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Sustainability in Capital Markets:

A Survey of Current Progress and Practices

Contents

Introduction

In the three years since our 2015 survey on the state of ESG integration in Capital Markets, interest and engagement with ESG in capital markets can truly be said to have gone mainstream. ESG investment products flood the market in almost every investment category, from ETFs to fixed income and alternatives. ESG assets under management now total $30 trillion, up from $23 trillion in 2016 and are projected to grow to $35 trillion by 2020.

Among the key drivers propelling this focus on ESG integration is the changing demographics of investors, and in particular the interests and investment power of millennials and women. A 2017 survey noted that 86% of millennial investors expressed an interest in sustainable investing, compared to 73% of investors overall. As we see in this report, multi-stakeholder initiatives such as the PRI, regulation, technology, and ESG data science are also propelling market attention to ESG. At the same time, key intermediary players from stock exchanges to credit rating agencies are accelerating the integration of ESG into their platforms. Perhaps most importantly, there is a growing realization by asset owners and managers that ESG can be more than simply a marketing tool or a basis for a set of niche products, but also a viable way to increase alpha and manage risk across their portfolios. Between 2017 and 2018, for example, we saw a 13% increase in the number of capital market stakeholders that believe ESG-integrated portfolios are likely to perform better than non-ESG-integrated portfolios.

Together these forces are not only shaping the way investors use ESG in their approach to asset valuation and selection, but are also shaping their engagement with companies. Most notable in this regard is the integration of ESG into the investment stewardship and engagement practices of the world's largest institutional investors such as BlackRock and Vanguard, who are managing so called "passive" index funds.

While the last three years have seen significant progress in ESG integration, significant challenges remain before we will be able to say ESG is truly an integrated part of the US capital market system.

The primary challenge continues to be the lack of a normative and widely accepted definition of ESG and standards for companies to measure and report on ESG performance. Despite attempts at coordination

between different frameworks, e.g. SASB and the GRI, there still remains no commonly accepted definition of what ESG encompasses nor are there standards for measuring and reporting on "non-financial" ESG factors. This is further complicated by the lack of consensus between the major ESG rating and ranking agencies who often provide significantly different rankings for the same companies and are using different and often non-transparent methodologies to account for significant data gaps. For their part, regulators in most jurisdictions have failed to require or set standards for ESG disclosure, although some such as the UK are beginning to provide non-mandatory "guidance."

A second challenge is the lack of understanding of and appreciation for ESG at the corporate governance level. In response to a question in a 2018 survey of corporate directors in the US asking whether they felt disclosure on sustainability matters are important to understanding a company's business and helping investors make informed investment and voting decisions, 74% of directors said no. A good illustration of the challenge this presents can be seen in the response by companies to increased shareholder activism on environmental, social, and governance issues, with almost half of 2018's shareholder proxies focused on those. A study by Harvard Professor George Serafeim and others showed that companies were responding equally to ESG related proposals, regardless of whether they were likely to be on financially material issues based on the industry they operate.[1] Not surprisingly, the study showed that companies that responded to issues not material to the company's primary ESG impacts were minor but not statistically significant subsequent declines in firm valuation relative to their peers, while action on proposals on material ESG issues were associated with subsequent statistically significant increases in firm valuation relative to peers.

A third challenge is growing the talent and infrastructure to support full ESG integration. This requires talented individuals with a combination of skills that few universities or colleges provide in traditional finance and business schools, including strong interdisciplinary knowledge, strategic policy experience combined with deep investment expertise, and the emotional intelligence skills necessary to communicate with diverse stakeholders. In the absence of candidates with this broad range of skills, investors must be prepared to invest in the professional development of existing investment managers, data scientists, and marketing staff being assigned ESG-related responsibilities and consider new hires who may not have the requisite financial background but have a strong background in ESG issues and stakeholder engagement.

A final challenge is, at least in the US, an organized pushback against ESG integration and shareholder activism around ESG by corporate and political interests. Organizations such as the Mainstream

1. https://dash.harvard.edu/handle/1/27864360

Investors Coalition argue that the attention to ESG is distracting investment managers from a focus on maximizing returns for the small retail investor.

While challenges remain, there is no question that the move to full ESG integration in capital markets is well underway. The question for most capital market players is no longer why ESG, but rather defining what it means specifically for their business and how to integrate ESG in ways that will improve returns and create value for clients.

Looking forward over the next three years we expect to see continued progress in integrating ESG factors across all asset classes and increased focus by investment managers on ESG as a value driver for long-term performance. Direct communication between investors and companies around ESG issues will accelerate as large investors in particular increasingly look for direct source data on ESG and move past the plethora of intermediaries and rating agencies crowding the ESG data space. This in turn may help drive more coordination between the intermediaries around the development of a baseline industry framework for defining and reporting on ESG. Investing for systemic impact using frameworks such as the Sustainable Development Goals or the Task Force on Climate related Financial Disclosures (TCFD) is also likely to be an increased focus of attention as pressures mount around issues from climate change to income inequality. The PRI, for example, has said it will require its members to report against the recommendations of the TCFD by 2020. While we are unlikely to see regulators in the US play a role, the European Union and countries in Europe may become more active in ESG reporting requirements. The EU in February 2019 gave the green light to a low-carbon benchmarking regulation, marking the first legislative agreement under the EU Action Plan on sustainable finance with more ESG related requirements expected, including guidance to improve corporate disclosure of climate-related information. Finally, as investors focus in on ESG as a value driver and risk management tool, we can expect to see accelerating engagement of investors with companies at the governance level as investors look to gain assurance that the board has considered material ESG factors in their oversight of corporate strategy and longer term plans.

At HMI we will continue our work with leading players in capital markets to advance a sustainable capital market system to address the challenges outlined above. We invite you to learn more about our work, our ESG industry Forum, our Institutional Investor Industry Engagement project, and our 21st Century Corporate Governance project here.

Overview

The first version of 'Charting the Future of Capital Markets' was published in January 2016, using 2015 data. The report offered a landscape analysis of the mainstream capital market ecosystem and the views and practices of its key stakeholders around the issue of long-term value creation. Since then a lot has changed. The role of investors in proactively shaping corporate practices is gaining more attention as environmental, social and governance issues (ESG) and responsible investment become mainstream, new responsible investment-focused regulations and frameworks have been implemented and shifting demographics are putting pressure on capital market stakeholders to change their practices. There have also been some counter-trends at play, challenging stakeholders from focusing more on long-term value creation.

Section One: Key Drivers of Change

This section of the report explores some of the key drivers of change between 2015 and 2018.

1. Changing Demographics
2. Global ESG Regulatory Changes and Key Initiatives 2015 - 2018
3. Advances in Technology and Data Science
4. Counter-trends

Section Two: Capital Market Stakeholders

The second section of the report focuses on each of the different capital market stakeholders, exploring the key changes that have occurred since 2015, what is driving the change and what the barriers are to further progress. For most groups, the same sample of organizations and indicators were used to aid the comparison as a baseline and some additional indicators and organizations were also included where relevant. An additional stakeholder group was also added for this year: Index Providers and Exchange-Traded Funds.

The desk research involved collecting publicly available information from company websites, company reports (annual reports, sustainability reports), Principles for Responsible Investment Transparency Reports, industry reports and academic literature.

Acronyms

Acronym	Name
ACGA	Asian Corporate Governance Association
AIGCC	Asia Investor Group on Climate Change
AMNT	The Association of Member Nominated Trustees
CDP	Carbon Disclosure Project
CII	Chartered Insurance Institute
EAC	House of Commons Environmental Audit Committee
EITI	Extractive Industries Transparency Initiative
ETF	Exchange-Traded Fund
ETP	Exchange-Traded products
FASB	Financial Accounting Standards Board
FCA	Financial Conduct Authority
GIIN	Global Impact Investing Network
GRESB	Global Real Estate Sustainability Benchmark
GRI	Global Reporting Initiative
GSSB	Global Sustainability Standards Board
IASB	International Accounting Standards Board
ICGN	International Corporate Governance Network
IIGCC	Institutional Investors Group on Climate Change
IIRC	International Integrated Reporting Council
INCR	Investor Network on Climate Risk
IOSCO	International Organization of Securities Commissions
IPCC	Intergovernmental Panel on Climate Change
ISS	Institutional Shareholder Services
MDGs	Millennium Development Goals
PRI	Principles for Responsible Investment
PSI	Principles for Sustainable Insurance
SASB	Sustainability Accounting Standards Board
SCF	Swiss Climate Foundation
SDGs	Sustainable Development Goals
SEC	Securities Exchange Commission
SIF	Sustainable Investment Forum
SSF	Swiss Sustainable Finance
TCFD	Taskforce for Climate-related Financial Disclosures
TIPP	The Investment Integration Project
UK CMA	UK Competition and Markets Authority
UK SIG	UK Sustainable Investment and Finance Association
UNCCD	United Nations Convention to Combat Desertification
UNEP FI	United Nations Environment Programme Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
UNGC	United Nations Global Compact

Terms

ESG Integration:
The explicit and systematic inclusion of ESG issues in investment analysis and investment decisions across asset classes.

ESG Screening
Selective inclusion or exclusion from a fund or portfolio on the basis of meeting or lacking specific ESG related criteria.

Thematic ESG
Investments in themes or assets specifically related to sustainability e.g. renewable energy.

Long-term Investing
Long-term investing is investing with the intention to hold onto those assets for many years. Short-term investments are considered to have a time horizon of less than three years

Investment Mandate
An instruction to manage a pool of capital or a group of funds using a specific strategy and within certain risk parameters.

Section One:
Key Drivers of Change

Changing Demographics

According to Schroders' 2017 Global Investor Study, 78% of individuals say sustainable investing has become more important to them in the past 5 years.[1] But is there a reason behind this shift towards responsible investing, and who are the investors creating a demand for more sustainable products?

Researchers believe that both millennials and women are playing a key role in the rise and subsequent mainstreaming of responsible investment.[2] We look at each of these two groups in turn and ask what impact they are having on the industry.

Millennial investors

Deloitte defines millennials as individuals born between January 1983 and December 1994.[3] They are often described as more value and purpose-driven than previous generations, which is exemplified through a propensity for value-led brands and desire to work at sustainably-minded companies. The trend is the same when it comes to investing. Schroders finds that millennials are more aware and informed about sustainable investment funds.[4] Another survey noted that in 2017, 86% of millennial investors expressed an interest in sustainable investing, compared to an overall average of 73%.[5] And in practice, 70% have increased their investments in sustainable funds.[6] Millennials also invest in companies that target social and environmental goals twice as often as the overall investor population.[7]

A recent study by the US Trust sought to understand millennials' motivations for responsible investing. They found that two-thirds "view their investment

Key points:

Millennial investors are more interested in and more informed about sustainable investing but the full impact of this on the market is yet to be realised.

Women investors are more interested in sustainable investing, at a time when they represent a large and growing proportion of global wealth.

Digital innovation in financial services is disrupting the status quo and breaking down some of the barriers for a wider group of investors by adopting user-centred design.

1. https://www.schroders.com/en/sysglobalassets/digital/insights/2017/pdf/global-investor-study-2017/schroders_report_sustainable-investing_final.pdf **2.** Morgan Stanley, 2017 https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf **3.** https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html **4.** https://5.www.schroders.com/en/sysglobalassets/digital/insights/2017/pdf/global-investor-study-2017/schroders_report_sustainable-investing_final.pdf **5.**https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf **6.** https://www.schroders.com/en/sysglobalassets/digital/insights/2017/pdf/global-investor-study-2017/schroders_report_sustainable-investing_final.pdf **7.** Morgan Stanley, 2017 https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf decisions as a way to express their social, political, or environmental values."[8] Similarly, Nuveen found that 92% of surveyed millennials agreed with the statement "I care more about having a positive impact on society than doing well financially."[9] This mentality aligns with the millennial desire to live in a more socially responsible and value-led way. Other studies cite growing up with greater access to information and in the presence of social media as key reasons for why millennials are more aware of global issues and the positive impact they can have on society.[10] Ultimately, millennials are aware of global issues such as climate change and realize they can exercise their investments to support a more sustainable future.

The impact of a more conscious and sustainably-oriented group of millennial investors is increasingly noticeable. However, the full effects are yet to be realized. It is estimated that in the next 10 years, $12 trillion worth of assets will pass from baby boomers (51-69-year olds) to millennials.[11] Once millennials are equipped with more capital to invest, the positive effect on responsible and ESG investing could be unprecedented. Firms that want to capitalize on this trend need to ensure their products can meet the changing needs of the socially responsible millennial investor.

Women investors

Women are increasingly joining the workforce, earning more money and are in control of larger sums of wealth than ever before. Recent figures show that women currently control 40% of global wealth and 51% of US personal wealth.[12] To put this in perspective, in the US women are expected to be in control of $22 trillion by 2020.[13]

Aside from the positive aspect of increased gender equality, the shift in wealth management is promising as women investors demonstrate a greater interest in sustainable investing than their male counterparts (84% of women versus 67% of men).[14] Morgan Stanley also found that a company's percentage of female employees correlates positively with its return on equity,[15] demonstrating that gender diversity has financial benefits. Ultimately, the influx of female investors managing their own and their clients' wealth is demonstrably a positive driver for responsible investment.

However, while women are demonstrating interest in investing responsibly, barriers remain. Both BCG[16] and EY[17] have found that women currently feel underserved by the financial services sector. EY found that 67% of women think that their asset manager does

8. https://www.ft.com/content/59f6562a-786d-11e8-af48-190d103e32a4 **9.** https://www.tiaa.org/public/pdf/investor_interest_in_responsible_investing_soars.pdf **10.** http://uk.businessinsider.com/millennials-are-driving-a-huge-shift-in-the-way-we-shop-and-invest-2018-5 **11.** https://www.ft.com/content/59f6562a-786d-11e8-af48-190d103e32a4 **12.** https://www.credit-suisse.com/corporate/en/articles/news-and-expertise/global-wealth-report-2018-women-hold-40-percent-of-global-wealth-201810.html **13.** https://www.bmo.com/privatebank/pdf/Q1-2015-Wealth-Institute-Report-Financial-Concerns-of-Women.pdf **14.** https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf **15.** https://www.morganstanley.com/ideas/gender-diversity-investor-guide **16.** https://www.bcg.com/documents/file31680.pdf **17.** https://www.ey.com/Publication/vwLUAssets/EY-women-investors/$FILE/EY-women-and-wealth.pdf not understand their goals and lifestyle. What's more, they state that the investment sector is unwelcoming and typically designed for men.[18] Similarly, BCG finds that dissatisfaction arises from asset managers not offering nuanced and tailored solutions to women clients and instead expect that existing services, arguably designed for men, will suffice for women.[19]

Women represent a large and growing pool of wealth that, like the wealth of millennials, is having and is having an increasing impact on investment managers. Since 2015 we have seen a rapid increasing in ESG related products being developed for this market.

Digital innovation can serve the changing investor demographic

Developments in technology could support firms that want to tap into the wealth of women and millennial investors. For example, Arabesque believes that machine learning will enable organizations to better analyze data on women investors, allowing businesses to truly understand their female clients' behavior in order to offer more tailored services.[20] For millennials, the digital age has brought about a proliferation of tech-based investment platforms. Firms seeking to cater to digitally native millennials will be required to incorporate cutting edge technology, gamification and mobile into their investment service offerings.[21] Aviva, the multinational insurance company, provides a good example of an industry incumbent that is embracing digital innovation. Concepts such as their Digital Garage, an innovation arm that harnesses data, technology and user-centred design, to build products that serve millennial customers, as well as their investment in Wealthify, an online investment app offering responsible investment options, are ensuring they remain relevant to a shifting investor demographic.[22]

18. https://www.ey.com/Publication/vwLUAssets/EY-women-investors/$FILE/EY-women-and-wealth.pdf **19.** https://www.bcg.com/documents/file31680.pdf **20.** https://insights.arabesque.com/2018/03/06/machine-learning-could-change-the-game-for-female-investors-in-2018/ **21.** https://www.accenture.com/t00010101T000000Z__w__/gb-en/_acnmedia/PDF-68/Accenture-Millennials-and-Money-Millennial-Next-Era-Wealth-Management.pdf#zoom=50 **22.** https://www.marketingweek.com/2018/07/04/how-aviva-digital-garage-is-helping-the insurance-brand-disrupt-itself/

Country-specific ESG Regulations and Multi-stakeholder Initiatives:
A sample of key updates between 2015-2018

European Union

- High-Level Expert Group on Sustainable Finance
- Package of measures for Sustainable Finance
- Markets in Financial Instruments Directive (MiFID II)
- Insurance Distribution Directive
- EU Shareholder Rights Directive

Multi-stakeholder and Industry ESG-related Initiatives

Reversing climate change

The threat of climate change is increasingly the center of global discussions, largely because efforts to combat the effects require worldwide collaboration. Initiatives such as the Conference of Parties (COP), an annual meeting of the United Nations Framework Convention on Climate Change (UNFCCC), have been hosted since 1995[23], however it was at COP 21 in 2015 that the first legally binding international climate deal was launched. The Paris Agreement was initially adopted by 195 nations; it set out to strengthen the international response to climate change, specifically with the goal of keeping global temperature rise below 2°C, ideally at a maximum increase of 1.5°C.[24]

The Paris Agreement was, therefore, a significant milestone, but in 2017 the US, the second largest carbon emitter globally, announced that it would be pulling out of the agreement.[25] While no other countries followed suit, this move was viewed as a significant threat to achieving the goals set out in the Paris Agreement. The government's decision has motivated citizens, the private sector and state-level

Key points:

- Initiatives such as the Paris Agreement are accelerating the integration of climate risk factors in investment management.
- Measuring systems impact and social issues are coming into increased focus with the UN Sustainable Development Goals emerging as a framework for analysis.

23. https://unfccc.int/process/bodies/supreme-bodies/conference-of-the-parties-cop 24. https://ec.europa.eu/clima/policies/international/negotiations/paris_en 25. https://www.worldwildlife.org/stories/us-climate-action-grows-stronger-despite-announcement-to-leave-paris-agreement

governments in the US to take further action against climate change, particularly, in the energy sector.[26] As an example of this commitment, the WWF reported that state-level leaders are setting science-based targets[27] in line with the Paris Agreement.[28]

Climate change could be the single biggest threat to the performance of investment and loan portfolios in the long-term[29], which, regardless of their moral motivations, is why capital market players should act. In 2018, the European Commission outlined actions it will be taking to ensure the European financial sector can benefit society and the planet. These actions included clarifying the role that investors should play in incorporating sustainability and ensuring investment and insurance firms provide clients with advice based on their ESG preferences.[30] The Commission highlighted that their motivation to act on climate change was linked to mitigating risk as well as the business opportunities associated with capitalizing on sustainability.[31] Capital markets players in Asia and the Pacific (where the effects of climate change have been most acute[32]) are also making efforts to tackle climate change. In 2016, the Institutional Investors Group on Climate Change (IIGCC) re-launched the Asia Investor Group on Climate Change (AIGCC)[33] to raise awareness of climate change risks and opportunities among asset owners and financial institutions.[34] The AIGCC is now comprised of 26 capital market players that want to understand best practices and collaborate on Asia-specific climate change opportunities.[35]

Climate change is increasingly recognized as one of the biggest global threats; in 2018 the UN secretary general said that climate change is “the most systemic threat to humankind.”[36] Recent research such as the landmark UN Intergovernmental Panel on Climate Change (IPCC) report released in October 2018 highlighted the severe threat of climate change and the limited time that remains to tackle it.[37] Ultimately, with 12 years left to reverse the effects[38], capital market stakeholders should understand that the actions they take today will determine the future course of the planet.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) were announced in 2015 by the United Nations General Assembly as the next iteration of the Millennium Development Goals (MDGs). They are a set of 17 interconnected global goals covering social and economic development issues, with the aim of protecting both people and the planet. They have also been described as “the closest thing the world has to a strategy.”[39]

The SDGs are more universally applicable and more widely received by the private sector than their predecessors, the MDGs.[40] What’s more, the goals have started to appeal to an investor audience as well. Organizations such as the Global Impact Investing Network (GIIN) and the Principles for Responsible Investment (PRI) are working to ensure investors understand how and why they should support the

26. https://www.worldwildlife.org/stories/us-climate-action-grows-stronger-despite-announcement-to-leave-paris-agreement **27.** Targets adopted by organizations to reduce greenhouse gas (GHG) emissions are considered “science-based” if they are in line with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures, as described in the Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). https://sciencebasedtargets.org/faq/ **28.** https://www.worldwildlife.org/stories/us-climate-action-grows-stronger-despite-announcement-to-leave-paris-agreement **29.** https://www.bec.org.hk/files/members/form/132/132AIGCC_Introduction_Financial_Institutions.pdf **30.** http://europa.eu/rapid/press-release_IP-18-1404_en.htm **31.** http://europa.eu/rapid/press-release_IP-18-3729_en.pdf **32.** https://asiacarbonforum.com/sites/default/files/2017/Finance%20for%20Climate%20Action.pdf **33.** http://www.iigcc.org/events/event/launch-of-the-asia-investor-group-on-climate-change-at-pri-in-person **34.** http://www.aigcc.net/who-are-we/ **35.** http://www.aigcc.net/wp-content/uploads/2018/10/AIGCC-Member-List-Sheet1-1.pdf 3 **36.** https://www.nytimes.com/2018/03/29/climate/united-nations-climate-change.html **37.** https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report **38.** https://www.theguardian.com/environment/2018/oct/08/global-warming-must-not-exceed-15c-warns-landmark-un-report **39.** https://www.ukssd.co.uk/the-sdgs **40.** https://www.theguardian.com/global-development-professionals-network/2015/sep/26/7-reasons-sdgs-will-be-better-than-the-mdgs

SDGs. For example, the PRI has positioned the SDGs as a capital allocation guide and a framework to measure impact and risk.[41] The SDGs have also been evaluated for other capital market players such as Stock Exchanges, with the Sustainable Stock Exchange (SSE) finding that four SDGs relating to gender, sustainability data, climate change and global partnerships can be supported by stock exchanges.[42] However, while some investors have embraced the SDGs as a framework, others state that using the SDGs in this way is counterproductive, as the goals were not designed to be used by the private sector.[43] For example, in 2017, in response to the PRI's strategic plan, Norges Bank Investment Management stated that although the SDGs are relevant to investors, the PRI should not seek to measure signatory impact on the SDGs due to the complexity of defining standardised and appropriate reporting metrics.[44]

A 2018 report from the Global Impact Investing Network (GIIN) found that fifty percent of impact investors were "tracking some or all of their impact performance against the SDGs."[45] Yet the GIIN further stated that to make a substantial impact, investors will need to raise and direct new capital towards products and services that target the SDGs.[46] In the same report, they offer exemplar case studies, demonstrating how some impact investors are integrating the SDGs throughout the investment cycle. Mirova, a responsible investment firm that is featured in the Boutique Asset Managers section, is one of the first companies to do this.

For investors, tracking and measuring the impact of their investments against the SDGs is challenging due to the systemic nature of the problems tackled by the global goals.[48] In 2018, researchers from The Investment Integration Project (TIIP) highlighted four foundational indicators of an environmental, societal, and financial system's health that investors can use to understand if their system-level investments are having a positive impact.[49] In addition, in 2018 a group of academics mapped SASB issues to the SDGs to find sectors which have a higher impact on the SDGs.[50] Their research is aimed at both a corporate and investor audience, and they state that investors can use the proposed framework to identify, on a sector level, which material issues also support the SDGs.[51]

Case study

mirova
Responsible Investing

Mirova launched an SDG fund in collaboration with the United Nations

In 2017 Mirova launched the 'Land Degradation Neutrality Fund' in collaboration with the United Nations Convention to Combat Desertification. The fund supports SDG 15 - Life on Land by providing sustainable forestry and agriculture projects and enterprises with long-term financing that would not be attainable from traditional sources such as commercial lenders. Most importantly, the fund's due diligence and investment management practices are directly guided by SDG 15.[47]

41. https://www.unpri.org/sdgs/the-sdg-investment-case/303.article **42.** http://www.sseinitiative.org/ourwork/sdgs/#2 **43.** https://www.schroders.com/en/sysglobalassets/digital/insights/2018/pdf/sustainable-investment-report/english-original/sustainable-investment-report-annual-2017.pdf **44.** https://www.nbim.no/contentassets/cdbb1857c1d344a683a6cdb050717511/nbim-consultation-letter-pri-strategy-2018-2021.pdf **45.** https://thegiin.org/assets/Financing%20the%20SDGs_Impact%20Investing%20in%20Action_Final%20Webfile.pdf **46.** https://thegiin.org/assets/Financing%20the%20SDGs_Impact%20Investing%20in%20Action_Final%20Webfile.pdf **47.** https://thegiin.org/research/publication/financing-sdgs **48.** https://tiiproject.com/wp-content/uploads/2018/03/Measuring-Effectiveness-Report_Final_March-2018.pdf **49.** https://tiiproject.com/wp-content/uploads/2018/03/Measuring-Effectiveness-Report_Final_March-2018.pdf **50.** https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3163044 **51.** https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3163044

Advances in Technology and Data Science

Since the last edition of the report, the implementation of data science tools in the ESG space, both for data collection and analysis, has arguably revolutionized the way markets think about the validity and viability of ESG information. The world of ESG data is one with few rules and little objectivity. Despite the growing number of guidelines, regulations, and frameworks for disclosure, disclosed ESG data remains heavily unstructured, non-standardized, and subjective.

The data challenge is perhaps the most daunting one for impact investors and mainstream market participants alike. As noted by Madhu Gayer, Head of Investment Analytics for the APAC region at BNP Paribas Securities: "The shortage of data to support ESG investments has led some senior management ranks to be more skeptical, which has in turn limited adoption across the Asia Pacific region, and globally more generally."[52] A lack of uniform ESG accounting and reporting systems and the slow pace of regulatory intervention has meant that companies willing to disclose information and investors looking to invest sustainably are having to take matters into their own hands. In addition, there has been growing distrust in data providers, leading to greater demand for direct access to data. In some cases, these factors have resulted in organizations developing proprietary ESG data capabilities.

For investors, technology advancements and sophisticated algorithms have been playing an increasingly significant role in ESG data collection and analysis. Artificial intelligence (AI) and machine learning techniques have helped tremendously in 'smart-scraping' company reports for material ESG information, at a level of efficiency (both in accuracy and speed) that human efforts cannot match.[53] Advanced technology has also helped investors to expand the breadth of information they can access on ESG issues, for example integrating high frequency data from unconventional sources to expand the list of metrics that

Key points:

- Technology advancements and sophisticated algorithms have been playing an increasingly significant role in ESG data collection and analysis.
- There has been an increase in ESG 'quant houses' and boutique data and service providers offering sustainable quant-based products and providing analysis using sophisticated algorithms, e.g. TruValue Labs.
- The increase in data science applications to aid data extraction and analysis has been an efficient way for markets to cope with the paucity of ESG information.
- There has been growing distrust in data providers, leading to greater demand for direct access to data.

52. "Japanese institutional investors gain momentum on ESG, and plan to go further by 2019, BNP Paribas research finds" - http://www.bnpparibas.jp/en/2017/05/24/esg_survey/ 53. Smart-scraping refers to any scraping algorithm that learns from itself and updates periodically, similarly to the human learning processes.

Case study

DWS, a Europe-based global asset management company, brings ESG data and analytics in-house

The DWS 'ESG Engine' was built for investors to manage risk and fulfil responsible investment goals. The engine uses data from seven data providers to score companies and portfolios on their sustainability. They have integrated the engine into their portfolio management process, giving all their portfolio managers and research analysts access to ESG assessments of issuers and investees.[54] Overall, DWS tribute advances in big data as an enabler of responsible investing.[55]

underly a given ESG issue. An example is the use of satellite data to track climate indicators that can then be integrated into supply chain analysis.

AI and machine learning tools have also enabled the analysis of ESG data in smarter ways. The influence of ESG 'quant houses', boutique data and service providers offering sustainable quant-based products and analysis using sophisticated algorithms, is a rising trend in the ESG field. For example, TruValue Labs, a new data provider, leverages the supervised learning form of AI to filter through over 75,000 sources from newspapers, watchdog organizations, specialist publications and NGOs to analyse and interpret massive amounts of unstructured ESG data. Another example of a 'quant house' is Arabesque, an asset manager analysing over 7,000 listed companies with a combination of ESG and big data powered by sophisticated data science tools, as discussed in the case study (right).

Case study

Case study: Arabesque –using big data to construct ESG incorporation strategies

Arabesque is one of the world's first specialist ESG quant asset management firms. The firm's investment technology processes over 100 billion data points to select an investment universe of global stocks that attempts to deliver superior returns, integrating ESG data with quantitative investment strategies.

The Arabesque Investment Universe is determined using a rules-based bottom-up selection process based on scores provided by Arabesque S-Ray. S-Ray, launched in April 2017, is a powerful big data platform that leverages the power of machine learning to quantify the sustainability platform of close to 7,000 companies around the world. Through machine learning and big data, Arabesque S-Ray™ systematically combines over 200 environmental, social and governance (ESG) metrics with news signals from over 50,000 sources across 15 languages.

It is the first tool of its kind to rate companies on the normative principles of the United Nations Global Compact. Additionally, Arabesque S-Ray™ provides an industry-specific assessment of companies' performance on financially material sustainability criteria (ESG Score). Both scores are combined with a preferences filter that allows anyone to better understand each company's business involvements, and how those activities align with personal values .[56]

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54. https://download.dws.com/download?elib-assetguid=a30d4fc2df4b418c956389cd6bb58ad8&wt_eid=2154028150754981037&wt_t=1540285849635
55. https://www.ipe.com/investment/strategically-speaking/strategically-speaking-deutsche-asset-management/dws-group/10023449.article
56. https://us.rbcgam.com/resources/docs/pdf/HTML-files/ESG/Roadshow/ESG%20in%20ratings.pdf

The increase in data science applications to aid data extraction and analysis has been the most efficient way for markets to cope with the paucity of ESG information. The ESG field has traditionally been characterized by extensive surveys that transfer information between investors and companies. This has led to investor analyst bias, survey fatigue for company sustainability teams and a wealth of unaudited and inconsistent data on ESG issues. There is also a significant time lag for survey data. These shortfalls have given added impetus for technology and data science advances to leapfrog existing solutions. TruValue Labs CEO and co-founder Hendrik Bartel sees the new technological era of ESG as "the foundation of what I call Financial Fundamentals 2.0. If you don't use these emerging tools, your financial analysis is incomplete."[57] As the nascent applications of these approaches and amount of companies in the area continue to increase, it is predicted that advances in technology and data science will continue to play an increasingly pivotal and disruptive role in how ESG data is obtained.

57. "What does Trump mean for ESG data and investment strategies?" https://blog.insight360.io/what-does-trump-mean-for-esg-data-and-investment-strategies-7e084f271d25

ESG Counter-trends

In the time between the previous edition of the 'Future of Capital Markets' and this years' edition, environmental, social and governance issues have risen into the mainstream. Over 80% of the world's largest companies issue Corporate Social Responsibility reports in accordance with the GRI Standards and there is over $20 trillion sitting under the umbrella of 'ESG Investing', representing around a quarter of all professionally managed assets in the world.[58] Multiple factors are driving this growth.

On the regulatory side, policy makers have started taking a stronger stance on ESG disclosure guidance and rules. As shown by a recent report from Datamaran, a data provider that specializes in software as a service solutions for non-financial risk management, the number of ESG-related regulations in the UK, USA and Canada more than doubled in the past three years, with energy, healthcare, and financial services having been the most affected sectors.[59] Moreover, a broader awareness of pressing issues such as climate change, technological advancements and a shifting political scene, to name a few, have also contributed to shifting investors' and companies' focus towards the environmental and social impact of their decisions. However, the growth of ESG has faced some challenges and there are still considerable "counter-trends" that are active, especially in the United States.

Lack of a standardized framework for disclosure of ESG issues

One issue is the lack of a standardized framework for disclosing ESG data, which essentially creates a market inefficiency. If ESG issues are financially material, meaning they are informative of a company's intrinsic value, a lack of mandatory and audited information on these issues leads to market mispricing and the possibility of alpha-generating strategies. In the United

Key points:

- Regulators have failed to provide a standardized framework for the disclosure of long-term information such as ESG performance.
- There has been push back on shareholder activists via a proposed bill, the Financial CHOICE Act will limit small investors (those owning <1% of the company's stock) from exerting influence on companied by impeding their ability to file shareholder proposals.
- Organized resistance against ESG in the US from groups like the Main Street Investor Coalition is challenging investment managers' ability to focus on material ESG factors that do not improve short-term performance.

58. https://fbrh.co.uk/en/80-percent-of-the-world%E2%80%99s-250-largest-companies-report-according-to-gri **59.** "Insights Report", 2018 - Datamaran

States, it is the Securities and Exchange Commission's (SEC) role, as a market regulator, to address market inefficiencies and ensure transparency.[60] However, the SEC has yet to address investors' growing pressure to provide a standardized framework of disclosure of satisfactory long-term corporate information such as ESG performance.

Since 1982, Regulation S-K by the SEC has been the primary source guiding companies to disclose information to the public.[61] Following these guidelines, performance on ESG issues could be disclosed along certain mandated items. For example, environmental considerations could be discussed while addressing item 503 "Prospectus summary, risk factors, and ratio of earnings to fixed charges", but the lack of an explicit rule leaves items, to a certain extent, up to the management's interpretation. Such SEC items are not enforceable and do not deliver helpful audited information. For example, when companies recognize ESG factors as material and decide to report on them, the lack of a standardized framework of disclosure confuses investors and feeds market-wide vulnerabilities. As a result, investors are placing increased pressure on the SEC to mandate standardised reporting on ESG.

There is also an acknowledgment that organizations can create a concrete business case through embedding sustainability into their practices. In this sense, companies are driven to ESG disclosure because of the potential for sustainable growth and higher financial performance, rather than being motivated by corporate philanthropy. The lack of a standardized framework of disclosure is therefore not only challenging for investors, but for companies too.

Dissatisfied with what is currently available, some forward-looking companies have started to seek out more robust and comprehensive ways of disclosing financially material ESG issues. In the US, some companies integrate SEC filings with SASB metrics (e.g. Deutsche Bank), some use SASB to integrate their sustainability report (e.g. Nike), while others use the same SASB standards to create a stand-alone report. An example of the latter is JetBlue. In 2018, for the second year in a row, the airline company published its SASB report and integrated this with its alignment to the Task Force for Climate-Related Disclosures (TCFD).

Shareholder rights

The ability to file shareholder proposals on ESG issues is an important legal mechanism for investors around the world, with rules varying by jurisdiction.[62] Filing proposals is common in the United States, where any investor or investor group owning a minimum of $2,000 in stock or a 1% stake of a publicly traded company for a minimum of one year has the right to file a resolution. In 2017, more than two-thirds of filed shareholder proposals concerned environmental and social issues; a total of 450 proposals were filed at Russell 3000 companies according to the ISS shareholder filings database.[63] Key themes addressed in the 2017 proposals include climate change, lobbying and political contributions and diversity. An important aspect of the shareholder proposal process is that it does not distinguish between different shareholders, under the assumption that the quality of one's ideas are independent of the size of one's investment.

The rapid growth in ESG shareholder advocacy has become increasingly problematic for companies and regulators who are arguing they are spending too much time and resources assessing ESG related shareholder proposals, many of which are not material and worth board consideration. Partly in response to these arguments, the US House of Representatives passed the Financial CHOICE Act (H.R. 10) in 2017. The proposed

60. "What we do", 2018 – U.S. Securities and Exchange Commission (SEC) **61.** "Report on Review of Disclosure Requirements in Regulation S-K", 2013 – U.S. Securities and Exchange Commission (SEC) **62.** https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1969606 https://d3n8a8pro7vhmx.cloudfront.net/accr/pages/521/attachments/original/1446421161/ACCR_compv_res_practice_final-1.pdf?1446421161 **63.** ISS Analytics (2018). An Overview of U.S. Shareholder Proposal Filings. Source: https://www.issgovernance.com/library/overview-u-s-shareholder-proposal-filings/

bill would limit small investors (owning less than 1% of the company's stock) by impeding their ability to file shareholder proposals. The Financial Times calls the CHOICE Act as a "blatant attack on shareholder rights" and, not surprisingly, the resolution is of great concern for ESG shareholder advocates who for the most part fall under the 1% threshold.[64]

> **"Our members are long-term shareholders who can attest to the fact that for over 45 years the shareholder proposal process has served as a cost-effective way for corporate management and boards of directors to gain a better understanding of shareholder priorities and concerns and to benefit from those insights on critical and emerging risks and opportunities. The process has proven to be valuable to numerous companies and has given shareholders an important voice.[65] "**
>
> ***Letter to the White House from the PRI, US SIF, ICCR, Ceres and CII.***

Overall, regulators and policy makers around the world should not overlook a systemic shift to long-termism and sustainable growth; investors are demanding standardized disclosure of financially material ESG issues and companies are striving to independently provide it, to efficiently communicate their value.

Push-back on shareholder activism on ESG issues

Another counter-force is push-back against shareholder activism on ESG related issues, and in particular the growing role of passive investors in this form of advocacy. The passive investment market has grown considerably since 2015, with passive investors now ranking among the largest investors of public companies. This is exemplified by the growth in the Exchange-Traded Funds (ETF) and Exchange-traded Products (ETP) markets (see figure 1 below).

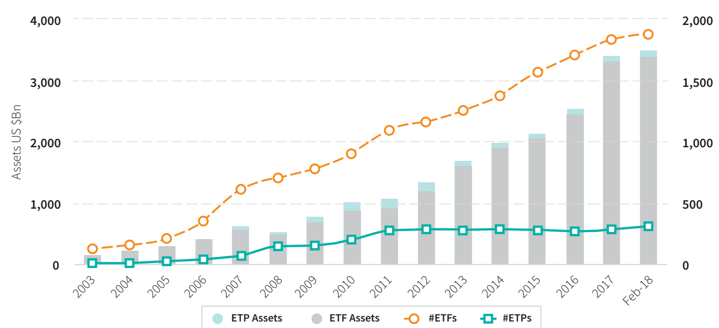


Figure 1. US ETF and ETP market growth. *Source: ETFGI* [66]

As majority shareholders in more than 88% of the S&P 500 firms and over 40% of US listed companies, the "Big Three" of BlackRock, Vanguard, and State Street represent the current triumvirate of so-called passive players in modern capital markets.[67] The idea of an ownership oligopoly of passive investors has raised two seemingly contradictory responses. From

64. https://www.ft.com/content/1f55e9a6-569d-11e7-9fed-c19e2700005f. **65.** https://www.iccr.org/sites/default/files/resources_attachments/2017.03.15_letter_to_gary_cohn_-_14a-8_shareholder_proposal_process.pdf **66.** https://etfgi.com/news/press-releases/2018/07/etfgi-reports-etfs-and-etps-listed-globally-gathered-net-inflows-us869 **67.** "Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk", Jan Fichtner, Eelke M. Heemskerk and Javier Garcia-Bernardo, Business and Politics 2017; 19(2): 298–326 an ESG advocacy perspective, some say the efficacy of these passive players' engagement on ESG issues is insufficient and they should be doing more to support resolutions on ESG put forward by other activists. On the other hand, some argue that the power of these large players is distorting markets and that focusing attention on ESG factors is distracting companies from a focus on maximizing shareholder returns.

> **"We're going to hold your stock when you hit your quarterly earnings target. And we'll hold it when you don't. We're going to hold your stock if we like you. And if we don't. We're going to hold your stock when everyone else is piling in. And when everyone else is running for the exits. That is precisely why we care so much about good governance."[68]**
>
> ***Bill McNabb, Former CEO of Vanguard***

In the US, one of the key players pushing back on the ESG stewardship work by large institutional investors is the Main Street Investors Coalition. The coalition is closely associated with and funded in large part by members of the American Manufactures Association, which includes many well-known corporate brands. While claiming to represent the "little guy" on Main Street, their real objective, according to Andrew Ross Sorkin, appears to be to diminish the ability of pension funds and large "passive" investment managers to engage with and influence corporate governance.[69] In addition to this coalition, other industry associations like the Chamber of Commerce are also active in trying to slow ESG integration by lobbying, for example, against increased ESG disclosures by companies citing the costly administrative burden this can create.

Lack of corporate board support and engagement

Another key roadblock to further progress on ESG integration is the lack of understanding and support for ESG integration in boardrooms. In response to a question in a 2018 survey of corporate directors in the US asking whether they felt disclosure on sustainability matters are important to understanding a company's business and helping investors make informed investment and voting decisions, 74% of directors said no. The consequences of this are significant. An analysis by Harvard Professor George Serafeim and others showed that companies were responding equally to ESG related proxies, regardless of whether they were on financially material issues. Not surprisingly, the study showed that companies that responded to issues not material to the company's primary ESG impacts saw minor but statistically significant declines in firm valuation relative to their peers, while action on proposals on material ESG issues were associated with subsequent statistically significant increases in firm valuation relative to peers.

Corporate lobbying

Recent research has highlighted the significant negative impacts of corporate lobbying on climate policy.[70] Investors interested in a company's impact on climate change have traditionally looked at greenhouse gas emissions as metrics of performance. However, a growing number of investors, including the Swedish National Pension Fund AP7, are now demanding information on whether companies are negatively impacting climate policy. In 2017 they divested from Exxon Mobil and others based on their obstruction of climate change risk, which it deemed to be a violation of the Paris Accord.[71] Importantly, corporate influence

68. "Getting to Know You: The Case for Significant Shareholder Engagement", June 2017, Harvard Law School Forum on Corporate Governance and Financial Regulation: https://corpgov.law.harvard.edu/2015/06/24/getting-to-know-you-the-case-for-significant-shareholder-engagement/ **69.** https://www.nytimes.com/2018/07/24/business/dealbook/main-street-investors-coalition.html **70.** https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf **71.** https://uk.reuters.com/article/uk-climatechange-investment-sweden/swedish-pension-fund-sells-out-of-six-firms-it-says-breach-paris-climate-deal-idUKKBN1962KJ over policy also extends beyond traditional lobbying activities such as interacting with government officials and sponsoring of government activities, to how they impact the public discourse through advertising, public relations and sponsoring research.[72] In 2015, InfluenceMap, a UK think tank, quantitatively scored companies on their influence on climate policy for the first time by analyzing over 30,000 pieces of evidence on 250 global companies and 50 large trade associations.[73] They found that 35 companies amongst the 50 most influential within the sample, were actively opposing the Paris Agreement. This included fossil fuel and energy intensive companies as well as electric utilities with large coal-generating capacity and some automotive manufacturers (see diagram taken from the InfluenceMap research below).

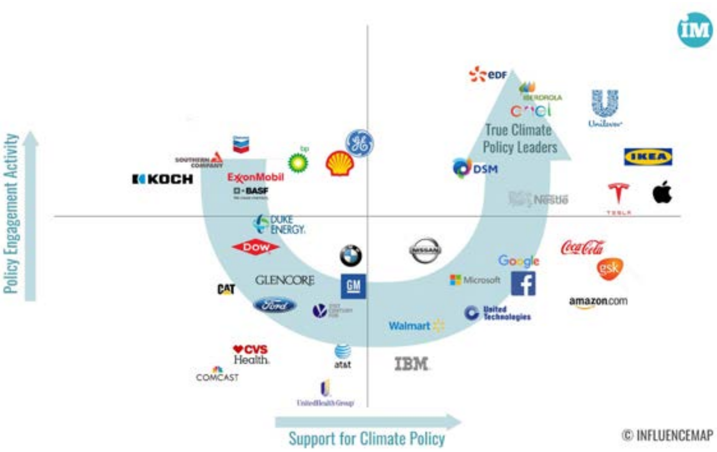


Figure 2. Diagram showing companies support for climate policy and their policy engagement activity[73, 74]

It is also important to consider how corporations are influencing policy through their funding and membership of trade associations. This is another issue gaining momentum for investors. Coalitions of investors are pushing companies to disclose more details on their links to trade associations,[74] for example, Climate Action 100+ a global engagement initiative backed by investors representing $32trn has been established with a key focus on targeting lobbying disclosure. The Executive Director at UK-based think-tank InfluenceMap has said that trade groups have served as a way for some companies to shift their opposition to the Paris Accord “away from the spotlight”. It becomes problematic and “green washing” when a company is publicly setting climate targets, whilst simultaneously financing lobbying directly or indirectly that seeks to undermine climate regulation.

Another strong signal of investor attention in this issue was a climate lobbying resolution receiving 46% support at Origin Energy last October, a first in Australian corporate history. Some companies are beginning to withdraw support from their trade associations in response to this investor pressure. For example, BHB withdrew its membership from the World Coal Association over “material differences” with the trade body,[75] following a previous resolution being passed on climate lobbying and a review. This issue is not unique to energy intensive industries. Large consumer good companies have also left the Grocery Manufacturers Association in 2018 following divergent views over sugar and GMO[76] and pressure has been building on the Investment Association, the trade body representing the UK’s investment management industry over the demand for increased focus on corporate governance and more transparency in the industry[77]. It is expected that momentum will continue to build on this issue in the coming year.

72. https://www.unglobalcompact.org/docs/issues_doc/Environment/climate/Guide_Responsible_Corporate_Engagement_Climate_Policy.pdf **73.** https://influencemap.org/report/Corporate-Carbon-Policy-Footprint-4274a464677481802bd502ffff008d74 **74.** https://www.responsibleinvestor.com/home/article/agm_season_2019_need_to_know_topics_part_1_lobbying/?utm_source=RI+Webinar+Subscribers+%28Ex-RI+subs%29&utm_campaign=894c36d09a-EMAIL_CAMPAIGN_2019_01_09_12_55_COPY_01&utm_medium=email&utm_term=0_28a2019d67-894c36d09a-293711957 **75.** https://www.bhp.com/media-and-insights/news-releases/2018/04/industry-association-review **76.** https://qz.com/1219503/food-manufacturers-are-leaving-the-grocery-manufacturers-association-signaling-an-end-of-the-big-food-era/ **77.** https://www.ft.com/content/ba9dc844-6e68-11e5-aca9-d87542bf8673

Section Two:
Capital Market Stakeholders

Asset Owners and Asset Managers

Investors are becoming increasingly active in addressing key environmental, social and governance issues linked to corporate practices that impact share value. As owners of and lenders to companies, investors have a vested interest in seeing companies proactively address material ESG issues that affect short- and long-term value. Good ESG performance is good business – helping to mitigate risk and maximize returns – in addition to being part of a company's fiduciary duties[1].

The role of investors in engaging corporations on their management of sustainability and governance issues is gaining more attention as ESG and responsible investing become mainstream. There is now also significant evidence that ESG performance is value-enhancing, leading to significantly better shareholder returns. The perception of ESG products and portfolios is also shifting. For example, between 2017 and 2018 there was a 13% increase in the number of capital market stakeholders that believe ESG integrated portfolios are likely to perform better than non-ESG integrated portfolios[2].

In 2018, Larry Fink, the CEO of BlackRock, released a letter to the CEOs of major publicly listed companies warning them that their businesses should serve a social purpose, arguing that without a sense of purpose companies will lose their social license to operate and yield subpar returns.

In the next two sections we explore how asset owners and asset managers promote and incorporate sustainability in their practices, and how their respective progress is closely connected.

> **"Your company's strategy must articulate a path to achieve financial performance. To sustain that performance, however, you must also understand the societal impact of your business as well as the ways that broad, structural trends – from slow wage growth to rising automation to climate change – affect your potential for growth… To prosper over time, every company must not only deliver financial performance, but also show how it makes a positive contribution to society." [3]**
>
> ***Larry Fink, CEO, BlackRock, 2018 Letter to CEOs***

1. In 2017 18% of RBC Global Asset Management survey respondents believed ESG integrated portfolios were likely to perform better than non-ESG integrated investments, in 2018 the figure rose to 30.9% of respondents. RBC Global Asset Management, 2018 Responsible Investing Survey. **2.** BlackRock (2018). Larry Fink's Annual Letter to CEOs https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter **3.** https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter

Asset Owners

Research approach

The top 25 asset owners by assets under management (AUM) were selected for the study. Publicly available information for each organization was collected from company websites, reports, articles and PRI transparency reports. This information was then compared with data from 2015.

Key changes

ESG incorporation strategies

In the previous report we explored three basic ESG incorporation strategies that asset owners used: screening, thematic investment and ESG integration. Since then, the amount of asset owners disclosing which ESG incorporation strategies they adopt has marginally increased, from five to seven and so has the blend of incorporation strategies adopted, although the type of incorporation strategy used by most asset owners has largely remained the same. Old Mutual have increased the percentage of their assets that incorporate ESG by 22% and they have

Key points:

- General shift observed towards greater disclosure of ESG strategies, despite a minimal positive increase in full ESG integration being employed as a strategy.
- Increase in asset owners implementing incentive systems for long-term investing at the board, CEO and investment committee levels.
- Increased membership of asset owners in responsible investment initiatives.

Drivers:

- Increased awareness of link between ESG factors and financial returns.
- Shifting asset owner demographics is leading to an increase in responsible investing.

Barriers:

- Lack of trained and experienced ESG talent.
- Lack of quality sustainability data and adequate tools to process the data.
- Responsible investment principles are not embedded in asset owner investment mandates.

also increased the percentage that adopt an 'ESG integration' approach from 34% to 66%. Zurich Insurance Group have also marginally increased the percentage of their assets adopting 'screening & integration' strategies from 80% to 91% (as opposed to just adopting 'screening').

Incentive systems for long-term investing

Since the previous report, a greater number of companies in the sample have assigned 'oversight of long-term investing to board members or trustees', and 'to the CEO, CIO or investment committee'. There has also been an increase in the number who assign implementation of long-term investing to the CEO, CIO and investment committee, see table 1 below.

Incentive systems for long-term investing	2015	2018
Assign oversight of long-term investing to the board or trustees	8/25	**10/25**
Assign oversight of long-term investing to the CEO, CIO or investment committee	7/25	**10/25**
Assign implementation of long-term investing to CEO/CIO/investment committee	3/25	**5/25**

Table 1. Asset owner incentive systems for long-term investing

Promoting responsible investment

From 2015-2018 there has been a 12% increase in the number of asset owners that are PRI signatories and an 8% increase in the number of asset owners that are signed up to the Carbon Disclosure Project and are engaged with Sustainable Investment Forums (SIFs), see table 2 (next page).

There has been a small increase in asset owner participation in organizations promoting long-term investing since 2015. From our sample, Pensioenfonds

Case study

ZURICH

Zurich Insurance Group, predominantly using screening and integration as an ESG

"As an integral part of managing assets for Zurich, all its asset managers must include the following four basic requirements in their investment approach:

1. Training: Many ESG factors can potentially affect risk and return. The channels through which they affect risk and return are at times complex and vary from sector to sector. It is important that portfolio managers receive adequate and regular training to help them understand the economic importance of ESG.

2. Access to information: To reflect ESG issues in investment decisions, portfolio managers need access to relevant information in the form of ESG analysis, ratings, and data. This can be supplied by specialized external providers, dedicated in-house teams, or broker research.

3. Investment process: A clear understanding is needed about the process by which ESG considerations are reflected in decisions to buy/sell, or overweight/underweight a certain security or asset. This process should be documented and consistently applied.

4. Active ownership: Asset managers are required to actively execute proxy votes based on best-practice policies addressing ESG issues, and to integrate relevant ESG issues in discussions with investee companies, either as part of regular company meetings, or through separate channels."

Engagement with organizations promoting long term investing	2015	2018
Principles for Responsible Investment (PRI) signatories	10/25	**13/25**
United Nations Global Compact (UNGC) signatories	7/25	**10/25**
Carbon Disclosure Project (CDP)	7/25	**9/25**
Engaged with Sustainable Investment Forums (SIFs)[4]	5/25	**7/25**
Engaged with United Nations Environment Programme Finance Initiative (UNEPFI)	4/25	**5/25**

Table 2. Engagement with organizations promoting long term investing

ABP[5] has seen the largest growth in the number of organizations that they participate in, see figure 3. In late 2015 the company updated its responsible investment policy and in 2016 it started tracking their progress against the SDGs.

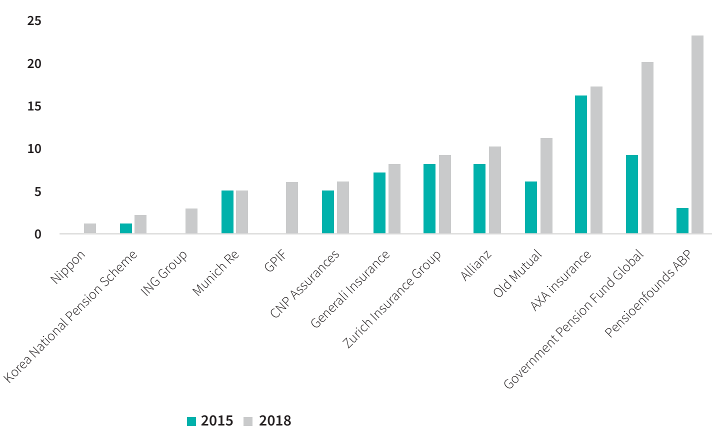


Figure 3. Number of organizations promoting responsible investment that asset owners engage with

Drivers

The reason we are observing a positive trend in the extent of ESG incorporation in investment strategies and increased support of responsible investment initiatives amongst asset owner organizations is manifold. General trends are playing their part, such as the growing awareness of the financial benefits of investing in ESG and the shifting demographic of investors leading to a greater interest in sustainable investing.[6]

Government policies, regulations and guidance have played a critical role in elevating the importance of ESG integration for asset owner organizations. For example, in 2018 a bill was passed in California which requires pension funds to consider climate-related financial risks when making investment decisions. Now that the bill is law, the largest pension funds in California will have to publicly report on their portfolio's climate risk every 3 years. In the UK, a 2018 green finance inquiry by the House of Commons' Environmental Audit Committee (EAC) demonstrated that some of the UK's largest pension schemes have poor understanding of climate risk. This led to the Department for Work and Pensions announcing new rules in September 2018 that will mandate pension schemes with more than 100 members to disclose the ESG risks of their investments from October 1, 2019. They will have to state their policy on how they have considered all 'financially material' ESG risks.[7] These developments align with the work that the Taskforce on Climate-related Financial Disclosures (TCFD) is doing to incentivise asset owners to standardise their climate reporting.

While our asset owner sample of companies are taking steps to integrate ESG, there could arguably have been greater progress made since the previous report was released. Barriers to this progress include a reported lack of quality sustainability data as well

4. Sustainable investment forums (SIFs) are regional membership organizations. **5.** Pensioenfonds ABP is the Dutch pension fund for the government and education sectors. **6.** Morgan Stanley, 2018 https://www.morganstanley.com/assets/pdfs/sustainable-signals-asset-owners-2018-survey.pdf **7.** https://www.ftadviser.com/pensions/2018/09/11/pension-schemes-mandated-to-disclose-esg-risks/

Case study

Government influence on asset owners in Japan

Nippon is a Japanese life insurance company. The company became a PRI signatory in 2017 and in the same year set out a policy on their ESG investments and financing.[8] Their recent decision to integrate ESG into their investments follows a general trend of ESG uptake in Japan. In 2017 PRI described Japan as the 'fastest growing market for responsible investment'.[9] This growth can largely be attributed to the Japanese government and policies introduced through the country's Revitalization Strategy – which is commonly known as "Abenomics".[10] Specifically, in 2014 the government created a stewardship code, in 2015 they released a corporate governance code, and they have recently published 'Green Bond guidelines', all of which are part of the revitalization strategy.[11] Additionally, the country's largest pension fund - the Government pension fund - signed the PRI in late 2015, setting a national example for asset owners. Since then, 9 other Japanese asset owners[12] have become PRI signatories, including Nippon.

as a lack of adequate tools to assess the data.[13] There has also been an industry-wide shortage of technical skills and resources required to meet the growing demand for quality ESG products.[14] Any progress made by asset owners is closely coupled with the progress of asset managers and the products they offer to the market.

Additionally, many asset owners will outsource the management of their portfolios to asset managers under an investment mandate. The mandate acts as a set of instructions for how to manage the pool of capital.[15] PRI found that while some asset owners make commitments to sustainability, they do not always implement this in their investment mandates, which further affects the spread of responsible investment principles throughout the investment market.[16]

Finally, at the 2018 COP24 climate conference, the Grantham Research Institute and the Initiative for Responsible Investment launched a report to provide investors with guidance on how to address the social dimension of climate change.[17] While it is too early to gage the impact of this initiative, we look forward to monitoring how this work, which promotes a systems approach, will encourage investors to take action to mitigate negative societal effects caused by global warming.

8. Nissay, 2017 https://www.nissay.co.jp/english/news/pdf/20170321.pdf **9.** PRI, 2017 https://www.unpri.org/download?ac=1389 **10.** PRI, 2017 https://www.unpri.org/download?ac=1389 **11.** https://www.jpx.co.jp/english/equities/listing/cg/index.html **12.** https://www.globalcapital.com/article/b14xhvpmcj93ml/global-issuers-flock-to-japans-esg-theme-park **13.** Morgan Stanley, https://www.morganstanley.com/assets/pdfs/sustainable-signals-asset-owners-2018-survey.pdf **14.** https://www.morganstanley.com/assets/pdfs/sustainable-signals-asset-owners-2018-survey.pdf **15.** https://www.thebalance.com/what-is-an-investment-mandate-357214 **16.** https://www.unpri.org/download?ac=1398 **17.** https://iri.hks.harvard.edu/files/iri/files/ijt_guidance_for_investors_web_singles.pdf

Asset Managers

Institutional investors are becoming increasingly active in addressing key environmental, social and governance issues linked to corporate practices that impact share value. As owners of and lenders to companies, investors have a vested interest in seeing companies proactively address material ESG issues that affect short and long-term value.

Good ESG performance is good business – helping to mitigate risk and maximize returns – in addition to being part of a company's fiduciary duties.

The role of investors in engaging corporations on their management of sustainability and governance issues is gaining more attention as ESG and responsible investing becomes mainstream. There is now significant evidence that ESG performance is value-enhancing, leading to significantly better shareholder returns. As the evidence mounts, investors have responded in several ways, including working together to advance ESG and responsible investment through collaborative initiatives such as the UN-

Key points:

- Dramatic increase by large "passive" players in corporate engagement around ESG related themes.
- Two-fold increase in asset managers implementing incentive systems for long-term investing at the board, CEO and investment committee levels.
- Increased membership of asset managers in responsible investment initiatives.

Drivers:

- New regulations from governments, e.g. France's Energy Transition for Green Growth law and guidance from regulators, e.g. TCFD, are requiring or suggesting more comprehensive environmental data disclosure.
- Growth of ESG teams within asset managers.
- Increased amount of data and more advanced analytical techniques available to allow asset managers to build bespoke models to integrate ESG.

Barriers:

- Shortage of individuals with comprehensive set of skills and experience linked to ESG, leading to fierce competition for talent among asset managers.

supported Principles for Responsible Investment (PRI) and Ceres. In addition to the growing financial case, investors are increasingly subject to policy contexts that encourage active ownership and engagement with portfolio companies.

Research approach

The top 25 asset managers by assets under management (AUM) were selected for this study. Publicly available information for each organization was collected from company websites, reports, articles and PRI transparency reports. This information was then compared with data from 2015. In addition to the existing methodology, we have added a new section exploring ESG recruitment trends.

Key changes

ESG incorporation strategies

In figure 4, you can see the comparison in the ESG incorporation strategies for the 10 asset managers that disclosed both in the 2015 and 2017 samples. An additional eight asset managers also disclosed their ESG incorporation strategies in 2017, as you can see in Figure 5.

Overall there has not been any significant change in the type of ESG incorporation strategy employed by the asset managers in our sample between 2015 and 2017. Wellington Management, Goldman Sachs and Capital Group have all reduced the percentage of full ESG integration as a strategy, in favour of a combination of screening and integration or no incorporation of ESG. Conversely, J. P. Morgan have reduced the amount of their listed equity with no incorporation strategy and increased the amount where ESG is fully integrated. Amundi have also made positive steps to ensure all their equities apply ESG incorporation strategies, with screening being the strategy of choice for most of their portfolio.

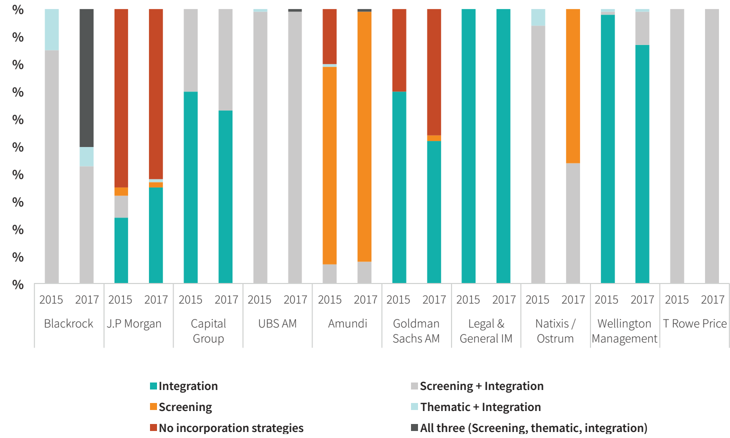


Figure 4. 2015 versus 2017 asset manager ESG incorporation strategies

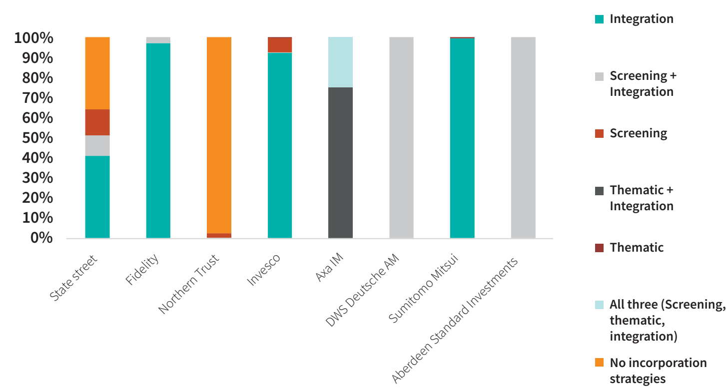


Figure 5. Additional 2017 asset manager ESG incorporation strategies

Of the eight other asset managers that have disclosed their ESG incorporation strategies in 2017, Fidelity, Invesco and Sumitomo Mitsui have predominantly adopted 'ESG integration' while DWS Deutsche AM and Aberdeen Standard Investments have adopted 'screening + integration' as a strategy. Conversely, Northern Trust has over 95% adopting no incorporation strategy.

Case study

Legal & General

Legal & General, using integration as an ESG incorporation strategy

"The integration of ESG-related criteria in the assessment of companies is not intended to result in any negative or exclusion lists. Rather, the motivation to incorporate ESG is the protection and enhancement of investment returns. This is based on the view that organizations that care and excel with respect to their ESG credentials will also be more likely to demonstrate superior operating and financial performance. Conversely, if laxity on ESG matters is embedded in an organization's culture it also is more at risk of lagging its peers in the marketplace."

Incentive systems for long-term investing

The number of asset managers that assign oversight of long-term investing to the board has doubled since 2015, along with the number that assign implementation of long-term investing to the CEO, CIO or investment committee, see table 3 below. There has also been a slight increase in the amount of asset managers assigning oversight of long-term investing to the CEO, CIO or investment committee.

Incentive systems for long-term investing	2015	2018
Assign oversight of long-term investing to board or trustees	9/25	**18/25**
Assign oversight of long-term investing to the CEO, CIO or investment committee	19/25	**21/25**
Assign implementation of long-term investing to CEO/CIO/investment committee	5/25	**10/25**

Table 3. Asset manager incentive systems for long-term investing

Case study

Asset manager incentive systems in practice

BlackRock links the appraisal process and compensation of the Global Head of Sustainable Investing to the fund's responsible investment performance.

At **Wellington Management**, responsible investment is factored into the appraisal process for CEOs, CIOs and the investment committee.

Promoting Responsible Investment

Engagement with organizations promoting long term investing	2015	2018
Principles for Responsible Investment (PRI) signatories	21/25	**22/25**
Engaged with CDP Climate Change	16/25	**17/25**
Engaged with Social Investment Forums (SIFs)	13/25	**12/25**
Engaged with International Corporate Governance Network (ICGN)	11/25	**12/25**

Table 4. Asset manager engagement with organizations promoting long-term investing

Figure 6. Top 10 organizations promoting responsible investment that our asset manager sample engage with

Asset managers are gradually becoming involved in organizations that promote long-term investing, however progress is slow when compared to other capital market stakeholders. Of the 10 organizations and frameworks highlighted here, the PRI remains the most widely adopted standard. As you can see in Figure 7 below, all the asset managers in the sample have increased their involvement in organizations promoting responsible investment, with the exception of Goldman Sachs and Legal & General. It is also worth highlighting that declining membership and engagement with responsible investment organizations could signify that asset managers are better equipped to manage and capitalize on ESG factors internally.

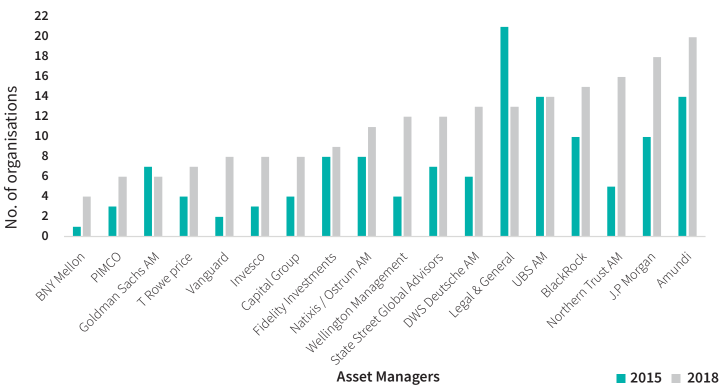


Figure 7. Participation in collaborative organizations or initiatives promoting responsible investment

ESG-focused recruitment in asset managers

One of the most significant changes since the publication of the last report has been increased hiring of those with ESG expertise into asset manager organizations to meet the changing needs of their clients. A recent survey of some of the largest index managers worldwide shows an increasing commitment to improving the ESG practices of their holdings and an expansion of the teams dedicated to interacting with corporations, see Table 5 below.[18] Competition for individuals familiar with the complexity of ESG issues is documented as rising and asset managers have said that "few applicants have all the skills that such jobs demand."[19] In addition, a 2017 report by E3G, a climate change think tank, highlighted that among asset manager PRI signatories, in-house ability to identify forward-looking ESG risks and opportunities is currently inadequate.[20]

Number of ESG Stewardship Team Members		
Asset Manager	**2014-2015**	**2017**
BlackRock	20	33
Vanguard	10	21
LGIM	9	11

Table 5. Growth in number of ESG Stewardship Team Members

Case study

Morgan Stanley

Morgan Stanley Institute for Sustainable Investing

In 2013, Morgan Stanley launched the Institute for Sustainable Investing, with the goal of advancing market-based solutions to economic, social and environmental challenges by bringing sustainable investments to scale.[21] Upon launching the institute, the CEO highlighted their clients' interest in sustainably oriented products and services: "Our clients are increasingly turning their attention to what it takes to secure the lasting and safe supplies of food, energy, water and shelter necessary for sustainable prosperity."[22] So far, the company's focus on sustainability has proven successful. In September 2018 Morgan Stanley announced that they had exceeded their 5-year launch goal of having $10 billion worth of assets in sustainable and impact investing. Their impact investing platform currently has over $25 billion of client assets under management.

18. https://corpgov.law.harvard.edu/2017/12/21/passive-fund-providers-and-investment-stewardship/ **19.** https://www.ft.com/content/0695124e-6eec-11e8-852d-d8b934ff5ffa **20.** https://www.e3g.org/docs/E3G_-_Missing_in_action_-_the_lack_of_ESG_capacity_at_leading_investors.pdf **21.** https://www.greenbiz.com/blog/2013/11/07/morgan-stanley-launches-sustainable-investing-institute **22.** https://www.greenbiz.com/blog/2013/11/07/morgan-stanley-launches-sustainable-investing-institute

Drivers

The reasons for these changes include a greater awareness of global challenges, regulatory changes, changing investor demographics, the reframing of ESG as an area of opportunity and work by NGO and other bodies that promote industry collaboration and standardization.

Firstly, there has been increased awareness of the need to consider ESG, particularly climate risks, following Paris COP 21 in December 2015 and the launch of the SDGs.[23] This awareness has led to some regulatory changes. For example, in France the 'Energy Transition for Green Growth' law was introduced in January 2016. This law enforces carbon reporting for investment managers and other stakeholders operating in France.[24]

Secondly, as discussed in the introduction, the increase in women and millennial investors has led to a shift in priorities and a greater focus on ESG.

Thirdly, NGOs have also played a role in increasing industry collaboration and reframing ESG as an area of opportunity for asset managers. Additionally, organizations such as PRI and the Task Force on Climate-related Financial Disclosures have been promoting transparency and standardized data disclosure. As the industry has seen an increase in useful, standardized ESG data, advances in machine learning technology are also enabling asset

managers to use the data in more meaningful ways, as demonstrated in our DWS ESG Engine case study in Section 1.

While asset managers are taking positive steps to integrate and address ESG factors through their work, a recent survey, the 'H&K Responsible Investment Brand Index', found that many European asset managers are failing to communicate their purpose. In an increasingly competitive environment, communicating purpose and sustainability efforts will help investors to differentiate themselves and attract new clients.[25]

Due to the expansion of in-house ESG teams, the increase in standardized data disclosure and advances in machine learning, we expect to see further evidence of ESG integration in the next two years.

23. https://citywire.co.uk/wealth-manager/news/how-ethical-finally-broke-through-into-the-funds-mainstream/a1133145 **24.** https://www.unpri.org/policy-and-regulation/french-energy-transition-law-global-investor-briefing-on-article-173/295.article **25.**https://www.ipe.com/news/asset-managers/swiss-consultancies-rank-managers-on-sustainable-investing-brands/www.ipe.com/news/asset-managers/swiss-consultancies-rank-managers-on-sustainable-investing-brands/10028035.fullarticle

Investment Consulting Firms

Investment consultants play an integral role in the management of assets and thus can play a significant role in promoting ESG integration for their clients. They are an authority advising on the investment practices of trillions of dollars' worth of assets and act as "gatekeepers of the UK's £1.6 trillion pension fund industry.[26]

Research approach

The sample of 10 investment consulting firms chosen for the previous report are revisited to understand the extent to which they are integrating sustainability into their work. The research is comprised of a general overview on the sector and a case study analysis. Publicly available information for each organization was collected from company websites, reports and articles.

This report captures an additional data point of how many of the firms are signed up to the PRI.

Key points:

- Despite some best practice examples, the investment consultant sector has made minimal effort to integrate ESG data into its practices.
- Several initiatives have taken place since the 2015 to harness the influence of investment consultants in a positive way.

Drivers:

- New regulations require investment consultants to enquire about clients' ESG preferences.
- There is a growing awareness of the link between ESG and financial performance; as a result, forward-thinking investment consultants are differentiating themselves by offering ESG services.

Barriers:

- The FCA found that 74% of investors had not changed consultants in the past five years. This lack of competition could be contributing to a slower rate of change to respond to client's needs.

26. https://www.unpri.org/news-and-press/pri-welcomes-provisional-report-on-investment-consultants-market-investigation/3447.article

Key changes

In the Principles of Responsible Investment's 2017 review of Investment Consultants, they report that the sector has made minimal efforts to integrate ESG data into practices.[27] In some countries, initiatives have been set up to encourage investment consultants to take an active role in promoting ESG. For example, the UK Sustainable Investment and Finance Association (UKSIF) and the Association of Member Nominated Trustees (AMNT) have collaborated on an initiative that harnesses the influence of investment consultants to promote ESG factors in investment decision making.[28]

From the sample of investment consultants, 60% are PRI signatories. In addition, 80% have published information online about how they incorporate ESG considerations into their research and analytics, demonstrating a 30% increase from 2015.

Drivers

Overall there have been some positive changes among our sample with 30% more investment consultants publicly outlining how they incorporate ESG factors into their work than in the previous report. The 2015 report also demonstrated that larger firms had more established ESG practices. The four case studies show that this continues to be true. These larger players are also distinguishing themselves from their peers by offering novel ESG-related services.

The investment consulting market has experienced a shake up over the past 2 years due to industry investigations and the introduction of new regulations. In 2017, the UK Competition and Markets Authority (CMA) conducted significant investigations into the practices of investment consultants, due to competition concerns and lack of transparency. The Authority found that pension funds had a limited ability to drive competition in the industry, which

Case study

Four Investment Consultants leading the way on ESG

Willis Towers Watson

In 2018 Willis Towers Watson developed a core ESG strategy in collaboration with MSCI called the 'Adaptive Capped ESG Universal Index'. The strategy is described as suitable for investors looking to manage a broad range of ESG factors within their investments, rather than those focusing on specific issues. The Global Chief Investment Officer believes the development of this strategy will help with mainstreaming sustainability solutions.[29]

Cambridge Associates

Cambridge Associates offer 'mission-related investing' as a core service, that incorporates ESG, impact and sustainability, run by a dedicated team.[30]

Between 2012-2017 they reported their clients have grown their investment in ESG from $4 billion to $9.5 billion. Additionally, in a survey of over 150 clients they also found that at least 50 were involved in sustainability related investing.[31] Cambridge Associates believe that there is a clear economic basis behind many ESG themes, e.g. cheaper cost of renewable power versus fossil fuels has helped to drive growth in ESG investments.

27. https://www.unpri.org/download?ac=5167 **28.** https://www.ipe.com/news/esg/uk-investment-consultants-back-trustee-esg-push/www.ipe.com/news/esg/uk-investment-consultants-back-trustee-esg-push/10020788.fullarticle **29.** https://www.willistowerswatson.com/en/press/2018/09/willis-towers-watson-develops-new-core-esg-strategy-with-msci 30. https://www.cambridgeassociates.com/portfolio-management/asset-class-expertise/
31. https://www.cambridgeassociates.com/press-releases/cambridge-associates-clients-more-than-double-esg-investments-in-five-years-uk/

meant that they were often sticking with leading large incumbents rather than ensuring they were getting the best advice and opening tenders to a wider range of firms to promote competition. For example, the FCA found that at least 74% of the investors it examined had not changed consultant in the past five years.[32] Overall the investigation increased awareness of the need for competition in the sector and led to proposals for greater sector transparency. PRI welcomed the provisional report released in July 2018 and followed up with a letter to the CMA recommending that they incorporate ESG considerations into their recommendations.[33]

In addition, MiFID II was introduced in January 2018 by the European commission. MiFID II aims to further protect investors and bring greater transparency to all asset classes. In May the commission announced they would be including sustainability considerations in the MiFID II suitability requirements. This means that investment consultants are now required to ask clients about their ESG preferences, to provide the most suitable products or advice.[34]

Finally, the UKSIF and the AMNT published a report in December 2018 which provides insights into the quality of ESG advice that UK investment consulting firms are providing to pension funds. The report offers guidance to trustees and emphasizes the importance of holding investment consultants to account over their ESG service offerings in light of the aforementioned regulatory changes.[35]

Following these changes, we expect to see ESG being further integrated into the services provided by investment consulting firms over the next few years.

MERCER

Mercer

In 2017, Mercer was voted the best investment consulting firm for sustainable and responsible investment by the Independent Research in Responsible Investment (IRRI) survey.[36] They have developed an assessment framework to determine how well ESG issues are incorporated across 1) idea generation, 2) portfolio construction 3) active ownership and 4) business management.[37] This framework has been created to help clients understand the difference between thousands of investment strategies, and to know which firms are leading on ESG integration. Moreover, the framework rewards action and intent and distinguishes between those that are just signing up to initiatives but not being actively seeking to integrate ESG.

Russell Investments

In 2018, Russell Investments created a ‘material ESG’ score to evaluate which ESG issues are financially material to a company. Previously they found that traditional ESG scores were composed of too many issues that were not material to the businesses being scored. As a result, the director of equity strategy and research at Russell said that they “now have evidence that investing in companies with high material/low immaterial ESG scores is significantly better than those with high immaterial/high material scores.”[38]

32. https://www.fca.org.uk/publication/market-studies/final-decision-market-investigation-reference.pdf **33.** https://www.unpri.org/news-and-press/pri-welcomes-provisional-report-on-investment-consultants-market-investigation/3447.article **34.** https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/financial-services/IM/lu-rna-sustainability-mifidii-25052018.pdf **35.** https://amnt.org/wp-content/uploads/2018/12/FINAL-investment-consultant-December-2018-report.pdf **36.** https://www.mercer.com/newsroom/mercer-recognized-for-firm-wide-and-individual-esg-investment-consulting-excellence.html **37.** https://www.am.pictet/en/uk/global-articles/2017/educational/esg-risks-and-opportunities-jan17 **38.** https://russellinvestments.com/nz/about-us/newsroom/materiality-matters-research

Stock Exchanges

Stock exchanges hold a unique position between major capital market stakeholders that gives them the potential to effectively promote the transition to a more sustainable economy. Stock exchanges can contribute to integrating ESG by promoting green finance products and making mainstream financial markets more sustainable.[39]

Research approach

The top 10 stock exchanges based on market capitalization were examined to understand the extent to which they are integrating sustainability into their practices. Publicly available information was collected for key indicators that demonstrate how stock exchanges integrate sustainability practices[40] and promote responsible investing. The findings were then compared with the 2015 data to understand the progress and key changes.

Key changes

From our 2018 sample, nine out of the 10 stock exchanges offer sustainability related indices. In addition, six stock exchanges

Key points:

- 10% increase in the percentage of stock exchanges offering sustainability-related indices.
- 50% increase in top 10 stock exchanges that have signed the Sustainable Stock Exchange Initiative.
- 20% decrease in the percentage of top 10 stock exchanges that require comprehensive sustainability as a listing rule.

Drivers:

- The Sustainable Stock Exchange Initiative has gained significant momentum since it launched a campaign in late 2015 to get stock exchanges to offer companies guidance on reporting their ESG impact.
- Growth in ESG related products, e.g. ETFs and indices.

Barriers:

- Confusion around terminology used to signal sustainability credentials.
- Mismatch in the supply and demand of green products (direction is dependent on the market).

39. http://www.sseinitiative.org/wp-content/uploads/2017/11/SSE-Green-Finance-Guidance-.pdf **40.** The 10 stock exchanges examined in the 2018 report are the New York Stock Exchange, NASDAQ, Japan Exchange Group, Shanghai Stock Exchange, Euronext, London Stock Exchange Group, Hong Kong Stock Exchange, Shenzen Stock Exchange, Deutsche Borse, Bombay Stock Exchange provide training and guidelines on sustainability for investors and companies. This marks a 20% increase for investor training but a 10% decrease for company training when we compare to the 2015 data review, see table 6 below. There has been a 20% decrease in stock exchanges that include sustainability reporting as a listing rule. One of the stock exchanges that requires sustainability reporting is the Hong Kong Stock Exchange, which is featured in our case study.

Key data points demonstrating stock exchanges' commitments to sustainable investing	2015	2018
Percentage of top 10 stock exchanges offering sustainability-related indices	80%	**90%**
Percent that have signed the Sustainable Stock Exchange (SSE) Initiative Commitment Letter	50%	**100%**
Percent that require comprehensive sustainability as a listing rule	40%	**20%**
Offer sustainability guidance or training for investors	40%	**60%**
Offer sustainability guidance or training for companies	70%	**60%**

Table 6. Stock exchange commitments to sustainability

Promoting Responsible Investment

All ten stock exchanges in our sample have signed the Sustainable Stock Exchange Initiative Commitment letter, as shown above in table 6. The number of stock exchanges signed up to the CDP has remained the same while the number signed up to the PRI and the World Federation of Exchange's Sustainability Working Group has decreased by 10% each.

Engagement with organizations promoting long term investing	2015	2018
Principles for Responsible Investment (PRI)	1/10	**0/10**
World Federation of Exchange's Sustainability Working Group	8/10	**7/10**
Global Reporting Initiative (GRI)	5/10	**6/10**
Carbon Disclosure Project (CDP)	40%	**2/10**

Table 7. Stock exchange engagement with organizations promoting long-term investing

Case study

Hong Kong Stock Exchange implements ESG reporting

ESG reporting was introduced as a voluntary recommendation for all listed issuers on the HKEX in 2013. In 2016 the ESG reporting guide was expanded and general disclosures were upgraded to a 'comply or explain' status. The following year Environmental KPIs also gained 'comply or explain' status.[41] While this move from the HKEX promotes awareness and integration of ESG data, both EY and KPMG found that most listed companies view ESG reporting as a 'box-ticking' exercise, what's more they found that companies do not seek to assess which ESG issues are most material to their business.[42, 43] Overall this example highlights the challenge that regulators and stock exchanges face; while they shape the disclosure requirements and rules, if companies do not understand the benefits they will not take ESG reporting seriously and instead will see it as an unnecessary distraction.

41. https://www.hkex.com.hk/News/News-Release/2018/180518news?sc_lang=en **42.** https://www.ey.com/cn/en/newsroom/news-releases/news-2018-ey-a-review-of-hong-kong-listed-companies-progress-in-esg-disclosure **43.** https://assets.kpmg.com/content/dam/kpmg/cn/pdf/en/2017/11/the-esg-journey-begins.pdf

Drivers

Stock exchanges are increasingly aware of the role they can play in promoting the integration of ESG factors. Among the top 10 stock exchange sample in this review, the Sustainable Stock Exchanges Initiative has been the most enlisted organization that promotes responsible investing. The SSE is a voluntary United Nations initiative that provides a platform for global exchanges to engage on sustainability topics and promote corporate transparency and more responsible investing.[45] In September 2015, the Sustainable Stock Exchanges Initiative launched a campaign to get stock exchanges to offer companies guidance on reporting their ESG impact. At the time less than one third of global stock exchanges provided guidance. Two years later in 2017 it was reported that a group of seven stock exchanges had fulfilled their commitment "to provide guidance to issuers on ESG reporting" to the UN-backed campaign.[46,47] The initiative's popularity and increasing action over the past three years has arguably taken precedent over other initiatives such as the PRI and CDP which are not targeted at stock exchanges and have not been as popular with the stock exchange sample.

In addition to the SSE's promotion of sustainability, sustainable and green finance are becoming important issues for stock exchanges' clients, both issuers and investors. There has been an exponential increase in ESG related ETFs and indices on the market. Sustainability and ESG indices are being

developed by the leading index providers and are described as one of the most popular ESG instruments for stock exchanges.[48] See the section 'Index Providers and Exchange-Traded Funds' for more information on how these indices are being developed to promote sustainability.

While stock exchanges are making positive steps to promote and integrate ESG, in its report on 'How stock exchanges can grow green finance,' the SSE outlines several barriers that stock exchanges may encounter when promoting sustainability. These include a mismatch in the supply and demand of green products (direction is dependent on the market), confusion around sustainability terminology, lacking capacity at the exchange (due to size and resource constraints), regulations that block progress and lack of transparent or available data.[49]

44. https://www.scmp.com/business/investor-relations/article/2159363/hong-kong-listed-firms-environment-and-governance **45.** http://www.sseinitiative.org/about/faq/#1 **46.** Note: the seven stock exchanges are independent from the sample selected for this report. **47.** http://www.sseinitiative.org/home-slider/seven-stock-exchanges-launch-esg-reporting-guidance/ **48.** https://unctad.org/en/PublicationsLibrary/unctad_sse_2016d1.pdf **49.** http://www.sseinitiative.org/wp-content/uploads/2017/11/SSE-Green-Finance-Guidance-.pdf

Credit Rating Agencies

While previously viewed as laggards in ESG integration, credit rating agencies have been making efforts to integrate sustainability data. There are now 17 credit rating agencies signed up to the PRI credit ratings initiative. The initiative, which is backed by the Rockefeller Foundation, was launched two years ago following the PRI's statement on the importance of ESG in Credit Rating and Analysis. The two-year programme of research culminating in two seminal reports, aimed to promote the importance of ESG in understanding the creditworthiness of borrowers in fixed income (FI) markets.

Research approach

The two credit rating agencies featured in the previous report were reviewed to assess their progress. Data and case studies were collected from publicly available sources.[50]

Key points:

- Spurred on by the PRI's CRA initiative, credit rating agencies have made substantial progress in integrating ESG data into their products, including Fitch Ratings' 'ESG Relevance Scores' that display the relevance and materiality of ESG in the rating decision.
- They are rapidly growing their ESG teams and acquiring organizations that specialise in ESG data collection and analysis, exemplifying their commitment to sustainable investing.

Drivers:

- Industry and NGO pressure, particularly the PRI's initiative targeted at Credit Rating Agencies, has led to direct action on ESG integration.
- CRAs are hiring ESG specialists, with expertise in corporate governance, carbon and ESG data.

Barriers:

- Lack of standardized data being disclosed by companies remains a challenge for Credit Rating Agencies.
- Credit Rating Agencies are being asked to provide greater transparency into how they integrate and analyze ESG data.

50. https://www.unpri.org/download?ac=256

Case study

S&P Global

S&P Global offers green evaluations, welcomes TCFD recommendations and acquires ESG data experts

S&P Global have started reporting on environmental and climate risks in corporate credit ratings. In 2017 they launched an asset-level environmental credential that provides investors with a view of the green impact and climate risk attributes of their portfolios.[51,52] In the same year they also began exploring how to incorporate additional disclosures resulting from the TCFD's recommendations. While it is the early days, S&P Global has welcomed the TCFD's proposals, stating that they could be instrumental in ensuring company ESG disclosure is more consistent and standardised and therefore more useful to CRAs.[53] They have also adopted their climate-related risks and opportunities framework to help categorise the risks and opportunities associated with company rating or outlook changes.[54]

Investing in talent

S&P global have created a Sustainable Finance Team which is embedded into company structure as demonstrated in Figure 8. They have also hired ESG data experts into the organization through the acquisition of Trucost in October 2016.[55]

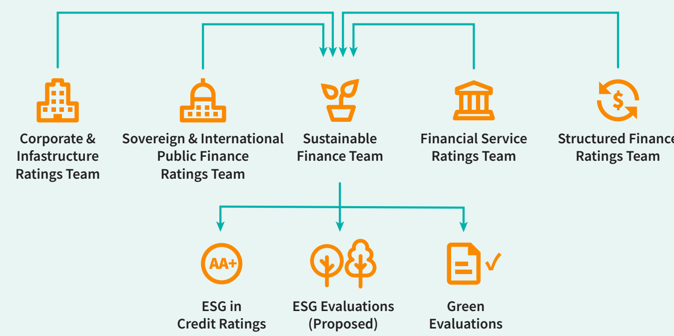


Figure 8. S&P Global Ratings' sustainable finance team embedded into the company's organization structure. Source: PRI.

51. https://www.spratings.com/en_US/products/-/product-detail/our-approach-to-esg-in-ratings **52.** https://www.spglobal.com/en/research-insights/articles/How-The-Recommendations-Of-The-Task-Force-On-Climate-Related-Financial-Disclosures-May-Figure-Into-Our-Ratings **53.** https://www.spratings.com/documents/20184/4918240/How+Environmental+And+Climate+Risks+And+Opportunities+Factor+Into+Global....pdf **54.** https://www.trucost.com/trucost-news/sp-dow-jones-indices-acquires-trucost/ **55.** https://www.spratings.com//en_US/products/-/product-detail/s-p-global-ratings-green-evaluations

Case study

MOODY'S

Moody's begin reporting on ESG incorporation and grow in-house ESG teams

Moody's has started reporting on how it incorporates ESG considerations that have material credit implications. To do this , Moody's identifies ESG themes that could have significant impacts on an industry. Through research, Moody's identified 14 sectors that have credit exposure to carbon transition risk. After identifying this, it created a framework to categorize the key ways that carbon transition poses a risk and then mapped this to the different sectors. For example, they created a carbon transition analysis for the automotive manufacturing sector which they then integrated into regular credit analysis.[56]

Investing in talent

Moody's has also been investing in ESG talent. In November 2017 it announced an expansion to its ESG team to support its work on ESG and Green Bonds.[57] The various ESG teams are highlighted below in Figure 9. In February 2018, Moody's hired additional corporate governance and carbon experts.[58] A managing director at Moody's stated that these new hires would accelerate "momentum in setting the standard to systematically and transparently incorporate ESG risk considerations into credit analysis."[59]

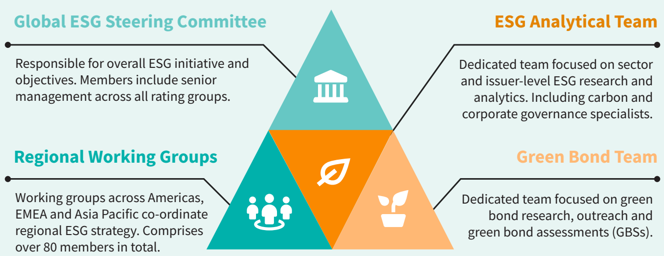


Figure 9. Moody's global ESG organizational structure. Source PRI.

Case study

FitchRatings

Launch of Fitch Ratings 'ESG Relevance Scores'

ESG Relevance Scores were launched by Fitch Ratings in 2019 and fill a market gap by disclosing how an ESG issue directly affects a company's credit rating. They transparently display the relevance and materiality of individually identified ESG elements into the rating decision. Fitch describe how they are "sector-based and entity specific.…and will apply across all asset classes, starting with over 1,500 non-financial corporate ratings."[60]

56. https://us.rbcgam.com/resources/docs/pdf/HTML-files/ESG/Roadshow/ESG%20in%20ratings.pdf **57.** https://www.moodys.com/research/Moodys-expands-ESG-teams-adds-new-online-content-hub-to--PR_374753 **58.** https://www.moodys.com/research/Moodys-expands-ESG-teams-adds-new-online-content-hub-to--PR_374753 **59.** https://www.moodys.com/research/Moodys-hires-carbon-and-corporate-governance-experts-to-join-its--PR_380113 **60.** https://www.fitchratings.com/site/esg/faq

Drivers

In the 2015 report Credit Rating Agencies (CRAs) were perceived as laggards in ESG; however, since then companies in our sample has made progress to integrate sustainability data into their products. There are several reasons for this. Firstly, CRAs have been under public pressure from investors to incorporate ESG data. For example, in 2017 the investment manager Neuberger Berman called on CRAs to establish a more standardized and transparent approach to analysing and integrating ESG data.[61] Secondly, two years ago, the PRI issued a statement on the importance of ESG in Credit Rating and Analysis and commenced a two-year programme of research culminating in two seminal reports.[62] The increasing pressure from NGOs and the direct guidance through the PRI programme has led both S&P Global and Moody's to seriously consider and start to integrate ESG. In addition, the recent growth in both S&P Global and Moody's ESG teams demonstrates their commitment to integrating ESG data.

Overall credit rating agencies have moved from simply developing policies around ESG to fully integrating sustainability data into their products. While this progress is encouraging, the industry is still calling for more transparency around the methodologies that CRAs use to integrate and report on ESG.[63] With the growing awareness and pressure from industry we expect to see CRAs taking even greater steps to integrate ESG in the next couple of years.

61. https://www.nb.com/pages/public/en-hk/insights/rating-the-raters-on-esg.aspx **62.** https://www.unpri.org/news-and-press/the-pri-publishes-its-second-report-on-esg-in-credit-risk-analysis-and-ratings-/3300.article **63.** https://expertinvestoreurope.com/neuberger-berman-slams-credit-agencies-esg-failings/

Boutique Asset Managers with a Responsible Investment Focus

Research approach

A sample of Boutique Asset Managers with a specialist focus on responsible investment was analyzed and compared with the 2015 sample to understand their unique investment approaches and approach to the integration of ESG issues into decision-making. Publicly available information for each organization was used (from company websites, related reports, articles and PRI transparency reports).

The following additional organizations were included in the sample for 2018 due to their unique investment approaches:

- Vontobel Holdings
- Triodos Investment Management
- Arabesque
- Mirova (Core RI Asset Manager owned by Natixis Asset Management)

Two additional data points were captured for the 2018 report:

- Whether the organization executes scenario analysis and/or modelling in which the risk profile of future ESG trends at portfolio level is calculated.
- To what extent an organization's performance management, reward and/or personal development processes have a responsible investment element – at all levels in the organization (Board, CEO, PM).

Key points:

- Boutique Asset Managers are adopting scenario analysis to calculate the risk profile of ESG trends at the portfolio level, this has been catalysed by the introduction of the TCFD's reporting recommendations.
- BAMs are disclosing more granular data on how they integrate investment objectives into the KPIs, appraisals, pay and personal development plans of their staff.

Drivers:

- The TCFD's reporting guidelines have promoted the need for Boutique Asset Managers to conduct greater analysis into the risks posed by environmental issues.

Barriers:

- Boutique Asset Managers require more standardized data from a broader range of sources, to overcome the challenges associated with the unstandardized and unregulated voluntary data that is currently being disclosed by companies.

Key changes

In the previous report we explored the three basic ESG incorporation strategies that boutique investment manager firms were using: screening, thematic investment and ESG integration. As shown in Figure 9, the big shift that is observed between 2015 and 2017 is that organizations are moving more towards ESG integration, where ESG factors are fully integrated into traditional financial analysis. The three boutique asset managers that have seen the biggest shift in strategy are Calvert, Pax World and Bank J. Safra Sarasin. As you can see in Figure 10, Calvert has experienced a shift from using a combination of 'screening' and 'screening and thematic' strategies to incorporate ESG issues, to the majority strategy they adopt being 'screening and integration'. Pax World has shifted from a combination of 'screening, thematic and integration' strategies to solely 'screening and thematic'. Bank J. Safra Sarasin has had a shift in almost exclusively adopting 'screening' as an ESG incorporation strategy to now having 'screening and integration' as the predominant strategy.

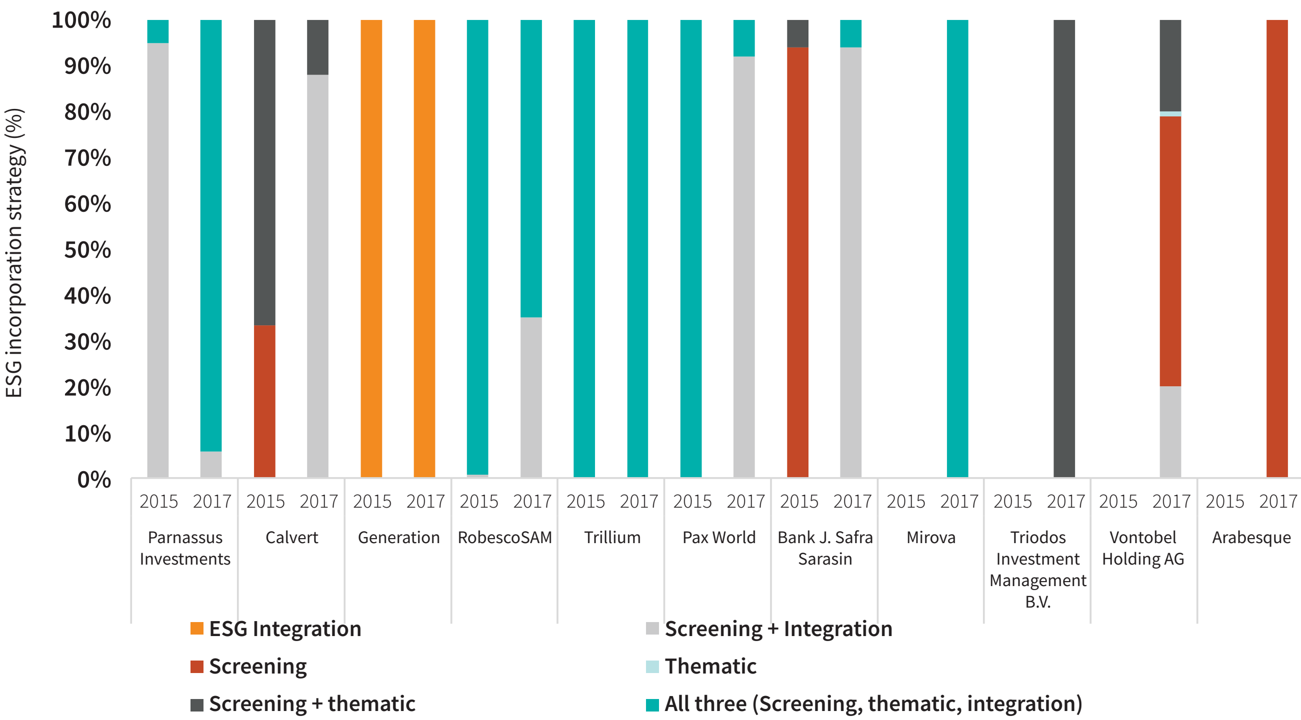


Figure 10. Boutique investment manager ESG incorporation strategies

Case study

Calvert

Calvert, predominantly using screening and integration as an ESG incorporation strategy

"The Calvert Principles for Responsible Investment define our ESG approach and determine the eligibility of companies, which combines both screening and integration. Our responsible investing strategies combine the firm's leading highly evolved review processes with the incorporation of highly developed quantitative and fundamental ESG incorporation processes through the Calvert Research System (CRS) as a proprietary platform that allows us to integrate both financial and sustainability insights while comparing companies across metrics. Our equity analysts maximize the efficiency with which the investment process identifies and addresses material strategies ESG information."

Case study

PAX World Funds
Advised by Impax

Pax World, also predominantly using screening and integration as an ESG incorporation

In a few cases, screening is adequate to capture our sustainability concerns (e.g., in avoiding companies significantly involved in the manufacture of tobacco or weapons). For other issues, however, a combination of screening and integration is used to incorporate ESG issues into portfolio construction and management, as well as in shareowner advocacy. All our actively managed funds incorporate investment themes (e.g. energy efficiency) along with economic and financial themes in the top-down portion of portfolio construction. One Pax World fund, the Global Environmental Markets Fund, focuses specifically on environmental markets and resource optimization."

More in-depth analysis of ESG issues in the investment process

Another trend that has been observed amongst the Boutique Asset Manager sample is that organizations are executing scenario analysis and/ or modelling where the risk profile of future ESG trends at the portfolio level is calculated. This is occurring most commonly for environmental issues as demonstrated in Table 8. One of the main catalysts for the greater adoption of the scenario planning practice has been the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations that have given much impetus for improving the risk preparedness of Financial Institutions to climate-related risks and opportunities. Our prediction would be that the extent of scenario planning as a practice amongst Asset Managers and Owners will become increasingly common as the level of understanding and planned implementation activity surrounding TCFD embeds further in the capital markets ecosystem.[66]

Incentive systems for long-term investing

In the previous report we explored who had oversight/ accountability for responsible investment as well as who had implementation responsibility. The only change to be observed for this sample between 2015 and the organizations' 2018 disclosures was that Calvert's board members or trustees now have implementation responsibility for long-term investing as well as oversight.

64. Calvert, Pax World, Parnassus Investments, Bank J. Safra Sarasin, Generation Investment Management, Trillium and RobecoSAM. **65.** Vontobel Holdings, Triodos Asset Management, Arabesque and Mirova. **66.** https://www.fsb-tcfd.org/

Extent of scenario planning	% of existing sample (out of 7)	% of existing & new sample (out of 11)
We execute scenario analysis which includes factors representing the investment impacts of future environmental trends	43%	45%
We execute scenario analysis which includes factors representing the investment impacts of future social trends	29%	27%
We execute scenario analysis which includes factors representing the investment impacts of future governance trends	29%	18%
We consider scenario analysis that includes factors representing the investment impacts of future climate-related risks and opportunities	None	None
Other[67],[68]	14%	18%
Do not execute scenario analysis and/or modelling	43%	45%

Table 8. Extent of Boutique Asset Manager scenario planning

However, what has progressed is the level of granularity of information that Boutique Asset Managers in the sample are disclosing on how responsible investment objectives are integrated into performance management, reward and personal development processes. As you can see in Table 10, responsible investment objectives are being integrated into KPIs, appraisals, pay and personal development plans at five of the sample organizations (Calvert, RobecoSAM, Pax World, Bank J. Safra Sarasin and Triodos Asset Management) to varying degrees. RobecoSAM displays the deepest level of integration of responsible investment objectives, with them integrating responsible investments fully (covering all four levels of integration) at all levels of the organization except for Board members/Board of trustees where it is included in their personal development and/or training plans.

Board members or trustees	2015	2018
Assign them with oversight/ accountability of long-term investing	5/6	**5/6**
Assign them with implementation of long-term investing	0/6	**1/6**
CEO, CIO, or investment committee	**2015**	**2018**
Assign them with oversight/ accountability of long-term investing	7/7	**7/7**
Assign them with implementation of long-term investing	7/7	**7/7**

Table 9. Boutique asset manager incentive systems for long-term investing

	Level of organization			
Level of integration of Responsible Investment objectives	Board members/ Board of trustees	CEO, CIO, Investment Committee	Other C Level Staff	Portfolio managers
Responsible investment KPIs and/or goals included in objectives		43%	29%	29%
Responsible investment included in appraisal process		43%	29%	29%
Variable pay linked to responsible investment performance		29%	29%	43%
Responsible investment included in personal development and/or training plan	16%	43%	29%	29%

Table 10. Boutique asset manager integration of responsible investment objectives

Promoting Responsible Investment

Since the previous report, membership has grown at the majority of the top 20 responsible investment organizations and initiatives with the highest membership and there have been some new entrants into this group. As figure 11 demonstrates, CDP Forests and the Global Impact Investing Initiative (GIIN) have seen the biggest growth in membership amongst our 2015 sample of

67. RobecoSAM (in 2015 and 2018 sample) conducts all its sustainable investment research on 'sustainable future'scenarios, considering relevant climate-related risks. **68.** Mirova (in 2018 sample) conducts qualitative analysis of ESG-related scenarios to identify long-term sustainability issues and ultimately define their sustainable investment themes.

Figure 11. Boutique asset manager membership of organizations promoting responsible investment

organizations. SASB, GRESB and IIGC have also seen growth in their membership. Climate Bonds Initiative, Swiss Sustainable Finance and The Swiss Climate Foundation are all new entrants into this top 20.

The number of initiatives or organizations that the sample organizations were a member of also grew significantly between 2015 and 2018 (see figure 12).

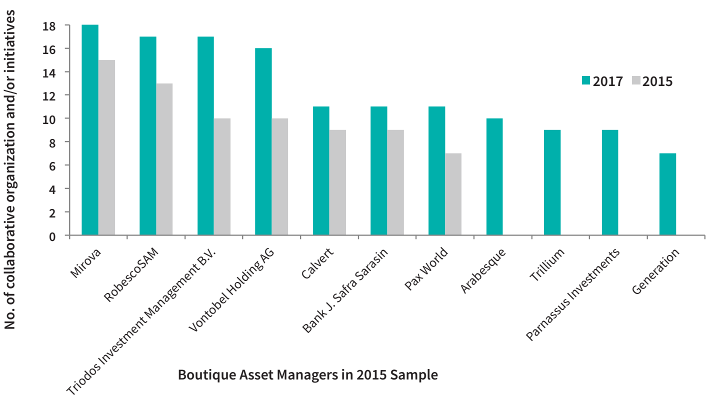


Figure 12. Promoting responsible investment - No. of collaborative organization and/or initiatives of which the organization is a member or in which it participated during the reporting year

CDP Forests

Deforestation and forest degradation account for approximately 10-15% of the world's greenhouse gas emissions. Addressing deforestation is therefore critical for meeting international ambitions to prevent dangerous climate change. CDP's forests program acts on behalf of over 650 signatory investors, with US$87 trillion in assets, who wish to understand how companies are addressing their exposure to deforestation risks.

Global Impact Investing Network (GIIN)

The GIIN is a worldwide network of diverse organizations in the impact investing marketplace. Its members include institutional asset owners, pension funds, insurance companies, asset managers, intermediaries, and advisors. Its mission is to increase the scale and effectiveness of impact investing by: (a) facilitating greater and more effective capital deployment to address pressing social and environmental needs; (b) raising awareness of impact investing; and, (c) enabling a credible and lasting practice of impact measurement.

Climate Bonds Initiative

Climate Bonds Initiative is working to mobilize the $100 trillion bond market (the largest capital market of all) for climate change solutions. Their strategy is to develop a large and liquid Green and Climate Bonds market that will help drive down the cost of capital for climate projects in developed and emerging markets. They do this through (1) market tracking and demonstration projects, (2) developing a trusted standard that can be used to certify bonds and (3) providing policy models and advice.

ESG Measurement and Reporting Bodies

ESG reporting and interest in measuring ESG issues have continued to experience marginal growth overall since 2015. These changes have been in response to increased demand from stakeholders, including investors, to understand the intangible asset value of organizations, associated with the risks and opportunities that different ESG issues represent. According to KPMG's Survey of Corporate Responsibility Reporting 2017, there have been significant increases in reporting in certain countries such as Mexico, New Zealand and Taiwan, where new regulation has driven up reporting rates and disclosure is expected to increase further as recommendations such as the Task Force on Climate-Related Financial Disclosures, part of the G20's Financial Stability Board, gains traction in the market.[69] This section explores some of the key updates and changes that have occurred since 2015.

Key points:

- Due to the increasing demand from investors and steady improvements in company disclosures, there has been marginal growth in ESG reporting and interest in measuring ESG issues.
- Advances in new technologies, such as AI and big data, are aiding ESG data gathering and performance measurements.

Drivers:

- New regulations and initiatives, such as the TCFD, have increased data disclosure and reporting rates.
- New reporting standards, including the IIRC's integrated reporting and Future-Fit Benchmark are gaining traction and pushing the industry to take an integrated and forward-looking approach to reporting.

Barriers:

- There is still a lack of transparency into how ESG measurements are published and distributed.
- The proliferation of complex measurement and reporting requirements is placing a burden on companies and investors.

69. https://www.fsb-tcfd.org/publications/final-recommendations-report/

Measurement

A proliferation in ESG measurement and data providers

The majority of publicly-listed (and several private) companies are now being evaluated and rated on their ESG performance by a wide range of third-party providers of ratings and reports. A wide range of capital market players, from institutional investors and asset managers to financial institutions, are relying on these reports to measure a company's ESG performance and compare it to its' peers. The Global Initiative for Sustainability Ratings identifies over 600 ESG ratings products globally, making it increasingly burdensome for companies and investors to navigate the landscape. Some of the most pressing challenges with ESG measurement are their complexity, a lack of transparency in the ways that they are published and the ways that they are distributed. The measurement process is also placing an increasing burden on companies. SustainAbility's Rate the Raters initiative found that about 60% of the ratings source their data from questionnaires or interviews, often taking place at the same time of year which is placing a significant demand on a company's corporate sustainability, investor relations and communications teams that must respond to them. Some of the well-known providers are shown below:

Alternative sources and big data being used to measure ESG performance

A key trend that occurred between late-2015 and 2018 is the increasing use of big data and machine learning in the quest to seek a competitive edge through sourcing unique and meaningful insights into ESG performance. Although the potential of alternative data such as transaction data, satellite imagery weather pattern data and social media is much greater, a key challenge is securing accurate data sources and having the human capital required to make sense of the data. Two data providers, RepRisk and TruValue Labs, have become leading providers in using big data and alternative data sources to find unique ESG signals. RepRisk has an exclusive focus on assessing public and private companies' business conduct, combining artificial intelligence with human analysis to translate big data into actionable research and metrics.[70] TruValue Labs employs supervised learning artificial intelligence to analyse over 75,000 sources including newspapers, watchdog organizations, specialist publications and NGOs to find opportunities and risks that are hidden in alternative data.[71]

Figure 13. Selection of ESG measurement and data providers

70. RepRisk. See https://www.reprisk.com/our-approach **71.** TruValue Labs. See https://www.truvaluelabs.com/

Reporting

Corporate disclosure on ESG issues has continued to steadily improve and with it, the number of different mechanisms and standards put in place recommending how a company should disclose information on their ESG performance. The founders of the Global Reporting Standard and the Sustainability Accounting Standards Board wrote in 2017 that the two standards are intended to meet the unique needs of different audiences. SASB develops standards for the disclosure of financially material sustainability information to investors in their mandatory filings, with investors being their key audience. GRI standards are designed to provide information on a company's ESG performance to several stakeholders e.g. customers, suppliers, employees and communities and consequently include a broad array of topics. This edition of the report investigates the key changes in the most common standards; GRI, SASB, and CDP and explores two new standards that are gaining traction in the marketplace, the IIRC's Integrated Reporting (<IR>) framework and a forward-looking reporting mechanism; the Future Fit Business Benchmark.

Global Reporting Initiative

The GRI G4 Guidelines have transitioned to the GRI Standards – the latest evolution of GRI's sustainability reporting guidelines. The content has been restructured into a set of modular inter-related modules. This means individual modules can be updated without updating the whole set. This will make them more relevant and up to date with new developments. Organizations can select and use only the relevant topic-specific standards, based on their material topics. Despite the improvements to the GRI reporting framework, there has been growing corporate fatigue since 2016 with the ESG reporting process and some large organizations such as Novo Nordisk have chosen to no longer follow the GRI, in favor of integrated reporting, recognizing the differing and incompatible rationales of the three main reporting standards: the GRI, IIRC and SASB and the need for one international standard for corporate reporting.[73]

Figure 14. GRI reporting standards

Sustainability Accounting Standards Board

SASB is now in the final phase of its current 4-year cycle: 'updates to standards', following its public review period. It will soon launch the first set of codified standards on financially material sustainability topics, following extensive consultation on the provisional standards. Since its conception, the standards have been downloaded more than 122,000 times across 38 countries, with over 50% of the interest coming from outside the US, despite their US focus. SASB argues that the industry-based, rather than country-based, nature of the standards are what gives them their relevance outside the US market and they are working hard to change this perception and respond to the growing global demand for and interest in their work. Although disclosure on at least some of the metrics that SASB seeks to codify has increased, the quality of the data disclosed is still generally low, with a large percentage of companies disclosing "boilerplate" data that is unquantifiable and vague. Initiatives such as the TCFD recommendations are encouraging better quality and more consistent disclosure of climate-related information.

Some companies are already using the provisional SASB standards in their sustainability reporting and in their financial disclosures, including JetBlue, NRG and Host Hotels & Reports. In 2017 JetBlue became the first airline and one of the first US publicly traded companies to incorporate the SASB disclosures.[74] In 2018 it became

73. https://www.novonordisk.com/sustainability/performance/Integrated-reporting.htm **74.** JetBlue Environmental, Social and Governance Report, 2017. http://blueir.investproductions.com/~/media/Files/J/Jetblue-IR-V2/Annual-Reports/jetblue-sasb-tcfd-2017.pdf one of the first companies to introduce climate-related disclosures recommended by TCFD, recognising climate issues such as an increase in extreme weather as a key concern. JetBlue's Head of Sustainability, Sophie Mendelsohn, recognised that "one of the biggest stumbling blocks when it came to internal advocacy of the SASB code was short-termism of most quarterly financial updates." One of the concerns to the acceleration of the standards adoption are the potential legal challenges associated with being more transparent. The standards' definition of materiality could expose companies to fraud accusations if they fail to talk about some issues that are incorrectly not deemed to be as material.[75]

Carbon Disclosure Project

The big shift in the CDP strategy over the last couple of years has been to take a sector-focused approach to disclosure and scoring for their climate change, forests and water security requests, to ensure that companies and investors can better understand environmental risk and opportunities. They have also aligned their information request with the TCFD recommendations. Figure 15 details the sectors that have been introduced in 2018, with further sectors to be introduced in 2019. CDP has developed an 'Activity Classification System' to categorize companies by the most relevant sectors, focusing on where the companies derive their revenue and then associates these with the impacts to their business from climate change, deforestation and water security. The CDP has also added additional questions that focus on

Sectors introduced in 2018 include:

Agriculture
- Agricultural commodities
- Food, beverage & tobacco
- Paper & forestry

Energy
- Coal
- Electric utilities
- Oil & gas

Materials
- Cement
- Chemicals
- Metals & mining
- Steel

Transport
- Transport services
- Transport vehicle manufacturers

Figure 15. Sectors introduced to CDP approach in 2018. Source CDP

forward-looking statements across their climate, water and forestry questionnaires, along with a question evaluating a company's readiness for a low carbon transition.

International Integrated Reporting Council (IIRC)

The IIRC is a global coalition of regulators, investors, companies, standard setters and NGOs working to establish integrated reporting within mainstream business practice. Integrated reporting aims to build on reporting developments to provide a more holistic form of reporting the value created by a business. The IIRC uses the term "capitals" to denote these various resources: financial, manufactured, intellectual, human, social and relationship, and natural resources that can be increased, decreased or transformed by a business' activities and outputs. The organization has completed its 'Breakthrough Phase' 2014-2017 which included the creation of the International <IR> Framework, market testing to development and early reporting by reporting organizations around the world. Since 2010, over 1,600 organizations in over 65 countries have used the integrated reporting principles to inform the way they think, act and communicate their value creation. With the appointment of Dominic Barton as Chair (former Global Managing Partner of McKinsey & Company), the organization has now launched its Momentum Phase, with the aim of accelerating the adoption of integrated reporting internationally, with a focus on the United States and China.

75. https://www.greenbiz.com/article/why-2018-could-be-breakthrough-year-sasb

Future-Fit Business Benchmark

The Future-Fit Business Benchmark[76] is a free tool to help companies and investors transform how they create long-term value, for themselves and society. It has been created by the Future-Fit Foundation, a UK-based NGO. It identifies the environmental and social performance thresholds that all companies must ultimately strive to reach and provides them with a way to assess progress toward them. There are 23 break-even goals that encompass business inputs, business activities, employees, products and citizenship. The theory underpinning the Benchmark is that businesses can only thrive if society prospers, which in turn demands that we safeguard Earth's life-support systems. To date it has been in the development phase, with Release 2 of the benchmark being launched in November 2017[77]. Novo Nordisk, the global healthcare company, are currently trialling the use of the benchmark tools and are also working with the Future-Fit Foundation to calculate how the company can contribute to the SDGs. The development council involved in the set-up of the benchmark includes Novo Nordisk, Grant Thornton, The Body Shop, Orsted, Tribe and WHEB Asset Management.

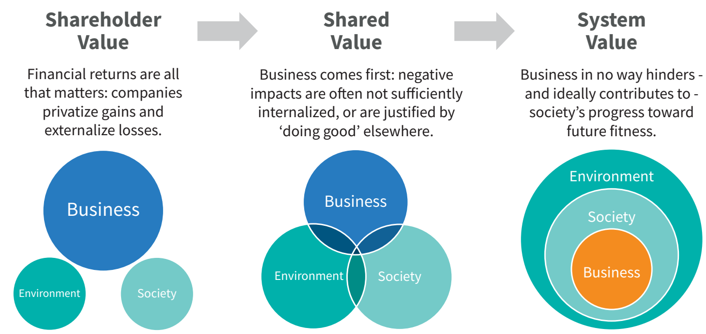


Figure 16. Future-Fit Business Benchmark Framework

76. http://futurefitbusiness.org/ 77. https://www.novonordisk.com/sustainable-business/performance-on-tbl/more-about-how-we-work-and-report/the-sustainable-development-goals.html

Regulators and Industry Accounting Bodies

In the previous report we found that accounting bodies and standards setters had not made any significant efforts to incorporate ESG data into financial reporting. However, over the past few years they have faced mounting pressure from industry and NGOs to consider and integrate ESG factors into their work.

Research approach

We reviewed how key Regulators and Industry Accounting Bodies integrate ESG into their practices. Publicly available information from company websites, reports and articles was used to develop case studies.

Key trends

The Financial Accounting Standards Board (FASB), the International Accounting Standards Board (IASB) and the International Organization of Securities Commissions (IOSCO) and the Securities Exchange Commission (SEC) have faced pressure to integrate ESG reporting into their frameworks, from industry, government officials and NGOs. Considering this, FASB and IASB have publicly responded to industry demands and queries into whether their organizations would be integrating ESG data. Their responses are outlined in the case studies below.

Key points:

- Regulators and Industry Accounting Bodies have continued to make minimal to no effort to incorporate ESG into their practices, despite their being more pressure placed on them to do so in the past two years.

Drivers:

- Regulators and Industry Accounting Bodies are more aware of ESG issues due to pressure from industry and NGOs that promote responsible investing.

Barriers:

- Regulators and industry accounting bodies lack the interest or motivation to incorporate ESG data into their practices.
- Some believe it is not their duty to incorporate ESG as the responsibility lies with governments and policy makers.

Case study

Financial Accounting Standards Board respond to industry queries on ESG

In 2017, FASB responded to industry queries about integrating ESG factors. They stated that they recognise some overlap with ESG issues and their financial reporting in:

- Standards about recognition, measurement, presentation and disclosure of historical transactions
- The financial position of existing assets or liabilities

However, FASB clarified that while the objective of financial reporting is to provide information that is useful for investors in their capital allocation decisions, that does not mean all sustainability or ESG information is within the boundaries.[78]

Case study

International Accounting Standards Board respond to industry queries on ESG

IASB have been under increasing pressure to acknowledge and foster uniformity in sustainability standards. In late 2017, IASB's chairman gave a speech at an Accountancy Europe event, in which he discussed ESG factors but stated clearly that IASB does "not plan to get into environmental and sustainability reporting", as the organization believes it would distract from their focus on financial reporting. However, he continued to add that the IASB is considering updating its Practice Statement to capture ESG issues that are pertinent to long-term value creation.[79]

Case study

International Organization of Securities Commissions acknowledges ESG but faces criticism

At IOSCO's 43rd annual conference in May 2018, the organization's board members made a commitment to establish an information sharing network focusing on issues around sustainability. Members of the information sharing network hope to gain insight into issuer disclosure and how this can impact investor decisions.[80] While this move demonstrated an interest in engaging on the topic of sustainability, an August 2018 report written by Client Earth, Carbon Tracker and WWF calls on IOSCO to take further action. Specifically, it asks the organization to address climate risk reporting, to acknowledge the TCFD recommendations and ultimately mobilize their influence to ensure standardized reporting on ESG issues.[81] Overall the report highlights that IOSCO could do more to influence the industry to consider and integrate ESG.

78. https://www.fasb.org/cs/ContentServer?c=Page&cid=1176168752524&d=&pagename=FASB/Page/SectionPage 79. https://www.ifrs.org/news-and-events/2017/09/iasb-chairmans-speech-the-times-the-are-achangin/ 80. https://www.iosco.org/news/pdf/IOSCONEWS497.pdf 81. https://www.carbontracker.org/reports/mobilising-iosco-to-take-action-on-the-tcfd-recommendations/

Case study

Securities Exchange Commission petitioned to integrate ESG

On October 1st, 2018 a group of investors, government officials and organizations promoting responsible investment petitioned the SEC to develop a framework that would require public companies to disclose ESG information pertinent to their operations. The group of petitioners include asset managers that represent over $5 trillion in assets under management. They argue that the SEC, in its role as an authority set up to protect investors, should incorporate ESG data in its framework as the information is material to many investors. Moreover, they state that the SEC has the authority to implement mandatory ESG reporting that could lead to significant efficiencies in markets. Overall, the petitioners state that SEC mandated reporting would overcome the current challenge of incomplete and inconsistent ESG data that is being disclosed voluntarily.[83]

Drivers

Despite growing pressure from industry, Industry Accounting Bodies and Regulators have made no efforts to integrate ESG data or mandate ESG data disclosure. Some of the standard setters and regulators have commented on the reasons for this. The IASB believe that incorporating ESG would lead to a loss of focus and identity[84], while FASB state that although there are occasions where integrating ESG data makes sense, this is not always appropriate and not a priority for the organization[85].

The IASB have further commented that governments and policy makers should take responsibility for implementing rules around consistent ESG disclosure, as they have the greatest influence over the industry. In addition, they state that they do not have any ESG expertise in-house. While they could recruit ESG specialists, as many other capital market stakeholders have done in recent years, the organization has not mentioned any plans to recruit ESG experts. Finally, the IASB state that while they want to stay up to date with the work that other specialist sustainability organizations are doing e.g. SASB, they have no desire to lead these efforts.[86]

A green paper entitled 'Should FASB and IASB be responsible for setting standards for nonfinancial information?' was published in 2018 to accompany a public debate held at Oxford University. The paper provides a neutral view of the arguments for and against mandating non-financial reporting and will be followed up with a White Paper in 2019 that will present clear suggestions on the topic.[87]

While Industry Accounting Bodies and Regulators have not yet demonstrated an interest in ESG integration, their presence across all industries would enable them to have a significant impact on the mainstreaming and standardization of ESG integration and reporting. However, if Industry Accounting Bodies and Regulators sought to take a more active role, they could work with voluntary standards organizations such as the Task Force for Climate-Related Financial Disclosures, Sustainability Accounting Standards Board and Natural Capital Coalition to help ensure ESG standards scale across all industries and geographies.

82. https://www.briefinggovernance.com/2018/10/investors-petition-the-sec-to-develop-esg-reporting-requirements/ **83.** https://www.sec.gov/rules/petitions/2018/petn4-730.pdf **84.** https://www.fasb.org/cs/ContentServer?c=Page&cid=1176168752524&d=&pagename=FASB/Page/SectionPage **85.** https://www.fasb.org/cs/ContentServer?c=Page&cid=1176168752524&d=&pagename=FASB/Page/SectionPage **86.** https://www.ifrs.org/news-and-events/2017/09/iasb-chairmans-speech-the-times-the-are-achangin/ 87. https://www.sbs.ox.ac.uk/sites/default/files/2018-10/Green%20Paper_0.pdf

Index providers & Exchange-Traded Funds

Currently there are more indexes than stocks. Passive investing has grown in popularity in recent years, largely due to the lower fees and potential for greater returns for investors.[88]

As a result of the increase in passive investing, index providers have found themselves in a new position of power. Many investors perceive indexes as objective benchmarks, which could be problematic as index providers make active decisions about which stocks will be included in an index.[89] However, due to their prolific uptake, indexes and their providers can influence markets. For example, simply by reclassifying a country, a large index provider can redirect billions of dollars.[90]

Research approach

This section is new for 2018. It focuses on four well known index providers; MSCI, S&P Dow Jones, Bloomberg and FTSE Russell, all of which offer ESG/Sustainability indices. It also examines how exchange-traded funds are integrating ESG. Publicly available data has been used to determine how the index providers and exchange-traded funds incorporate ESG and promote responsible investing in their practices. Overall, the research is comprised of a general overview on the sectors and a case study analysis.

Key points:

- This is the first review of how index providers and ETFs integrate ESG data. Both indexes and ETFs have become more popular with investors in the past few years due to the rising popularity of passive investing. Both groups are also rapidly creating ESG indexes and ETFs.

Drivers:

- The growing body of examples that demonstrate the outperformance of ESG indexes will further support their uptake.
- Both mainstream and ESG specific indexes can promote responsible investing.

Barriers:

- Investors need to consider the lack of objectivity in index construction and understand the increasing influence that index providers could have over capital markets.

88. https://www.cnbc.com/2017/07/10/passive-investment-is-frightening-says-morgan-stanley-strategist.html **89.** https://www.bloomberg.com/news/articles/2017-11-27/index-providers-rule-the-world-for-now-at-least **90.** https://www.bloomberg.com/news/articles/2017-11-27/index-providers-rule-the-world-for-now-at-least

Key trends

Both the improved availability of company level ESG data and technological advancements over the last 10 years have led to new approaches to passive sustainable investing.[91] As a result, ESG indices are gaining popularity with investors seeking cost-effective solutions to sustainable investing.[92] This has led to an increase in the number of ESG indices and funds, and ultimately the amount of assets invested in these funds which is demonstrated in Figure 16.

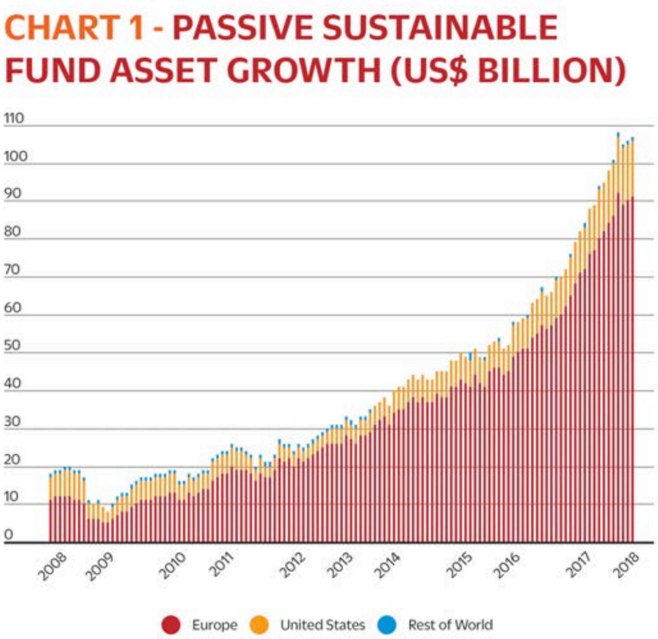
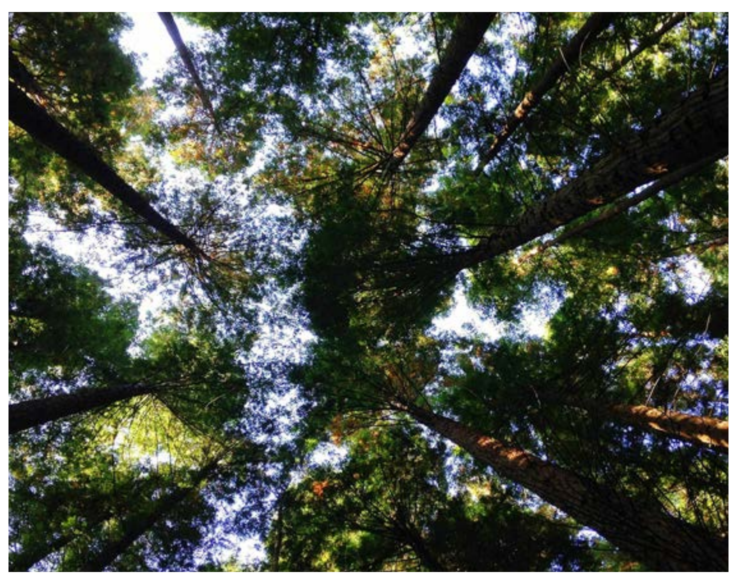


Figure 17. Growth of passive sustainable funds. Source: Money Marketing[91]

In 2017, the Financial Times stated that 'the outperformance of ESG strategies is beyond doubt'.[93] As an example, in December 2017, Citywire analyzed the performance of MSCI ESG and non-ESG indices in developing and developed equity markets. In developing markets, investing in an ESG index led to a big increase in returns of 74.49% over the past 10 years, compared to only 18.3% for the regular index over the same period of time.[94] Similarly, four indices created by FTSE Russell, which select companies involved in energy efficiency, water technology and other green applications, all received better returns than their benchmark, the FTSE Global All Cap Index.[95] While the outperformance of ESG indices seems obvious, an article from Deloitte warns that this indices could be due to factors other than ESG, and analysts should be wary of data showing correlation rather than causation.[96]

Index providers promoting responsible investment

Index providers can promote ESG factors through mainstream and ESG-focused indexes. As an example of how mainstream indexes can promote responsible investing, following Snapchat's IPO in 2017, in which Snapchat did not grant voting rights to subscribers, S&P Dow Jones Indices and FTSE Russell announced they would no longer include companies which provide limited or no voting rights in some of their largest indices such as the S&P 500 and the FTSE 100.[97]



91. https://www.moneymarketing.co.uk/passive-esg-growing-and-evolving/ **92.** http://ww2.oldmutual.co.za/old-mutual-investment-group/insights/magazines/tomorrow-2016/the-rise-of-esg-indices **93.** https://www.ft.com/content/9254dfd2-8e4e-11e7-a352-e46f43c5825d **94.** https://citywireselector.com/news/chart-of-the-week-esg-vs-non-esg-indices/a1076798 **95.** https://www.ft.com/content/9254dfd2-8e4e-11e7-a352-e46f43c5825d **96.** https://www2.deloitte.com/insights/us/en/deloitte-review/issue-12/finding-the-value-in-environmental-social-and-governance-performance.html **97.** https://www.ipe.com/reports/special-reports/etfs-guide/indices-etfs-and-governance/www.ipe.com/reports/special-reports/etfs-guide/indices-etfs-and-governance/10021554.fullarticle

Case study

Bloomberg
MSCI

MSCI and Bloomberg partner on ESG index series

MSCI ESG research, a provider of ESG data, has partnered with Bloomberg to create the Bloomberg Barclays MSCI ESG Fixed Income Index series. It was the first fixed income index family to include measures of ESG risk.[98] The series is comprised of 4 offerings, each with a different approach to incorporating ESG, in the aim of appealing to a diverse investor audience. The series aims to offer a level of market standardization that was previously lacking in the fixed income asset class.

1. Bloomberg Barclays MSCI Socially Responsible (SRI) Indices
These indexes use MSCI ESG ratings to weight issuers within an existing Bloomberg Barclays parent index. They are known as broad ESG indexes as they do not focus on any specific ESG theme.

2. Bloomberg Barclays MSCI Sustainability Indices
These indexes use MSCI ESG ratings to positively screen issuers and determine which adopts best practice in comparison to its industry peers. They are known as broad ESG indexes as they do not focus on any specific ESG theme.

3. Bloomberg Barclays MSCI ESG-Weighted Indices
These indexes use MSCI Business Involvement Screening research and MSCI ESG controversies to identify and negatively screen issuers from existing Bloomberg Barclays indexes. They are known as broad ESG indexes as they do not focus on any specific ESG theme.

4. Bloomberg Barclays MSCI Green Bond Indices
These indexes are considered thematic ESG indexes. They provide investors with an objective view of the global market for fixed income assets issued to fund environmentally beneficial projects.[99]

While these examples highlight how indexes can exert their influence to achieve positive outcomes for sustainable investing, the rise of passive investing has raised concerns for governance among those involved in responsible investing. Most concerns relate to passive investors being less involved and less critical shareholders, ultimately resulting in corporates not being held as accountable for their actions and not being pushed to consider sustainability and the long-term.[100] While indexes have at times, such as in the Snapchat case, leveraged their position to promote good governance, in certain instances large passive investors have opposed index providers' decisions to exclude companies from indexes as they believe it could inhibit investor opportunities.[101] Overall some large investors have argued that it is not the role of index providers to get involved in promoting certain corporate governance practices through their mainstream indices, instead they believe this should be left to regulators.[102]

Exchange-traded funds

An Exchange-traded Fund (ETF) is a marketable security that tracks an index, a commodity, bonds, or a group of assets like an index fund. One of the main differences between ETFs and indexes is that you can trade ETFs throughout the day in the same way you trade stocks, while indexes can only be traded once a day[103].

ETFs have also benefitted from the rise of passive investing, and ESG focussed ETFs have grown increasingly popular in the past three years. For example, 214 ESG ETFs were launched in 2017, and 77 were launched between January and June 2018. Globally there are 2,953 ESG funds that represent $975 billion AUM.[104] Prominent figures within the financial sector are also optimistic about their growth. Most notably Larry Fink, the BlackRock Chairman and CEO, said that within the next decade, assets in ESG ETFs will "grow from $25bn to more than $400bn".[105]

98. https://www.bloomberg.com/professional/product/indices/bloomberg-barclays-msci-esg-indices **99.** https://www.msci.com/documents/1296102/7944701/Bloomberg+Barclays+MSCI+ESG+FI+Index+Guide.pdf/cce7006e-697e-4ae4-9cee-23462115907e **100.** https://www.ft.com/content/bd77d9b8-dd9f-11e6-86ac-f253db7791c6 **101.** https://www.reuters.com/article/us-blackrock-governance/blackrock-opposes-banning-companies-from-indexes-over-voting-rights-idUSKBN1CS1CQ **102.** https://www.ft.com/content/ca3d7012-441a-11e8-93cf-67ac3a6482fd **103.** https://www.investopedia.com/articles/mutualfund/05/etfindexfund.asp **104.** https://www.ipe.com/reports/special-reports/etfs-guide/esg-building-impact-and-values-into-portfolios/10027007.article **105.** https://www.ft.com/content/f66b2a9e-d53d-11e8-a854-33d6f82e62f8

Case study

Vanguards launch index ETFs with ESG focus

In 2018, Vanguard launched two index ETFs that have an ESG focus. The indexes exclude the stocks of certain companies, such as those producing weapons, fossil fuels, gambling activities, and nuclear power. The indexes also exclude the stocks of companies that do not meet certain diversity criteria, as well as the labor, human rights, anti-corruption, and environmental standards defined by the Ten Principles of the United Nations Global Compact.[106]

Case study

Goldman Sachs and JUST Capital launch ETF

Launched in 2018, the JUST ETF invests in US companies that are driving positive change on some of the most pressing social issues, including worker pay and job creation. It has been created to cater to the ethical business priorities of the American public. As an example of the positive impact, companies included in the JUST ETF are believed to produce 45% lower greenhouse gas emissions per dollar of revenue, than their Russell 1000 counterparts.[107]

106. https://institutional.vanguard.com/VGApp/iip/site/institutional/researchcommentary/article/NewsInstInfo092018 **107.** https://justcapital.com/reports/introducing-the-just-etf/

About the Authors

The **High Meadows Institute** is focused on the role of business leadership in society. Our mission is to contribute to sustainable economic and social progress in a global economy and society. The High Meadows Institute was founded in 2013 by a small group of senior business and finance leaders with deep experience in the private and non-profit sectors. The Institute works in close partnership with other leading think tanks and academic and business organizations to advance its mission.

KKS Advisors is a leading consultancy firm providing innovative solutions that enable organizations to capture the enduring benefits of a sustainability approach. Applying our unique, research-backed approach, we work with corporations, foundations, NGOs and investors on sustainable strategies that deliver lasting impact. Our vision is to reshape markets, creating a world where business and investment decisions are made for the long term, taking environmental, social and governance factors into account. With offices in London, Boston and Athens, and associates around the world, our reach is global, and our focus is on efforts which foster systemic change.

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Sustainability in Capital Markets:

A Survey of Current Progress and Practices

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