/files/assets/documents/U.S.%20Corporate%20Boards%20Suffer%20From%20Inadequate%20%20Expertise%20in%20Financially%20Material%20ESG%20Matters.docx%20%282.13.21%29.pdf).
- [90] Jean Eaglesham and Anna Hirtenstein, "ESG Disclosure Rules from Europe Challenge U.S. Fund Managers," The Wall Street Journal, March 22, 2021, [www.wsj.com/articles/esg-disclosure-rules-from-europe-challenge-u-s-fund-managers-11616405401?mod=hp\\_lista\\_pos1](http://www.wsj.com/articles/esg-disclosure-rules-from-europe-challenge-u-s-fund-managers-11616405401?mod=hp_lista_pos1)
- [91] Val Srinivas and Urval Goradia, "The Future of Wealth in the United States: Mapping Trends in Generational Wealth," Deloitte Center for Financial Services, 2015, [www2.deloitte.com/content/dam/insights/us/articles/us-generational-wealth-trends/DUP\\_1371\\_Future-wealth-in-America\\_MASTER.pdf](http://www2.deloitte.com/content/dam/insights/us/articles/us-generational-wealth-trends/DUP_1371_Future-wealth-in-America_MASTER.pdf), 6.
- [92] [https://workspace.google.com/marketplace/app/endnote\\_generator/966812386636](https://workspace.google.com/marketplace/app/endnote_generator/966812386636)
- [93] Theo Francis et. al, "Big Companies Disclose Details on Gender, Race in Workforces," The Wall Street Journal, March 1, 2021, [www.wsj.com/articles/big-companies-disclose-details-on-gender-race-in-workforces-11614594601?mod=article\\_inline](http://www.wsj.com/articles/big-companies-disclose-details-on-gender-race-in-workforces-11614594601?mod=article_inline).
- [94] "Nasdaq to Advance Diversity through New Proposed Listing Requirements," Nasdaq, December 1, 2020, [nasdaq.com/press-release/nasdaq-to-advance-diversity-through-new-proposed-listing-requirements-2020-12-01](http://nasdaq.com/press-release/nasdaq-to-advance-diversity-through-new-proposed-listing-requirements-2020-12-01).