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Impact of ESG criteria on Investment Management Corporations decisions making.

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Abstract

The aim of the paper is to describe in detail the environmental (E), social (S) and governance (G) ESG issues that are playing a crucial role in the global financial market, and to analyse how the world's leading investment management corporations build their investment portfolios by basing their decisions on these specific sustainability criteria.

Sustainable finance not only places environmental, social and governance considerations at the heart of business and investment decisions, but is also able to generate long-term economic and social value by using both financial and environmental logic in defining capital investment choices.

In the vast panorama of financial sustainability, the paper focus has been on ESG themes, which have attracted more attention in recent years especially in the European financial market. The idea is to understand how these sustainability criteria are established, and how green investment funds quantitatively and qualitatively assess the achievement of sustainability goals by the companies in their investment portfolio.

To carry out this analysis, it has been necessary to understand how major global and European institutions are moving to regulate sustainable finance through both the introduction of mandatory certifications for companies and sustainability targets imposed on governments around the world.

The final part of the paper looks more specifically at the criteria by which the world's leading investment funds shape their ESG investments by building up appropriate portfolios looking at the positive and critical aspects of this from a financial perspective.

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1 Introduction to ESG investing

1.1 Origin of Sustainable Investing

The idea of investing based on a set of principles, and not merely for profits, is as old as the concept of investing itself; increasing numbers of investors build portfolios to reflect their values, and utilizing their investments to make a positive impact on society. Socially responsible investing (SRI) has grown rapidly in recent years, but it is not a new concept.
SRI has religious origins which date back to the Bible and Qur'an with the concept that owners have responsibilities for the way their investments are used, including the responsibility to prevent immediate and potential harm.
In more recent times, SRI manifested itself in the 1950's with the avoidance of investing in "sin" stocks – companies involved in gambling, alcohol or tobacco. In the 1970's the environmental became a major focus of SRI.
SRI continued to gain advocates with the introduction of major initiatives and SRI mutual funds. The United Nations Principles for Responsible Investment was introduced in 2006 to provide guidelines for investors to include environmental, social and governance (ESG) in the evaluation and selection of investments.
Looking beyond SRI, socially conscious investors are pursuing investments that have favourable ESG ratings, positive impact, and environmental sustainability.

ESG refers to Environmental Social and Governance and the way in which these issues converge to impact a company and accompany stakeholders; environmental criteria refers to a company's environmental stewardship including how they manage the impacts of their operation products and general business activity on the environment social criteria refers to how a company creates value for stakeholders and include related concepts such as corporate purposes and societal impact governance, ultimately it refers to how a company is led and managed.

The table below illustrates the main factors that identify the three ESG aspects (Exhibit 1).

Environmental: Sustainability and resource efficiency		**Social:** More Equitable societies and respect for human rights		**Governance:** Accountable governance and transparent operations	
Pollution and Waste		Gender & Diversity Policies		Corporate Behavior	
Climate Change		Safety & Quality Controls		Corporate Governance	
Energy Efficiency		Human Rights & Labor Standards		Accounting Practices	
Natural Resources		Privacy & Data Security		Board Practices	
Example Issues					
Greenhouse Gas Emissions	Energy Efficiency	Health & Safety	Labor Rights	Board Independence	Executive Pay
Example Metrics					
CO2 Emissions per Unit Produced	Energy Use Per Square Meter	Employee Accidents Relative to Total Hours Worked	Number of Active Controversies	Independent Members Relative to Affiliated Members	Executive Pay Ratio & Disclosures

Exhibit 1

Illustration of certain ESG factors

ESG is used as a framework to assess how a company manages risks and opportunities that shifting market and non-market conditions create. These shifts include changes to:

- Natural Systems
- Social Systems
- Economic Systems

All these aspects together impact the entire landscape a company operates in. Although ESG can touch upon socially conscious concepts, this topic is not about "values", it is more about the ability to create and sustain long-term value in a rapidly changing marketplace, and managing the risk and opportunities associated with changes explained before.

There is no universal categorisation for ESG issues, some cases could be defined in different ways depending on the industry, company characteristics and the business model as well. The standard used to disclose information is also a determining factor since some companies define diversity, equity and inclusion (defined as DEI) as a social issue to address through their hiring practices, community engagement efforts and procurement strategies. On the other hand some scholars define DEI as a Governance issue viewing a more diverse board and workforce as essential to making more informed decisions, spurring innovation and supporting the acquisition of new customers and markets.

1.2 The Taxonomy

Simply put, the taxonomy is a classification system defining environmentally friendly investments. ESG funds will have to comply with the taxonomy's climate objectives from 2022 while from the beginning of 2023, they will have to answer to more taxonomy disclosure requirements, some of which are still to be finalised. Taxonomy has created the world's first ever "green list" – a classification system for sustainable economic activities (Commision, 2021).

The Taxonomy's classification system is expected to shift investments toward a low-carbon, climate-resilient economy and avoid greenwashing. To qualify as green, an investment would need to contribute to at least one of these six objectives:

- Climate change mitigation. An activity will meet this objective if it contributes to greenhouse gas stabilization aims, consistent with the goals of the Paris Agreement, such as through the generation of renewable energy, improving energy efficiency, switching to the use of renewable materials or increasing carbon capture, this is a good measure of business's environmental credentials. The Taxonomy Regulation also makes allowances for those procedures for which there is not currently any technologically or economically feasible low carbon alternative but at the same time nevertheless supports a transition to a climate-neutral economy by phasing out greenhouse gas emissions.

- Climate change adaptation. An activity will meet this objective if it includes solutions that substantially reduce the anticipated adverse impact on the climate of either 1) other people, nature or assets; or 2) the economic activity itself, in each case without increasing the risk of an adverse impact on other people, nature and assets.

- The sustainable use and protection of water and marine resources. An activity will meet this objective if it substantially contributes to achieving the good status of water bodies or marine resources, or to preventing their deterioration if they already have good status — such as protecting the environment from adverse effects of urban and industrial waste water discharges or contaminants.

- The transition to a circular economy. An economic activity can contribute substantially to the environmental objective of transitioning to a circular economy in several ways, for instance:

    - increase the durability, reparability, upgradability and reusability of products
    - reduce the use of resources through the design and choice of materials, facilitating repurposing, disassembly and deconstruction in the buildings and construction sector, in particular to reduce the use of building materials and promote the reuse of building materials
    - developing 'product-as-a-service' business models and circular value chains, with the aim of keeping products, components and materials at their highest utility and value for as long as possible
    - reduce food waste in the production, processing, manufacturing or distribution of food
    - minimise incineration and avoiding the use of waste in landfill sites

- Pollution prevention and control. An activity would meet this objective if it contributes substantially to pollution prevention and control — such as by preventing or reducing pollutant emissions into air, water or land (other than greenhouse gasses).

- The protection and restoration of biodiversity and ecosystems. As it explained in the Official Journal of the European Union: "an economic activity can contribute substantially to the environmental objective of the protection and restoration of biodiversity and ecosystems, in several ways, including by protecting, conserving or restoring biodiversity and ecosystems, and thereby enhancing ecosystem services". Such services are grouped into four categories, labelled as "provisioning services", such as the provisioning of food and water; regulating services, such as the control of climate and disease; supporting services, such as nutrient cycles and oxygen production; and cultural services, such as providing spiritual and recreational benefits (Sassoli, 2020).

In other words, it describes what can be considered "green" and what cannot. While the EU Taxonomy might be considered the world’s first "green list certification system," other markets, including Canada, Japan, Malaysia, Singapore, ASEAN at large and the United Kingdom, among others, are in different stages of consultation and evaluation to establish their own taxonomies (Gallagher, 2021).

The EU Taxonomy Compass provides a visual representation of the contents of the EU Taxonomy. It aims to make the contents of the EU Taxonomy easier to access for a variety of users. It enables users to check which activities are included in the EU Taxonomy (taxonomy-eligible activities), to which objectives they substantially contribute and what criteria they have to meet.

1.3 Financial Greenwashing

Taxonomy’s classification main aim is therefore to avoid greenwashing practice among companies from all kind of industries and markets.
Firms all over the world have realised the increasing customer’s sensibility on climate change issues and have grabbed the opportunity, not always in a completely transparent way. In some cases, instead of working seriously on reducing their environmental impact, some companies, organisations and institutions have simply greenwashed themselves, building up a communication strategy aimed at giving a deceptively green self-image. This phenomenon has reached such proportions that it has been given a special definition: greenwashing, which is in a sentence the practice of trying to make people believe that a company is doing more to adopt sustainability than it really is, often for public relations reasons.

The financial sector is no stranger to this practice neither, but at the same time the financial sector struggles to find the line between the fair promotion of ESG credentials and ESG washing.
Greenwashing could be hidden, behind the communicative emphasis on the only eco-sustainable project funded, while the same company funds other activities that are anything but green; for an asset manager, greenwashing could be making a small gesture towards

sustainability, such as by excluding an obvious candidate from portfolios like a weapons manufacturer, while not applying ESG factors to the rest of the portfolio. It could also be the case that if an asset manager has a very small proportion of its total assets under management engaged in sustainability like 1%, then the other 99% is not sustainable. (Robeco).
Investment managers may claim that their funds produce a positive impact on the environment when in fact they are not managed in a manner that is consistent with promoting such an impact; it is useful to differentiate between two types of greenwashing relating to investments that have the stated objective of improving climate impact.

- The first relates to investment in companies that practice greenwashing themselves. This investment can be made with or without knowledge of the problem. In the latter case, it often involves managers turning a blind eye to the greenwashing practices of companies that they do not want to exclude or underweight for financial reasons.

- The second one in addition to corporate greenwashing is related to portfolio greenwashing. As anticipated before, investment managers may try to make investors believe that their funds help to protect the environment when they actually do not.

Climate benchmarks, investment funds that define themselves as "green" display fine weighted average carbon intensity metrics and fine commitments to respecting carbon intensity compressions over time, and in the same spirit, fine portfolio temperatures that relate carbon emissions and emissions targets to climate outcomes. However, these metrics refer to a global portfolio and not to stock-by-stock allocation decisions.
This greenwashing at stock level is even more pronounced when providers of climate solutions are prepared to use data that look attractive but ultimately turn out to lack robustness; however while the subject of greenwashing is very present in portfolio decisions at stock level, it is also very present in the sector deviations observed in sector benchmarks. There is extensive discussion on the usefulness of divesting from the fossil-fuel sector or, following the same purpose but with different actions, investing in the alternative source of energy linked to the use of hydrogen which is quite often associate to the idea of energy revolution. The work on best practice in climate alignment recommends favouring intra-sector decarbonisation, but due to their construction rules, climate strategies and benchmarks may exhibit strong sector deviations by organising their decarbonisation through a reduction in the capital allocation to sectors with strong climate intensity. Since considerable investment is necessary to ensure electrification of the economy and decarbonisation of electricity, underfunding of this sector in climate-aligned benchmarks or strategies would constitute a form of greenwashing (Amenc, 2021).

1.4 The role of institutions and Governments

Governments, businesses and individuals are recognizing the potential consequences of global warming on the health and well-being of citizens and economies. There is increased consensus that actions needs to be taken to reduce the use of fossil fuels in transportation, industry, construction, agriculture and other sectors.

In recent times, the impact of our day-to-day lives on the environment has been the centre of attention. At the end of 2015 delegates from 195 countries attended the 21st Conference of the Parties to the United Nations Climate Change Conference; the meeting was part of a process dating back to the 1992 Earth Summit in Rio de Janeiro, Brazil, when countries initially joined the international treaty called the United Nations Framework Convention on Climate Change. In the lead-up to the Paris meeting, the United Nations tasked countries to submit plans detailing how they intended to reduce greenhouse gas emissions. Those plans were technically referred to as intended nationally determined contributions (INDCs) and they were the promoters to the main objectives set at the Paris Climate Conference (Cop21):

- Aim to keep global warming at 1.5 – 2.0 degrees C above pre-industrial levels.

- A universal legal agreement applicable to all with binding rules such as the obligation for developed countries to provide developing countries with financial support to enable them to implement the agreement.

- A fair and differentiated agreement that takes into account the level of development and the specific needs of particularly vulnerable countries, and includes a system of tracking national commitments, which is slightly flexible for developing countries.

- A sustainable and dynamic agreement with an “Action Agenda” aimed at implementing accelerated efforts to ensure more ambitious progress, above and beyond binding commitments.

- A financial component to guarantee international support for more vulnerable countries.

More than five years after the Paris conference, it can be said that not all the objectives set at the conference have been fully achieved; NDCs were inadequate to hold the world within the Paris temperature targets. The Paris agreement contained a ratchet mechanism by which countries would have to commit to new NCDs every five years, however it was not possible to meet in 2020 because of the pandemic.
The pandemic is the reason that has delayed by a year the next global meeting in Glasgow, where experts from all over the world will gather the 26th UN Climate Change Conference of the Parties (COP26).

Environmentally sustainable growth strengthened by renewable energy from naturally occurring resources, including: sunlight, wind, geothermal heat, tides and other sources, and increased energy efficiency can accomplish this goal. It will foster economic growth and development, while ensuring that nature continues to provide the resources and environmental services our society requires.
Attaining environmentally sustainable growth requires significant investments by the private and public sectors. Some industries will be negatively impacted, while others will benefit, and new industries will be created as a result of this paradigm shift in world economies.

Decisions need to be made by investment funds. Investors will necessitate to analyse and select companies that have the objective of providing solutions to attain climate change temperature objectives and sustainable growth. “Green” funds play a focal role in this scenario, since they have a large amount of capital to manage and invest, building portfolios of companies that to reach their objectives.

2 Overview of the European Union ESG market

The European Union (EU) is currently at the vanguard of environmental, social and governance measures. Europe is home to approximately 80% of all global ESG-themed funds. Of total assets under management in sustainable funds, the majority are currently

held by institutional investors, even though retail investors are increasing at a higher rate (OECD, 2020).
Given the growing demand in sustainable finance, those companies that score higher in ESG criteria will attract more investors in the long run. But how can investors objectively assess the ESG performance of a company?
Due to the booming demand, ESG investing has turned into a lucrative business. Some funds have been inflating their ESG performance to attract more investors, a concept known as greenwashing (Özgün, 2021).
Two areas of development in particular are likely to have widespread repercussions for businesses: newly implemented obligations for ESG disclosures and likely forthcoming mandatory human rights, environmental and governance due diligence.
Although ESG regulation is a hot topic around the globe as regulatory environments in countries like the United States, Japan, and Singapore continue to evolve, Europe is clearly leading the way.
SFDR (Sustainable Finance Disclosure Regulation), CSRD (Corporate Sustainability Reporting Directive), the green taxonomy — there is a veritable alphabet soup of regulation coming out of the EU this year, with the potential to dramatically change the landscape of sustainable investing in Europe.

In the UK, businesses have had to make disclosures relating to modern slavery and human trafficking since 2015 as per the Modern Slavery Act. The government aims to strengthen this legislation with respect to increased transparency in supply chains and their consultations are ongoing. The UK government has further declared its intention to introduce mandatory reporting of climate-related financial information by 2025 (Government, 2020).

In Germany, the parliament adopted the Corporate Due Diligence in Supply Chains Act in June 2021, marking a major shift from voluntary to mandatory human rights and environmental due diligence requirements for businesses. Further, the German government announced its new sustainable finance strategy in May 2021. The strategy is expected to involve ESG reporting requirements for companies to achieve greater transparency.

In France, the Financial Markets Authority (AMF) established the Climate and Sustainable Finance Commission in July 2019, which acts as a regulatory and supervisory body in matters related to sustainable finance. Additionally, the AMF announced in February 2021 that it will significantly increase its focus on ESG investing and scale up its scrutiny when issuing sustainable finance certificates (Segal, 2021).

Finally, the European Union is at the forefront of sustainable finance. As it is described in the first chapter, European Union firstly published the EU Taxonomy Regulation in the

Official Journal on 22 June 2020, establishing an objective system of classification to assess which economic activities can be considered environmentally sustainable. The EU Taxonomy Regulation will enter into effect at the beginning of 2022.

Furthermore, the EU introduced the SFDR effective from March 2021; this is a major milestone towards transparent ESG disclosures since under the SFDR, asset managers are required to comply with SFDR and also, they have to disclose their sustainability record and investment products will fall under three categories: dark green, light green and non-sustainable (Colaert, 2021). This categorization will be based on the ESG impact of investment funds.

The SFDR aims to create a structural change in financial markets by making sustainability reporting mandatory and will push investment firms marketing ESG funds to change the way they produce, sell and market products. Under SFDR, asset managers, pension funds and insurers must disclose how they consider ESG risks in their investment decisions.

Under SFDR, investment portfolios will have to consider everything from a firm's carbon footprint emissions to its board diversity and percentage of female employees, to water management and controversial weapon exposure of the companies in which they invest. For example, under SFDR, fund managers must assess the average ratio of female to male board members at a company. Based on an S&P Global analysis of 11,647 companies, women make up only 11.59% of board members.

2.1 Trend in Current ESG policies in the European financial market

The main trend as we go forward seems to be the alignment of ESG policy criteria. More and more investors are taking interest in ESG investment as a way to fulfil their investment needs. Climate change factors have been marketed for more than a decade, however, there are fewer companies still applying the Paris agreement than before.
Whereas, more detail later, ESG investment has grown and investors, asset managers and funds are getting keener on investments that reflect their values. These values are making companies more aware of the need for more sustainable and socially responsible businesses. What does emerge, is the need for more transparency (Segal, 2021). Companies can say they are implementing a policy, however it is not enough in order to gain an official recognition, they also need to demonstrate it.

It has been possible to establish a general uniformity of criteria for ESG policies amongst financial actors from the credit rating side, and consequently from the investment side. Companies looking for extra funding will therefore in turn look to comply with these criteria. Uniformity is seen as necessary to create comparability. Clearly, to be able to rank a group of companies according to a set of policies, the policy criteria needs to be similar if not the same among all companies. Recently there have been some new regulations taking effect that were established during the previous years.
As of March 2021 The Sustainable Finance Disclosure Regulation (SFDR) became effective. This regulation was introduced in an attempt to bring a level playing field amongst financial market participants. The SFDR requires asset manager and investors such as UCITS to disclose how ESG factors are incorporated at bot entity and product level.
Uniformity in ESG ratings is also of concern for ESMA in January 2021 they issued a paper soliciting the need for regulation in the ESG rating and assessment fields. They see the current ratings products for ESG are unregulated and unsupervised; the main bad consequences due to these facts could be that these factors may lead to greenwashing, capital misallocation or products mis-selling.
MSCI also mentions in their ESG trends for 2021 the need for new tools to help ESG investment approaches. This seems to be the feel of various market participants. There is a need to further establish a clear definition of ESG policies and how they are implemented.
MSCI has started rating companies based on ESG risks since 1999 even if their ESG and climate data tools go back to 1972. They currently serve over 1,700 clients globally, including asset managers, pension funds, banks, insurers, consultants, and advisors.

S&P has also been busy, in their ESG Sustainable Finance News Letter, September 2021, they state 95 ESG evaluations as of September 10. The rating evaluations covered 95 different companies from 22 different sectors worldwide. Below is a map showing the average score per geographical region. The highest evaluation was 90 out of 100, for a healthcare company in Europe, and the lowest 35 for a mining company in the Asia-Pacific.

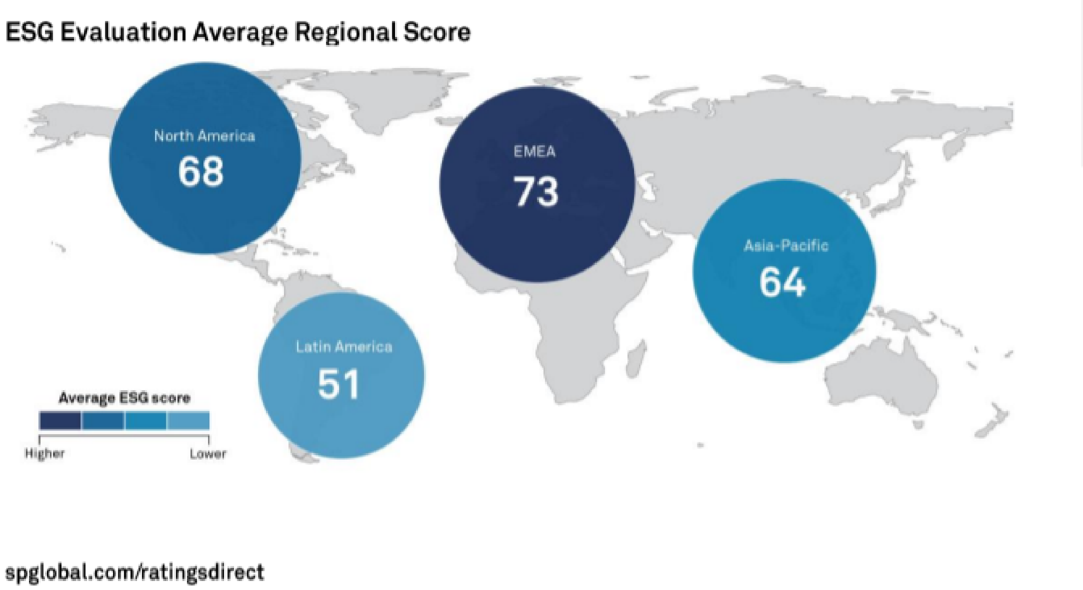


Exhibit 2

ESG Evaluation Average by Regions

Their report breaks down ESG evaluation into 3 separate profiles. Environmental, Social, and Governance. Scores are awarded for each, the highest E-profile score is 90, the lowest 35. The highest score went to a healthcare company in Europe, while the lowest to a mining company in the Asia-Pacific. This seems in line with expectations as mining companies have considerable more exposure to environmental risks than most other industries, and clearly more than healthcare.

The highest S-profile rating of 85 went to a real estate company in Europe, and the lowest score of 40 to a mining company in Latin America. The real estate sector offers lower social risk exposure as would be expected. Mining must face higher exposure to social risk given the challenges related to workforce continuity or community issues to mention a few.

Under the G-profile a utility networks company in the EMEA region took top spot with a score of 87. The lowest here going to a capital goods company in Latin America of just over 40.

Interest is growing, and the number of investors with continuously more interest in companies that practice ESG policies is growing. Together with this, so too grows the concern for greenwashing, as investors struggle to clearly determine which companies are effective with their ESG policies.

CSR and Impact Investing, which have been part of the investment process for longer than ESG, are now being incorporated in the ESG world. CSR still stands alone as part of corporate governance, however, CSR is clearly defined as a sub-section of Governance within ESG policies. While the concept of impact investing is now part of ESG investing, which incorporates more factors than impact investing.

2.2 The European fund universe

The European fund universe consists of approximately 33,000 funds for 2020 of which about 3,200 are sustainable funds. Europe's ESG fund growth may serve as a barometer for what to expect globally, Europe large-cap ESG funds grew 40% year on year and reached more than EUR 260 billions in net assets at the end of July 2021. Growth was spurred by both client demand and an unprecedented level of product development, with 330 ESG funds launched during the year through Q3 — more than 100 a quarter (Intelligence, 2021).

Morningstar Manager Research, published in 2021, reveals that while a majority of new fund offerings for 2020 in Europe were broad ESG funds, environmental focused funds accounted for 13% of new fund offerings (Alliance, 2020). Other products in the European market in 2020 embed sustainability-related themes including gender, smart cities, the ocean, and the SDGs. Climate-change-themed funds were among the best sellers in 2020, while even more funds divested from the highest-carbon emitters (MorningStar, 2021). This is evidence that investors continue to prepare for the risks and opportunities created by the transition to a low-carbon economy.

Green funds might invest in companies engaged in green transportation, alternative energy, and sustainable living. Green investing began in earnest in the 1990s after environmental disasters like the Exxon Valdez oil spill gained worldwide attention. USD 50 billions were invested in green funds in 2020, more than double the inflows of the previous year.

Specialists expect accelerated growth as ESG extends across asset classes and themes.

2.3 Defining and Sizing ESG Strategies

In order to have a quantitative idea of how sustainable investing is moving around Europe it is useful to take into consideration the EFAMA (European Fund and Asset Management Association) research. The aim of the analysis is to measure the size of European ESG market. The ESG practices employed by European asset managers can be broadly split into

- Firm-level frameworks
- Product-level strategies

Firm-level frameworks are applied on all or a large part of the portfolios managed by an asset management firm. This structure is composed of Exclusion criteria, ESG integration methodologies and voting and engagement policies as well.
Product-level strategies instead are more specific and apply only to individual funds or discretionary mandates, particularly through strategies such as exclusions, sustainability-themed or impact investments. The wide variety of approaches followed, and sometimes demonstrate the need to exercise particularly caution with process of quantifying the true size of the European ESG market. Considering the asset managers' fast pace of innovation in the development of new products and strategies for ESG investments, it is equally crucial that the definitions and ESG metrics ensure enough flexibility to support the industry's contribution to the financing of the desirable green transition. (EFAMA, 2020)

2.3.1 Firm-level ESG selection strategies

Firm-level ESG selection strategies essentially mean that asset managers make use of some form of ESG selection strategy in selecting all or a large part of their assets. This encapsulates a diverse array of selection strategies ranging from sector-based exclusions to fundamental ESG analysis that are part of the firm's valuation models. In Europe, a total of EUR 10.7 trillion of assets applied an ESG selection strategy; this represented 45% of the total assets under management (AuM) at the end of 2019 in the countries covered in the 2020 EFAMA research.

2.3.2 Firm-level: Exclusions

Exclusions prohibit certain types of investments from a firm, fund, or portfolio. This implies that investments are systematically avoided in businesses, sectors, countries, or behaviours on the basis of criteria laid down in the policy on sustainable investment, which go beyond legal and regulatory requirements (e.g., exclusion of anti-personnel mines and cluster munitions). A norms-based screening approach is a specific type of exclusionary strategy where certain criteria (e.g., international norms, human rights, labour standards) must be met for the investor to invest in the company. Exclusions are one of the most basic and most common forms of ESG selection strategy. 8 trillion EUR of assets are subject to firm-level exclusionary criteria, nearly a third of assets managed in Europe. Instead of excluding assets, some asset managers prefer to engage with issuers in order to achieve positive changes in corporate practices. Norms-based exclusions remain more common than sector-based exclusion strategies, especially among the largest firms. (EFAMA, 2020)

2.3.3 Product Level ESG Selection Strategies

ESG integration is the most common sustainable investment practice used at the product-level in Europe. 3.8 trillion EUR of assets are managed in this way, accounting for around 16% of total fund and mandate assets. Product-level ESG integration methodologies include both quantitative top-down screening techniques and fundamental analysis of issuers and are used across all asset classes, whether passively or actively managed.

2.4 Do ESG criteria bring advantages from the investment point of view?

There seems to be a positive correlation between ESG companies and funds invested. The chart below (Exhibit 3) published by MorningStar analysis on sustainable fund flows trend for the last five years (Morningstar, 2021) shows how sustainable fund investing had been on a flat growth pattern until the second quarter of 2019, and investment flows suddenly take-off in the second quarter of 2020, which is when the Covid-19 pandemic shocks the globe.

To be noted that, sustainable is often interchanged with ESG, and the policies defined by sustainable, which has been around longer than ESG, is incorporated within the criteria captured under environmental, social and governance. ESG has far wider boundaries and incorporates more factors than sustainability.

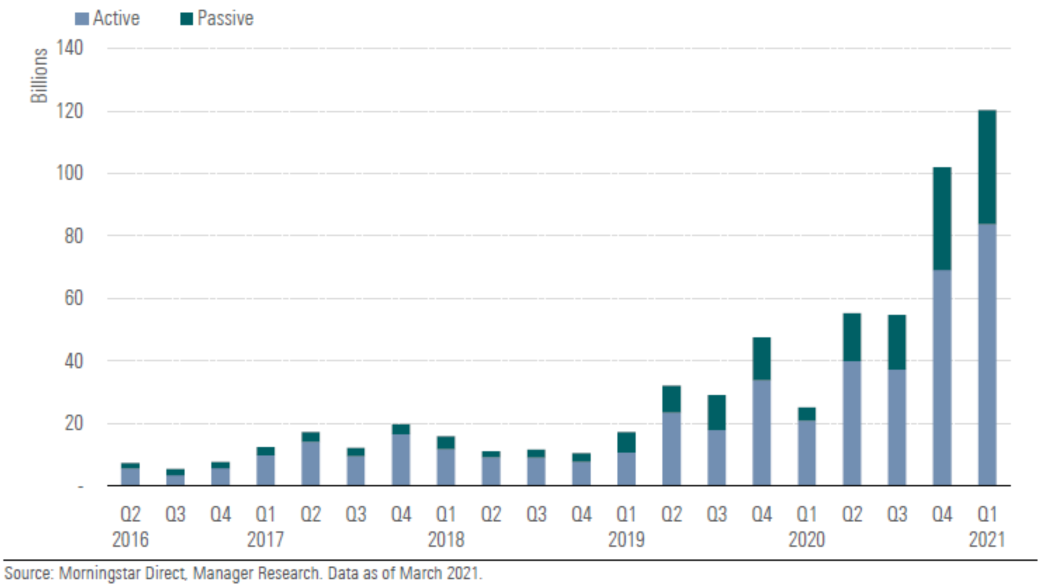


Exhibit 3

Quarterly European Sustainable Fund Flows in EUR billion

According to MorningStar European sustainable funds drew EUR 120 billion in the first quarter of 2021, an increase of 18% over the previous quarter and representing 51% of fund investments.

Not only are investments in ESG companies increasing they are also outpacing investments in regular companies for the main asset classes. As MorningStar reports, net inflows into conventional funds have been lower than into ESG funds. ESG inflows overtook conventional inflows for the first time in the first quarter of 2020, due to the health crisis conventional funds saw heavy outflows, while ESG funds achieved positive inflows.

The table below taken form the same Morningstar analysis on European sustainable fund investment flows shows a breakdown of fund investment by asset class, where it is worth to appreciate the actual figures of investment in Allocation, Equity and Fixed Incomes funds under both ESG and Conventional (Exhibit 4).

Exhibit 2 Sustainable Fund Flows Compared With Conventional Fund Flows (EUR Billion)

	Sustainable Funds				Conventional Funds				Overall Fund Universe
	Jan	Feb	Mar	1Q21	Jan	Feb	Mar	1Q21	1Q21
Allocation	4.8	5.4	5.7	16.0	0.7	2.7	7.7	11.1	27.1
Alternative	0.3	0.4	0.1	0.7	-0.1	2.3	-0.5	1.7	2.4
Convertibles	0.1	0.2	0.1	0.4	0.6	1.6	0.2	2.4	2.8
Equity	27.0	21.3	26.3	74.6	23.8	26.6	21.0	71.4	145.9
Fixed Income	6.5	13.1	8.4	28.0	22.4	12.3	-7.1	27.6	55.6
Miscellaneous	0.0	0.0	0.0	0.0	-0.2	-0.9	-1.0	-2.0	-2.1
Property	0.1	0.0	-0.1	0.0	0.5	0.6	0.6	1.7	1.7
	38.8	**40.3**	**40.5**	**119.6**	**47.8**	**45.1**	**21.0**	**113.8**	**233.5**

Source: Morningstar Direct, Manager Research. Data as of March 2021.

Exhibit 4

Sustainable Fund Flows Compared with Conventional Fund Flows in EUR billion

Most notably, the table shows that equity investments in ESG funds had inflows of EUR 74.6 billion compared to EUR 71.4 billion of conventional fund inflows. While fixed income saw inflows of EUR 28 billion compared to EUR 27.6 billion for conventional funds.

2.5 How do ESG Funds decide investment criteria?

The above question, on ESG investment criteria, opens up a multitude of possibilities. While the wider definition of ESG criteria is fairly standardized as we have seen above, the criteria used in investment selection is not so standardized.
Not all investors align with the same values, although some groups of investors may have similar criteria.
In practice, ESG due diligence typically starts with a standard list of issues that need to be considered for every deal, accordingly to this mind set the Major ESG criteria considered by green investors are:

Environmental

- Biodiversity and habitat
- Climate change

- Land contamination
- Energy consumption
- GHG emissions
- Materials
- Pollution
- Renewable energy
- Sustainable procurement
- Waste management
- Clean technology
- Green building/Smart growth
- Water use and conservation

Social:

- Community development
- Health and safety
- Human rights
- Inclusion and diversity
- Labour standards and working conditions
- Social enterprise partnering/community development
- Stakeholder relations

Governance:

- Anti-bribery and money laundering
- Cybersecurity
- Data protection and privacy
- Legal and regulatory fines
- Executive compensation
- Board diversity
- Anti-corruption policies
- Board independence
- Corporate political contributions

Globally, Investors are confident in the value of Task Force on Climate-Related Financial Disclosures (TFCD). As per E&Y analysis, asset managers reported on which of the following factors showed in the chart below are climate-related priorities (Exhibit 5).

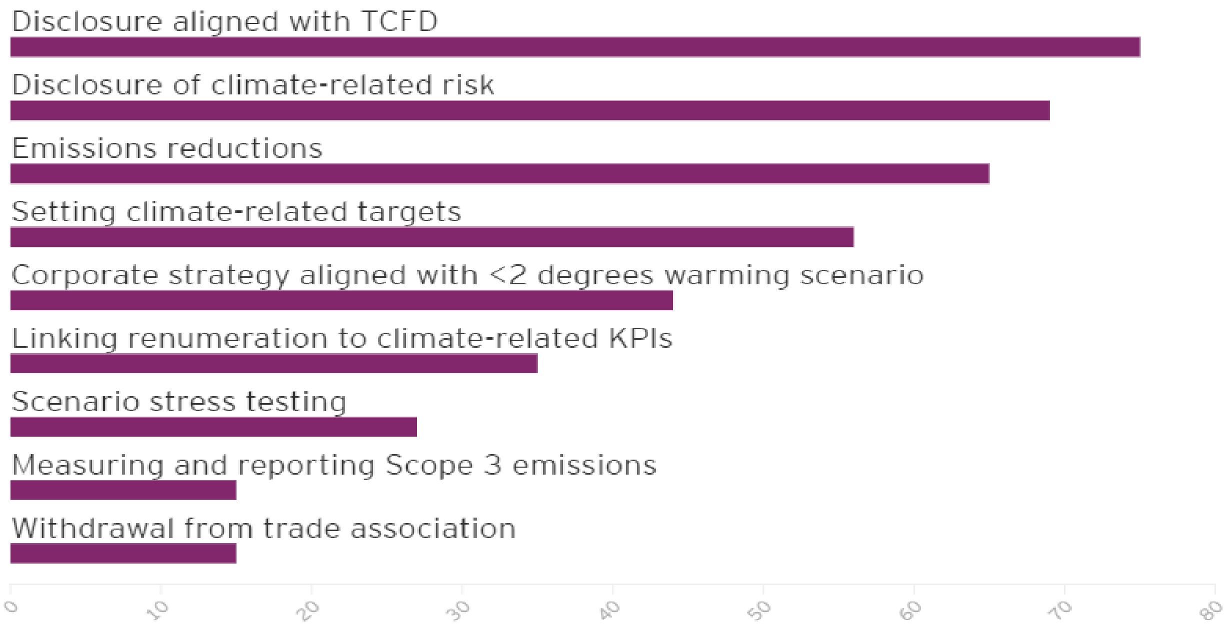


Exhibit 5

Factors with climate-related priorities assigned by Asset Managers (%).

A recent E&Y study published on 2021 asked investors to weigh in on which of the following are the most valuable sources for assessing a company’s ESG practices and performance (Exhibit 6).

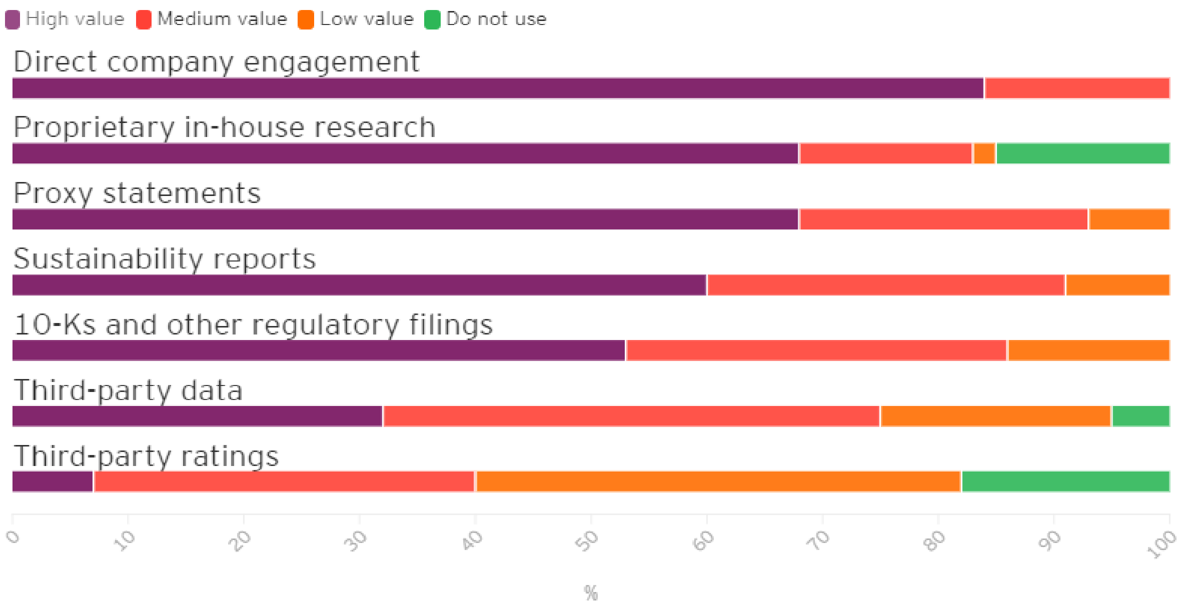


Exhibit 6

Most valuable sources for assessing company's ESG practice and performance

2.6 Investment Management Corporations decision making

Since not all values are aligned there may be differing criteria in investment selection when ESG risk is factored into the investment selection process.
Still, when ESG values are aligned, there may be a variation among investors as to which factors have the most importance. Some investors may place more importance on the environmental factors within ESG and leave social and governance factors to second place, or vice versa. Determining how an ESG fund builds up their portfolio depends greatly on the values defined by the fund, or its investors.

To investigate this matter further we will have a look at two of the largest global fund managers in the world: Blackrock & Vanguard.

2.6.1 Vanguard

Let's commence with a look at ESG investing from the point of view of a major global asset manager, Vanguard. The asset manager published an insightful paper: ESG, SRI, and impact investing: A primer for decision making. Although this is only one actor in the fund

management world, Vanguard has a global presence and currently manages USD 7.3 trillion worldwide. The size and outreach of this asset manager make its considerations meaningful and reflective of the ESG investment space. The paper is useful in understanding the investment process in light of ESG requirements.
As mentioned in the paper, ESG terminology is often mixed-up or confused with other factors such as climate change, SRI (Socially Responsible Investing), sustainable investing or impact investing. Although investor definition of ESG criteria seems to be more homogeneous today since the paper was written in August 2018, there does still seem to be some confusion in the use of terminology.
Vanguard sees portfolio screening occurring in two ways: Exclusionary and Inclusionary.
The former is a negative screening concept were companies are excluded or underweighted based on a set of ESG criteria. The latter only includes or overweighs companies based on a specific set of ESG criteria. As mentioned earlier each asset manager, investor or portfolio manager will have a specific set of ESG criteria which may be governed according to social values, religion or geographical location.
For example Vanguard currently has four exclusionary index ESG products. They chose this method as they notice that many clients simply do not want to hold securities in companies which are not aligned with their values. However, they also state the use of ESG criteria for active funds in portfolio selection. This process is termed ESG integration, and in this case the method they are using is inclusionary.
Breaking down the selection process Vanguard sees there are various approaches to investment selection. These may be based on a variety of ESG issues or perhaps a few only. How the ESG issues are defined may determine opportunities for investment even in industries which may initially seem outside of the ESG universe. In their paper they give the example of an investor concerned about the environmental impact of fossil fuels.
One approach could be to create an exclusionary list of companies with the highest carbon-dioxide emissions. For another investor with the same ESG issue they may be more concerned with the supply chain of fossil fuels.
Vanguard breaks down the decision making process in ESG investing as follows:

- Define the goals
- Evaluate options
- Decide on action
- Reassess periodically

2.6.2 BlackRock

Blackrock is the largest asset manager in the world with USD 9.5 trillion under management. Their lead role should be indicative as to what is occurring in the ESG investment space. As it can be seen there are some similarities between Vanguard's approach and Blackrock's one.

As Randall Smith explains in his article for "The Wall Street Juornal" BlackRock Inc. has vaulted from fourth to first place in socially responsible fund assets in the past eighteen months to September 2021 with a barrage of twenty-nine launches of mutual funds and exchange-traded funds (Smith, 2021).
BlackRock approach to ESG integration focuses on identifying financially material sustainability insights – those that it believes may impact the financial performance of clients' portfolios - and including those insights into the broader mix of traditional financial information used to manage those portfolios.

Delivering on ESG integration for BlackRock clients:

- Aladdin®, the core portfolio management and risk management platform, expands the ESG data available for making more informed investment decisions

- ESG risk analysis is now embedded in 100% of regular portfolio risk reviews

- BlackRock now publishes strategy-level ESG integration statements for products across the active investment platform.

Managing director for Global Head of ESG Integration Meaghan Muldoon firmly states that as of November 2020, all active portfolios and advisory strategies at BlackRock are fully ESG-integrated. This means that for the USD 2.7 trillion of actively managed AUM at the firm, BlackRock's portfolio managers are accountable for appropriately managing exposure to ESG risk and documenting how those considerations have affected investment decisions (Muldoon, 2020).
ESG considerations that are material will vary by client objectives, investment style, sector, and market trends. Sustainability measures help inform the due diligence, portfolio construction, and monitoring processes of active and alternatives platforms, as well as BlackRock approach to risk management.

For example, where BlackRock invests directly in real estate and infrastructure projects, ESG Integration includes a detailed review of social factors including those relating to the health and safety of employees, users, and local communities. Where applicable, BlackRock's Real Assets team reviews factors such as land rights and community impact and rights. Examples of the team's efforts include seeking informed consent for projects from local or indigenous communities where applicable, undertaking detailed reviews of land rights as part of investment due diligence, and aligning community and social engagement best practice with the IFC (International Finance Corporation) Performance Standards for several of the company's emerging market strategies. BlackRock's Real Assets team also regularly reviews and monitors onsite health and safety, in addition to wider community engagements and impacts.

For more than ten years CEO Larry Fink has elucidated the fact that BlackRock implements ESG criteria in its products and in the investment process in several ways. There is, of course, exclusion. This is historically the first step. The exclusion is simple, easy to understand, and suitable for a large investor base. This involves providing portfolio managers with tools and information to identify the risks and opportunities associated with portfolios; the constant improvement of investment processes and making investment decisions based on ESG information having a financial impact.

As an esteemed European financial magazine called Delano reports in one of their multiple articles regarding ESG integration in investments criteria: "BlackRock has many index funds and implementing qualitative criteria into index management is not straightforward. The giant uses all sources of ESG data in order to take an active risk compared to the benchmark to optimise the portfolio's exposure to companies that have a higher ESG rating while keeping characteristics that are very close to the benchmark in terms of expectations of returns and risks". (Fassone, 2021)

The reporter makes a very specific interview with a BlackRock's leading figure: Gisèle Duenas Leiva who is the company's sales director Belgium & head of retail Luxembourg.
She explains that the key is the data that makes it possible to objectively and materially measure the impact of ESG criteria in financial market in general. The quality of this data and its access are a real challenge. But there is a tendency to move towards quality data based on regulatory or professional standards that allow comparison and measurement.

There is another line of action, Marc Fassone adds: that of shareholder engagement. "BlackRock strategy is clearly to encourage the climate transition after companies in which its customers are also shareholders. In this scenario, BlackRock insists on the need to have access to as much data as possible and encourages the companies in which it has invested to publish more and more relevant data. As for example the possible plan to achieve the objectives of combating climate change. An independent team of management teams also establishes a direct dialogue with companies, a team that in 2020 met 440 companies listed worldwide and set the goal to reach 1,000 by the end of 2021”. (Fassone, 2021)

In April 2021, BlackRock has launched the Authorised Contractual Scheme (ACS) World ESG Insights Equity Fund, designed to simplify ESG investing by focusing on the factors that matter and can demonstrate materiality.

The fund is underpinned by BlackRock’s proprietary ESG assessment framework created to overweight companies BlackRock believes may benefit over time from a focus on capturing ESG risks and opportunities, while also aiming for at least 50% reduction in carbon intensity compared to the FTSE Developed Index.

The framework assesses ESG data from multiple sources for their materiality, aggregating them into five-teen proprietary sustainable descriptors that encompass ESG issues. These descriptors are mapped against a sector-specific materiality matrix to produce a score for each company in order to maximise the portfolio’s ESG profile. The five-teen descriptors are captured in the main three ESG themes. (BlackRock launches new World Environmental, Social and Governance (ESG) Insights Equity Fund, 2021)

2.6.2.1 Main pillars of BlackRock ESG integration

As it is steadily stated on the official document “BlackRock ESG Integration Statement”, which was effectively published on 2018 and recently revised: BlackRock structures ESG integration efforts around three main themes: investment processes, material insights and transparency: these pillars drive ESG integration, and the giant supports them by equipping employees with useful ESG data, tools, and education (BlacRock, 2018). The analysis goes through the three concept highlighted in the official document in order to give evidence of the main themes faced by the corporation about the recent ESG integration criteria adopted.

The first argument analysed is the Investment Process in which:

- ESG integration is a core part of the investment process, and as with all other components of the investment process, is the responsibility of the investment teams. In 2020, BlackRock raised the bar for how investment teams will accomplish this. All active funds and advisory strategies are expected to fully integrate ESG, meaning that:
    - each strategy has a description of how ESG fits into its investment process

- portfolio managers are accountable for managing exposure to material ESG risks
- investment teams are able to provide evidence of how ESG considerations inform investment decisions in each portfolio. BlackRock's Risk and Quantitative Analysis team (RQA) reviews ESG risk alongside traditional investment risks with the investment teams in regular portfolio reviews.

The second anchor mentioned that characterise the firm's ESG integration is the Material Insight;

as it is explained trough the statement this topic should be split into:

- Public market strategies for which BlackRock has dramatically expanded the ESG data available to its portfolio managers as part of the core portfolio management and risk management platform, Aladdin; more than one thousand key performance indicators are now available to portfolio managers in Aladdin from third-party data providers. T BlackRock's investors have now access to two broad third party data sets across core Aladdin tools and over ten unique ESG data providers across different parts of the research environment. This data ranges from broad ESG scores and rankings to indicators of physical climate risk, reputational risk or employee sentiment. In addition to third party data, the company has developed proprietary measurement tools to deepen investors' understanding of material ESG risks. One interesting tool is Carbon Beta tool, which is expressly designed to help investors to better understand the idea of energy transition; portfolio managers at BlackRock could exploit this tool in order to assess the impact of future carbon price scenarios in their investment portfolios.

- On the other hand for private market strategies, investment teams must construct or gather ESG data directly. In 2020, internal ESG Questionnaires were overhauled and updated, guidance documentation was created to ensure consistency and robustness in their application, and consistent formats were injected into Investment Committee papers. For private markets there was an increased focus on embedding management of ESG matters into contractual documentation.

The last topic highlighted is the Transparency concept:

“Investors at BlackRock believe well-managed companies balance business-relevant ESG issues alongside traditional financial objectives. Consistent with this expectation, BlackRock strives to provide market leading transparency for how it incorporates ESG in the investment products. The organization discloses ESG integration practices in fund documentation and disclose the firm’s approach to ESG integration through comparable industry relevant reporting frameworks, such as the Principles for Responsible Investment (PRI). For greatest transparency, these reports are publicly available on BlackRock website. With respect to transparency in all its products, the company wants investors to be able to access clear information on the sustainability risks associated with their investments. For example, BlackRock provides data on its website for all iShares funds, displaying ESG scores and carbon footprints, among other measurements, where available. In 2021 this practice was extended to BlackRock mutual funds, including adding disclosures on exposure to sustainability characteristics”. (BlackRock)

2.6.2.2 Screening tools used by Blackrock ESG Multi-Asset Fund

The ESG Multi-Asset Fund follows an asset allocation policy that seeks to maximise total return in a manner consistent with the principles of ESG-focused investing. The Fund invests globally in the full spectrum of permitted investments including equities, fixed income transferable securities, units of undertakings for collective investment, cash, deposits and money market instruments (Fund)

For the Sustainability Characteristics and Business Involvement metrics, Blackrock uses the MSCI methodology, as follows:

- ESG Ratings
- Index Carbon Footprint Metrics
- Business Involvement Screening Research
- ESG Screened Index Methodology
- ESG Controversies.

MSCI ESG Rating is designed to measure a company's resilience to long-term, industry material environmental, social and governance (ESG) risks and opportunities; externalities can vary based on industry and company, MSCI ESG Fund Ratings is designed to provide critical fund-level ESG transparency to support efforts to better understand and measure the ESG characteristics of portfolios, with an intuitive AAA (leader)-CCC (laggard) rating and a diverse set of ESG exposure categories (MSCI).

MSCI ESG Ratings are leveraged for over 8,500 companies, which means approximately 14,000 total issuers including subsidiaries, and more than 680,000 equity and fixed income securities globally to create ESG scores and metrics for approximately 53,000 multi-asset class Mutual Funds and ETFs globally (MSCI).

The MSCI ESG Fund Ratings are created to offer investors greater insights into the ESG characteristics of funds and ETFs, as well as provide additional information with respect to ESG fund research, product selection, portfolio construction and portfolio reporting processes across asset classes.

To facilitate customization, MSCI offers a diverse set of approximately two hundred metrics that can be used to evaluate funds on ESG risks, exposure to sustainable impact themes and values-oriented issues that assure a very specific level of evaluation for each customers; below picture collects some of the most important criteria used by MSCI in order to perform the ESG ratings (Exhibit 7):

Sustainable impact

Overall
- Sustainable impact themes (%)

Environmental
- Clean tech companies (%)
- Alternative energy (%)
- Energy efficiency (%)
- Green building (%)
- Pollution prevention (%)
- Sustainable water (%)

Social
- Social impact companies (%)
- Affordable housing (%)
- Education services (%)
- Nutritious food (%)
- Health care (%)
- Sanitation products (%)
- Social finance (%)

Values alignment

Controversies
- Severe environmental controversies (%)
- Severe labor controversies (%)
- Severe customer controversies (%)
- Severe human rights and community controversies (%)
- Severe governance controversies (%)

International norms standards
- UN global compact compliance violation (%)
- UN global compact compliance watch list (%)
- Human rights norms violation (%)
- Human rights norms watch list (%)
- Labor norms violation (%)
- Labor norms watch list(%)

Business involvement
- Catholic values flag (%)
- Islamic values flag (%)
- Sri exclusion criteria (%)
- Adult entertainment (%)
- Alcohol (%)
- Gambling (%)
- Genetic engineering - GMO (%)
- Nuclear power (%)
- Predatory lending (%)
- Tobacco (%)
- Controversial weapons (%)
- Weapons (%)

Risk

Scores & ranking
- Overall fund esg quality score (0-10)
- Fund quality score peer group percentile (0-100)
- Fund quality score global percentile (0-100)
- Environmental score (0-10)
- Social score (0-10)
- Governance score (0-10)
- ESG coverage (%)
- ESG leaders (%)
- ESG laggard (%)
- ESG average (%)
- ESG trend positive (%)
- ESG trend stable (%)

Environmental risks
- Carbon footprint
- Fossil fuel reserves (%)
- Water exposure (%)
- Water - high risk bus. Segment (%)
- Water - high risk geo (%)

Governance risks
- Board flag (%)
- Board independence (%)
- No female directors (%)
- Pay flag (%)
- Ownership & control flag (%)
- Accounting flag (%)

Exhibit 7

ESG metrics from MSCI ESG Research

MSCI reports the weighted average carbon intensity of over 15,000 indexes for investors who are looking to understand, measure and manage climate risk in their portfolios. The low carbon indexes aim to manage climate risk by meaningfully reducing the carbon exposure while maintaining a very low tracking error relative to the parent index.

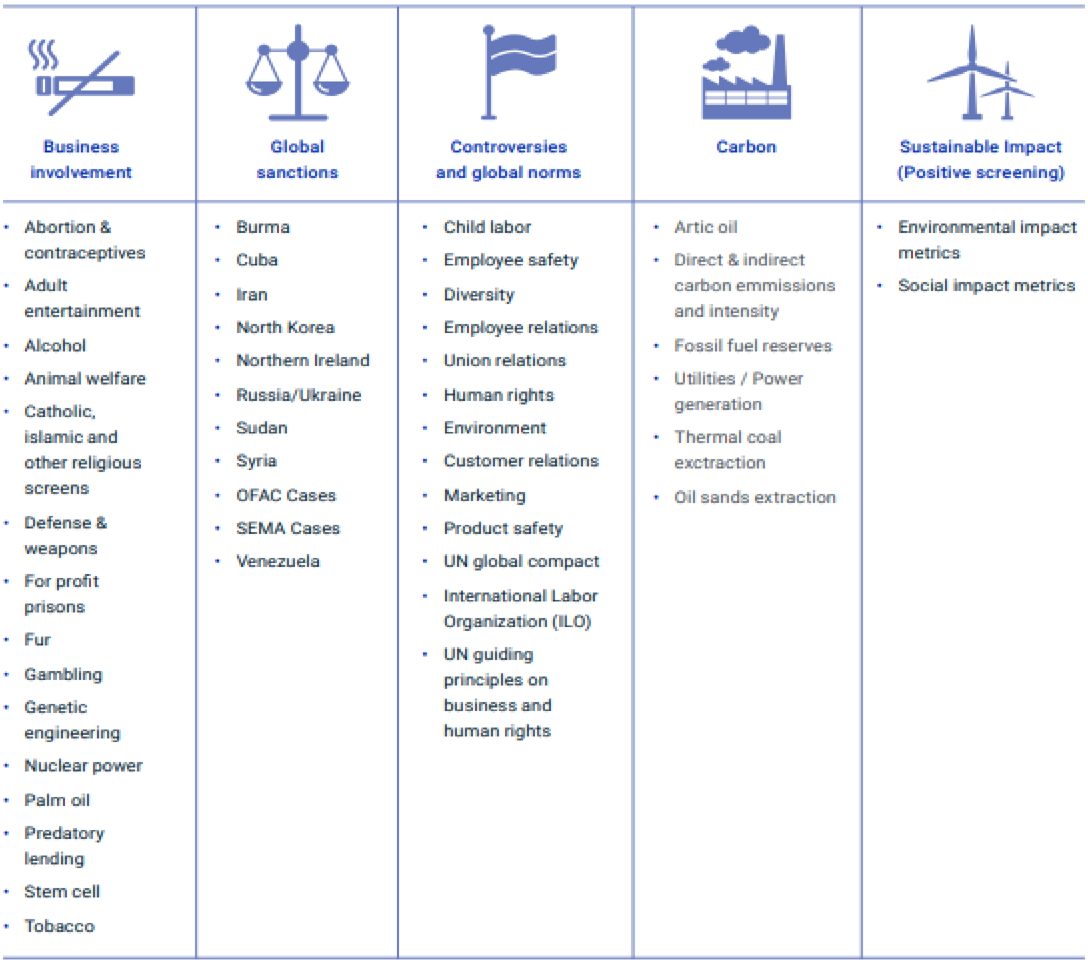
Since companies with higher carbon intensity are likely to face more exposure to carbon related market and regulatory risks, this metric indicates a portfolio's exposure to potential climate change-related risks relative to other portfolios or a benchmark. Agnostic to ownership share, it also facilitates comparison with non-equity asset classes.

2.6.2.3 MSCI ESG Business Involvement Screening Research

This is a screening service that enables institutional investors to manage ESG standards and restrictions reliably and efficiently (RESEARCH). Managers, advisors and asset owners can access screening research through the online MSCI ESG Manager platform or a data feed to satisfy client investment guidelines, implement client mandates, and to manage potential ESG portfolio risks.

Business Involvement metrics can help investors gain a more comprehensive view of specific activities in which a fund may be exposed through its investments.

MSCI ESG Business Involvement Screening Research covers the following factors listed in the table below shown in the business research document (Exhibit 8):



Business involvement	Global sanctions	Controversies and global norms	Carbon	Sustainable Impact (Positive screening)
Abortion & contraceptives	Burma	Child labor	Artic oil	Environmental impact metrics
Adult entertainment	Cuba	Employee safety	Direct & indirect carbon emmissions and intensity	Social impact metrics
Alcohol	Iran	Diversity	Fossil fuel reserves	
Animal welfare	North Korea	Employee relations	Utilities / Power generation	
Catholic, islamic and other religious screens	Northern Ireland	Union relations	Thermal coal exctraction	
Defense & weapons	Russia/Ukraine	Human rights	Oil sands extraction	
For profit prisons	Sudan	Environment		
Fur	Syria	Customer relations		
Gambling	OFAC Cases	Marketing		
Genetic engineering	SEMA Cases	Product safety		
Nuclear power	Venezuela	UN global compact		
Palm oil		International Labor Organization (ILO)		
Predatory lending		UN guiding principles on business and human rights		
Stem cell				
Tobacco				

Exhibit 8

Business Involvement Screening Research factors

As it is clearly stated by the company, Business Involvement metrics are not directly correlated with the ESG strategy of the fund and they are not indicative of a fund's investment objective.
BlackRock business involvement exposures as shown above for Thermal Coal and Oil Sands are calculated and reported for companies that generate more than 5% of revenue from thermal coal or oil sands as defined by MSCI ESG Research. For the exposure to companies that generate any revenue from thermal coal or oil sands (at a 0% revenue threshold), as defined by MSCI ESG Research, it is as follows: Thermal Coal 0.00% and for Oil Sands 0.00%.

Business Involvement metrics are calculated by BlackRock using data from MSCI ESG Research which provides a profile of each company's specific business involvement. BlackRock leverages this data to provide a summed-up view across holdings and translates it to a fund's market value exposure to the listed Business Involvement areas above.

2.6.2.4 ESG Screened Index Methodology

The MSCI ESG Screened Indexes which is the overall appellative that includes many underlying titles like MSCI EMU ESG Screened Index, MSCI USA ESG Screened Index, MSCI Europe ESG Screened Index, MSCI World ESG Screened Index, MSCI Japan ESG Screened Index and the MSCI Emerging Markets; the MSCI ESG Screened Indexes therefore use MSCI ESG Business Involvement Screening Research to identify companies that are involved in the following business activities. Entities that meet the business involvement criteria are excluded from the MSCI ESG Screened Indexes (MSCI, 2018):

- Controversial Weapons
- Nuclear Weapons
- Civilian Firearms
- Tobacco
- Thermal Coal
- Oil Sands

In addition to the above, companies that fail to comply with the United Nations Global Compact Principles are also excluded from the MSCI ESG Screened Indexes.

MSCI ESG Controversies instead allows institutional investors to analyse a company's significant social, environmental, and governance impacts by identifying company involvement in major ESG controversies, adherence to international norms and principles, and assessing company performance with respect to these norms and principles.

The MSCI ESG Controversies approach is stakeholder driven and covers the following five categories of stakeholder impact, organized against twenty-eight indicators (RESEARCH) grouped by the five indicators listed in the table below (Exhibit 9):

Environment	Human rights & community	Labor rights & supply chain	Customers	Governance
• Biodiversity & land use • Toxic emissions & waste • Energy & climate change • Water stress • Operational waste (Non-hazardous) • Supply chain management • Other	• Impact on local communities • Human rights concerns • Civil liberties • Other	• Labor management relations • Health & safety • Collective bargaining & unions • Discrimination & workforce diversity • Child labor • Supply chain labor standards • Other	• Product safety & quality • Anticompetitive practices • Customer relations • Privacy & data security • Marketing & advertising • Other	• Bribery & fraud • Governance structures • Controversial investments • Other

Exhibit 9

MSCI ESG Controversies Coverage - Stakeholder 'Pillars' and 'Indicators'

Monitor compliance with global norms consists in a set of checks performed in order to establish the adequacy of the company the stakeholders' impact defined in the above table:

- Identify news-based controversies linked to specific global norms and conventions
- Identify companies which fail a specific set of global norms
- Identify Watchlist companies for monitoring purposes
- Use detailed reports to support engagement activities

Once analysis have been completed, companies would face three possible outcomes:

Fail: The company is implicated in one or more controversy cases where there are credible correlations that the company or its management inflicted serious large-scale harm in violation of global norms.

Watch list: The company is implicated in one or more controversy cases that are serious and warrant ongoing monitoring but, based on formal information available to the date in which evaluations are performed, does not constitute a major wrongdoing of global norms according to the MSCI methodology.

Pass: The company has not been implicated in any controversy case constituting a major breach of global norms within the last three years according to the MSCI methodology.

2.6.2.5 BlackRock materiality framework

If *material insights* are the "WHAT" of ESG integration, *investment process* is the "HOW" (Muldoon, 2020). BlackRock believes that how well ESG integration is aligned and embedded in an investment process is perhaps the most important indicator of how meaningful a firm's commitment to ESG integration will be.

A strong ESG integration investment process will focus on both alpha generation and ESG risk management — with appropriate leadership, alignment to investment conviction, investment tools and governance to support each; it is furthermore crucial to analyse what these two aspects concretely represent:

- *Alpha generation* is the responsibility of active investment teams, and identifying, testing and integrating material sustainability related insights as a source of alpha is no different. Because the challenges and opportunities of this process will vary widely by asset class, investment style, geography and investment objective, building local expertise in each investment team is essential.

- *Risk management* is embedded in the investment process with the portfolio manager as the first line of defence. Dedicated risk managers help identify, review and engage to address sources of risk to long-term portfolio value. In active strategies, portfolio managers will partner with an investment risk manager to better partner with portfolio managers to understand exposure to material ESG risk. For both active and index strategies, an investment stewardship team can engage with portfolio companies on material ESG considerations.

A key principle of BlackRock's ESG integration program is that all investment professionals are responsible for ensuring that material sustainability-related information is appropriately identified and considered in BlackRock's investment practices.

How sustainability considerations are sourced, assessed and incorporated will vary with a client's portfolio objective, investment style and asset class – but all active investment teams follow the same principles in their approach to ESG integration: this includes regularly reviewing exposure to ESG risks, using a breadth of sustainability-related data and analytics to develop investment-relevant insights, and providing transparency around how sustainability-related information informs portfolio management practices. In index products– where the investment objective is to replicate a specified benchmark - ESG integration is achieved through stewardship and engagement practices and transparent reporting of sustainability characteristics (BlackRock, 2021).

2.7 What about Europe

It is worth to have a look at two of the leading asset managers in Europe also. The research focuses at Europe's largest asset manager by AUM Amundi, and a well-known brand such as AXA Investment Management. Amundi ranks within the top-10 worldwide with EUR 1.794 trillion of assets under management, while AXA IM manages EUR 866 billion in assets.
Both asset managers are representative of the global scene in the industry, and they should reflect on the trend in Europe given their size. What it is worth to highlight from the literature is a considerable amount of similarity between these transatlantic peers.
AXA IM asset manager has a clear and declared focus on ESG criteria and it is evident even from the declaration of intent "Our Progress on Our Road to Net Zero" (Corporate) with EUR 137 billion in assets on course to reach net zero by 2050. They also have EUR 568 billion in ESG-integrated, sustainable or impact assets. Again it is possible to notice a certain amount of overlapping in language, as sustainable and impact are given a different category to ESG. AXA IM states in its Responsible Investment (RI) Policy that it is integrating ESG or RI policies progressively across all assets. There is a minimum requirement for ESG criteria across all investments and It focuses on investing into companies that have implemented best practices regarding the management of their environmental impacts, governance and social practice. (PARIS, 2021)
The RI document shows also how AXA IM uses a top-down approach in ESG implantation and integration. ESG criteria is incorporated already at management board level with two committees that report on ESG policy and strategy. Furthermore the asset manager has exclusion criteria across all investments. Certain strong ESG risks are monitored

systematically, such as controversial weapons, palm oil or climate risk. Specifically for ESG funds, extra screening is applied. For example, companies that operate in the tobacco industry or have low ESG scores.
Countries which do not comply with minimum ESG or RI criteria are also excluded from investments. AXA Investment Manager declares in the Responsible Investing Standard Policy on September 2021, that they avoid countries that have the worst form of human rights violations, they use three rankings:

- Freedom House (modern slavery)
- Walk Free Foundation (Slavery Index)
- Child labour from Unesco data.

2.8 2020 sustainability actions towards building sustainable portfolios

BlackRock demonstrates to the global financial market that it really does play a leading role in sustainable investments, it is interesting to analyse the main points that the American multinational corporation decided to share with its clients during the last year, in order to increase the clients' awareness on the sustainability in finance in general:

- Doubling ESG ETFs (BlackRock, 2020)
    - BlackRock has added 51 new ESG index offerings to reach 141 globally, more than a 50% increase in the total ESG index solutions line-up – on its way to a multi-year goal of 150.
    - The company further simplified its line-up by creating three distinct suites of sustainable ETFs, one that screens out certain sectors or companies, one that enables clients to balance improved ESG scores while optimizing for close tracking to market-cap indexes, and one that helps clients prioritize higher-rated ESG rated companies while extensively screening out controversial activities.

- Engaging with index providers to expand sustainable indexes
    - The company worked with 11 providers to launch sustainable versions of flagship indexes, including three new ESG Screened funds with S&P, and working with FTSE Russell and Markit to create sustainability-integrated alternatives of standard benchmarks.
- Expanding sustainable cash strategies
    - The suite of environmentally focused cash strategies added two new solutions, bringing the global total to six. Managed sustainable cash assets grew nearly 100% to more than US 14.5 billion in the past year.
- Creating sustainable active strategies
    - BlackRock more than doubled its platform of active sustainable products, with 40 new solutions in 2020, taking the global total to seventy-one strategies across equity, fixed income and alternatives. This includes six new Active Equity Impact strategies for institutional and retail clients in select markets, including the US, Canada and the other macro-regions APAC, EMEA and LATAM.
- Private markets
    - A BlackRock fund raised USD 5.1 billion designed to invest client capital in infrastructure assets that support the global energy green transition, like natural gas and renewables sources of energy.
    - The company invested client capital in eighteen onshore wind projects all around Europe and built the largest ever floating solar project in Taiwan, which has helped provide land for agriculture and local housing.

ESG integration does not change the BlackRock's investment objective or constrain the Investment Manager's investable universe and does not mean that an ESG investment strategy or exclusionary screens has been or will be adopted by the company. Similarly, ESG integration does not determine the extent to which the company may be impacted by sustainability risks

3 Funds' composition

Focusing the analysis on the construction of sustainable investment portfolios by the investment funds described in the previous chapter, we mention two well-known funds in the global financial market:

- BlackRock ESG Capital Allocation Trust
- Vanguard Global ESG Select Stock Fund

BlackRock ESG Capital Allocation Trust is a newly-organized, non-diversified, closed-end management investment company with no operating history. The multi-assets investment fund's strategy is mainly focused on equity and debt securities, at least 80% of which will be expected to meet specified environmental, social and governance criteria. At this time not all informations have been shared by the American corporation, details on the individual holdings that make up the fund are not available, as the fund has recently been launched; what is clearly evident is that ESG Capital Allocation Trust (ECAT) is one of the largest ESG fund in the global market and has the right stuff to be the leader in the sector within few years. As it is described by Artemis, public data regarding the size of the fund highlight how big a fund strategy BlackRock's ESG Capital Allocation Trust could be after its initial fund raising closes. Furthermore "the investment giant is targeting the sale of at least enough shares in the fund to raise just over USD 2 billion, but if underwriters over-allotments are taken in full, the strategy will have roughly USD 2.34 billion of assets to deploy into ESG appropriate fixed-income securities". (Evans, 2021)

3.1 VANGUARD GLOBAL ESG SELECT (VEIGX US)

Literature is quite more accessible on the second ESG fund analysed: the "Vanguard Global ESG Select Stock Fund Investor Shares" (VEIGX).

In March 2019, Vanguard filed for the launch of its first actively managed ESG fund, Vanguard Global ESG Select Stock to be run by Wellington Management, a famous investment and asset management company which is a Vanguard subadvisor that manage more than USD 350 billion in various mandates for the firm (Hale, 2019).

Unlike other ESG funds from Vanguard, VEIGX is an actively managed mutual fund which invests in US and international stocks; The fund seeks to invest in global mid- and large-cap companies with high financial productivity and leading environmental, social, and governance practices.

An interesting aspect related to this fund according to Vanguard's prospect is that the fund strategy does not require it to exclude any company, industry, or country due to controversial business activities or low ESG ratings. In more simple words it means that Vanguard's fund may hold companies that currently do not perform high ESG ratings from the environmental point of view because they could have high carbon emissions but, at the same time those companies are on the way of a fully transition from fossil fuels to renewables. This concept is due to the fact that Vanguard takes a more holistic view of corporate responsibility, the stewardship, rather than focusing exclusively on ESG factors.
As it is explained in the prospectus, Vanguard conducts detailed analysis on each company that could potentially be part of the portfolio, evaluating the sustainability of financial returns, its history of capital allocation, its ESG priorities, its aptitude and attitude towards engagement, and its desire to pursue best-in-class stewardship.

At least 80% of VEIGX assets should be invested in stocks of companies that meet the fund's advisor ESG criteria (Fernando, 2021). For instance, MSCI ESG rating analysed that the fund's weighted average percentage of independent board of directors is 82.8%, and its weighted average percentage of women on boards is 34.9%, as it is described by the two graphs below (Exhibit 10).

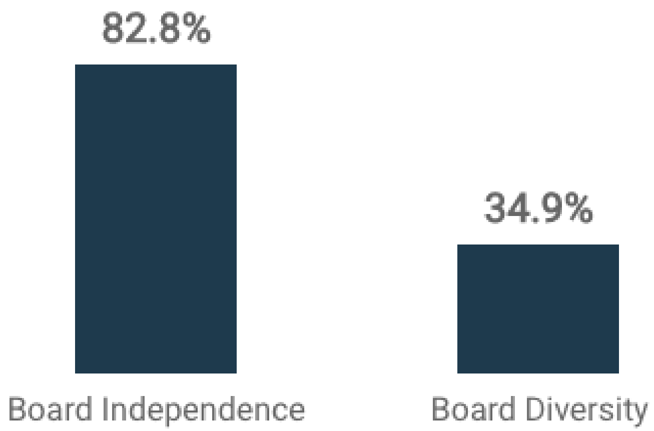


Exhibit 10

Corporate Governance data for Vanguard's fund

The total Market value of the fund is approximately USD 638 million split in holdings that make up the fund.
The table below shows the thirty-eight companies that currently compose the Vanguard Global ESG Select Stock Fund. The "weight" field in the second column reveals how much

Vanguard has invested in terms of company's outstanding shares multiplied by its current market price.

Company	***% Weight***	$S_{outstanding}$	$P_{current}$	ESG_{score}
ACCENTURE PLC-CL A	2,39	47823	319,9	A
AIA GROUP LTD	2,63	1451200	89,9	AA
ATLAS COPCO AB-A SHS	1,75	183561	532,2	AA
AUTOMATIC DATA PROCESSING	2,69	85982	199,9	AAA
B3 SA-BRASIL BOLSA BALCAO	1,80	4927200	12,7	A
BANK OF NOVA SCOTIA	2,75	284967	77,5	AAA
BAXTER INTERNATIONAL INC	1,96	155340	80,4	BBB
BCE INC	2,72	347387	63,4	BBB
CISCO SYSTEMS INC	3,21	376306	54,4	AA
COLGATE-PALMOLIVE CO	2,78	234531	75,5	AA
COMPASS GROUP PLC	2,89	899599	1524	NA
DBS GROUP HOLDINGS LTD	3,56	1016687	30,3	AA
DEERE & CO	1,82	34661	335	A
DIAGEO PLC	2,87	376539	3606	AAA
ECOLAB INC	2,01	61428	208,6	AAA
HOME DEPOT INC	3,09	60056	328,6	AA
IBERDROLA SA	2,03	1288400	8,7	AAA
INDUSTRIA DE DISENO TEXTIL	3,18	550430	31,8	AAA
ING GROEP NV	3,49	1531894	12,6	AA
KONINKLIJKE DSM NV	2,35	74931	172,7	AAA
MERCK & CO. INC.	3,48	295535	75,1	A
MICHELIN (CGDE)	3,37	139702	132,8	AAA
MICROSOFT CORP	5,69	128812	281,9	AAA
MITSUBISHI UFJ FINANCIAL GRO	2,68	2903800	657,9	A
NATIONAL GRID PLC	2,62	1404206	884,6	AAA
NORTHERN TRUST CORP	2,93	173409	107,8	AA
NOVARTIS AG-REG	2,37	183744	76,8	A
PROGRESSIVE CORP	2,40	169847	90,4	BBB
PROLOGIS INC	2,08	105804	125	BBB
RECRUIT HOLDINGS CO LTD	2,38	248100	6832	A
SCHNEIDER ELECTRIC SE	2,39	91339	143,9	AAA
STARBUCKS CORP	2,72	157468	110,3	BBB
TAIWAN SEMICONDUCTOR MANUFAC	2,60	796000	580	AAA
TEXAS INSTRUMENTS INC	2,78	92405	192,2	AAA
TRANE TECHNOLOGIES PLC	1,38	50985	172,6	AAA
VESTAS WIND SYSTEMS A/S	1,09	172809	257,4	AAA
VISA INC-CLASS A SHARES	3,55	101689	222,5	A
WOLTERS KLUWER	1,98	119004	91,5	AAA

ESG scores reported in the table above for each fund's holdings are taken from MSCI Fund Rating platform.

The Vanguard Global ESG Select's overall score is AAA which implies, as discussed in the previous chapter that the majority of the fund's holdings report an evaluation greater than AA.

Microsoft Corporation represents the holding with the heaviest capital investment given by the fund; the multinational firm leader in software and services industry indeed shows high scores in most of ESG factors taken into consideration by MSCI in order to get the overall score. The picture below (Exhibit 11) shows how Microsoft compares to industry peers:

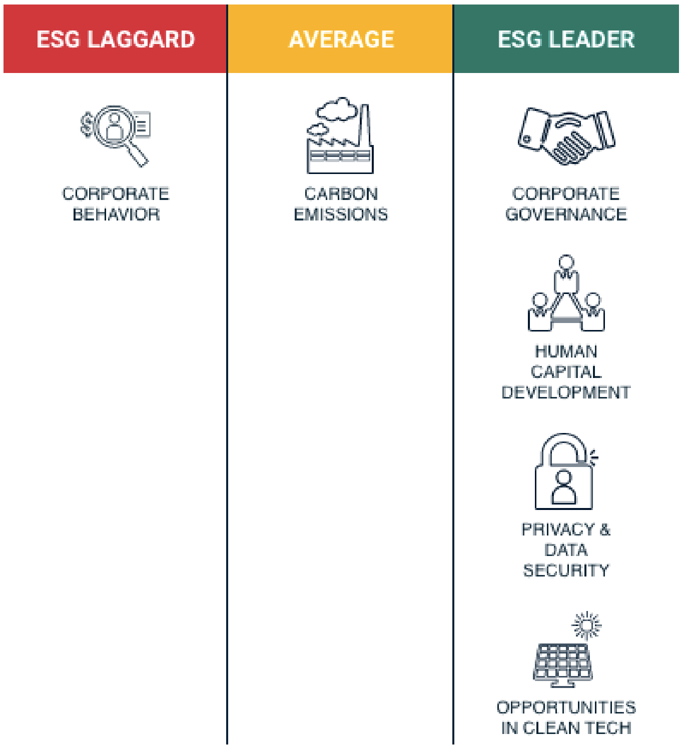


Exhibit 11

Microsoft ESG factor evaluation compared to industry peers

As it can be seen the american company is leader in the most of ESG relevant factors but the most significant aspect of the firm is that it guarantees a progressive improvement of the main sustainable aspects

4 Conclusion

The paper reports recent information on the impact of ESG factors on business decisions made by the world's largest investment funds.
What has emerged from the analysis of the literature on ESG criteria used in the financial market is that Europe, as of recent years, is definitely the promoter and focal point of sustainable finance.
The commitment of European institutions is mainly directed towards the publication of official documents and certifications that can be useful to financial actors in order to undertake the path of sustainable finance by applying ESG criteria in detail, without grey areas; data have no value unless they are stored, secured and analysed so there is no other way to incentivise firms, which play in all kind of markets, to start providing consistency data regarding sustainable operations developed.

ESG seems a field that has just been sown and where the crops are only beginning to blossom. To be less paradoxical, interest in ESG criteria for investment decisions has only relatively recently started to gain traction.
As it has mainly analysed in the second chapter of the paper, the definition of ESG criteria seems to be fairly homogeneous, although not completely standardised. Data source and quality collection may, however, represent hurdles in some cases. Data and sources also seem to represent less standardization, furthermore there is also a fair amount of concern of greenwashing.
It has been seen that investment processes may have similarities among asset managers as two of the largest corporation share similar procedures.
Vanguard Global ESG Select Stock Fund (VEIGX) is one of the most relevant ESG fund in the global financial market with an overall score of AAA. ESG factors play a significant role in the holdings portfolio's making procedures as it can be seen from each company's ESG score.
However ESG funds represent a quite young financial tool and not every investment detail have been released yet.
The transition to the statement of clear quantitative goals regarding sustainability finds a shared consensus between all actors playing in within the global financial market: companies, investment fund and regulators

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