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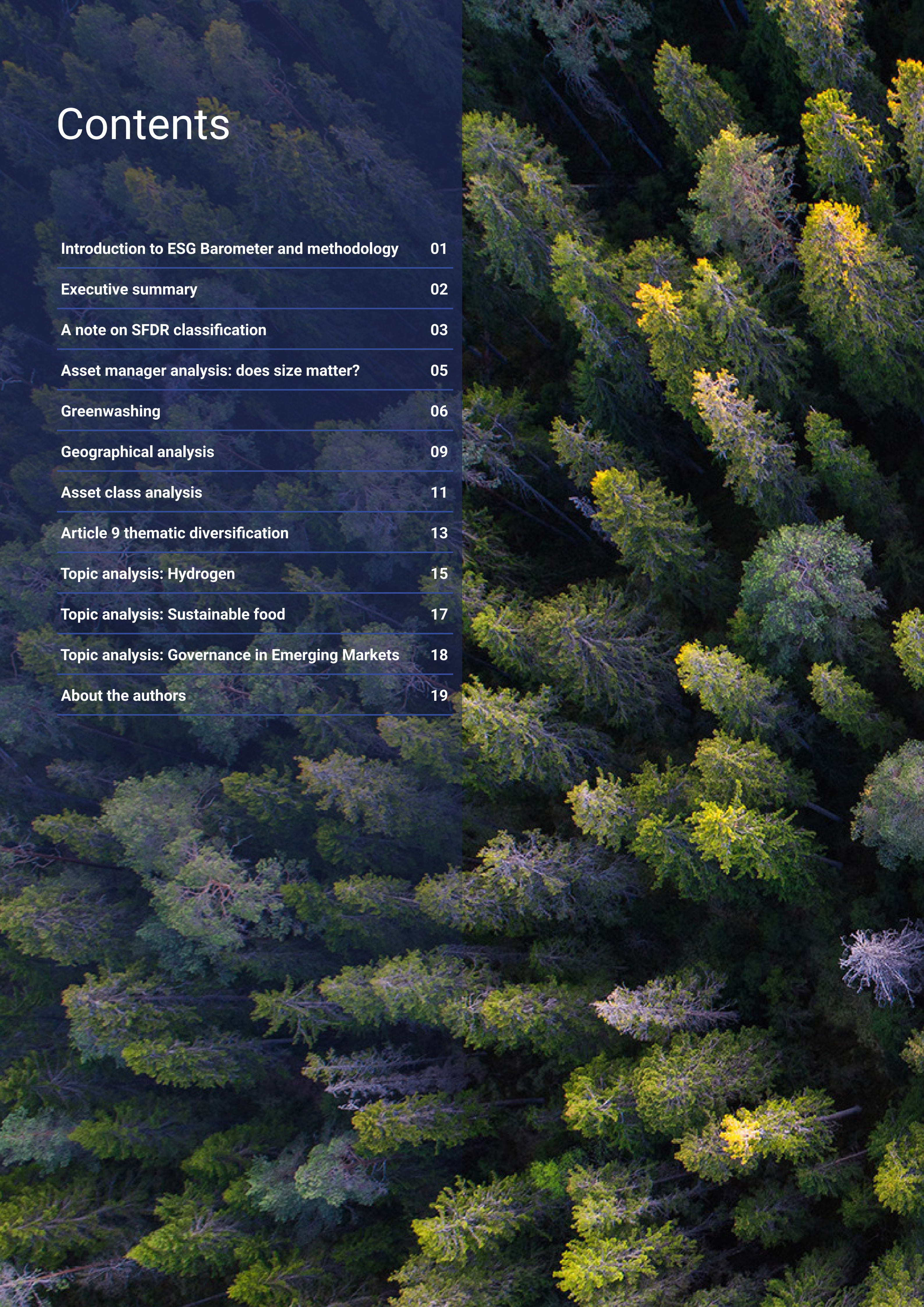
ESG Barometer

An unbiased analysis of the ESG fund and ETF landscape

February 2022



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Introduction to ESG Barometer and methodology

ESG Barometer is a report developed by MainStreet Partners with one aim in mind: to aid investors in navigating the rapidly growing and increasingly important ESG, sustainable and thematic fund/ETF universe.

The research is based on our proprietary ESG database funds and ETFs, which started in 2014 and today comprises of ratings for around 4,200 funds/ETFs and over 50,000 individual ISINs. It covers more than 160 asset managers, whose products in our universe represent €5.6 trillion in assets under management (AUM).

In allocating to investments today, many investors either require, or desire, easy-to-understand and consistent sustainability ratings. Yet these are notoriously hard to find. At MainStreet Partners, the team has developed a proprietary methodology to fill this gap. It goes beyond many of its peers' ratings, which tend to be based exclusively on the underlying holdings of a portfolio.

Through providing a holistic assessment of the sustainability of a particular asset manager and strategy, this methodology arms investors with not solely a rating, but rather an ESG due diligence tool. Our approach combines both qualitative and quantitative analysis and encompasses three pillars of assessment:

1. The overall asset management firm
2. The fund's investment and ESG strategy
3. The components of the underlying portfolio

This enhanced methodology distinguishes us from other major ESG analysis, which tend to focus solely on the underlying holdings or on the strategy label. Our ESG score ranges from 1 (low) to 5 (high), but the final rating is not simply based on the average of the 3 pillars (outlined above). In total we review 80 indicators, and each has a specific weighting in the overall score. In addition, the model includes "bonus/malus" elements, which are dependent on the category a particular fund or investment sits in.

ESG Rating

1 (Low) — 5 (High)

Pillar 1	Pillar 2	Pillar 3
Asset Manager and Team	**Strategy**	**Portfolio**
Institutional Credibility	Mission	Holdings Analysis
I. Track record and effort II. Resources dedicated to sustainability III. Engagement and stewardship IV. Governance and alignment of interest	I. Opportunity set II. Fund objectives III. Additionality and innovation	I. ESG/thematic profile II. Additionality vs benchmark
Dedicated Resources	Investment Process	
I. Available resources II. Quality of ESG/thematic research III. Investment team skills	I. Investible universe framing II. Bottom-up/top-down analysis III. Portfolio construction	

Executive summary

In this inaugural ESG Barometer report, MainStreet Partners seeks to cut through the vast sea of data and contradictory information available in the market, to equip investors with an unbiased understanding of the ESG fund and ETF landscape.

A year on from the introduction of the EU Sustainable Finance Disclosure Regulation (SFDR) the report offers a fund level analysis of around 4,200 funds and ETFs assessed and rated in the MainStreet Partners universe.

Most funds (70%) in the MainStreet Partners universe are classified as Article 6 - funds which do not integrate ESG factors into the investment process but are aware of the impact of ESG risks on financial returns. 25% of the universe are classified as Article 8, those which promote, among other characteristics, environmental or social characteristics, with the remaining 5% classified as Article 9 – those funds which have a specific sustainable objective.

SFDR aims to bring some clarity and consistency to how funds are labeled from a sustainability perspective, and while it is certainly a start, it has become clear that there is still significant variation between products in each category. An in-depth analysis of funds across regions, asset classes and size of asset managers, show some interesting observations:

- **Europe continues to lead the way on sustainability** disclosure, regulation and ESG integration, while the US is solely starting its journey. Article 9 funds managed by asset managers head-quartered in Europe scored on average 0.4 points higher than their US counterparts.
- **Boutiques performed better than their larger competitors at both the strategy (Pillar 2) and portfolio level (Pillar 3),** with larger and medium sized managers scoring higher at asset manager level (Pillar 1).
- **Multi-asset funds tend to have both a lower degree of ESG integration in their investment objectives and are less aligned to the Sustainable Development Goals** compared to other categories or sectors. (On average, multi-asset funds score 0.6 points less than other asset classes for Article 9 funds.)

Most funds in our universe remain focused on environmental themes, while social themes account for only 7% of the thematic category. Flows also reflect the dominance of environmental themes, perhaps given the current preoccupation with net-zero targets - Article 9 environmental funds have an average of EUR 1.3 billion in assets under management, while social funds in the same classification average EUR 384 million.

Overall, the classification of funds under Article 8 and 9 has correlated with larger inflows into these products suggesting that investors are placing their trust in the labels. However, assessing the degree of genuine ESG integration has arguably become more difficult, given the diversity of products on show and the absence of standardisation. Around a fifth (21%) of funds which have been classified as Article 8 have achieved a MainStreet Partners ESG Fund Rating of less than 3 out of 5, missing the threshold of 3, meaning that they would not be classified as "Sustainable" by MainStreet Partners.

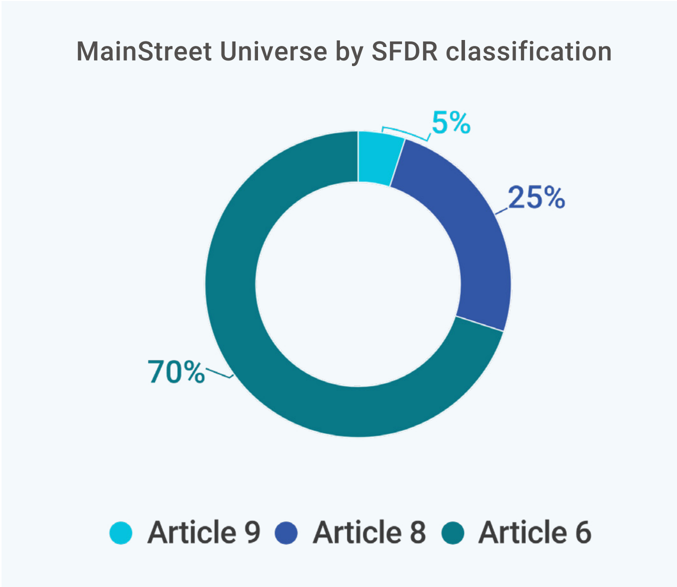
Asset managers globally are continuously pushing the boundaries in terms of product launches in innovative spaces such as hydrogen fuel and sustainable food. The use of impact metrics and engagement as a tool to build stronger relationships will hopefully contribute to improving the much-needed transparency for ESG products.

A note on SFDR classification

It is not an exaggeration to say the European Sustainable Finance Disclosure Regulation (SFDR), which came into effect on 10 March 2021, has been a game changer for investors. While not yet perfect, SFDR provides a universal identification and disclosure framework for sustainability risks – something hereto absent in the asset management industry. More precisely, the regulation requires fund providers marketing their financial products in Europe to classify them as either Article 6 (ESG risk aware), Article 8 (promoting environmental and/or social characteristics), or Article 9 (with a defined Sustainable objective).

A key aim of our analysis in this report, and in our day-to-day work in rating funds and asset managers, is determining how consistent and effective this classification exercise has been in terms of identifying truly sustainable investment funds.

A total of around 4,200 funds and ETFs from over 160 different asset managers have been considered for this exercise, which exhibit the following SFDR classifications in percentage terms:



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

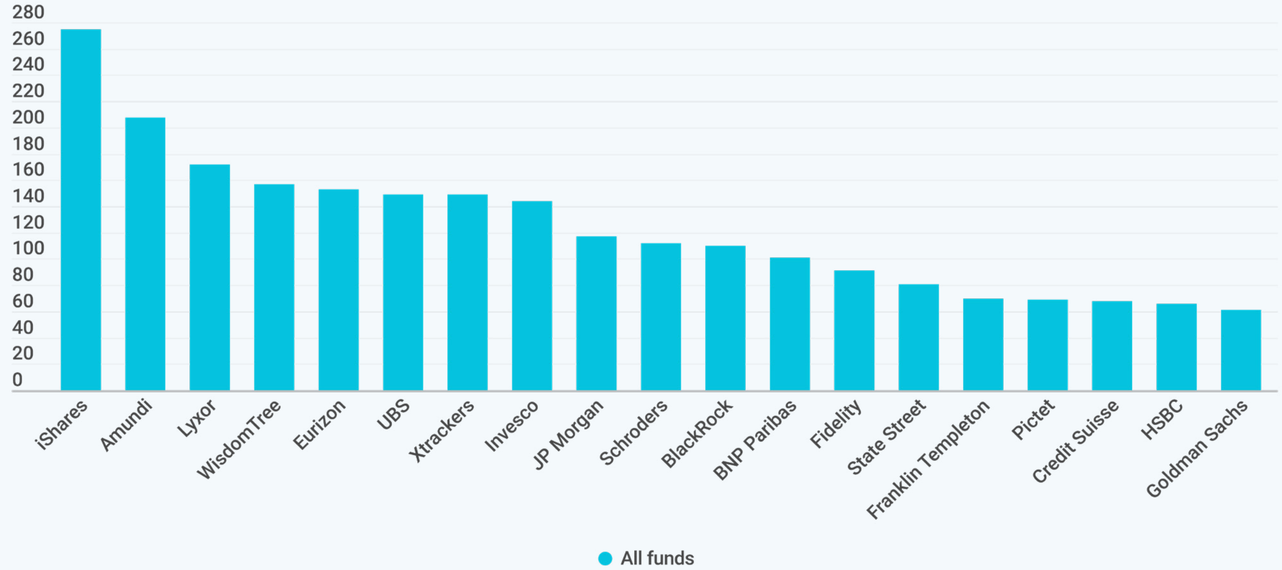
Article 6 funds currently represent 70% of our funds universe in Europe, while Article 8 funds amount to over 25% and Article 9 funds the remaining 5%. However, when you consider AUM, Article 6 funds amount to 75% of all assets, whereas Article 8 and 9 funds only manage 21% and 4% respectively. We expect this situation to change over subsequent quarters in favour of Article 8 funds, as many asset managers are still in the midst of their ESG integration process and awaiting regulatory approval for Article 6 to 8 transitions.

A note on SFDR classification

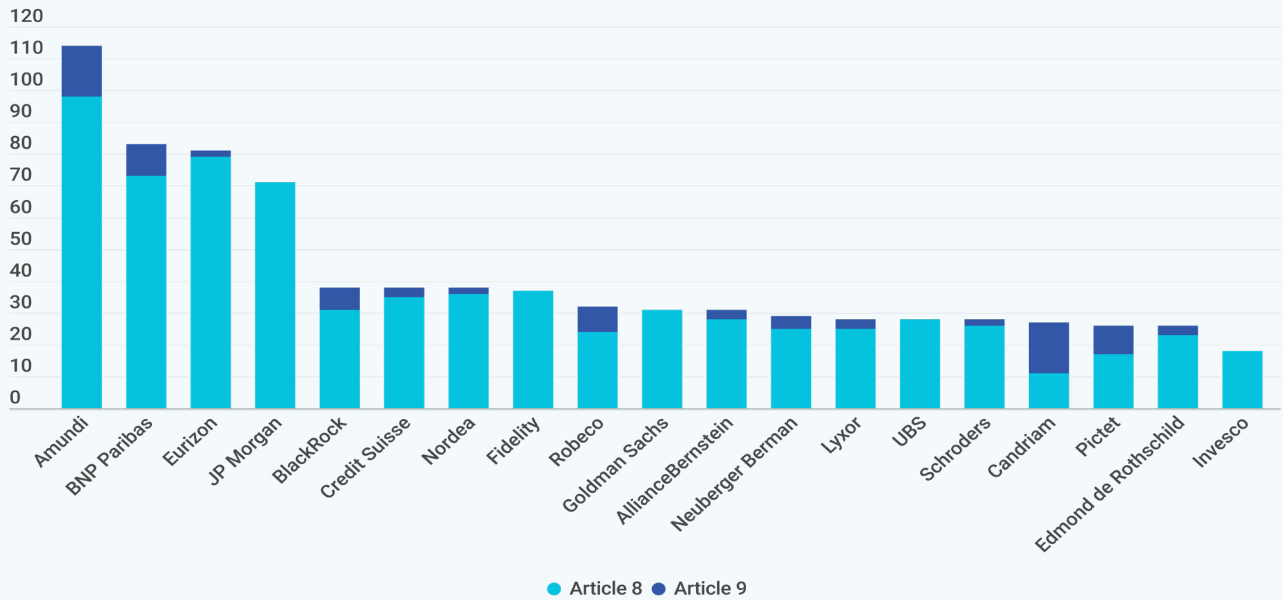
At the asset manager level, the below data reveals the asset managers with the greatest number of funds in our universe in Europe, alongside those with the most Article 8 and 9 funds and ETFs.

From the perspective of total number of funds under coverage, iShares, Amundi, Lyxor and WisdomTree are at the top of the league table. Amundi also ranks first for the amount of assets within Article 8 and 9 funds, followed by BNP Paribas, Eurizon, JP Morgan and BlackRock.

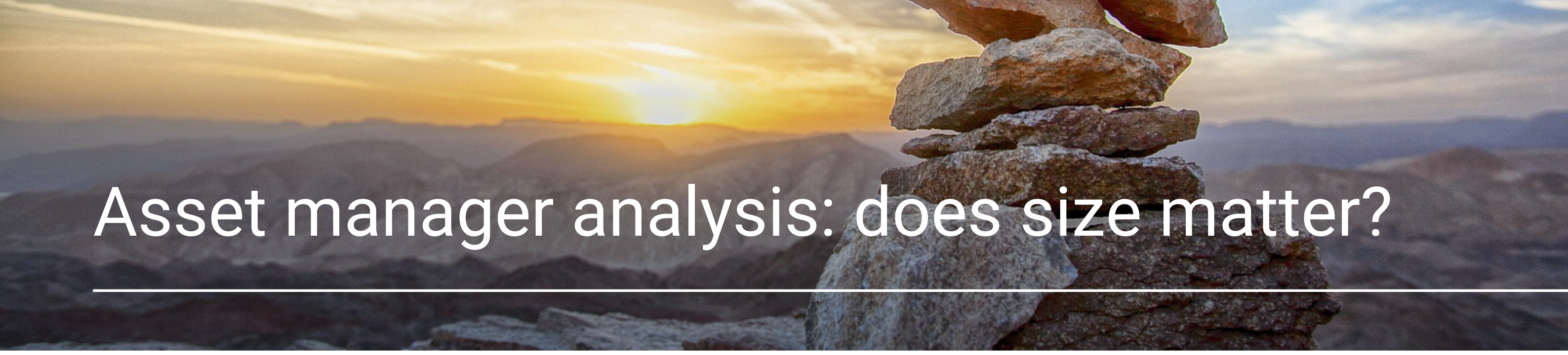
Top 20 asset managers by number of funds covered



Top 20 asset managers by number of article 8 and 9 funds covered



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

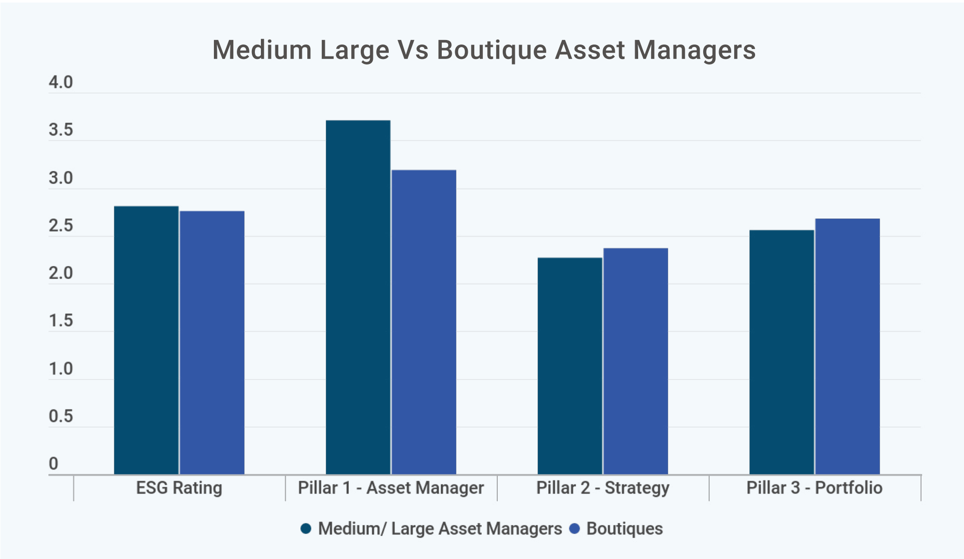


Asset manager analysis: does size matter?

Large Vs Boutique asset managers

A couple of common questions from investors when it comes to the overarching ESG credentials of asset managers are: is ESG more difficult for boutiques with smaller budgets compared to global players; and do boutiques actually offer differentiated ESG strategies and portfolios?

For the purposes of this analysis, we have defined a boutique as an asset manager with fewer than €50bn in AUM. The average ESG and pillar ratings have then been calculated considering the number of funds per asset manager within our universe. You can see the results below.



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

At first glance, there does not appear to be a significant difference between the two categories, but some interesting points can be gleaned by digging into the three pillars separately.

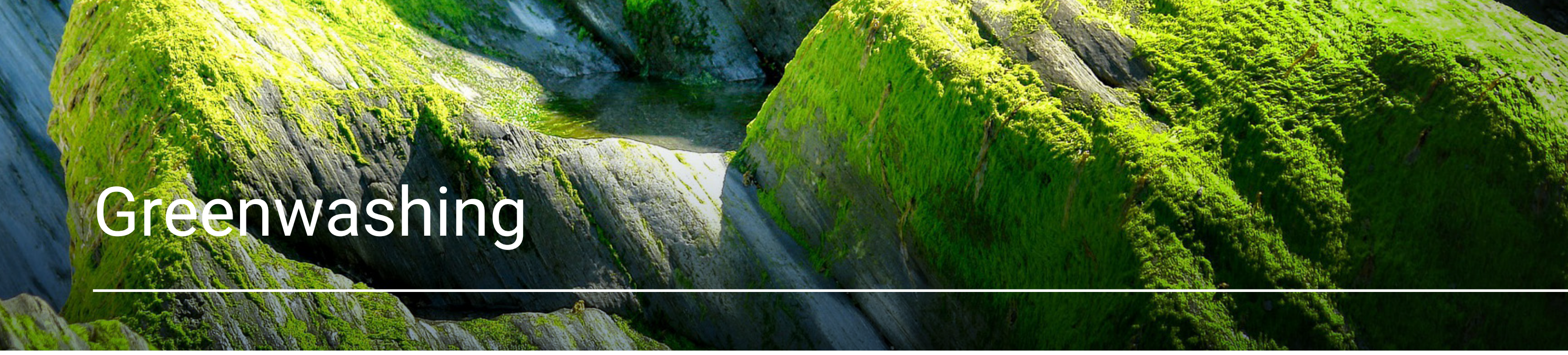
Under the first, asset manager level pillar, medium and large asset managers (3.71) rate higher than boutiques (3.19). This considers the company's ESG resources, policies and overall standing, so it is perhaps not surprising that larger asset managers score higher. In general, they have greater resources allocated to ESG integration, adopted ESG earlier and demonstrate active engagement and voting practices.

Truly integrating sustainability into a company's policies, investment processes and monitoring procedures is certainly expensive. Research conducted by UBS predicts that the costs associated with ESG information services could grow from $2.2bn in 2020 to $5.1bn by 2025 (18% CAGR). Whether investing in in-house ESG team members and internal training or on data providers and external advisers, ESG integration has proven to be costly, subsequently benefiting global asset managers with larger budgets.

In the second pillar, at the strategy level, boutique asset managers edged slightly higher (2.37) than medium and large firms (2.27) on average. Chiefly, this can be explained by the former presenting more innovative strategies with a more solid framing of the universe, better controversy monitoring and a stronger reporting process. Additionally, boutiques often offer a higher degree of specialisation, with examples such as Ecofin or Mirova representing pure sustainability players.

Finally, boutique asset managers also exhibited a higher rating in the portfolio pillar (2.68) than their medium and large counterparts (2.56) on average. This is mainly down to them investing slightly more in securities with higher ESG ratings and with fewer controversies, while also demonstrating higher 'ESG alpha' against the relevant benchmark. Furthermore, some sustainable boutiques' portfolios tend to show a much greater additionality, investing in differentiated securities and demonstrating higher active share.

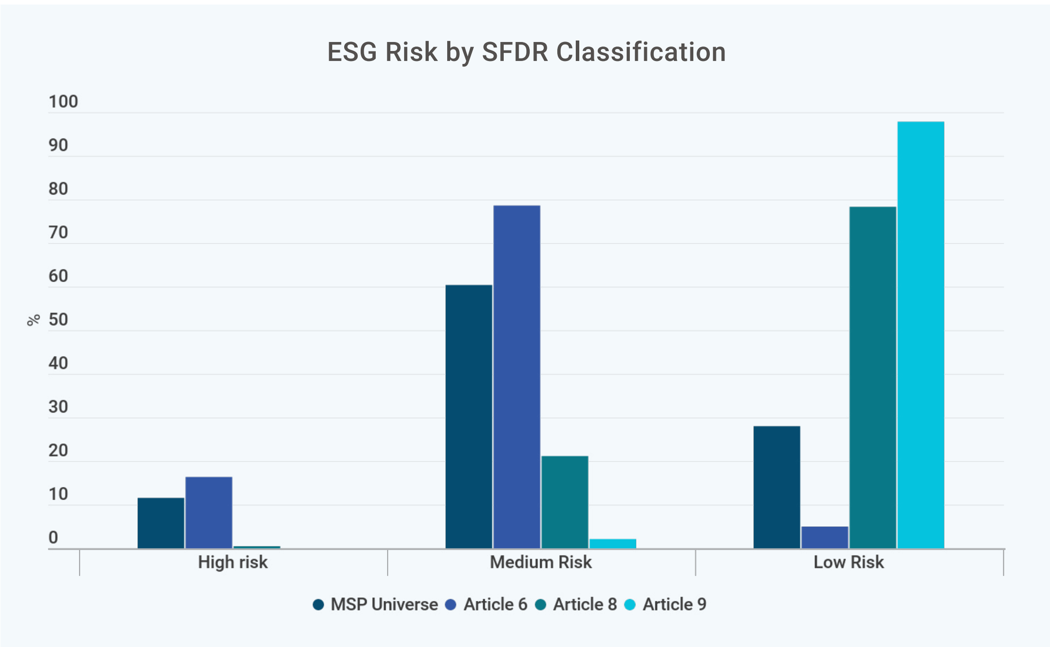
In terms of the highest scorers at the asset manager level within both categories, French firms BNP Paribas AM and Amundi were top of the table in the medium to large group, while Impax, the London based specialist investor, and Triodos were the top-rated managers at the boutique level.



Greenwashing

From our regular conversations with asset managers to date, we have observed a wide spectrum of approaches in terms of how they have chosen to interpret SFDR regulations. We have also witnessed some lax criteria interpretation in situations where funds have transitioned from Article 6 to 8.

By comparing a fund's Article classification under SFDR with our own proprietary ESG rating we aim to address the topic of 'greenwashing'. Using our holistic rating, it is possible to define the level of ESG risk a specific fund has. We have classified funds with an ESG Rating less than 2 as "high ESG risk funds", those that scored between 2 and 3 as "medium ESG risk funds", and those with a rating higher than 3 as "low ESG risk funds".



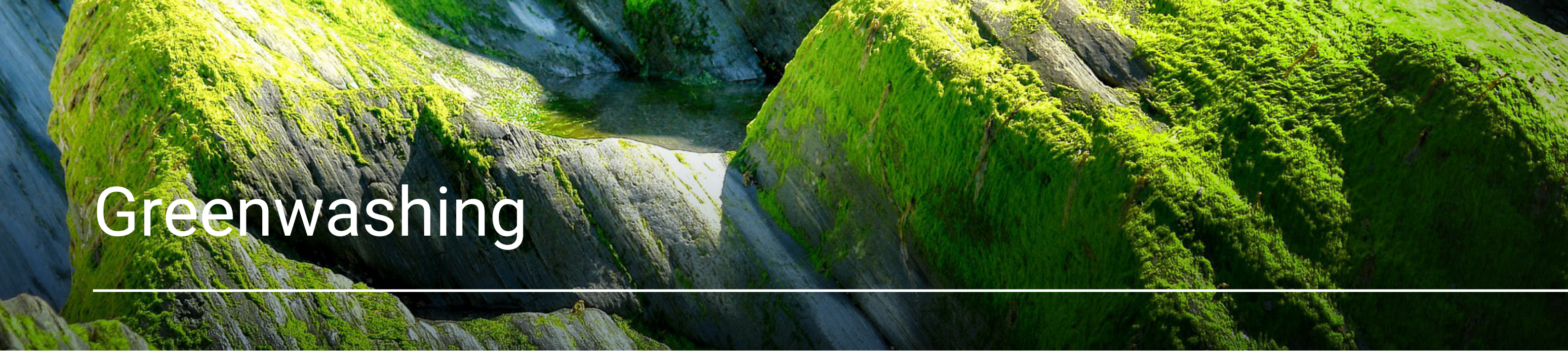
Source: *MainStreet Partners' Proprietary Database, as of December 2021*

In general, we observed consistency between the SFDR Article classification and the level of ESG risk our rating associated with the fund. This was particularly true of Article 9 funds, which were typically "low risk ESG funds". In our assessment, all funds considered to be in the "high ESG risk" bracket were Article 6. However, most of the funds (79%) in compliance with this article of SFDR had an ESG rating between 2 and 3, thus falling into our medium ESG risk group.

It is noteworthy that there is a significant commonality between Article 6 and Article 8 funds' ESG risk rating, with some Article 6 funds scoring higher than some Article 8 classifications. This is likely in part due to managers who in exercising caution chose to initially classify all their products as Article 6, and we anticipate that those funds with an ESG score of more than 3 will be transitioned to Article 8 in the early part of 2022. Managers who chose to initially classify all their offerings as Article 8 will also be contributing to the high level of variation within that category.

Until now, we have seen a mixed approach from asset managers. Some have been cautious early on as they work to interpret the regulation, while others went about classifying the majority of their funds as Article 8 straight away. As an overall observation, we noticed US-headquartered asset managers have transitioned more funds whereas many European and UK based asset managers are adopting a wait and see approach.

To address the topic of "greenwashing", our focus has been on Article 8 funds that achieve a proprietary rating of below 3 from us; since this is the threshold MainStreet Partners consider for a fund to have a solid ESG profile. In total, just over a fifth (21%) of the Article 8 funds fit this description. Can we say they are categorically guilty of greenwashing? Are there particular areas they are collectively lagging in?



Greenwashing

To answer such questions, we have calculated the average rating of those funds by pillar, obtaining the following results:

MainStreet Universe by SFDR classification

Pillar	Average rating
Pillar 1 - Asset Managers	3.44
Pillar 2 - Strategy	2.26
Pillar 3 - Portfolio	2.75

Source: *MainStreet Partners' Proprietary Database, as of December 2021*

It is clear the issue falls chiefly within the strategy and portfolio pillars and has less to do with the overall ESG capabilities and commitment from the asset manager. In fact, over a third (35%) of the asset managers we analysed with Article 8 funds achieved an above 4 asset manager rating.

In part, this can be explained by the multi-boutique approach adopted by some firms, which can lead to different ESG integration processes. It is also worth mentioning that within the Pillar 1 asset manager and team rating, the strategy specific portfolio management team is also considered.

Our conclusion is that further clarification is necessary from the regulators, especially with regards to Article 8 funds. There is such a wide variety of them: from those employing basic exclusionary criteria, to those with additional layers of ESG integration and reporting, through to thematic ESG funds. Indeed, we have even seen the adoption of a qualitative informal classification of so-called "Article 8 plus" funds by asset managers, attempting to bridge the gap between Article 8 and 9. This further classification results from the MIFID II draft sustainability assessment, which can be considered more stringent than SFDR, as it combines the Taxonomy Regulation and SFDR regulation to encompass clear sustainability preferences of invested financial instruments.

Geographical analysis

In terms of approach and implementation of sustainability objectives, is there a difference between asset management companies headquartered in different regions? Does the culture and dominant location of an asset manager have an influence on their overall approach and sensitivity to sustainability aspects?

To answer these questions, we grouped the funds that have been rated by MainStreet Partners by geographical areas (based on the location of their company headquarters) and analysed the average rating. Taking into consideration only areas with a relevant number of funds, the regions we looked at were:

- Europe
- UK & Ireland
- US

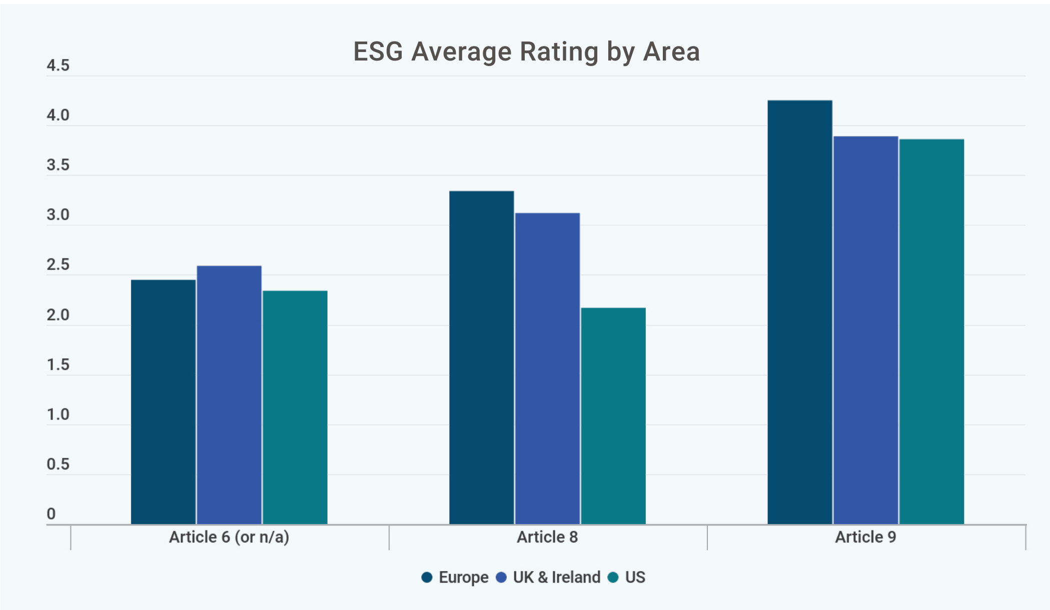
We compared the sustainability integration of funds based on different geographical areas by first looking at the average ESG rating according to their SFDR Article classification.

As expected, the average holistic ESG rating improves as we move from Article 6 towards Article 9 funds, regardless of where the companies are headquartered. In terms of Article 6 and Article 8 funds, the difference in ratings across regions was not overly distinct. But for funds with clear sustainability objectives (Article 9) the dispersion of ratings among the regions considered was far higher.

In fact, there was a gap of about 0.39 points in terms of ESG ratings between Article 9 funds located in Europe and their peers in the US.

A possible explanation for this is that US-based asset managers are still trying to catch up with their European counterparts, in terms of ESG integration in the investment process, the building out of large teams and pouring capital into sustainable resources. However, the demand for ESG strategies in the US is not enough to allow companies to make up for the lack of experience, compared with some European based Asset Managers.

Looking more deeply at Article 9 funds, it is interesting to note that the pillar pertaining to the asset manager overall (Pillar 1) shows the largest variation between the US and Europe.



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

Geographical analysis

Article 8 - Average Rating

Geographic Area	ESG Rating	Pillar 1: Asset Manager	Pillar 2: Strategy	Pillar 3: Portfolio
Europe	3.34	4.01	2.82	3.24
UK & Ireland	3.12	3.80	2.47	3.07
US	3.17	3.79	2.64	3.19

Article 9 - Average Rating

Geographic Area	ESG Rating	Pillar 1: Asset Manager	Pillar 2: Strategy	Pillar 3: Portfolio
Europe	4.25	4.20	3.64	3.99
UK & Ireland	3.89	3.74	3.67	3.78
US	3.86	3.71	3.47	3.80

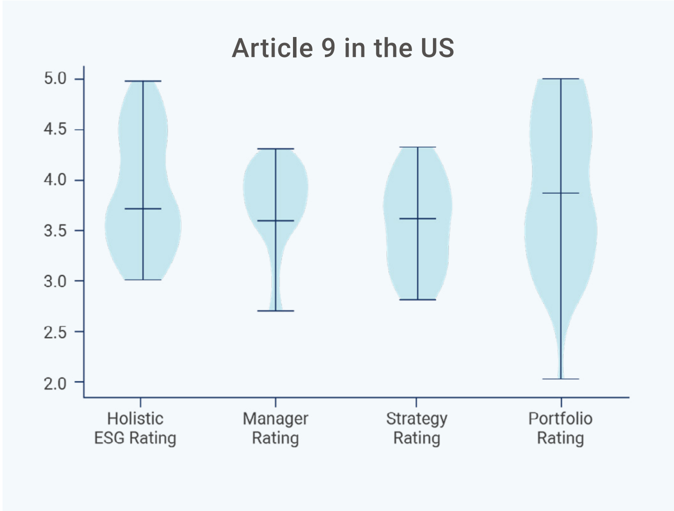
Through analysis of further information in our database, we can attribute higher ratings in the strategy pillar for companies based in both Europe and the United Kingdom and Ireland to a number of factors. These factors include funds being managed with clear sustainability objectives, the higher integration of additionality in the fund's mission, specific definitions of the investable universe with documented processes, and defined criteria of positive/negative screening.

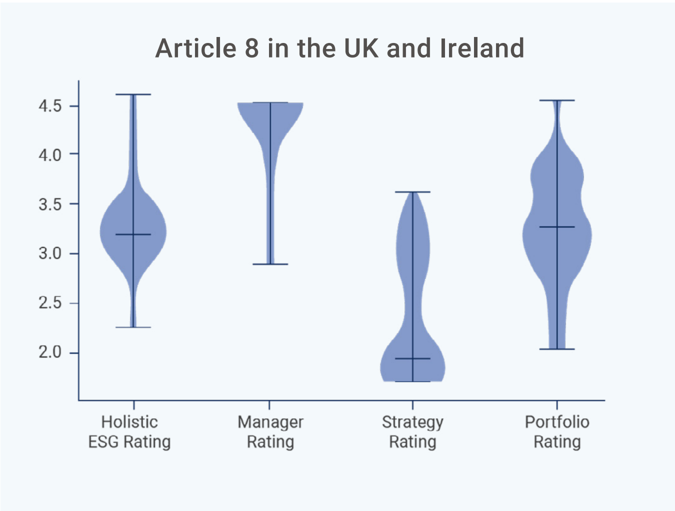
Currently, only 29 funds have received an ESG rating of 5 – the maximum rating. All of them are categorised under Article 9, and most of them are run by asset management companies based in Europe (24 in total Excl UK/Ireland). These include the UBAM Positive Impact Equity, BNP Paribas Climate Impact and Mirova Euro Green and Sustainable Corporate Bond Funds.

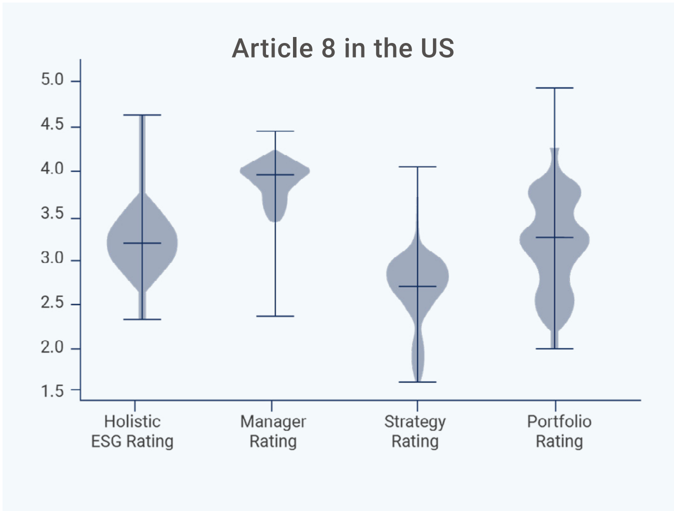
The funds that are rated 5.0 from managers based outside Europe (including the UK and Ireland) are: BlackRock Global Impact, Federated Hermes Impact Opportunities, Impax Environmental Markets, M&G Positive Impact and Ballie Gifford Positive Change.

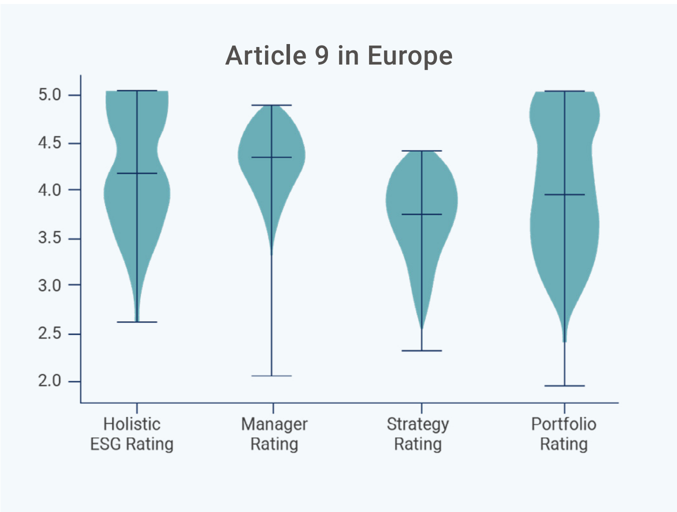
Geographical analysis

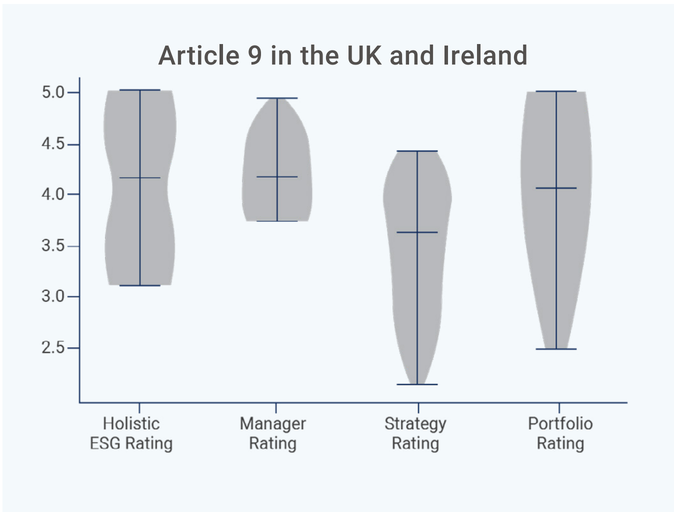
Highlighting the dispersion of ratings around the median demonstrates how concentrated, or not, the ESG ratings are amongst funds within different SFDR Articles and regions. On average, funds with integrated ESG characteristics tend to be rated closest to the median when compared to other Article 9 funds in the same geographic area. The charts below show the high dispersion of sustainability ratings for Article 9 funds in general. Could this be a warning sign for investors? Certainly, inconsistency amongst funds with high ESG integration was not expected when SFDR classification was implemented.











***Source:** MainStreet Partners' Proprietary Database, as of December 2021*

Asset class analysis

At the asset class level, we look at three main areas within our model: equity, fixed income, and multi-asset. By doing so, the aim is to assess whether it is easier for certain assets to implement sustainability within their investment process.

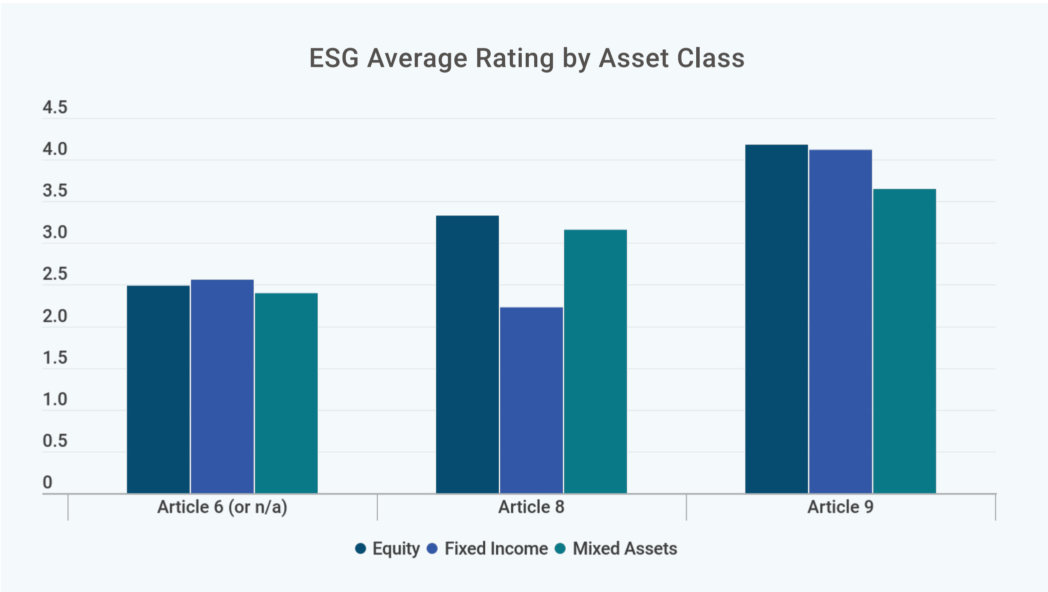
A persistent challenge in the ESG analysis of funds, is that it can be misleading to compare funds that invest in different asset classes, or indeed those investing in the same asset class but assigned to different categories, solely by looking at the holdings.

For instance, all European Large Cap funds may look similar if they are only analysed at the holdings level, even if the portfolio manager has made zero attempt to integrate ESG practices. Meanwhile, a fund that plays the energy transition theme specifically, or invests in small-cap companies with an impact approach, could be penalised if only the holdings are considered. This is another reason MainStreet Partners uses a three-pillar approach to move beyond the fund's holdings – ensuring a more accurate ESG rating in line with the genuine consideration within the fund.

An overview of the alignment of the MainStreet ESG ratings with the investment strategy applied at the fund level comes by comparing the average rating of the funds in each asset class with the classification introduced by the SFDR last March.

The graph below clearly shows how the ESG rating increases moving from funds with an investment approach in line with Article 6 of the SFDR, to those that comply with Articles 8 and 9, regardless of the specific asset class analysed. The graph also displays that equity and fixed income funds currently rated by MainStreet Partners, have a similar average rating amongst the funds grouped under the same SFDR Article. Meanwhile multi-asset funds generally score 0.1-0.2 points less for Articles 6 and 8, and around 0.6 point below the other asset classes considering only investment funds that meet the criteria of Article 9.

The reason for the discrepancy in terms of sustainability rating between multi-asset funds and the other asset categories, especially for those funds with a sustainable objective, can be found through the analysis of each specific pillar that composes the ESG rating.



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

Asset class analysis

Article 8 - Average rating

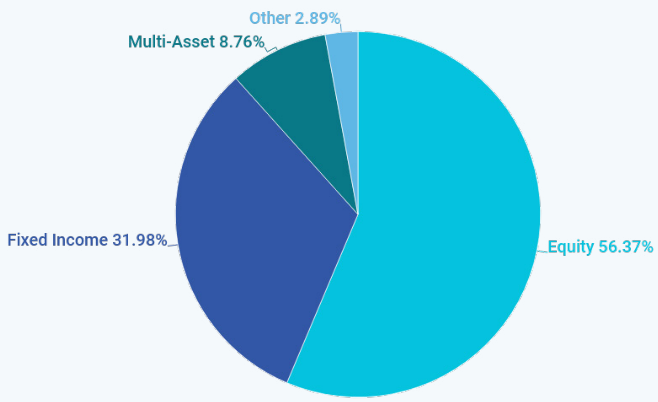
Asset Class	ESG Rating	Pillar 1: Asset Manager	Pillar 2: Strategy	Pillar 3: Portfolio
Equity	3.33	3.96	2.81	3.26
Fixed Income	3.23	3.94	2.64	3.22
Multi Asset	3.16	3.68	2.72	2.07

Article 9 - Average rating

Asset Class	ESG Rating	Pillar 1: Asset Manager	Pillar 2: Strategy	Pillar 3: Portfolio
Equity	4.18	4.06	3.62	4.02
Fixed Income	4.12	4.10	3.62	3.81
Multi Asset	3.65	4.15	3.38	3.50

Average scores for both Article 8 and 9 funds are lower within multi-asset compared to equity and fixed income. In both cases the cause seems to be poorer strategy and portfolio pillar scores across.

Universe of Low ESG risk funds by asset class



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

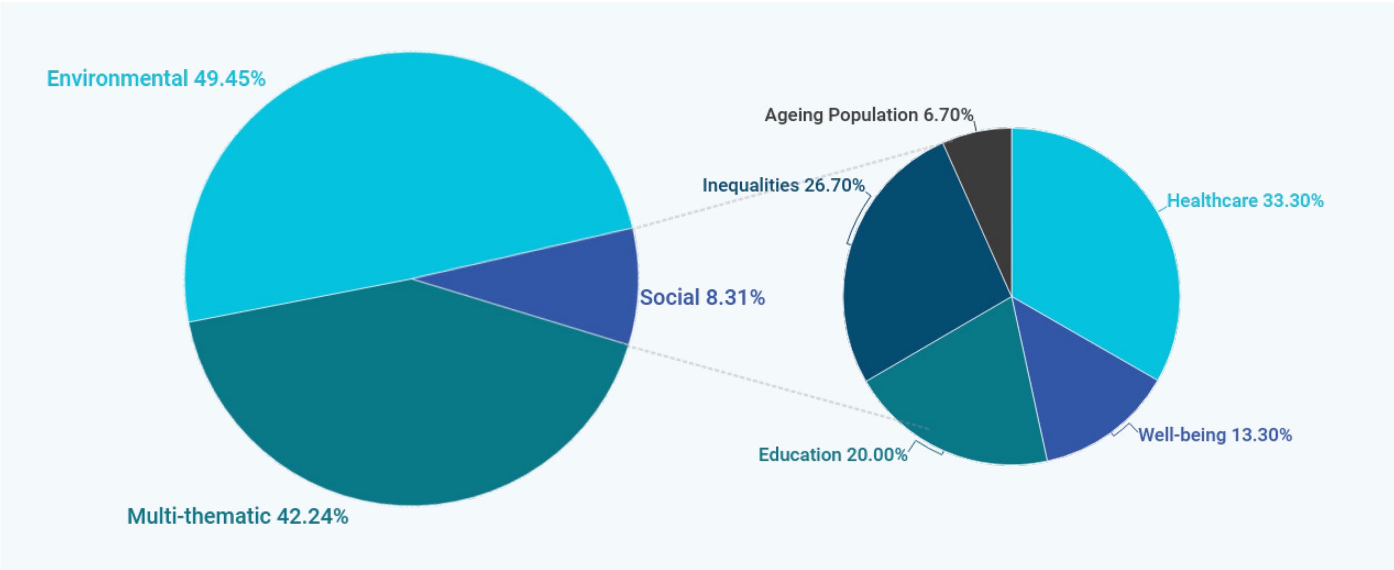
In general we found that multi-asset funds tend to have lower integration of ESG factors within their objectives. They are also not typically as aligned with the Sustainable Development Goals (SDGs) as other categories. Coupled with a lack of appropriate controversy monitoring procedures, gives a clear understanding as to why there is a lower ESG rating for multi-asset funds in comparison to other asset classes.

From an ESG risk perspective, it is worth noting that more than half of the funds considered as low ESG risk are equity funds, particularly since equity funds are often considered on the higher end of the more traditional risk/return spectrum. Almost a third of low ESG risk funds are fixed income, which means collectively, equity and fixed income funds account for the vast majority of low ESG risk investments in our database. Meanwhile, multi-asset funds only account for 9% of the low ESG risk bracket, and the remaining 3% is made up of money market, convertibles and alternative funds.

Article 9 thematic diversification

While sustainable investing overall has experienced significant growth during the last few years, we were curious to see whether all the underlying themes had grown at the same rate. Since Article 6 and Article 8 funds generally adopt limited or broad ESG integration, respectively, to investigate this we decided to focus on Article 9 funds with a specific sustainability target.

MainStreet Partners currently covers 187 Article 9 funds, which can be classified as per the following themes:



Source: *MainStreet Partners' Proprietary Database, as of December 2021*

Environmental funds include green bonds, climate and climate transition, clean tech, clean water, future mobility, food and circular economy sub-themes. Social sub-themes range from ageing population to education, and multi-thematic funds have been classified as those targeting both social and environmental issues.

Due to its perceived general popularity, it is perhaps not surprising that the environmental theme has the largest concentration of thematic funds (51%). In comparison, only 7% exhibit a specific social focus.

Environmental themes, such as water, have funds that have been running for more than 20 years, while more recent themes like the circular economy are some of the newest entrants. Within the water segment we would like to underline Pictet's Water Fund, which has a January 2000 inception date and achieves a 4.55 rating, and the highly-rated BNP Paribas' Aqua Fund, which has our top rating of 5.00.

Article 9 thematic diversification

Decalia's Circular Economy Fund has the highest rating in this relatively new segment at 4.18. Additionally, although not a new theme, clean tech appears to be scaling back after being wiped out during the Global Financial Crisis in 2008. Vontobel's Clean Technology Fund is our top-rated at 4.90. Finally, climate specific strategies have become some of the most popular on the environmental side since the European Commission implemented the EU Climate Transition and Paris-aligned benchmarks in 2019. As such, there has been a recent rise in low carbon funds and ETFs. Within this space, the BNP Paribas' Easy Low Carbon 100 Europe Paris-aligned benchmark ETF is our top-rated strategy, with a score of 4.63.

With regards to social themes, healthcare (31%), social empowerment (23%) and education (23%) have been identified as the most popular topics, followed by the workplace (15%) and ageing population (8%). Within healthcare, it is worth highlighting Pictet's health strategy, which was launched in June 2004, so was an early mover. Nordea's Global Social Empowerment and Sycomore's Global Education strategies are also top-rated within their respective categories, the former achieving a 4.95 rating and the latter a 5.00. Sycomore's Happy@Work and Generali's SRI Ageing Population Funds are additional stand outs.

Considering the average assets under management of Article 9 environmental and social funds respectively, the former is significantly higher than the latter (EUR 1.3 billion vs EUR 384 million).

With regards to multi-thematic funds, their average assets fall around EUR 870 million.

While there is no evidence to suggest environmental AUM has plateaued, it will be interesting to observe whether investors opt for additional thematic diversification in the future. Early indications show hydrogen power, sustainable food and governance in emerging markets to be themes attracting increasing investor attention.

Topic analysis: Hydrogen

Under the environmental umbrella, in recent months we have witnessed the launch of various new hydrogen-themed funds. This trend has been given a boost by the inclusion of hydrogen power in the green transition plans of many world economies. By creating specific hydrogen-based strategies, governments have allocated resources, which have in turn incentivised the development of this clean energy source. This has also shifted the focus of many private energy companies, which had until recently never used hydrogen. As a relatively new thematic trend, we think it is worth exploring the prospects for hydrogen.

What is hydrogen and how can it be produced?

Hydrogen is the most abundant element in the universe. In its purest form, the element is usually a clean-burning gas that contains more energy per unit of weight than fossil fuels. Its name comes from the Greek and means "water-former" referring to its peculiar property of producing water when burned, which makes hydrogen a clean source of energy.

Despite its abundance, hydrogen doesn't exist in its pure form in the atmosphere, and the process used to turn it into a source of clean energy can be costly and exceptionally polluting. There are currently nine different colour codes that refer to the different sources or processes used to make hydrogen; the most popular are explained below.

Today, almost 95% of hydrogen is produced through the first two methods as the costs of production for green hydrogen, also referred to as renewable hydrogen, are still high. Nevertheless, the United States Department of Energy forecasts that the growth of the hydrogen market will result in a reduction in production costs of about 66% by 2030, making green hydrogen competitive against other fuel sources.

Brown Hydrogen
– is produced from coal, more specifically from the gasification of coal, a very pollution-heavy process which releases a high amount of CO_2 into the atmosphere.

Grey Hydrogen
– is produced from fossil fuels, and commonly uses the steam methane reforming method. During this process, CO_2 is produced and often released into the atmosphere.

Blue Hydrogen
– like the grey one, is generated from fossil fuels. However, in this case, CO_2 is not released into the atmosphere, but is captured and stored underground, making the process carbon neutral.

Green Hydrogen
– is produced through water electrolysis by employing renewable electricity. There is no CO_2 emission during the production process.

Topic analysis: Hydrogen

Incentives and Future Plans

In planning for the transition towards a zero-emission economy, the European Union has identified hydrogen as a key component to decarbonise various industries, including transport and heating. In 2020, the European Commission adopted a new dedicated strategy on hydrogen, aiming to install 40 gigawatts (GW) of renewable hydrogen electrolysers by 2030, with an investment of €24-42 billion. The hydrogen market now is in a similar stage of development to the electric vehicles of 5-10 years ago. By 2030, renewable hydrogen is predicted to become the cheapest method of energy production through hydrogen, so the other methods will no longer be needed. The UK also recently issued its first-ever Hydrogen Strategy, with aims to direct over £4 billion in investment to create new jobs and establish a thriving low-carbon hydrogen sector by 2030.

The issuance by government entities of dedicated strategies involving green hydrogen has also led several companies to step up their investment in developing new hydrogen-based technologies.

How many funds focusing on Hydrogen are currently available in the market?

The publication of these hydrogen-specific strategies by governments has also led some investment companies to launch funds focused exclusively on this nascent industry.

On a global scale there are currently 12 equity funds investing in companies actively engaged in the hydrogen economy. Most of these funds were launched in 2021 (only KBSTAR Fn Hydrogen Economy ETF was launched in October 2020), demonstrating that more and more professional investors believe in the potential of this industry.

The value of the assets managed by these funds currently stands at €1.1 billion, almost half of which are managed by Legal & General Investment Management in the L&G Hydrogen Economy UCITS ETF. The fund is registered for sale in Europe and tracks the performance of the Solactive Hydrogen Economy Index composed exclusively of companies within the hydrogen economy such as Kolon Industries, Nippon Sano Holdings, Doosan Fuel Cell Co, and Plug Power. Other hydrogen funds available in Europe are the VanEck Vectors Hydrogen Economy UCITS ETF and the PMG Individual Fund Solutions - Hydrogen & Battery Power Fund. Meanwhile, US-based investors can invest in the Direxion Hydrogen ETF and the Global X Hydrogen ETF.

Topic analysis: Sustainable food

While climate change and the transition to net zero were top of mind during 2021, with interest peaking in November around the time of COP26 negotiations, another environmental issue has been gaining coverage and understanding.

The intricacies and interconnectedness of the food we eat and the state of our planet are increasingly being recognised, with waste, deforestation, genetically modified organisms and biodiversity some top issues of concern within the food ecosystem.

In many ways, these controversies are not new. Nor is the food thematic for investors, with early adopters including DPAM's Equity Sustainable Food Trends fund (4.74), launched in 2007, and Pictet's Nutrition Fund (4.45), launched in 2009. However, the topic has been gathering momentum in society as people gradually realise the environmental impact of what we eat and how it is produced. The asset management industry is catching up accordingly.

From a broad perspective, the active funds that fall within this theme are classified as Article 9 within SFDR regulation, whereas ETFs generally see their classification falling within Article 6, with a few Article 8 exceptions. For Article 9 funds, ESG KPI reporting is extensive, frequent and with industry specific metrics. For example, bespoke metrics such as number of children helped or tonnes of food-waste avoided are issued by Blackrock's Nutrition fund for some of its portfolio companies.

It is interesting to note that most of those funds target traditional consumer staples companies, such as Nestle, rather than firms that specifically target sustainable food/ agriculture. Also, in some instances, alcoholic beverage stocks (such as Heineken or Pernod-Ricard) that are generally controversial holdings in this space represent significant stakes of the portfolios. Furthermore, those funds with the longest historical track records have often been rebranded in collaboration with third-party providers, such as the Xtrackers MSCI Europe Consumer Staples ESG Screened UCITs ETF (2.43), which was created with the design of a specific ESG screened index alongside MSCI.

Finally, in 2021 there were additional food specific fund launches such as the Rize Sustainable Future of Food ETF (3.82), which subsequently excluded all dairy to become a vegan fund, and the Credit Suisse JPMorgan Sustainable Nutrition Fund.

Topic analysis: Governance in Emerging Markets

The assessment of an issuer's governance quality has become highly topical as of recent. With events such as the diesel emissions scandal evidencing that there can be a correlation between environmental and governance performance. As a result of declaring lower-than-real nitrogen oxide emissions, Volkswagen accumulated USD 2.8 billion in fines and up to USD 17 billion in damages in the US, showcasing the importance of good governance in relation to stock performance. However, another facet of governance that asset managers are starting to bring into the equation is the linkage with emerging markets.

Governance quality is being used as a tool to establish value in a market where environmental and social considerations require intense analysis, due to the scarcity of disclosure and lack of data availability. This has been prevalent as of recent, when you consider the reasons cited by the European Commission to push back the RTS to 2023 due to the "length and technical detail" required by the disclosures.

Although it is vital to consider an issuer based on their "corporate structure", it is unfortunately commonplace for managers to become lost in arbitrary ESG metrics. A more customisable approach such as that adopted by the Pictet Family Fund (3.17), which encompasses their own proprietary family ESG score, offers a more holistic approach to tackle all angles of governance.

We believe a more suitable approach, which we have seen used to great effect, is to analyse the business model and the long-term vision of management, allowing for a better understanding of the future of the company/issuer. This approach has been put into practice well by the Stewart Investors Asia Pacific Leaders Sustainability fund (3.62), which has a focus on long-termism and enhanced engagement with investee companies. This approach is especially appropriate with family-owned companies, which across EM generally have more of a beneficial rather than opaque ownership structure. On the other hand, state owned enterprises are often seemingly more aligned with interests of the bureaucracy rather than that of the shareholder. As it stands in EM, opportunity and success may well be derived from long-term stakes in family-owned businesses versus state-owned businesses. However, over the short-term there may be potential disadvantages of investing in family-owned firms, given the relative security offered by the state in times of political and economic unrest.

About MainStreet Partners

MainStreet Partners was founded in 2008 with a big dream in mind: to help investors achieve consistent financial returns while improving people's lives and protecting our planet. After 13 years we have become the trusted ESG partner of top tier investors for a simple reason: we provide a one-stop-shop for their sustainability requirements at portfolio level. Our clients are some of the most sophisticated and leading wealth managers, asset managers, investment banks, and institutional investors in the financial industry.

We have two main divisions: Investment Advisory and Portfolio Analytics.

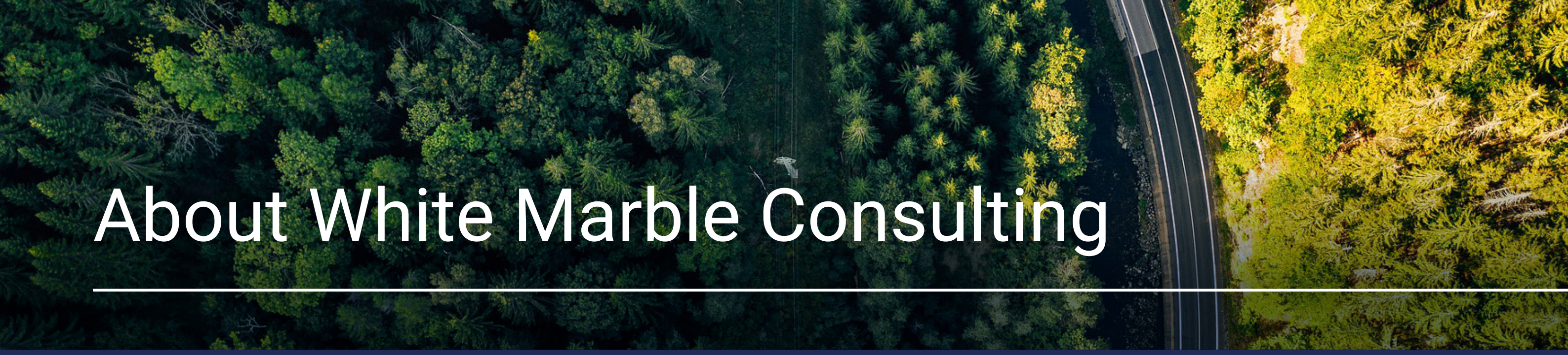
We are an independent and dedicated **Sustainable Investment Advisor**:

- We have over a decade of experience creating ESG multi-asset and multi-manager portfolios.
- We design investment solutions with mutual funds, single stocks and bonds using traditional or absolute return benchmarks.
- We develop products which target United Nations Sustainable Development Goals or thematic investments.

We deliver a holistic **Portfolio Analytics** offering:

- We provide transparent and detailed Fund Sustainability Ratings.
- We offer bespoke sustainability intelligence aligned with new "green" regulations.
- We assess and enhance the ESG evaluation of our partners' portfolios.

Learn more at https://www.mspartners.org/



About White Marble Consulting

White Marble is a marketing consultancy practice for the asset and wealth management industry with offices in London and Boston.

We work with leading asset managers, wealth managers and property firms in the UK, Europe, US and beyond, at all stages from start-up to global expansion.

We make marketing more strategic and influential within investment management.

We help investment marketers deliver impactful marketing that helps their businesses grow. Through strategic thinking and support in delivery, we enable teams to achieve more.

We have also developed a measurement tool, enabling marketers to understand their digital marketing performance compared to that of their peers.

We combine deep industry experience with focused specialism, giving you a holistic view of best practice across all disciplines. The depth and breadth of our team ensures seamless delivery of our expertise across the UK, Europe and US.

Our clients' needs drive everything we do. We go above and beyond as we work hand in glove with your team, doing what we believe would be best for you.

In an industry that is renowned for complexity, we aim to be refreshingly straightforward.

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Disclaimer

All the presented analysis refers to MainStreet Partner's database.

Portfolio ratings consider proprietary security ESG rating by MainStreet Partners.

Outliers have been excluded in all the graphs except in the intro and social thematics sections.

Funds for which it was not possible to verify the alignment with a specific article of the Sustainable Finance Disclosure Regulation (SFDR) were considered as funds that do not integrate any kind of sustainability into the investment process and grouped under Article 6.

Main Street Partners adopts a bonus/malus system that is applied to the weighted average ESG rating of the fund's pillars, which could boost/decrease the final ESG rating of the fund. This explains why on specific graphs there are funds with the top ESG rating without having reached the maximum rating in each pillar.

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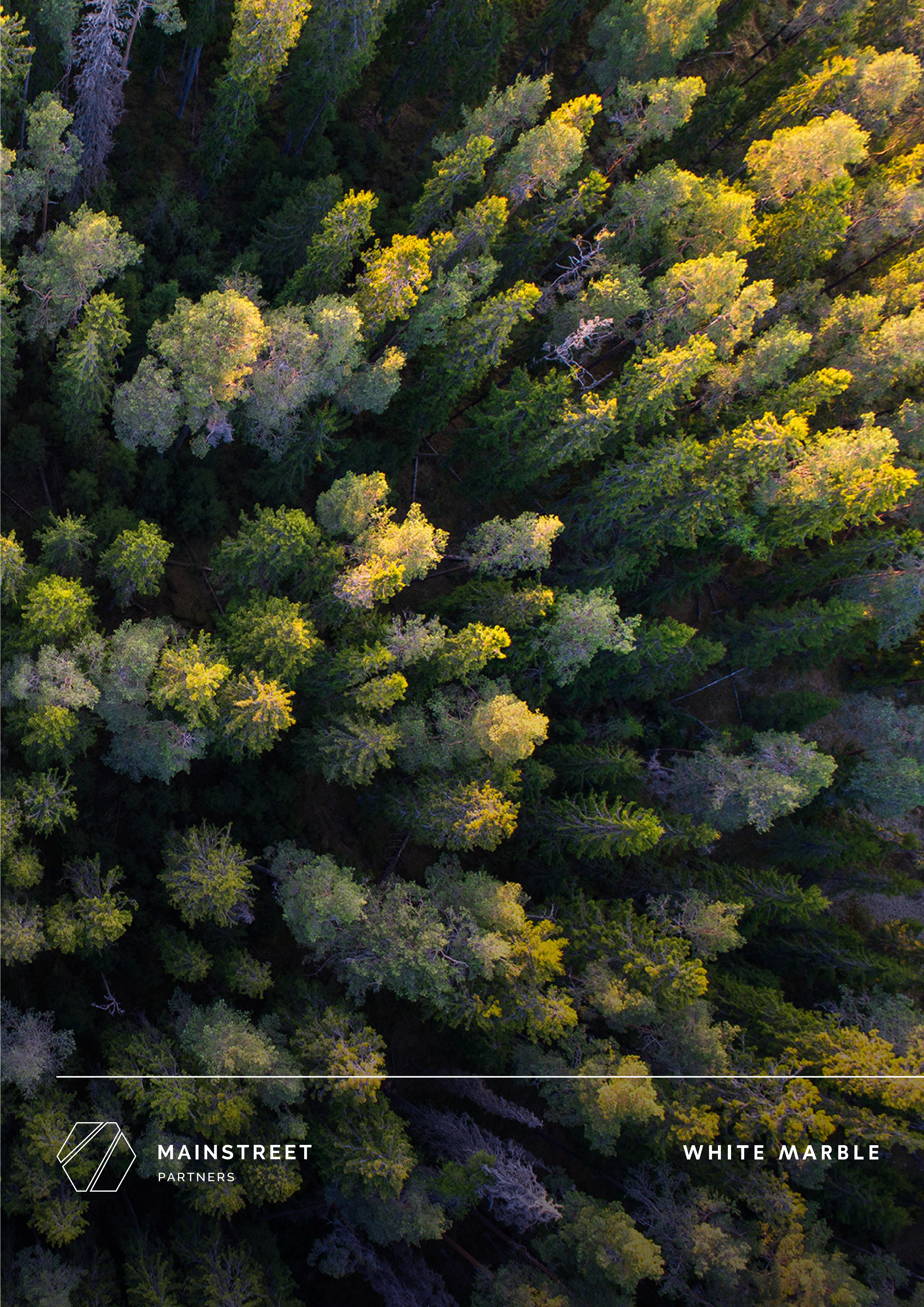

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