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2025

ESG AND SUSTAINABILITY BAROMETER

The status of ESG and Sustainability integration in the UK and European fund markets

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FOREWORD

Welcome to the fourth edition of MainStreet's annual ESG and Sustainability Barometer report. At the start of 2024, you may have been forgiven for thinking we would see less regulatory complexity than in the past three years. Unfortunately, that was far from the case, not least as fund naming rules came into effect on both sides of the Atlantic. **Regulatory scrutiny continues to intensify, with the threat of fines being imposed for those that do not adapt, on top of the associated reputational damage**.

Our Fund and ETF coverage universe has continued to expand and now exceeds 9,500 unique strategies managed by more than 460 Asset Managers. Our aim is always to help our clients avoid the risk of greenwashing, and for this reason **we have introduced another sub-pillar into our rating methodology in 2024 called 'EU Regulatory Alignment' applicable to strategies classified as either Article 8 or 9 under under the Sustainable Finance Disclosure Regulation (SFDR)**. It combines key data points from the European ESG Template (EET) with an assessment of how Asset Managers are defining what is a 'Sustainable Investment'. We have also introduced a more granular assessment of a fund's holdings through Pillar III by considering intentionality alongside exposure. As always, the analysis contained in this report has been carried out by our dedicated Fund Research team.

We start by providing a summary of the key changes to our public funds model and how this has filtered through to the overall ratings.

We will then take a deeper dive into the MainStreet Fund and ETF universe, highlighting the key changes and trends in the data. This is followed by an examination of the key regulatory changes in Europe and the United Kingdom, developments in ESG data (notably the EET) and an analysis of the Principal Adverse Impacts (PAIs) data contained within.

Lastly, as in previous years, we provide some insights into a few select areas of thematic research – this time around alternative fuels, and water.

The research data found in this report, is based on MainStreet's proprietary ESG and Sustainability database of Funds and ETFs. Our overall assessment is not solely a rating, but a thorough ESG and Sustainability due diligence. For those not already familiar with our approach, it combines both qualitative and quantitative analysis and is comprised of three Pillars:

1. Asset Manager
2. Investment Strategy
3. Portfolio

We start by sourcing and analysing both the formal legal documents as well as the marketing material for the asset management firm (responsible investing and exclusions policies, sustainability, engagement and voting reports, etc...) together with the funds (prospectus, ESG reporting, etc...) in question. We then conduct a due diligence meeting with the relevant ESG and Sustainability resources and/or portfolio management team, or both. This thorough process allows us to check for consistency and identify potential greenwashing through a qualitative assessment at both entity and strategy level.

The Portfolio Pillar is the final piece of the puzzle and involves analysing the individual holdings using our proprietary models including but not limited to controversial activities and behaviours; ESG corporate, government and supranational bond ratings; green, social, and sustainable bond ratings; PAIs; and UN Sustainable Development Goals ratings. This process allows the team to get our own impression of both the negative and positive ESG and Sustainable profile of a portfolio.

In 2025, we will continue to anticipate the needs of investors to help them both meet their regulatory obligations, but ultimately to identify and reduce the risk of greenwashing. Given the stellar growth of private assets markets over the last few years and the increased interest in ESG and Sustainability, we are seeing significant demand for a comprehensive due diligence, and we are excited to expand our offering in this space.

All MainStreet's ESG and Sustainability ratings are accessible via our online platform, esgeverything.com, and, following our integration with Allfunds, our Fund and ETF ratings are now also available through the Allfunds Connect platform.

We hope you enjoy reading the report.

NEILL BLANKS
Head of Funds Research at MainStreet Partners

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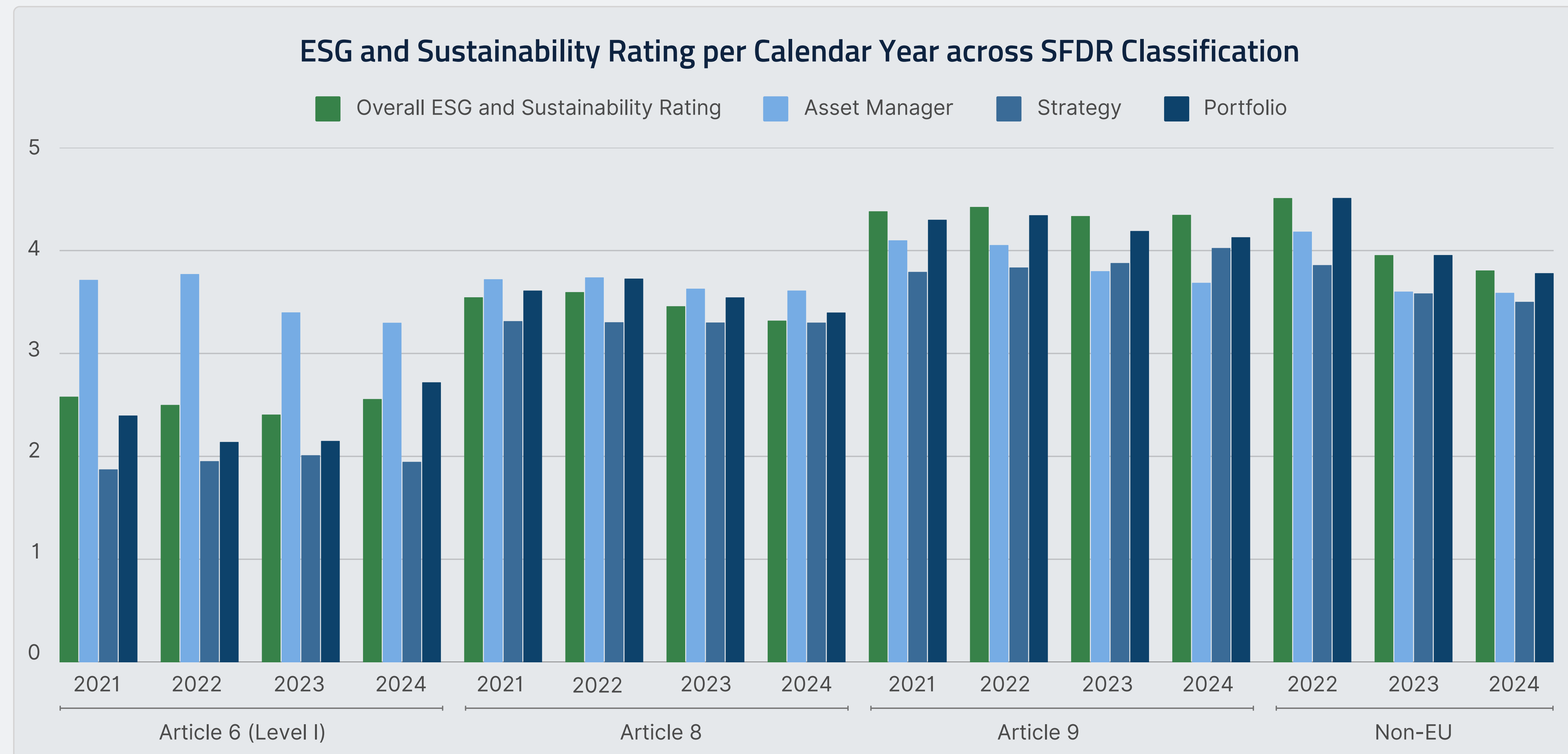
1) MAINSTREET FUND UNIVERSE: 2024 IN REVIEW

MainStreet Fund Research team performs in-depth analysis, through our Level II process, on over 1,300 funds which claim to have an ESG and Sustainability profile through our Level II process. The team cover over another 8,300 funds and ETFs through the Level I process. The philosophy of the three pillars is consistent for both methodologies however Level I is focused primarily on a fund's ESG risk rather than the ESG and Sustainability features or objectives. In this section we analyse this broad universe of funds. The topics covered include average ratings across the pillars over time, the overall rating both through the asset-class and sub-asset class level, specifically which regions and asset classes are better served, and finally the risk of greenwashing through two lenses – an assessment of the overall rating, and the Regulatory Adherence sub-pillar.

1.1 ESG AND SUSTAINABILITY RATINGS ARE STABLE BUT EVOLVING WITH RISING STANDARDS AND INCREASED COVERAGE

Four years have passed since the inception of the Sustainable Finance Disclosure Regulation (SFDR) giving us more data to analyse ESG and Sustainability trends within the European fund market.

Source: MainStreet Partners



Ratings across the SFDR classifications have remained stable; on average **Article 6 funds have scored around 2.5** out of 5.0, while **Article 9** funds score around **4.4** out of 5.0.

Where we have seen the biggest change is within the **Article 8 sphere.** Here funds are now **closer to an average of 3.3** having been above 3.5 two years ago. Although this is not a significant drop, the direction of travel can be explained by the fact that our universe now includes more funds that have moved from Article 6 to 8. Typically, these funds have less robust ESG and Sustainability integration.

One clear trend is the downward movement in the Asset Manager rating across each SFDR classification and the non-EU ratings. The explanation is three-fold: sustainability, standards and expectations have increased, asset managers with global footprints are facing different ESG and Sustainability expectations across regions with some pulling back, and as MainStreet's coverage has expanded to include a wider range of asset managers the average rating has dropped.

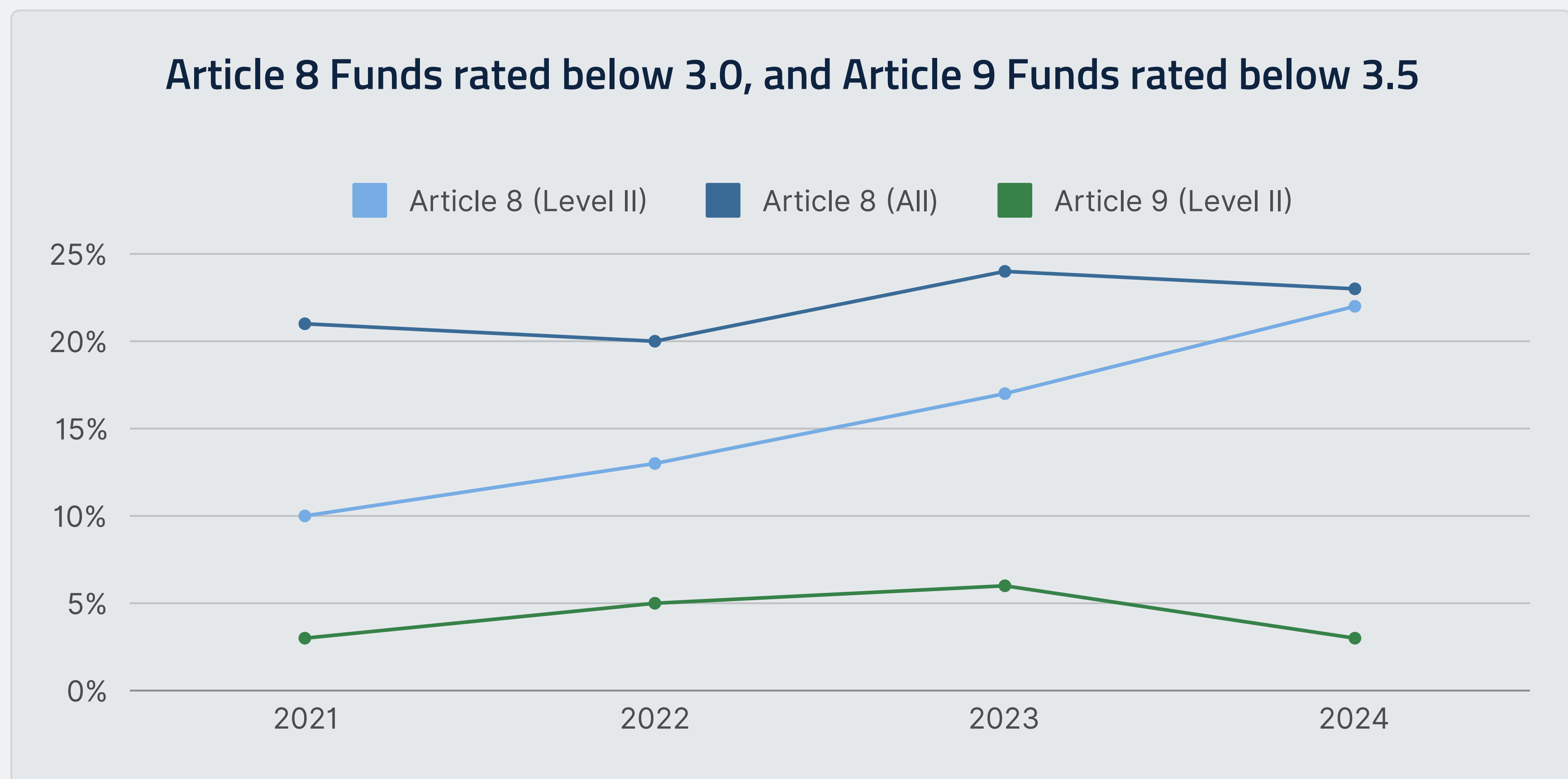
Looking beyond SFDR to non-EU funds, for example in the UK, the average has come down. This change has been driven by our expanded coverage across strategies with a mix of levels of ESG and Sustainable integration. In the next edition of the Barometer, thanks to the new UK Sustainability Disclosure Requirements (SDR), we look forward to providing a more granular breakdown of the ESG and Sustainability profile of UK domiciled funds.

1.2 THE RISK OF GREENWASHING CLIMBS FOR ARTICLE 8

As mentioned in the previous section we have continued to expand our coverage universe. This has led to an increased breadth in terms of the mix of strategies with differing levels of ESG and Sustainability integration. The recent Article 8 additions have typically been those with lower ESG and Sustainability credentials bringing down the overall average ratings.

The proportion of Article 9 funds that have greenwashing risk has reduced over time. The actual number of Article 9 funds scoring below 3.5 has not significantly changed but as our coverage has increased, new additions in this classification have tended to rate above the 3.5 threshold thereby decreasing the percentage of funds with a rating below this level.

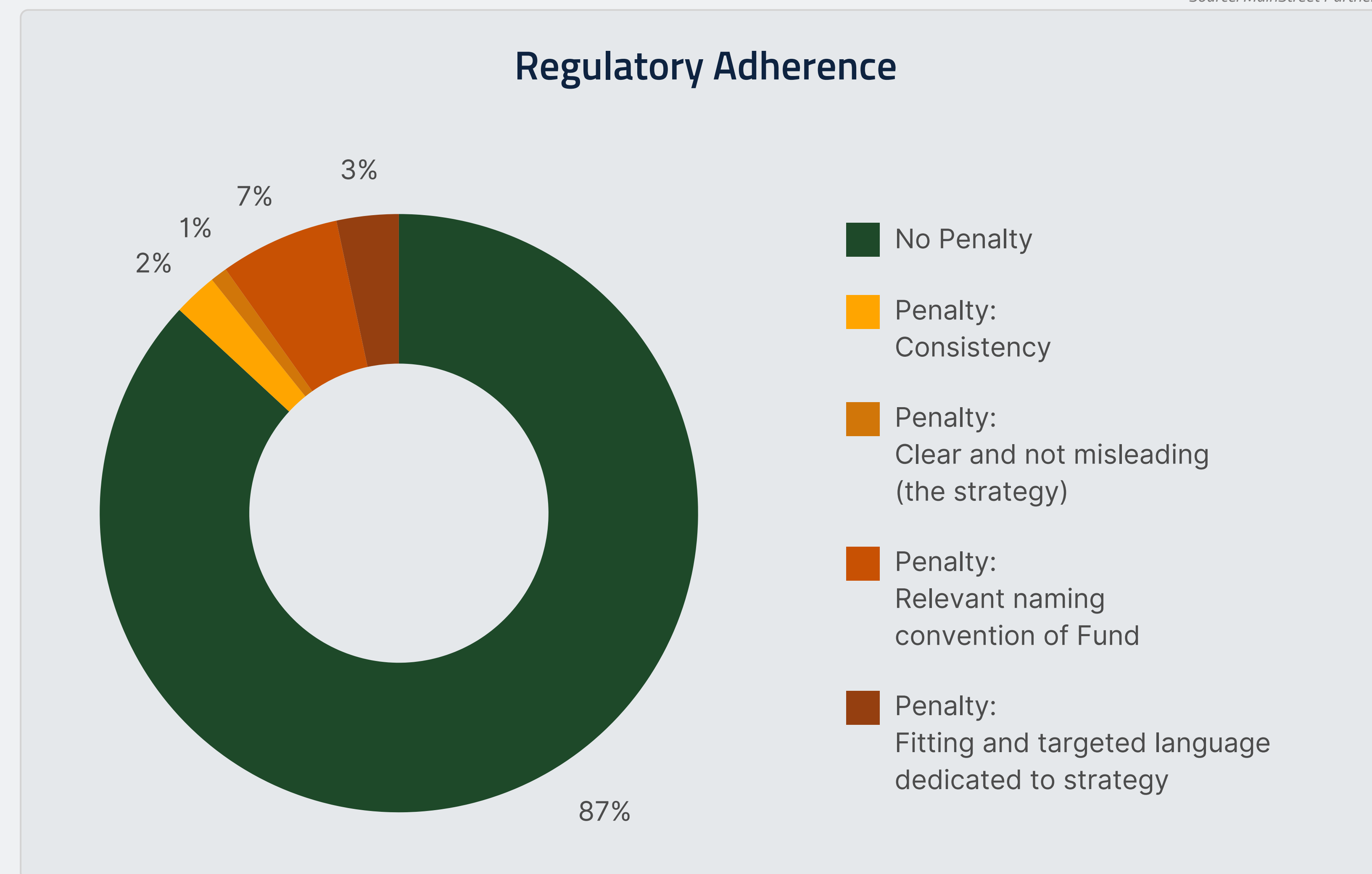
Source: MainStreet Partners



Regulation (SFDR and SDR) and updates from organisations such as the European Securities and Markets Authority (ESMA) and the UK Financial Conduct Authority (FCA), may compel funds to follow rules with regards to how they manage, market and name funds. However, there is still leeway and in a handful of cases, we believe that they fall foul of what we consider to be within the "spirit" of the regulation as well as the letter of it. This is reflected in our **'Regulatory Adherence'** assessment of funds.

This process results in a potential malus to the Strategy Pillar if the fund fails to meet one of the four criteria: consistency, clear & not misleading, relevant naming convention, and fitting and targeted language.

Source: MainStreet Partners



As the above chart shows, **87% of funds pass this test.** Of the 13% that fail most have one of the four penalties applied, while only a handful have multiple.

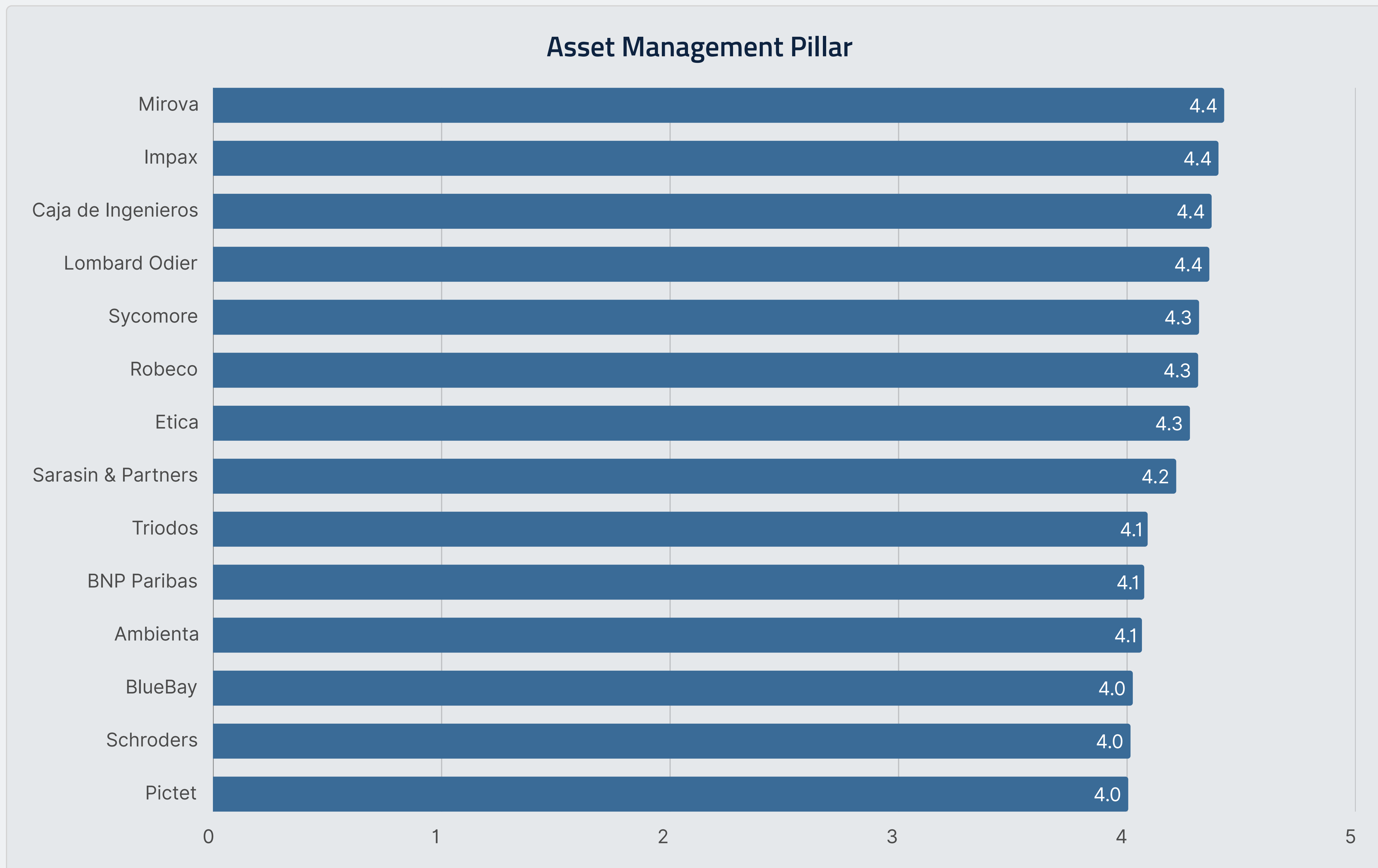
The main reason for a penalty is "relevant naming convention". Here funds are often penalised when we do not believe that the process or commitments are suitably high enough to have terms like "Sustainable" or "Impact" in the name. For example, Article 8 funds may have "Sustainable" in the title but only commit to hold a minimum 10% of the fund in Sustainable investments.

Recent ESMA publications may change this as its now expected that funds should have a "meaningful" level of Sustainable Investments (~50% for Article 8 funds) to use the term. Recently a number of asset managers have removed sustainability related terms from the name of their funds, or they have further clarified the ESG and Sustainability processes. As such we expect (and hope) to see the number of funds failing on this factor to reduce over time. This is discussed in more detail in the regulation section of this report.

1.3 IN THE SPOTLIGHT: BOUTIQUE INNOVATORS VS. LARGE-SCALE LEADERS

This section will discuss the top-rated asset managers on MainStreet's Asset Manager Pillar, each asset manager having been reviewed in depth within the last year. The Asset Manager Pillar has two sub-pillars – 'Institutional Credibility' and 'Dedicated Resources'. Within these sub-pillars there are several indicators contributing to the overall Pillar rating.

Source: MainStreet Partners



Pleasingly **the top-rated are a mix of both boutiques, for example, Mirova, Impax and Sycomore, mid-tier firms like BlueBay, Robeco, and Lombard Odier, as well as large asset managers Schroders and Pictet.**

The boutiques tend to be specialists with the bulk of their assets in sustainably mandated strategies while the larger firms have significant resources and have invested into their proprietary ESG and Sustainability research tools.

All the top-rated asset managers perform well on the 'Dedicated Resources' sub-pillar. The factors feeding into this area of the model centre on the experience, remit, and responsibility of the ESG resources. For an asset manager to be rated highly here the dedicated resource must have reasonable ESG and Sustainability experience and a forum to share their views on an investee company. Within the 'Institutional Credibility' sub-pillar, specifically the 'Commitment', and 'Long Term Sustainability' indicators, we typically see strong performance across asset managers innovating and launching new products as the investment opportunities within Sustainability expand. On top of these factors the asset managers discussed here are signatories to a multitude of initiatives, often publishing and sharing research publicly. Also, within the Institutional **Credibility sub-pillar is the 'Engagement and Stewardship'** indicator. Here we look both at a fund's dedicated stewardship resources, and the engagement records and publication of voting decisions and outcomes. An asset manager may be rated highly if there is an escalation policy with clear lines around divestment. Robeco is a great example here as an engagement can be prompted for a variety of reasons. Reporting is quarterly, and their policies capture industry changes.

For our **'Governance' indicator** the top-rated houses often have ESG and Sustainability specialists that also sit with the investment teams to bridge any communication gap. Several of the top-rated asset managers have oversight groups that provide challenge to the investment teams.

The second chart shows the **average asset manager rating each year on both an equally weighted basis** (each asset manager counts as one) **and fund weighted** (weighted based on the number of funds covered that the asset manager's runs).

Source: MainStreet Partners

Over time we can see a downward trend in the average Pillar I Asset Manager rating. We believe there are two factors contributing to this shift.

The first is an **improvement in standards and an increase in the risk of 'doing nothing'.** There has been a pullback of several widely held and covered asset managers from key initiatives like the Net Zero Asset Managers initiative (NZAM) and Climate Action 100+ (CA100+), alongside a general reluctance to discuss ESG and Sustainability in the US. This can result in a more opaque view of ESG and Sustainability and a less cohesive approach at the asset manager level. In other words, fund managers can find it more difficult to follow a view from the top down on ESG and Sustainability.

The second reason centres on **new additions to our universe.** The average Pillar I rating of new asset managers in 2024 is 3.1. Historically, when looking at our universe of funds we focused on ESG and Sustainably managed funds which naturally led us to asset managers with a good awareness of ESG and Sustainability risks and opportunities. As we have expanded our coverage of funds to include asset managers earlier in their ESG and Sustainability journey, this had pulled the average down.

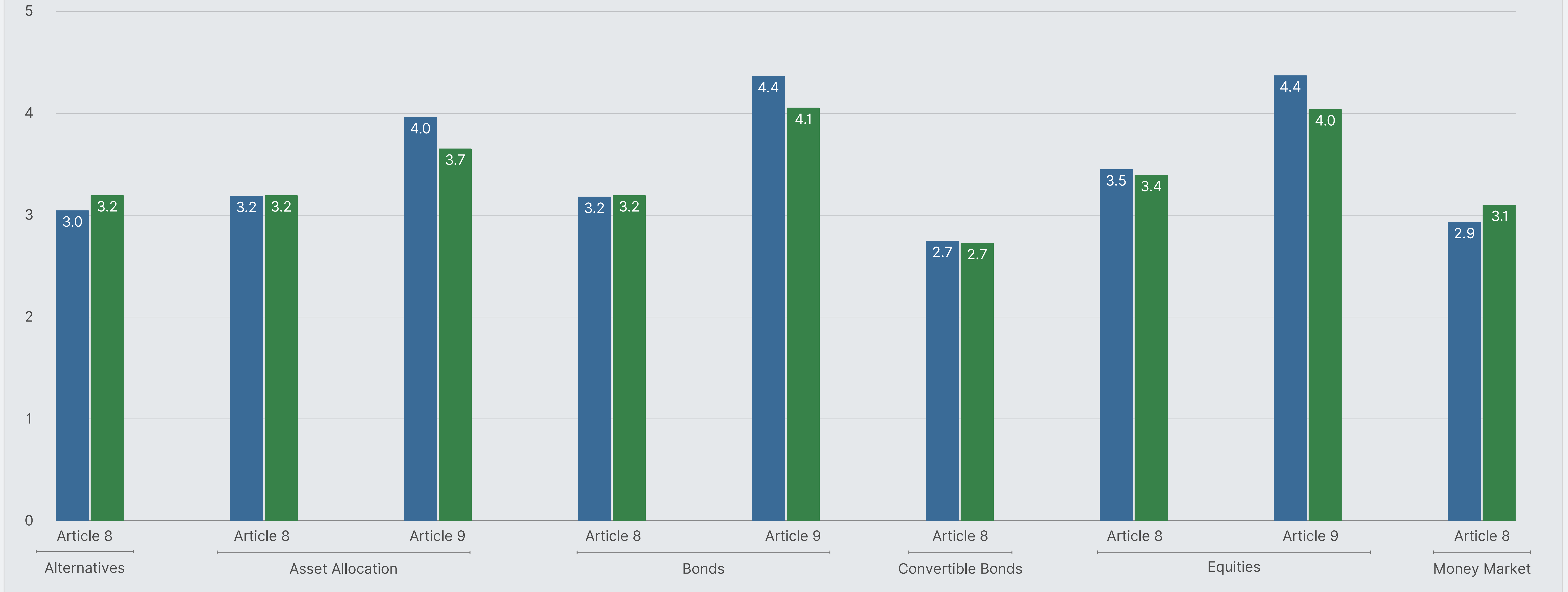
The difference in the average asset manager rating when equally weighted versus fund weighted could be attributed to two factors: the first is that the more time we spend with an asset manager the more information we have, the second is that those with more funds tend to be larger in size and therefore have better established policies and more resources to dedicate to ESG and Sustainability.

This perceived information bias towards larger asset managers when assessing resources is why Pillar I only represents a portion of how we assess a fund's ESG and Sustainability credentials, and why analysing a strategy and portfolio holdings is important to accurately rate the fund regardless of the size of the asset manager.

1.4 GLOBAL SMALL AND MID-CAP (SMID) EQUITY AND EUROPEAN BONDS LEAD THE WAY WHILE MONEY MARKET REMAINS A CHALLENGE

Here we look at our universe of funds covered with our **Level II methodology.** For an asset class to be shown in the chart we must cover a minimum of five funds per SFDR classification.

Source: MainStreet Partners



For Article 9 equity funds our research shows that European and Global Small and Mid-Cap Equity cohorts top the chart with the highest average rating of 4.6, while **Global Equity Large Cap has the largest number of funds covered and an average rating of 4.4.**

Since many of the pureplay Sustainable solutions and impact names that feature in global equity funds tend to be lower down the market cap scale, this means that the funds that brand themselves as impact or solutions focused tend to fall in these sub-asset classes. The asset class here with the lowest average rating is Global Emerging Markets, just below a 4.0, based on 15 funds.

This area remains a challenging space for fund managers to access consistent data however we would **highlight the importance of our three pillar methodology which takes a forward-looking approach rather than solely relying on holdings analysis.**

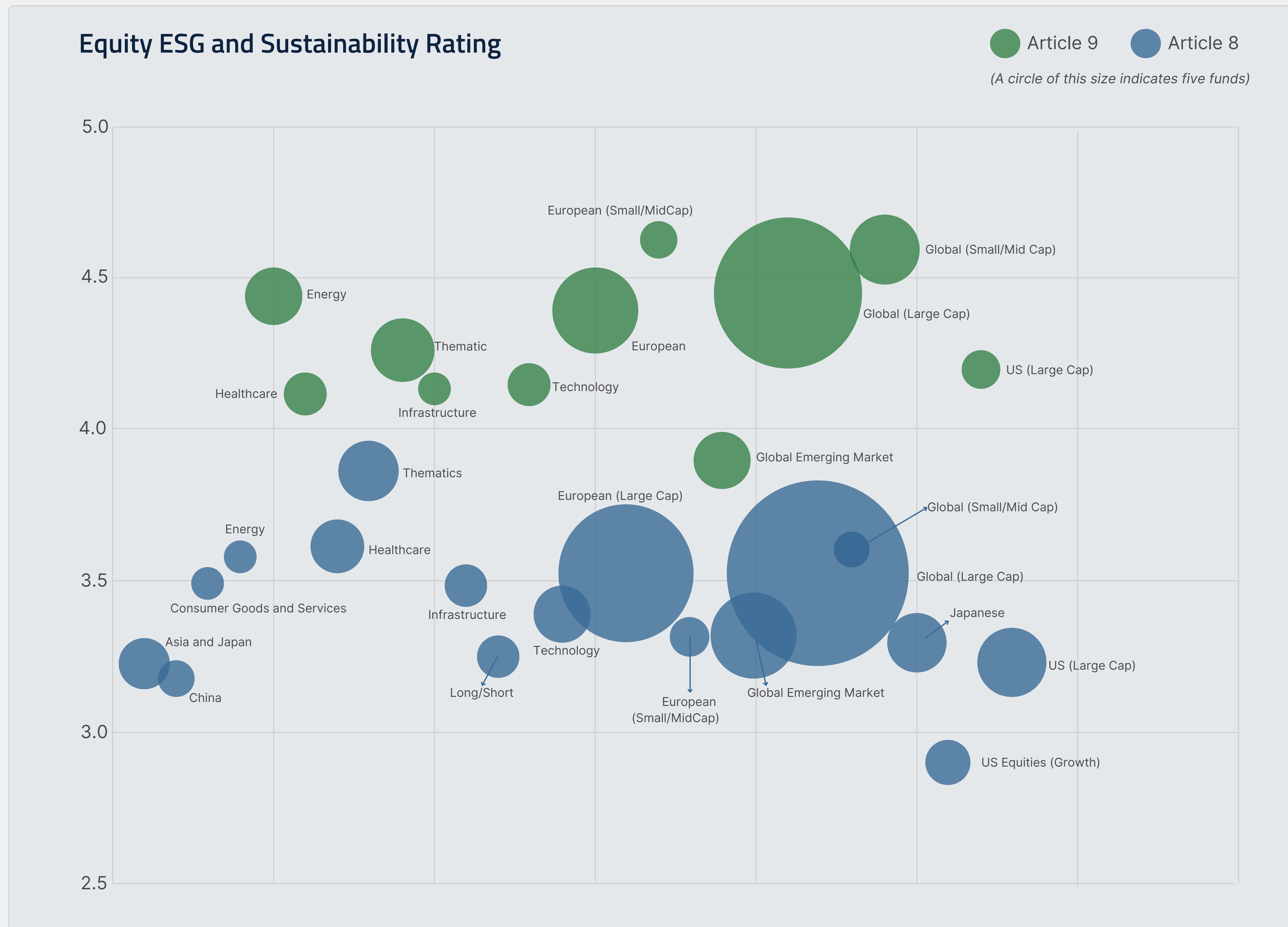
Furthermore, there were still some strategies here that were above a 4.0 highlighting that it is possible to meet our MainStreet Sustainability Assessed standard.

For Article 8 equity funds Global Equities again feature as the largest group, this time sharing the second highest average rating with Thematic Healthcare funds at 3.6.

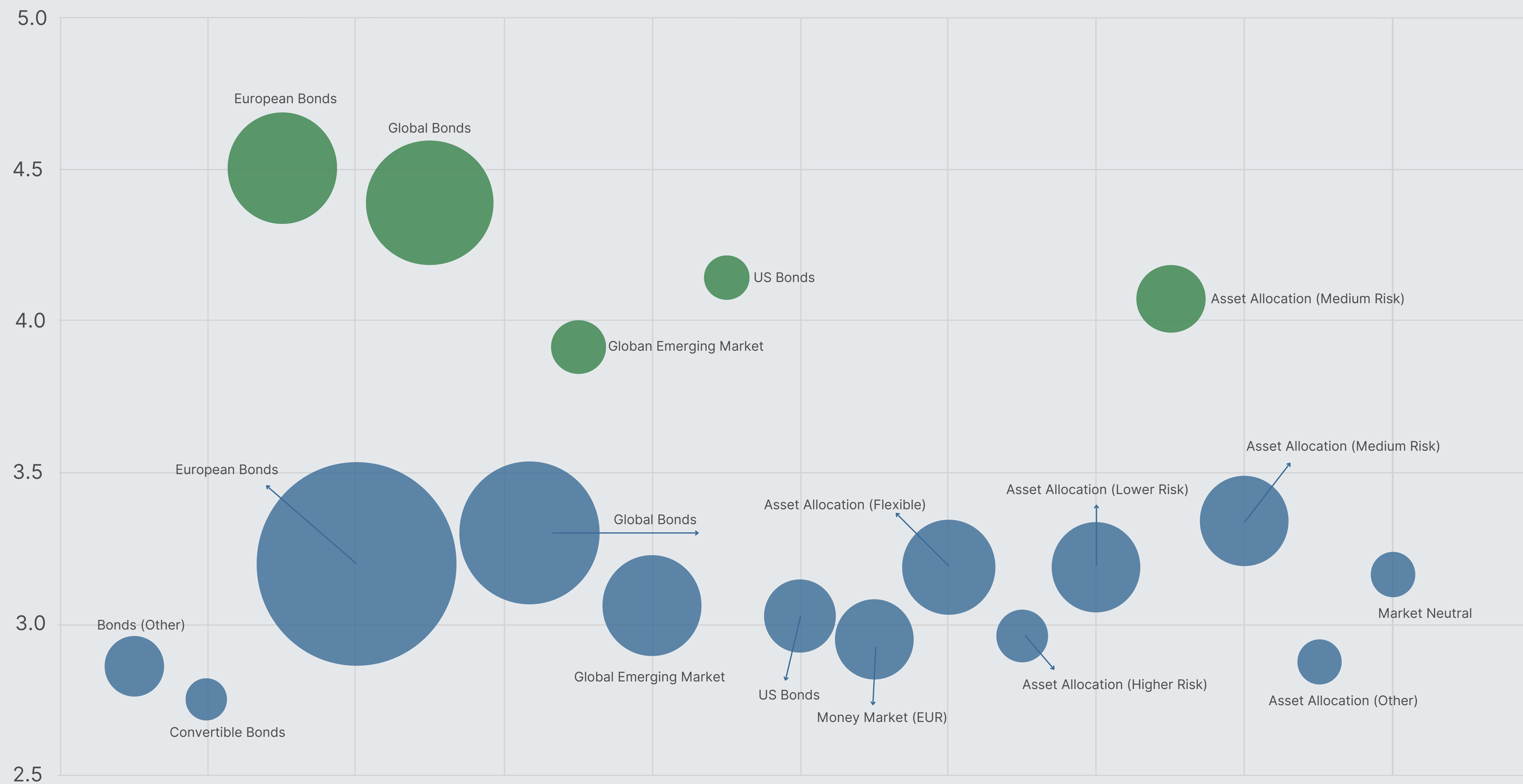
They were beaten by Thematic Equity funds which have an average rating just below 4.0. While healthcare may be assumed to be an inherently sustainable theme by some, we take a broader view to ensure the intentionality from the fund manager aligns to a Sustainable approach and that the potential negative outcomes have also been considered and factored in.

US Equities (Growth) tows the line with an average rating just shy of 3.0. Funds in this category, in-part, screen well on the Portfolio Pillar due to their limited exposure to controversial sectors but show little evidence of companies geared towards positive sustainable outcomes. Furthermore, ESG and Sustainability integration tends to take a more light-touch approach amongst these funds, particularly around Fund Objectives, Opportunity Set, and Additionality & Innovation.

Source: MainStreet Partners



Source: MainStreet Partners



Within our fixed income and cash coverage, European Bonds and Global Bonds categories for both Article 8 and 9 are among the highest ratings.

For Article 9 the sub-asset classes average ratings are 4.5 and 4.4 respectively, while **for Article 8 we see this leadership reverse with Global Bonds rated 3.3 and European Bonds rated 3.2.**

Europe remains the largest and most active region for Green, Social, and Sustainability bond issuance meaning the options available far exceed those of the US. This is a region poorly served by Article 9 options and there are only 16 funds in the Article 8 category with an average rating of 3.0.

Money Market is another area to note on this chart with an average rating of 2.9 for the 19 Article 8 funds covered. While it is possible for cash funds to achieve a MainStreet ESG Assessed standard (a rating above a 3.0) through collaboration with dedicated ESG and Sustainable resources, engagement with holdings particularly banks on their loan books and environmental or social targets, few have taken the steps needed to meet our expectations here.

1.5 "GREENHUSHING", IS THE PROBLEM BEING BLOWN OUT OF PROPORTION

There are only a small number of funds in our universe that rate above a 4.0 and only a very small portion of these that are SFDR Article 8. In general, funds with strong Sustainability characteristics are classified as Article 9 but as the table highlights that is not always the case. It is important to note that the overall ESG and Sustainability rating is not simply an equal split across the three Pillars. The Pillars and underlying factors contribute to varying degrees, with some acting as a bonus or a malus. One example of this is the regulatory overlays applied. Regulatory Adherence was detailed in the 'Risk of Greenwashing' section.

In most cases, this mismatch comes from how asset managers define Sustainable Investments, and the need to have 100% of investments in the fund (net of cash or derivatives) meet this criteria to be classified (by the asset manager) as Article 9. This means that funds with an improvement theme, for example transition or engagement, or where the definition of a Sustainable Investment (under SFDR) is narrow, are unable to meet the 100% requirement. This is due to these funds' focus on the potential future Sustainability characteristics of the investment. This is also true of alternative asset classes such as infrastructure or long/short funds where it can be trickier to maintain the required level of Sustainable Investment.

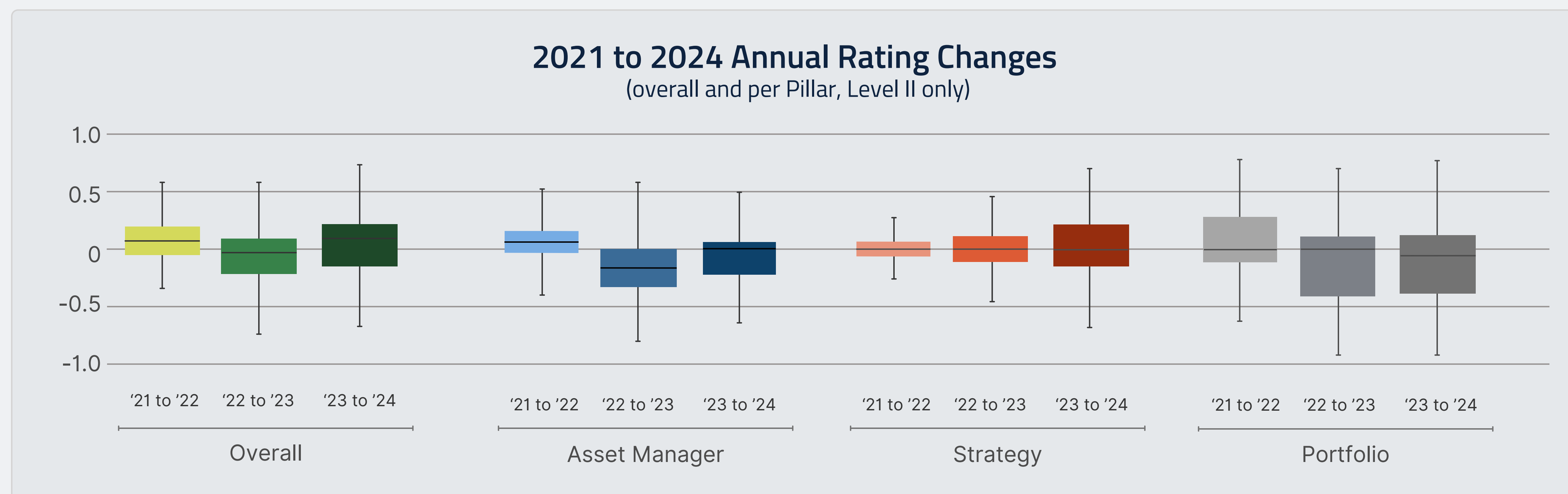
What we do not consider, is that these are **examples of "greenhushing", i.e. funds attempting to downplay their ESG or Sustainability credentials.** In most, if not all cases, it is clearly laid out in any legal and marketing documentation what the fund is aiming to achieve. Overall, this highlights the need for in-depth due diligence on a fund's Sustainability characteristics, rather than simply relying on a label or SFDR classification.

Source: MainStreet Partners

Article 8 Fund Name	ESG & Sustainability Rating	Pillar I Asset Manager	Pillar II Strategy	Pillar III Portfolio
• Lombard Odier Circular Economy	**5.0**	4.4	4.5	4.3
• Lombard Odier Planetary Transition	**5.0**	4.4	4.9	3.5
• Amundi Emerging Markets Green Bond	**4.9**	3.9	4.1	4.7
• BNP Paribas Environmental Absolute Return Thematic	**4.9**	4.1	4.3	4.3
• Raiffeisen Sustainable Momentum	**4.9**	4.0	4.2	4.5
• KBI Global Sustainable Infrastructure Fund	**4.9**	3.9	4.4	4.4

1.6 THE ESG AND SUSTAINABILITY MODEL EVOLVES BUT OVERALL RATINGS REMAIN CONSISTENT

Source: MainStreet Partners



Despite evolutions and enhancements to our fund rating methodology, our ratings remain consistent over time. This consistency ensures reliability for clients as they build portfolios, set targets, and monitor key performance indicators.

The chart shows us the changes to the overall ratings and each of the three Pillars since 2021. On the whole, most changes at the top level or at the Pillar level remain close to zero. Our three Pillar methodology assesses funds on a forward-looking basis and as funds rarely make wholesale changes to their process some of the smallest changes can be seen in the fund's strategy (Pillar II). Unsurprisingly, the biggest changes can be seen in the Portfolio Pillar.

This variation is expected as a fund's holdings will often change between review periods. In 2023 we evolved the Asset Manager and Portfolio Pillars. A drop in rating between 2022 and 2023 can be seen in the chart, however, we can see that the rating here has stabilised through to 2024.

2) REGULATORY UPDATE: SFDR / ESMA GUIDELINES

2.1 HOW ESMA'S FUND NAMING GUIDELINES ARE RESHAPING SUSTAINABLE FINANCE

The European Securities and Markets Authority (ESMA) Fund Naming Guidelines stand out as one of the most transformative regulatory developments for European Sustainable Investments.

The rules aim to address greenwashing concerns by ensuring that funds with ESG and Sustainability related terminology in their name genuinely reflect the commitments made. Six months after the guidelines' proposal, how has the industry responded? And what do the year's data trends reveal about the evolving ESG landscape?

RELIEF FOR GREEN BONDS

Up until recently, the guidelines had presented a unique challenge for green bond funds. The fossil fuel revenue criteria in the Paris Aligned Benchmark (PAB) exclusions would result in companies in the energy sector that issue green bonds finding themselves on a fund manager's exclusion list.

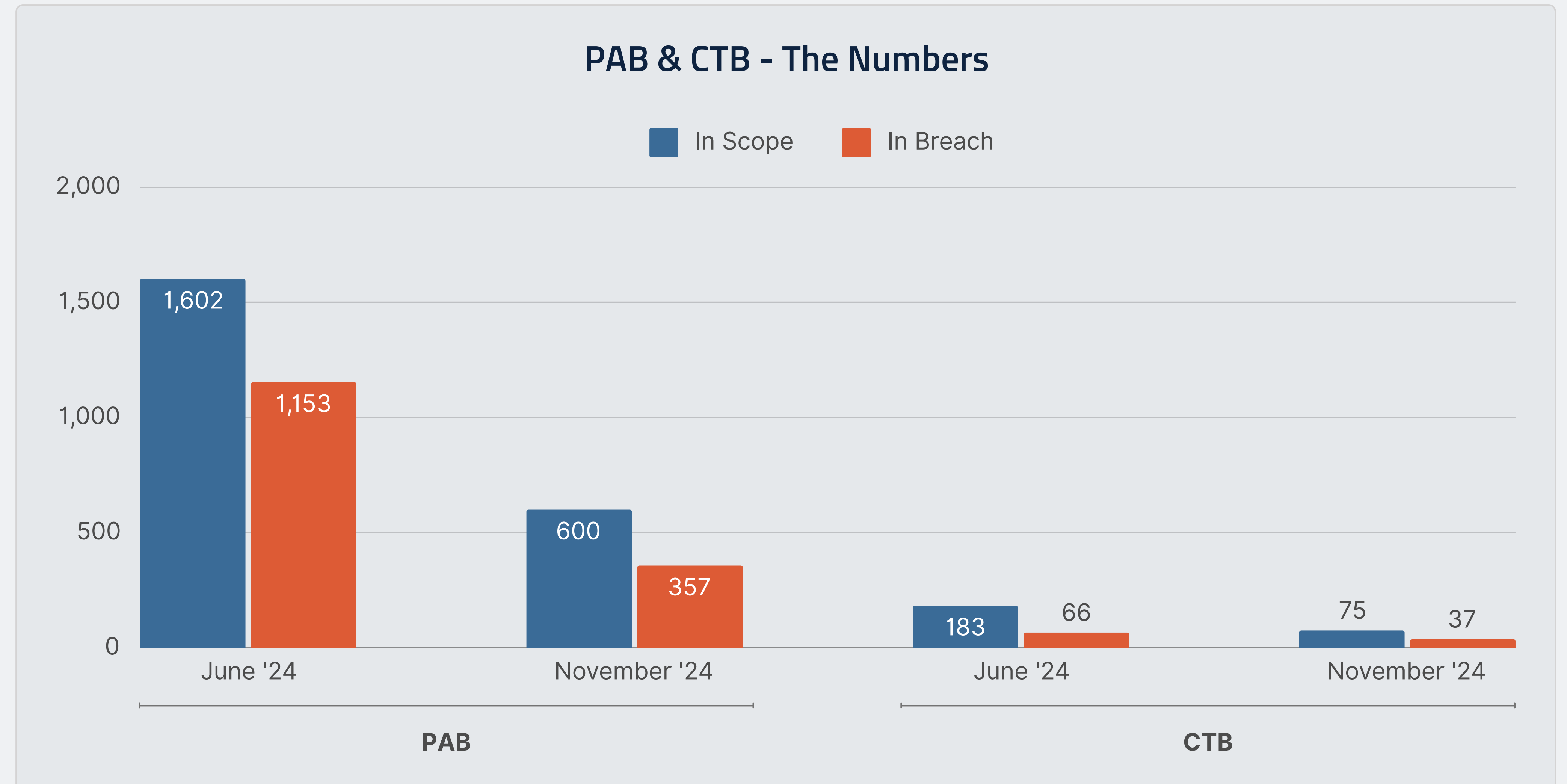
Many green bonds are issued to finance environmentally friendly projects for companies transitioning away from fossil fuels, and as the International Capital Market Association (ICMA) noted in its feedback to ESMA, this would limit support for real-world emission reductions. Funds would have been forced to either rebrand or divest from green bonds issued by transitioning companies.

On December 13th, 2024, ESMA released a much-anticipated Q&A clarifying that investment exclusions would not apply to European Green Bonds under the European Green Bonds Regulation. For other green bonds, managers will have to use a look-through approach to assess whether the financed activities align with exclusion criteria.

REGULATORY UPDATE: SDR / ESMA GUIDELINES

As of November, the number of funds subject to ESMA's Fund Naming Guidelines has decreased significantly, dropping from 1,180 in June to just 675—a 42% reduction. This steep decline suggests that asset managers are opting to rebrand funds rather than adjusting mandates to comply.
While our assessment of controversial weapons is marginally different to ESMA's, namely we continue to perceive nuclear weapons as controversial, the number of companies with nuclear exposure is minimal meaning any impact of this definition is limited. The analysis does not factor in the carbon intensity consideration for PAB given this requirement has been in place prior to the recent regulation changes.

Source: MainStreet Partners



Among the 675 funds under the guidelines' scope, 357 breach the PAB exclusions, and 37 violate the CTB exclusions - these figures show a modest decrease in the overall number of violators from 66% in June to 58% in November.

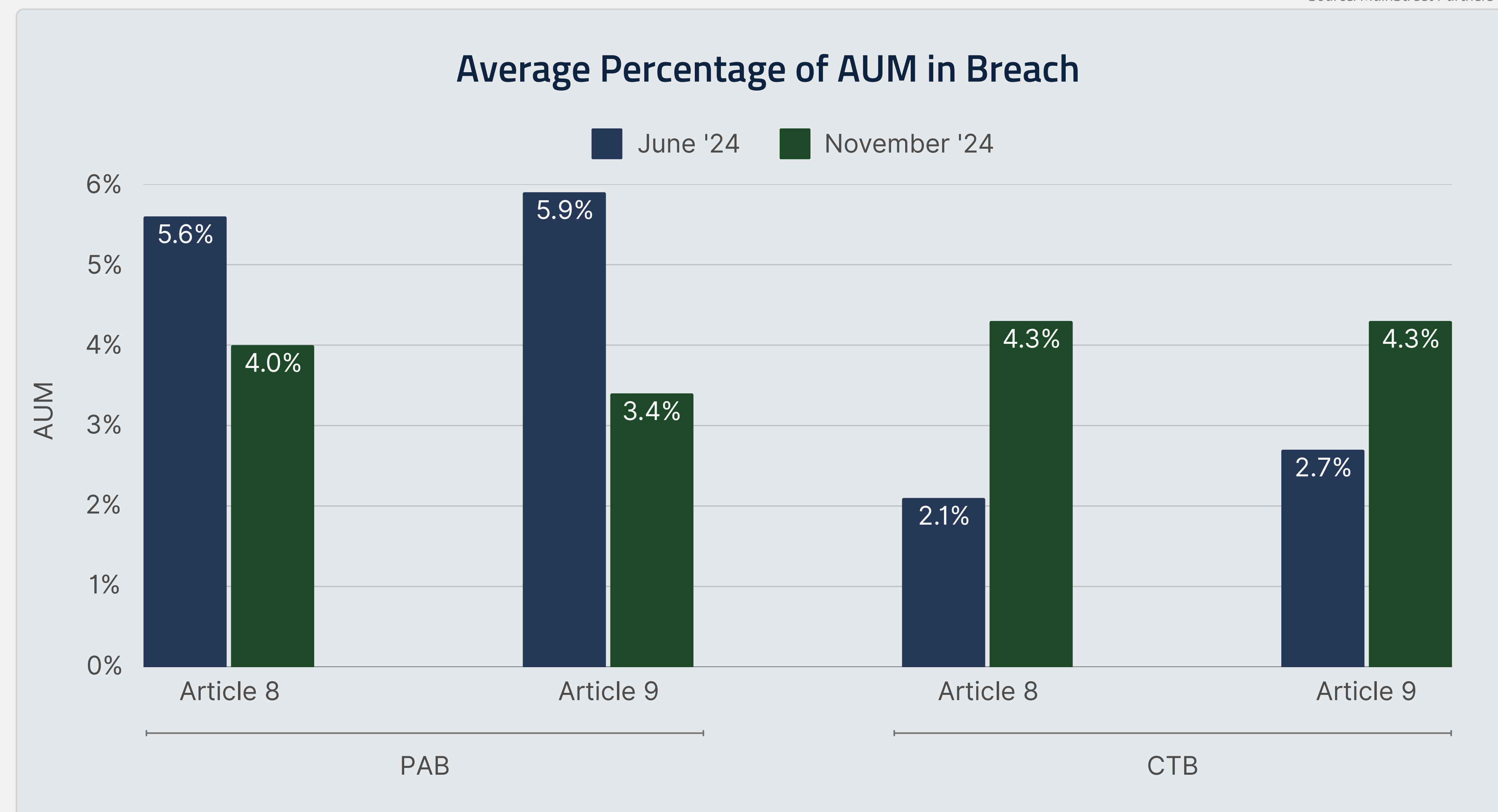
Interestingly, **the proportion of funds under the PAB regime that are in breach of their exclusions has remained steady at 72%.** However, **breaches of the CTB exclusions have surged from 36% to 49%.** At a glance, this increase would indicate slow progress in adjusting portfolios to meet standards or a substantial increase in the number of portfolios breaching the exclusions. Still, closer inspection reveals that this rise is primarily due to the overall reduction in the number of funds in scope of the regulation, in other words, funds have opted for a name change

The guidelines are having the intended effect, as the looming May 2025 deadline for compliance adds pressure to this trend.

AUM TRENDS: CONTRASTING RESULTS

The average assets under management (AUM) in breach tell a more nuanced story, but continue to highlight the greater challenges faced by CTB funds.

Source: MainStreet Partners



This divergence is particularly evident in Article 9 funds. While breaches as a proportion of AUM under PAB fell, breaches under CTB spiked, from 2.7% to 7.7%. **Most Article 8 and 9 funds falling under the PAB's scope use the terms 'ESG' and 'Sustainable' in their names.**

Amongst those that violate the exclusions set by the **PAB regime, the most common reasons are exposure to activities in Coal and to UNGC Violators.**

Taking a closer look at funds breaching the **CTB exclusions across both Article 8 and 9, the majority use 'Transition' related terminology, and as per MainStreet's methodology for assessing controversial activities the breaching holdings are linked to controversial weapons and OECD violators.** Similar to the previous chart the increase in the proportion of funds breaching is due to the reduction in the number of funds in scope of the regulation rather than an uptick in funds breaching. ESMA's Fund Naming Guidelines have clearly reshaped the ESG and Sustainable landscape in 2024. While challenges remain, the progress made points to the guidelines achieving their intended effect. By encouraging transparency and accountability, ESMA has laid the groundwork for a more disciplined and trustworthy Sustainable finance ecosystem.

2.2 UK SDR FOCUS AND IMPACT LABELS LEAD

The Sustainability Disclosure Requirements (SDR) was introduced by the UK Financial Conduct Authority (FCA) to standardise the Sustainability claims of financial products and reduce potential greenwashing. Historically, asset managers freely labelled funds using terms like "Sustainable" or "ESG," often using the two terms interchangeably and without specifying a definition. This has left investors confused about a fund's Sustainability credentials. By implementing stricter guidelines and labelling requirements, SDR aims to provide clarity and reduce greenwashing.

For investments applying the Sustainability labels there are four to choose from:

- **Focus** - investment in companies with positive Sustainable outcomes;
- **Improvers** - for companies looking to pivot to more Sustainable business activities;
- **Impact** - for projects with quantified benefits for both, or one of, the planet and people;
- **Mixed Goals** - a combination of the above.

At the time of writing 67 funds have applied a label or have confirmed that they will be applying a label before the April deadline. Within this number we cover 36 funds as part of our Level II methodology, and 11 funds as part of our Level I process.
We are expanding our coverage to include those funds with labels where the funds are broadly accessible. Of the funds we cover nine are Impact funds with an average MainStreet ESG and Sustainability rating of 4.6. While 25 of the SDR labelled funds we cover are Focus funds with an average MainStreet ESG and Sustainability rating of 4.1. These average ratings are above the MainStreet 'Sustainability Assessed' standard (4.0 and above). Three funds have applied Improvers labels while one Mixed Goals label has been applied by Schroders.

ADDRESSING CRITICISM

The market has raised questions around the success of SDR given some asset managers are opting out either by removing any reference to Sustainability in the fund name and documents, or by using names adjacent to Sustainability like ESG, and aligning to the 'Unlabelled with Sustainability Characteristics' group.

Although some may see this pull away from SDR as a negative we believe the opposite is true. **Those applying an SDR label will stand out in a previously crowded market, reinforcing credibility for those that qualify, and fostering greater trust among clients. The distinction between non-labelled and labelled funds underlines the reality that while a fund may integrate ESG from a risk management standpoint this does not automatically lead to Sustainable outcomes.**

On the other hand, "greenhushing" - a reluctance to disclose sustainability efforts discussed earlier - may occur in niche cases. These decisions often reflect strategic considerations, such as resource allocation, or a re-assessment of an asset manager's minimum standards, rather than a rejection of SDR principles. We have seen very few instances of this thus far and believe it will be a rarity.

ALIGNMENT TO EUROPEAN REGULATION

We anticipate greater harmonisation of Sustainability standards as public consultations concluded in December 2023 on the next update to SFDR in Europe. The Commission is analysing feedback to finalise recommendations for regulatory updates aimed at enhancing legal clarity and usability. The intention of this iteration is: to introduce clearer product categories (such as "Sustainable" and "Transition"), enhance consumer understanding, and address greenwashing risks through improved definitions and presentation of disclosures.

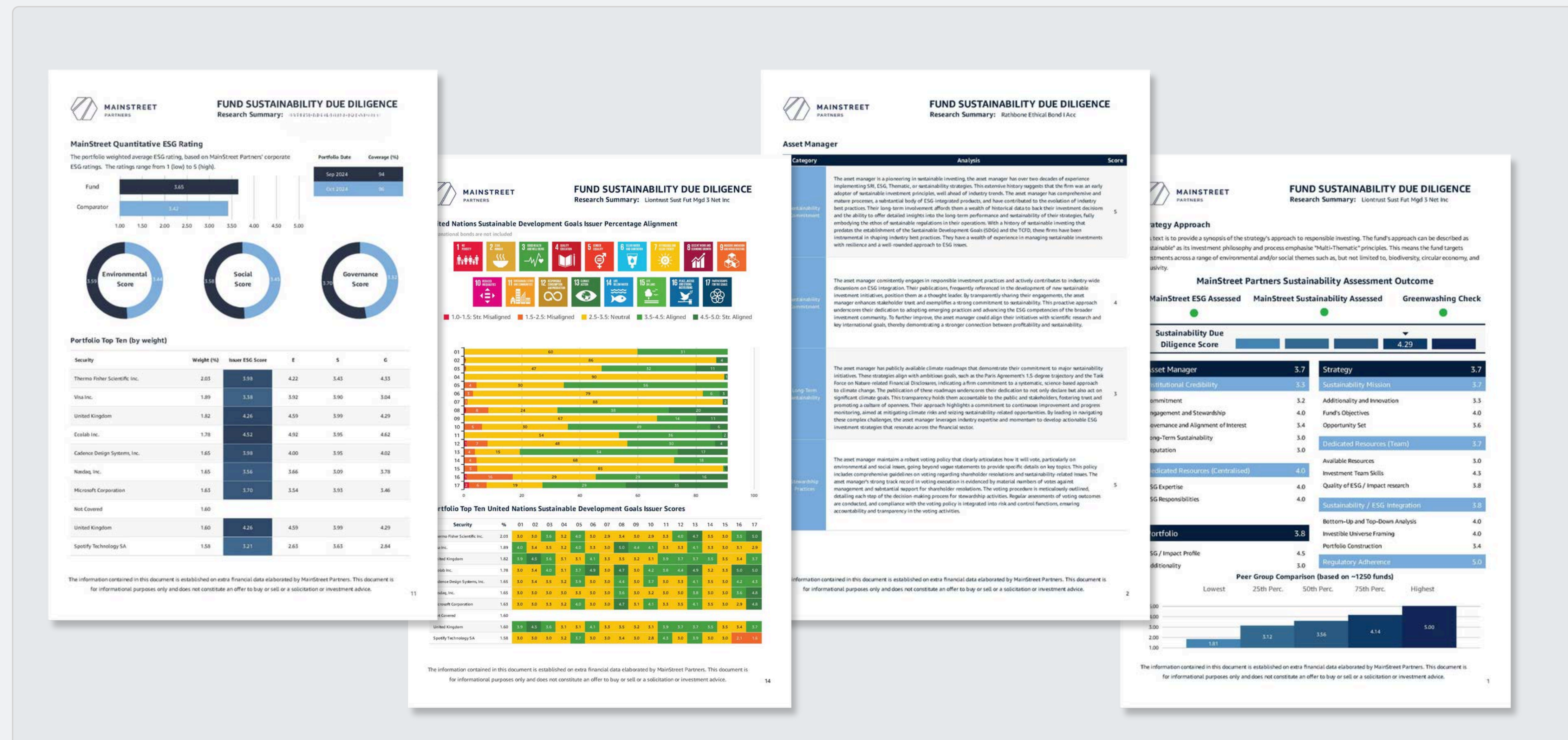
LOOKING AHEAD: SDR NEXT STEPS AND IDENTIFYING FUNDS FOR SUSTAINABLE MPS

The FCA's pragmatic approach, including extending the deadline for funds and fund-of-funds in the process of applying a Sustainability label from the 2nd of December 2024 to the 2nd of April 2025 reflects the well understood challenge of the regulation, specifically the time required to amend and approve legal documents.

Next in line are Model Portfolio Service (MPS). The expectation is that the rules will be similarly applied as those already in place for fund-of-funds, namely, treating funds as assets and requiring an absolute standard of Sustainability. Further details were expected in the second quarter of 2025, but the FCA has very recently decided to push this timeline back in order to have more time to reflect on industry feedback. As MPS providers are not able to use a fund's label as a standard of Sustainability, having a credible method of assessing the Sustainability profile of a fund is essential. At MainStreet Partners we are committed to supporting asset managers and investors with our rigorous assessment of a fund's ESG and Sustainability through an absolute (rather than relative) lens. We have developed a **Fund Sustainability Due Diligence Report providing a fully evidenced research process** – much more than just a rating.

The report includes both a quantitative and qualitative assessment of a fund's ESG and Sustainability profile. The qualitative information covers various factors across Pillar I (Asset Manager) and II (Strategy), and our Regulatory Adherence assessment while the quantitative highlights some of the data we assess as part of Pillar III (Portfolio).

Source: MainStreet Partners



MainStreet's' 80+ factor model evaluates a fund across three Pillars: the Asset Manager, the investment Strategy, and the Portfolio holdings. It is because of this that we believe our model aligns with the SDR. This is further highlighted by our methodology's robustness, as only 7% of the 5,500+ active funds we assess surpass a rating of 4.0 and therefore meet our internal sustainability standard.

The SDR is not just a regulatory framework - it is a pathway to a clearer, more accountable investment landscape. While the journey toward full implementation presents challenges, the clarity it offers to investors far outweighs the complexity. At MainStreet Partners, we believe that robust, evidence-based methodologies will empower asset managers and clients alike to navigate these changes confidently. As the EU SFDR has become firmly embedded within the European fund market, we continue to watch developments and trends with how asset management firms choose to adopt it. The European ESG Template (EET), though voluntary, is the only method for asset managers to provide information on their funds in a standardised way. This year we have decided to explore how fund managers have progressed with Article 8 and 9 classifications. We have focused on upgrades and downgrades, percentage of Sustainable Investments, Principle Adverse Impact (PAI) considerations, and EU Taxonomy Alignment.

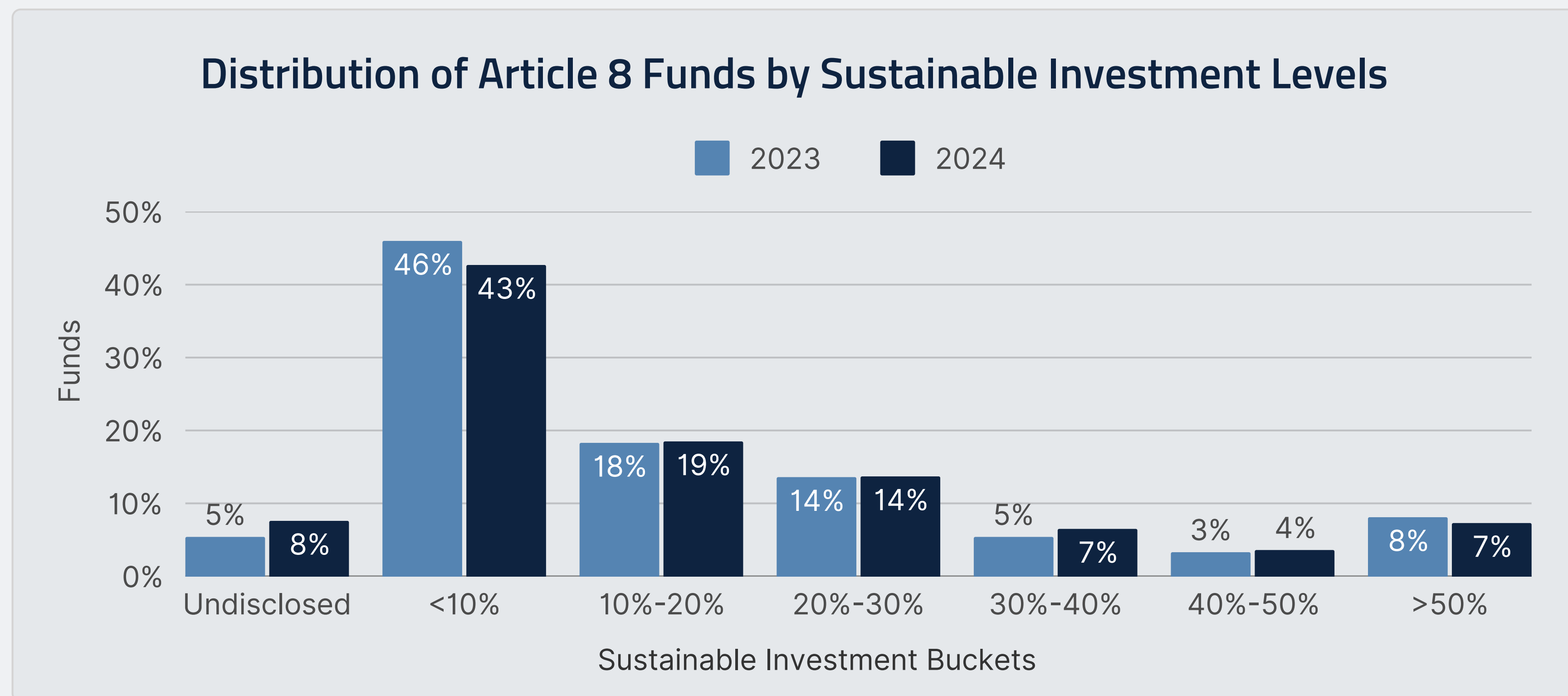
3) EET TAKEAWAYS

Since the introduction of the first version of the European ESG Template (EET) we have lamented that there has not been enough uptake, nor that it has been completed thoroughly.

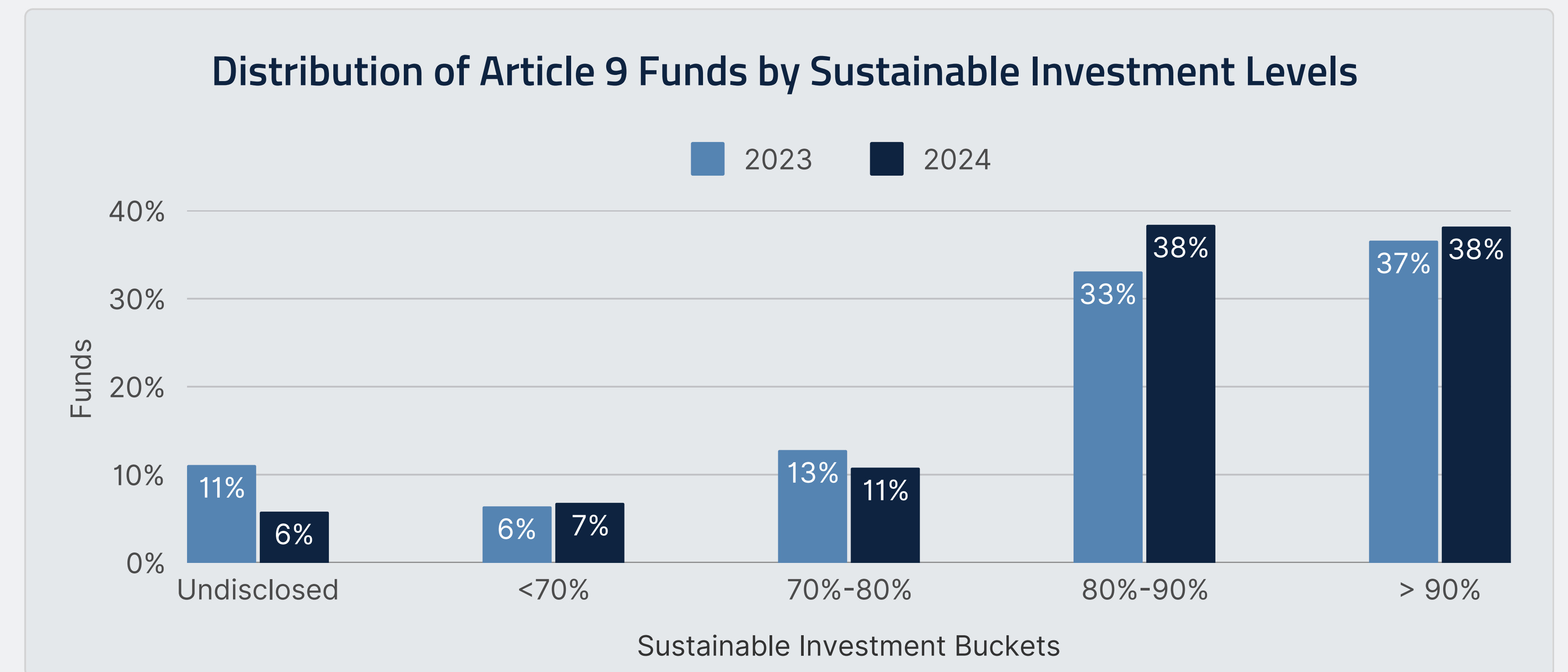
However, **one of the main themes we have discovered amongst the following analysis is that disclosure, overall, has improved. Through our meetings and interactions with asset managers, we believe one of the key drivers of this is that more asset managers have meaningfully adopted ESG and Sustainability data into their internal IT architecture, making it easier to disclose data.**

3.1 STABLE AND IMPROVING MINIMUM PERCENTAGE IN SUSTAINABLE INVESTMENT, BUT DISCLOSURE REMAINS A CHALLENGE

Source: MainStreet Partners



Source: MainStreet Partners

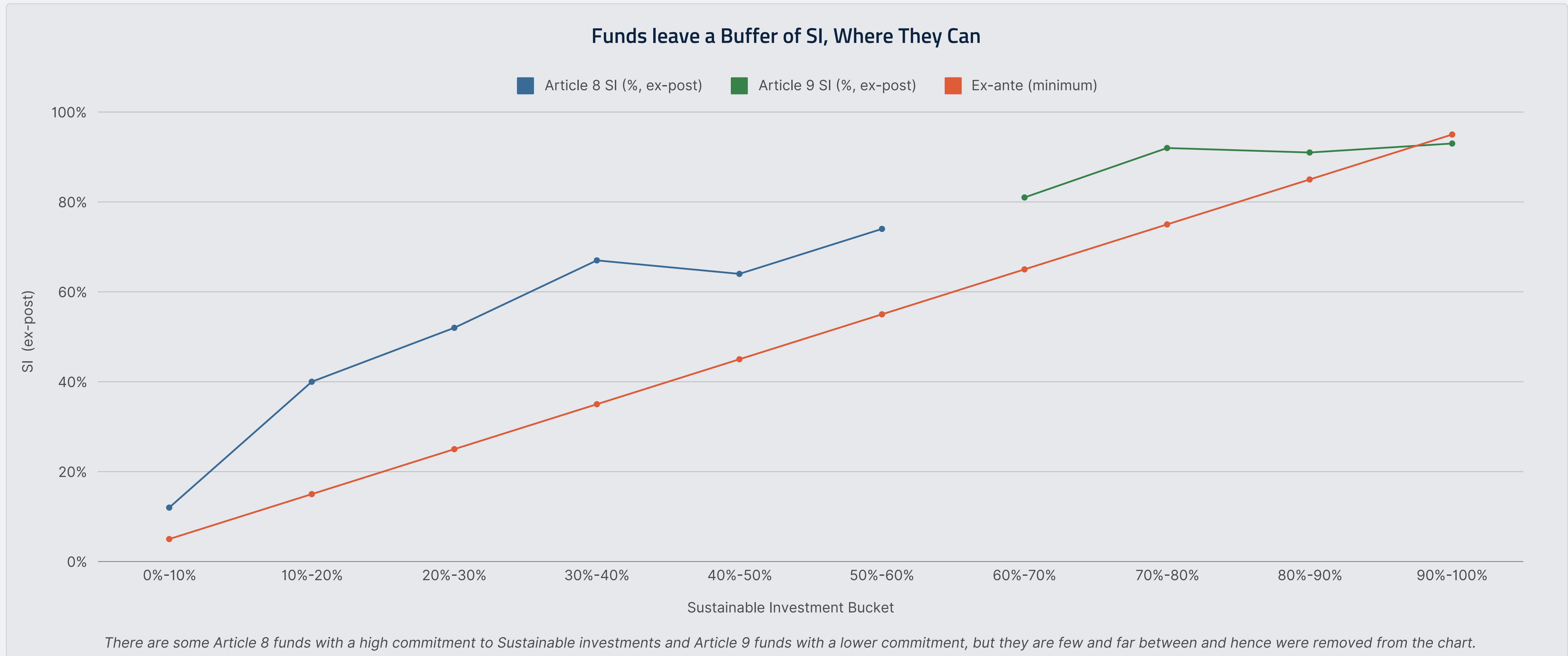


This first chart compares snapshots of Article 8 fund Sustainable Investment (SI) levels at two points in time, showing a cautious but gradual shift in commitment distributions. A significant portion of funds in November 2024, 43%, report SI levels below 10%, emphasising the relatively modest sustainability ambitions for many Article 8 funds, which are designed to "promote" ESG characteristics rather than explicitly target SI as per Article 9 funds. The levels of which Article 8 funds are committing to SI has not changed but there has been an increase in those not disclosing with almost 8% not reporting a minimum SI. The driver of this is not funds reducing their commitment to Sustainable investing but the new funds to the EET having lower levels of disclosure on average. Within Article 8 higher SI commitments remain sparse, with only 7% of funds committing 50% plus.

The second chart provides a comparison of **Article 9 funds'** SI levels across the same two periods. Those funds c**ommitting 80% or more to Sustainable assets rose from 70% to almost 77%**. The higher levels of SI amongst those disclosing is most likely driven by the increased requirements on Article 9 funds, namely the requirement to have all assets ex cash and equivalents to be invested in SI.

Lower SI buckets (< 40%) remain small in number and due to Article 9's strict SI requirements this may be due to errors from asset managers completing the EET. **The drop in the 'Undisclosed' category, from 11% to 6%, highlights improved transparency**. Furthermore, as the number of users of the EET increases and both the data quality and quantity improve, this creates a positive loop where asset managers are more willing to provide the data.

Source: MainStreet Partners



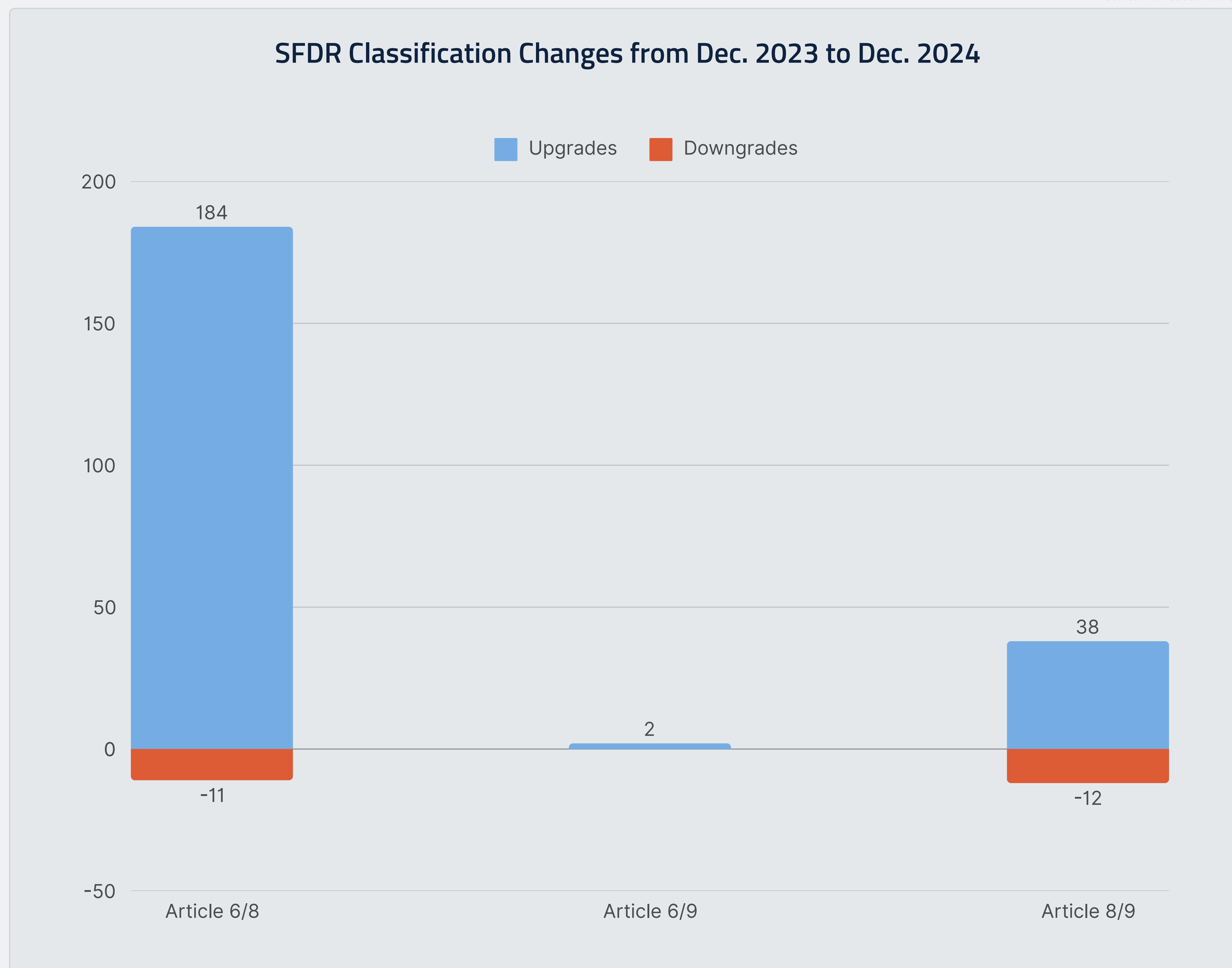
There are some Article 8 funds with a high commitment to Sustainable investments and Article 9 funds with a lower commitment, but they are few and far between and hence were removed from the chart.

In general, the trend we expect to see is that the average actual SI percentage on average is higher than the planned minimum percentage. Though in many cases this is easily achieved as over 1400 funds state the minimum planned percentage of SI as zero.

The gap between committed and actual SI remains notable, particularly for Article 8 funds. In the 10%-20% range actual SI averaged 40%, while funds in the 20%-30 % range performed slightly better at 52%. Article 9 funds showed greater alignment but with a smaller difference between the planned and actual level of SI as there is far less headroom available.

3.2 CLASSIFICATION DOWNGRADES SETTLE WITH UPGRADES TAKING THE LEAD

Source: MainStreet Partners



In 2022 and 2023 there were a flurry of changes to Sustainable Finance Disclosure Regulation (SFDR) classifications. This has since settled in 2024. While we have still seen changes, 2024 saw asset managers focus on regulatory changes, such as those related to the earlier discussed ESMA naming rules.

There were, however, some downgrades, just into double digits from Article 9 to 8 and a similar number from Article 8 to 6. For example, the now closed BlackRock China Impact fund was originally Article 9 but moved to Article 8 due to difficulties ensuring that all investments could be deemed Sustainable. A common challenge among emerging market strategies. On the other hand, the two upgrades were both cases where funds were repurposed from an unconstrained Article 6 fund to an Article 9 fund.

The chart shows **many funds upgraded from Article 6 to 8 in 2024, reflecting asset managers' response to rising demand for ESG-aligned products.** As discussed earlier, upgrading to Article 8 allows funds to promote environmental or social characteristics without committing to the explicit Sustainable investment objectives required for Article 9. This reclassification often involves integrating basic screening criteria, excluding harmful sectors, for example, fossil fuels, tobacco etc. In our discussions with asset managers, aligning portfolios with investor expectations by adopting specific filters, and incorporating industry-standard frameworks like the Sustainability Accounting Standards Board (SASB) or the Global Reporting Initiative (GRI) into reporting processes are a key focus.

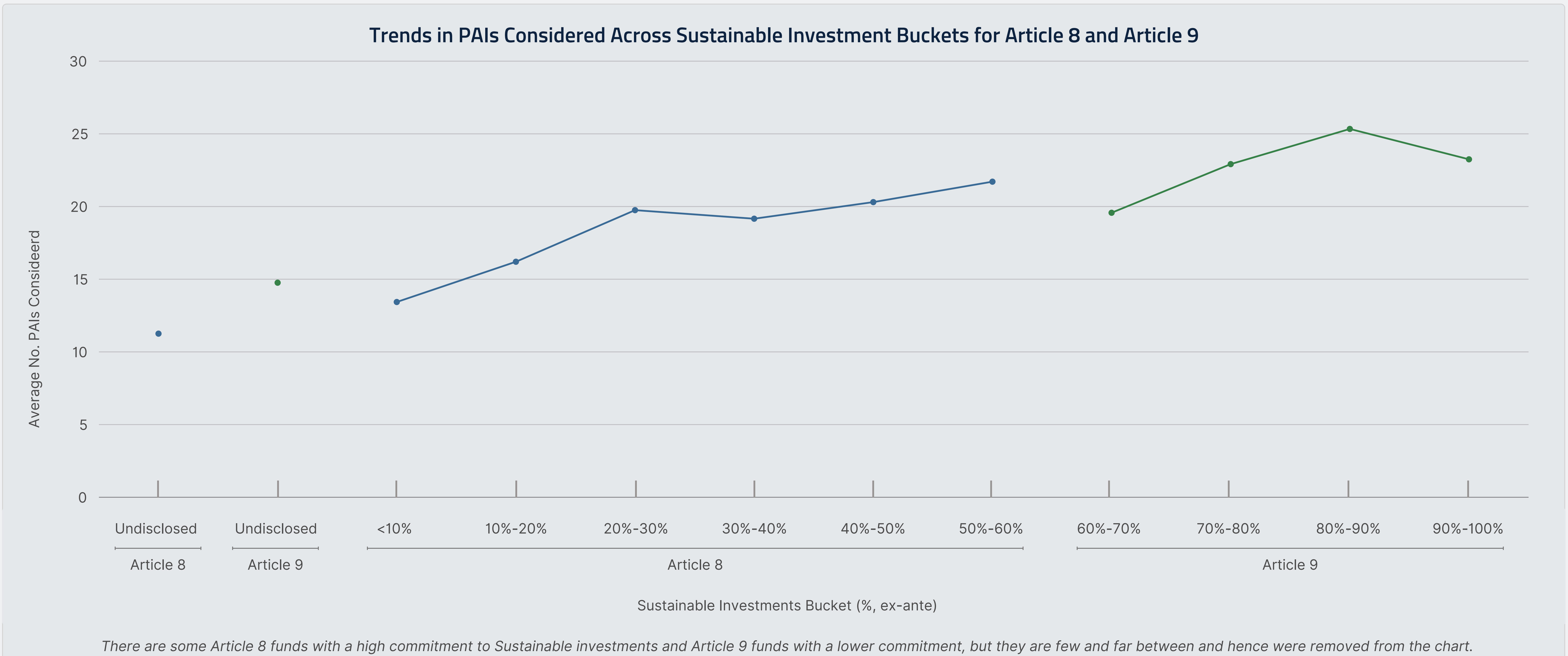
Although this shift to Article 8 from 6 is at first glance positive, upgrades are under scrutiny for potential greenwashing, as some funds may lack robust ESG integration. To address this, fund managers must ensure transparent disclosure of methodologies, regularly update, and publish reports, and clearly demonstrate how their investments achieve stated environmental or social outcomes. As discussed elsewhere in this report, these upgrades are not always undertaken by asset managers with these considerations in mind.

Some of these changes may have occurred pre-2024 but were not captured due to a lack of up-to-date information produced by the asset managers. However, our own research produces similar results and therefore the trends and key takeaways remain.

3.3 PAI UPTAKE IN LINE WITH SI COMMITMENT

Principle Adverse Impacts (PAIs) are a standardised set of indicators which give detail on negative externalities and consequences of investment portfolios. Under the current rules, for an asset manager to classify their investments as Sustainable they must demonstrate that the investment "does no significant harm". PAI's usually form part of this assessment. It comes then, as no surprise, that **as a fund commits to a higher SI a larger number of PAIs are considered.**

Source: MainStreet Partners



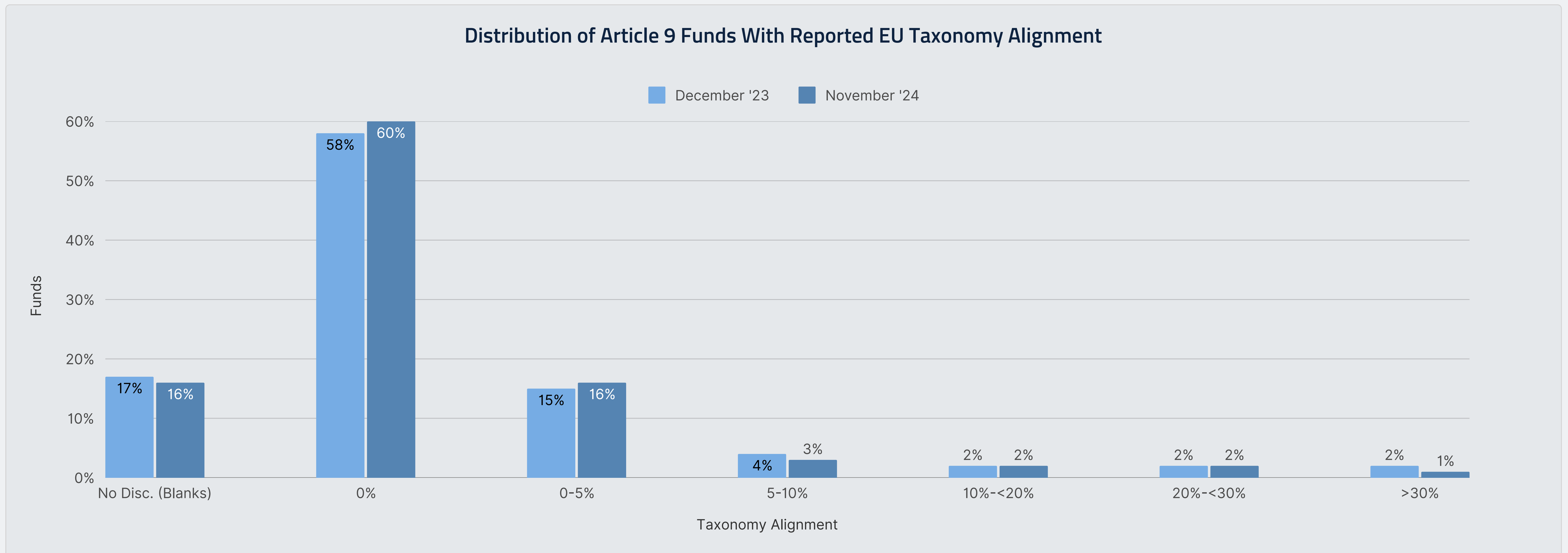
There are some Article 8 funds with a high commitment to Sustainable investments and Article 9 funds with a lower commitment, but they are few and far between and hence were removed from the chart.

3.4 MAJORITY REPORT ZERO PERCENT ALIGNMENT TO THE EU TAXONOMY

The chart highlights the EU Taxonomy alignment of Article 9 funds in December 2023 and November 2024. Given the focus of Article 9 versus Article 8 funds is to target SI, rather than to promote E and S characteristics, the Taxonomy is less relevant for the latter and so the percentage is negligible. **Article 9 funds with 0% alignment increased from 58% to 60% over the period, while funds with over 30% alignment fell from 2% to 1%. This may reflect persistent challenges in meeting EU Taxonomy standards but could also indicate more funds now reporting on alignment, broadening the dataset.**

Key barriers include data quality issues, as corporate disclosures remain inconsistent, and sectoral limitations as some industries lack defined EU Taxonomy criteria. Regulatory uncertainties around evolving SFDR guidelines also add compliance risks, leading to conservative alignment reporting. To address this, fund managers targeting EU Taxonomy alignment are increasingly reallocating investments to compliant sectors like renewable energy, as well as implementing advanced ESG and Sustainability data frameworks. Looking to the future, we hope an equivalent social taxonomy will come to fruition. Many asset managers are already implementing their own proprietary versions.

Source: MainStreet Partners



4) THEMATIC

4.1 DIFFICULTIES FUND MANAGERS FACE WHEN LOOKING AT BIOFUELS & SAFS

The world faces an urgent need for climate action. Although climate finance increased by 7% year-on-year between 2011 and 2020, recent forecasts indicate that at least **$4.3 trillion in annual financial flows by 2030 - or a 20% year-on-year increase - is required to mitigate the worst impacts of climate change.**[1]

The energy sector, responsible for 73% of global greenhouse gas emissions (GHGs), plays a critical role in this challenge. Emissions in this sector are primarily driven by energy consumption in industrial processes, transportation, and buildings.[2]

Currently, the global energy mix is dominated by fossil fuels, including coal, oil, and natural gas, which account for 66% of total world consumption.[3] **Fund managers face the decision when investing for the transition, to either select solution providers, or those companies facing the gravest risk.** For the latter, consistent engagement efforts will be key to ensure their companies are future fit.

As the planet reaches a pivotal moment, transitioning to cleaner, sustainable energy sources and away from oil and gas has become imperative. Governments and multi-national organisations can help to drive this change but what can we as investors do? Facilitating and financing this change is something that can be partly achieved through investment funds and the decisions made by asset and fund managers. However, how you get from one to the other is not exactly clear.

The versatility of oil and gas as energy sources has made them indispensable for a wide range of applications. However, this raises several crucial questions:

- Are there viable substitutes for fossil fuels that can deliver comparable energy output that also support diverse use cases?
- Can these alternatives seamlessly integrate with existing technologies, such as those used in aviation and automobiles, either as standalone fuels or in blends with fossil fuels, without requiring significant modifications?
- Are there viable substitutes that are cost competitive, and can they offer greater energy security?
- Does the use of a substitute have any trade-offs or weaknesses to consider?

This is where the potential of biofuels comes into focus, but to understand their potential first we must know what they are, and how biofuels are used now.
By answering these questions, we can better understand the decisions fund managers face when looking at sectors desperately in need of transitioning, both by analysing the risk of doing nothing, and the opportunities available.

WHAT ARE BIOFUELS?
Biofuels are renewable fuels derived from biological materials such as plants, algae, or animal waste. Common examples of biofuels include Sustainable Aviation Fuel (SAF), hydrotreated vegetable oil, bioethanol, and biodiesel.

According to the International Energy Agency (IEA),[4] biofuels represented over 3.5% of global transport energy demand, mainly for road transport in 2022 and have the potential to provide up to 27% of world transportation fuel by 2050.[5]

Biofuels play a versatile role across various sectors, offering renewable and potentially Sustainable alternatives to fossil fuels. In transportation, biofuels like ethanol and biodiesel are widely used to reduce GHGs and dependence on fossil fuels. They also power energy generation in biomass-rich areas and provide heating for homes and buildings through renewable boilers and furnaces. In developing regions, biofuels offer a cleaner solution for cooking compared to biomass like wood or charcoal. Industrially, biofuels are utilised in processes such as chemical production, as solvents, and lubricants. Emerging applications include SAFs for reducing emissions in air travel, as well as biofuels for maritime transport to curb emissions from shipping. Additionally, biofuels can serve roles like cleaning up oil spills and replacing conventional solvents with biodegradable alternatives.

These diverse use cases highlight biofuels' potential to transform energy and fuel systems globally.

SAF is a type of 'drop-in' fuel, meaning it can be used in existing aircraft and engines without requiring any modifications. SAF is blended with conventional jet fuel and meets the same specifications, making it compatible with current fuel infrastructure. SAF can significantly reduce carbon emissions, with reductions of up to 80 %compared to traditional jet fuel.[6]

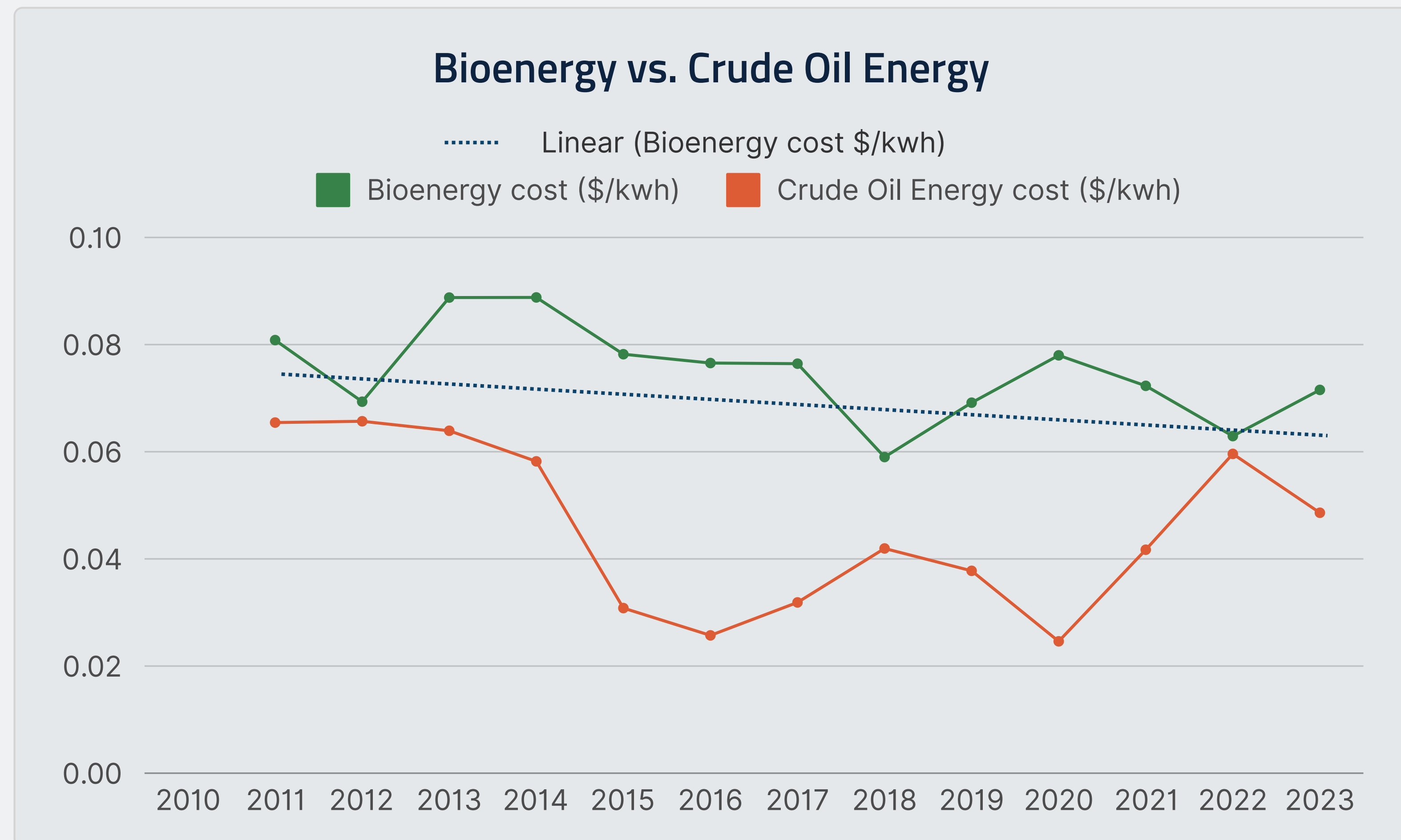
1. climatepolicyinitiative.org/publication/
2. ourworldindata.org/ghg-emissions-by-sector
3. iea.org/reports/key-world-energy-statistics-2021/final-consumption
4. climatepolicyinitiative.org/publication/
5. ourworldindata.org/ghg-emissions-by-sector
6. iea.org/reports/key-world-energy-statistics-2021/final-consumption

ECONOMIC ANALYSIS

While bioenergy has historically been a more costly form of energy compared to crude oil, the price gap is narrowing. The cost of biofuel production has shown a steady decline, dropping from $0.084 per kWh in 2010 to $0.072 per kWh in 2023, a 14% drop. This reduction highlights the increasing competitiveness of bioenergy as advancements in technology and production efficiency continue to drive costs down.

Bioenergy also offers a significant advantage in terms of price stability evidenced by its lower volatility over the years. **With crude oil prices remaining volatile and susceptible to geopolitical and market disruptions, the improving affordability of bioenergy makes it an increasingly attractive and sustainable alternative for the global energy transition.**

Source: MainStreet Partners



The chart shows a comparison of the levelized cost of bioenergy* and the cost of crude oil using the price of brent crude oil per barrel** as reference converted to US Dollar per kwh. The levelized cost of electricity (LCOE) is a measure used to evaluate the average cost of generating electricity over the lifetime of a power plant.

* IRENA Renewable Power Generation Costs in 2023.

** Energy Institute Statistical review of World Energy.

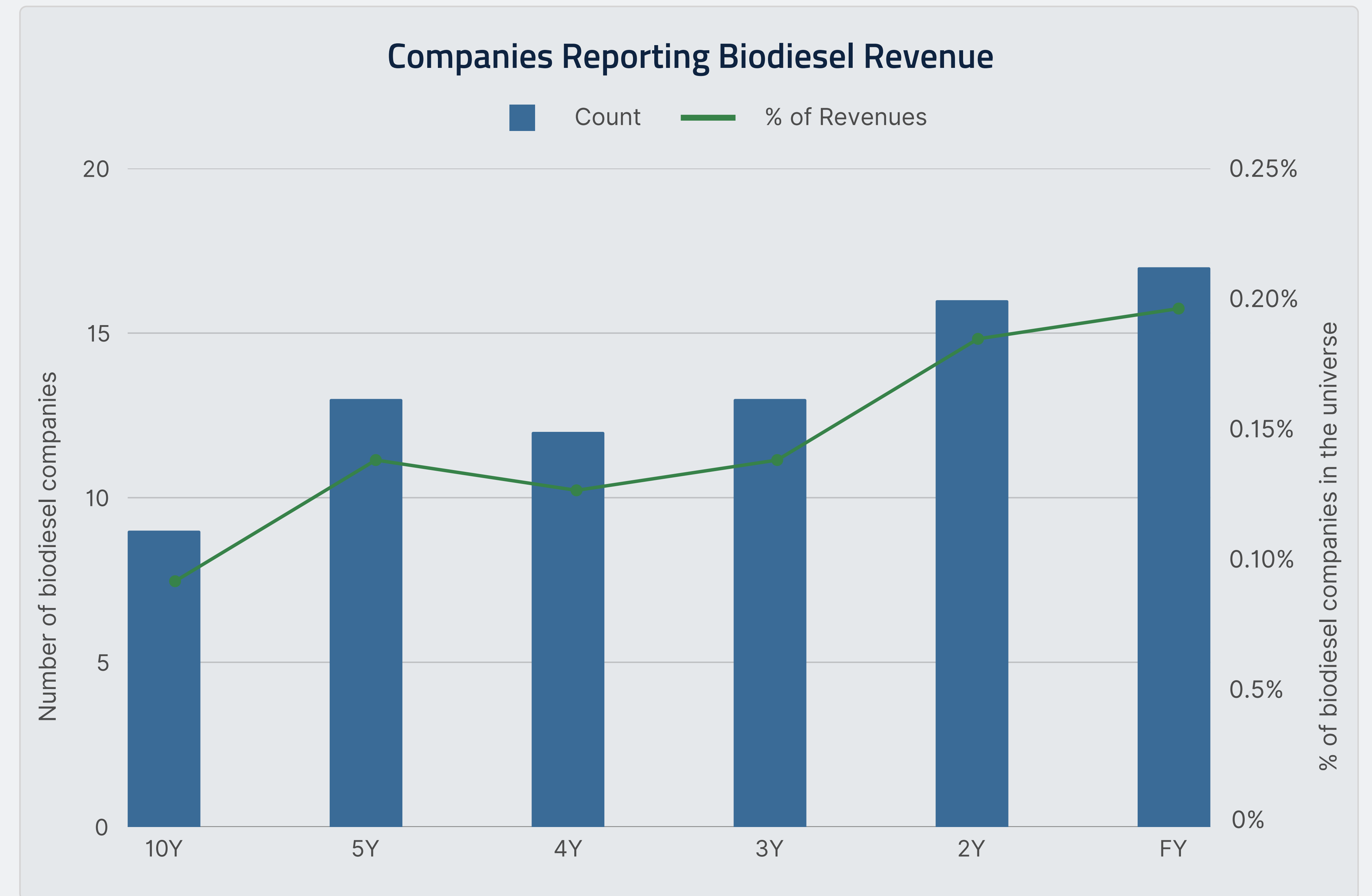
RISING ADOPTION

Our analysis of the companies in our universe indicates a **positive trend in the biofuel industry**, with an increasing number of companies reporting biodiesel-related revenues over time.

This growth suggests that more businesses are recognising the commercial potential of biofuels as a viable alternative to fossil fuels. Additionally, the steady rise in the percentage of companies with biodiesel revenue indicates broadening industry adoption and interest, reflecting growing confidence in biofuels as a Sustainable, and profitable energy source.

This upward trajectory underratings the expanding opportunities in the biofuel sector, further solidifying its role in the global energy transition and therefore as an opportunity for fund managers.

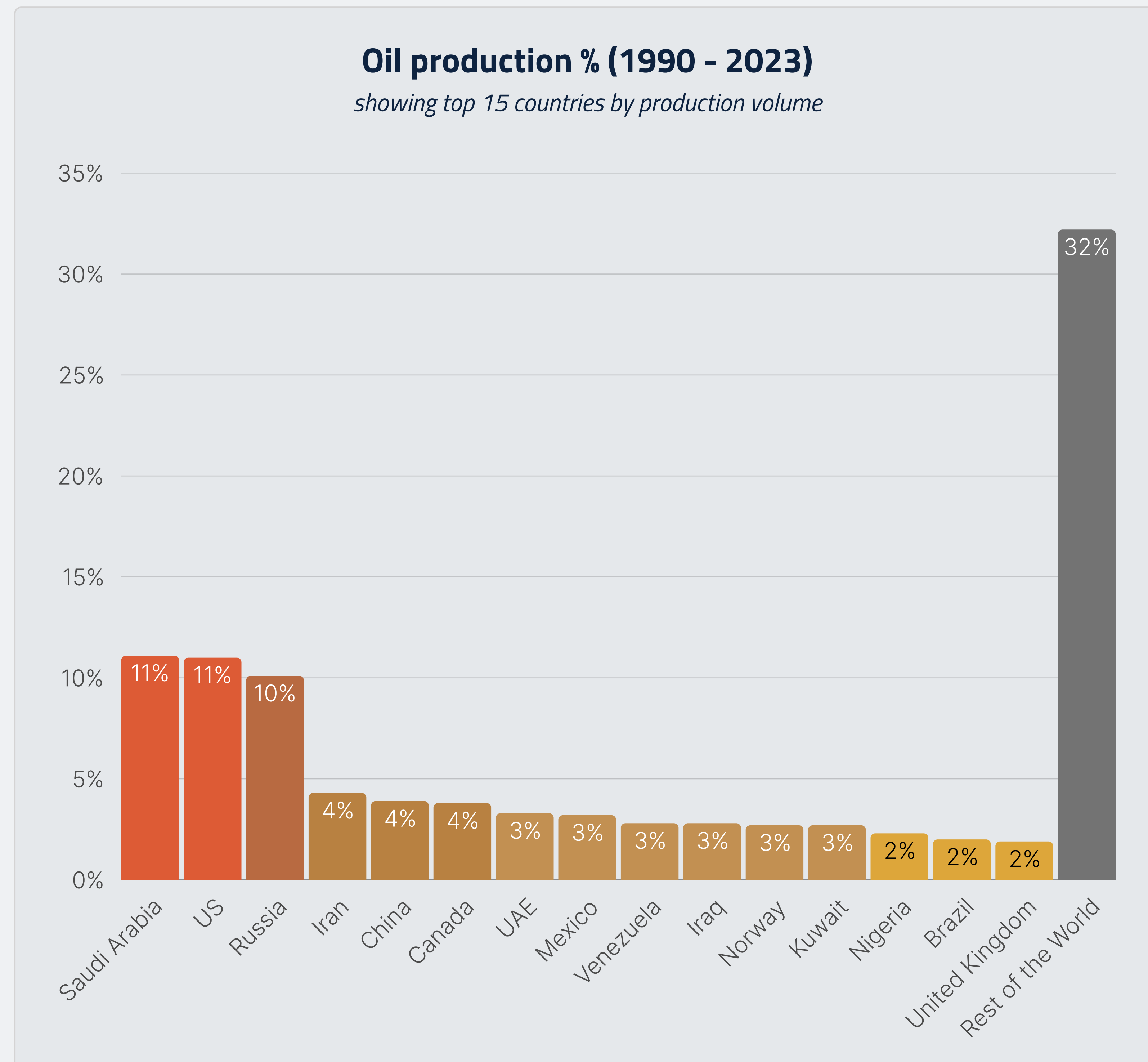
Source: MainStreet Partners



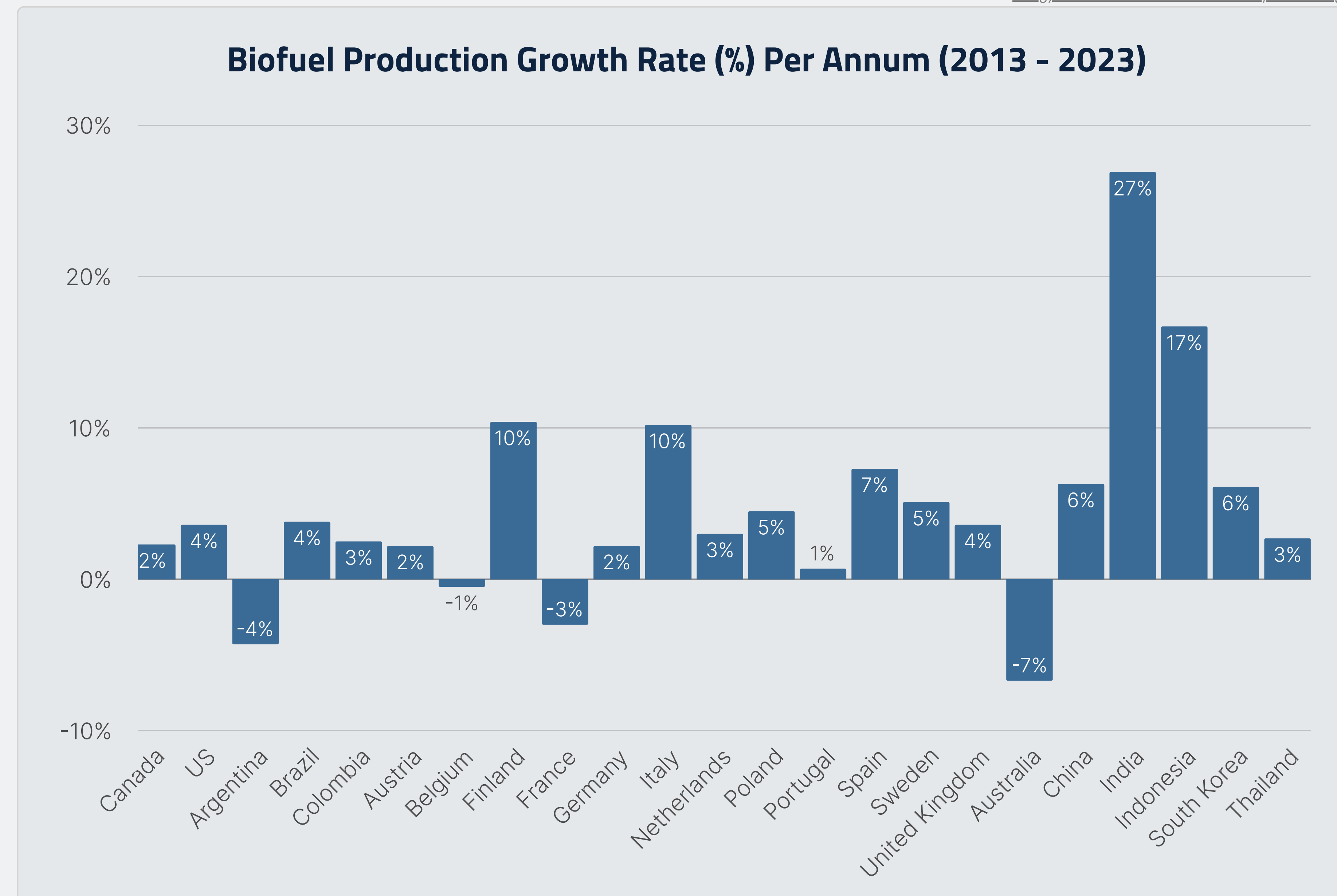
POTENTIAL GEOPOLITICAL DECENTRALISATION

Historical data from 1990 to 2023 shows that the Middle East, Asia (including Russia), and North America collectively account for 76% of global oil production, with Saudi Arabia, the United States, and Russia leading in production volume. This heavy reliance on fossil fuel-rich regions creates geopolitical dependencies and exposes countries to supply disruptions and price volatility.

Source: Energy Institute 2024 Statistical review of world energy



Source: Energy Institute 2024 Statistical review of world energy



Biofuels present a significant advantage in enabling the future geographical decentralisation of fuel production, unlike the concentrated nature of fossil fuel reserves.

The natural materials used to produce biofuels are widely distributed across regions, offering a more equitable resource base. While **current biofuel production is led by countries such as the United States (39%), Brazil (28%), Indonesia (4%), and Germany (4%), there is considerable potential for expansion in other regions**. We have seen rapid growth in biofuel production in emerging markets like India, Indonesia, and China, as well as developed European countries like Finland, Italy, and Spain. This expansion highlights the potential for biofuels to decentralise energy production, empowering nations across different regions to become energy producers, enhance energy security, and reduce their dependence on oil-exporting countries. As economic and technological conditions improve, the case for biofuels to reduce dependence on oil-producing nations looks compelling.

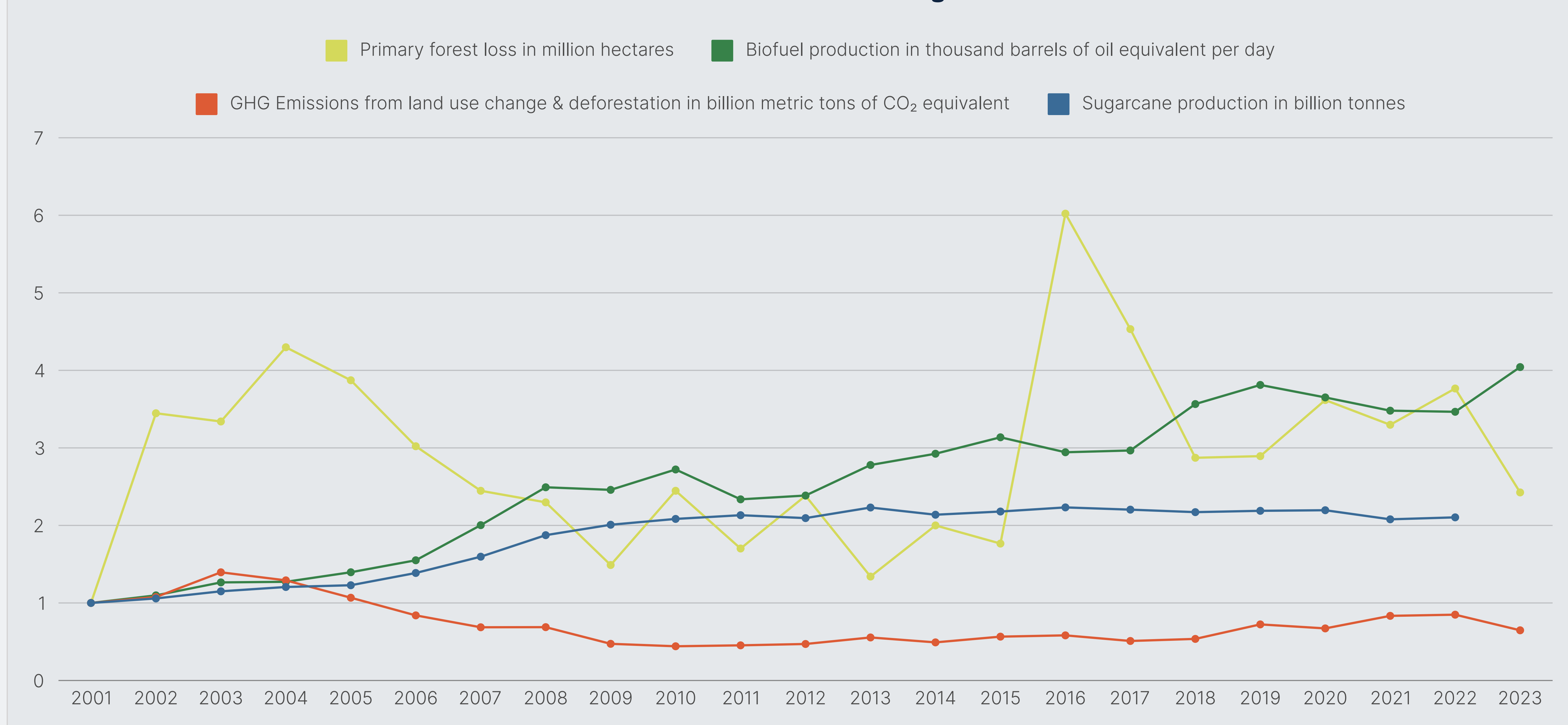
NEGATIVE ENVIRONMENTAL IMPLICATIONS OF BIOFUEL

Just as with other non-fossil fuel related energy sources, there is an inevitable weighing of the positive against the negative. In the following section we will look at the trade-offs.

IT IS NOT CLEAR IF BIOFUELS ARE A DRIVER OF DEFORESTATION

Biofuel production is associated with higher sugarcane production and contributes to land-use changes, the latter of which usually has negative consequences on ecosystems, for example, loss of biodiversity. When it comes to deforestation biofuel production itself may not be a primary driver, however, no conclusive research can be found to categorically say one way or another making an assessment difficult. In the following charts we consider some of the data publicly available.

Source: MainStreet Partners



The data in the chart reveals several key insights about the relationship between primary forest loss, biofuel production, sugarcane production, and GHG emissions. **There is a clear correlation between primary forest loss and GHG emissions**, as higher deforestation leads to a rise in emissions, particularly in years like 2016 and 2019. Similarly, there is correlation between deforestation and biofuel production. However, this data does not prove cause and effect.

Therefore, **biofuel production alone may not be a primary driver for deforestation, but it could be a contributor.** Finally, t**here is a strong positive correlation between biofuel production and sugarcane production.**

Higher biofuel output is closely tied to increased sugarcane cultivation, reflecting the use of sugarcane as a key feedstock for biofuels.

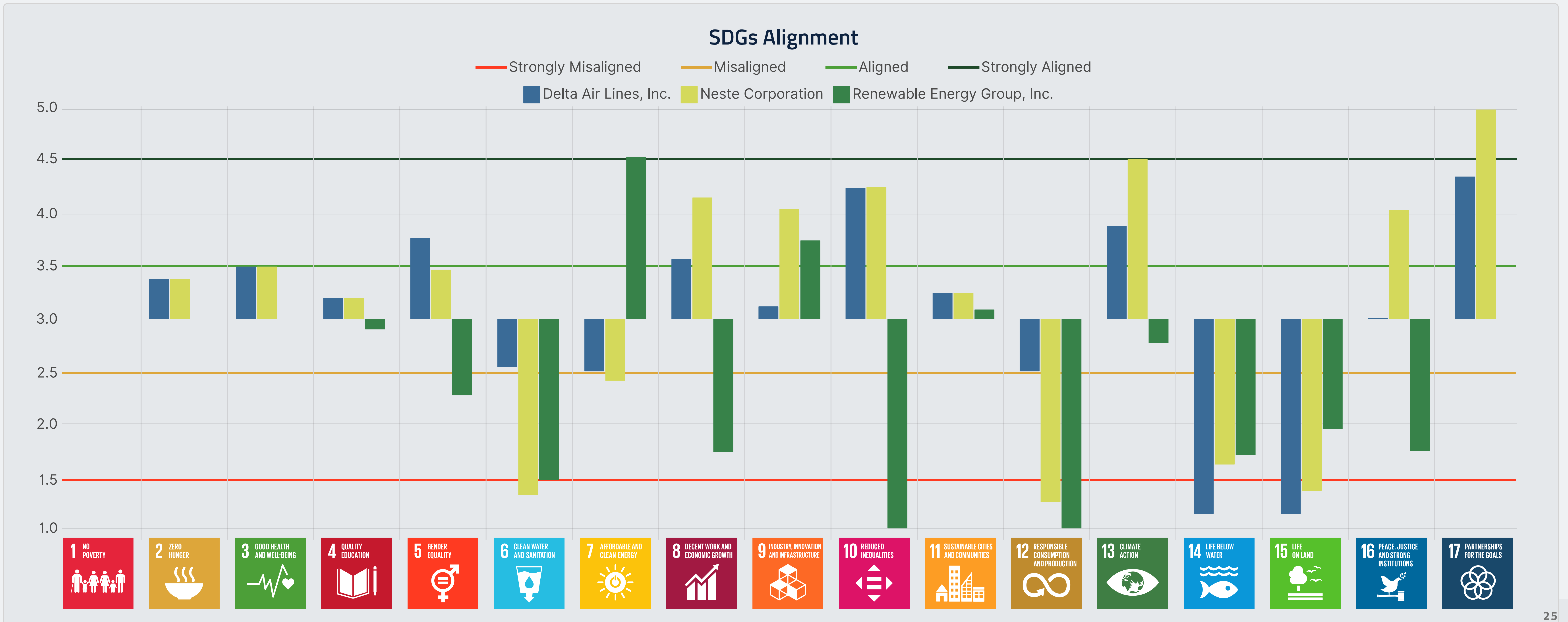
This leads us onto the other criticisms of biofuels. Land used for crops (especially when done as a monoculture) for fuel is a poor use of resources when food scarcity remains a persistent issue for the foreseeable future – bringing in a potentially negative social consideration.

These insights highlight the complex interplay between agricultural practices, energy production, and environmental impact. This topic requires a nuanced view and is something fund managers, and their teams must discuss when considering the net benefit (or cost) of biofuel investment opportunities. **Below is a sample of companies that both produce and consume biofuels and their respective UN Sustainable Development Goal (SDG) alignment.**

Our SDG model, which considers both product alignment and operational alignment highlights where a company is leading and where it is lagging across the 17 UN SDGs. Looking at the chart, some are aligned, SDG 7-10, but there is also some strong negative alignment, for example, SDG 14 and 15. SDG 15 – Life on Land, which has sub-goals linked to biodiversity, deforestation, and terrestrial ecosystems, in this example, has amongst the highest levels of misalignment.

These figures demonstrate that although a company may seem sustainable, as they are producing or using transition fuels, once you dig deeper there are significant 'pros' and 'cons' to be weighed. Funds that we rate highly are more likely to have considered and weighed these points.

Source: MainStreet Partners



BIOFUELS GHG EMISSIONS CAN BE AVOIDED USING WASTE FEEDSTOCK AND THIRD GENERATION BIOFUELS

Focusing on transportation, biofuels, as an alternative to conventional fuels offer a promising pathway for reducing GHG emissions. However, their adoption entails trade-offs, particularly regarding land use for essential feedstock crops like sugar beet and wheat.

A way to mitigate this is by prioritising biofuels derived from waste products and advancing production technologies. These approaches can help minimise competition for arable land and reduce broader environmental impacts, ensuring a more balanced and eco-friendly energy future.

Source: Carbon emissions of different fuels - Forest Research

FUEL	Approx. Life Cycle (GHG) CO2 equiv. emissions g/MJ	Land Use Implications miles/ha at 4.5 MJ/mile
Petrol (100% mineral)	73.1	-
Diesel (100% mineral)	75.0	-
LPG	64.9	-
Bioethanol (from sugar beet)	42.9	26,400
Bioethanol (from wheat)	8.0	13,800
Biodiesel (from rapeseed oil)	5.1	9,100
Biodiesel (from waste vegetable oil)	5.1	-

Biofuels, such as bioethanol and biodiesel, exhibit significantly lower life cycle GHG emissions compared to fossil fuels. For instance, bioethanol from sugar beet emits 43 g CO_2 equivalent per MJ, compared to petrol's 73 g CO_2/MJ and diesel's 75 g CO_2/MJ.

Among sugar beet, wheat, and rapeseed, sugar beet requires the least land to produce the same amount of biofuel. Sugar beet's efficiency in converting land area into biofuel makes it a more land-efficient feedstock for bioethanol production. Among sugar beet, wheat, and rapeseed, sugar beet requires the least land to produce the same amount of biofuel. Sugar beet's efficiency in converting land area into biofuel makes it a more land-efficient feedstock for bioethanol production.

Biodiesel derived from waste vegetable oil produces comparatively low emissions (5 g CO_2/MJ) and has no associated land-use implications, making it a more sustainable option for reducing emissions without adding pressure on arable land.

Similarly, the transition from first to third-generation biofuels aims to overcome the limitations of earlier methods while enhancing their environmental benefits.

First-generation biofuels, derived from food crops like corn, sugarcane, and vegetable oils, are easy to produce but face significant challenges such as the food versus fuel debate, high land, and water usage, and limited GHG reduction.

Second-generation biofuels, sourced from non-food biomass like agricultural residues and forestry waste, address these issues by eliminating food competition, offering higher GHG reductions, and promoting waste utilisation. However, their production processes are more complex and costly, with scalability and feedstock availability remaining obstacles.

Third-generation biofuels, produced from algae and microorganisms, represent the most innovative solution, offering high yields, no competition for agricultural land, and the ability to sequester carbon. While promising, third-generation biofuels are still in the research and development phase, with challenges in scaling production and reducing costs making it difficult to invest in directly through public markets.

Companies contributing to the biofuel industry can be classified into three categories: producers, consumers, and transition companies. Producers are companies whose revenue is significantly derived from biofuels, such as Renewable Energy Group, Inc. (95.0% biodiesel revenue), Neste Corporation (37.5%), and Valero Energy (1.7%).

Consumers are businesses integrating biofuels into their operations as alternative fuels, including Ryanair, United Airlines, and Southwest Airlines. Transition companies are traditional fossil fuel businesses, like Chevron and Shell, who are developing biofuel projects to decarbonise their operations.

Our analysis of 28 biofuel companies across three categories - 19 producers, 7 consumers, and 3 transition companies - within the MainStreet Universe of funds reveals that 35% of funds have invested in at least one biofuel company, with approximately one-third of these investments held in ETF portfolios. Transition companies receive the largest portfolio allocations, while producers rank the lowest. Pure-play biofuel companies account for a portfolio weight of just 1%-2% in the analysed funds.

This suggests that stand-alone investments in biofuels or bioenergy remain niche, although several sustainable funds maintain minimal exposure to the sector.

Within the 35% of funds investing in at least one biofuel company we have focused on two funds with targeted environmental, climate or sustainable energy approaches to better understand how they approach biofuels and SAFs:

- **Trium Climate Impact** is a long-short strategy that invests in environmental solutions companies. Their approach spans a variety of sectors emphasising multiple areas where Sustainable solutions, including bio-based products, can generate measurable climate impact. Joe Mares, Portfolio Manager, provided the following comment: 'We believe biofuels based on waste are sustainable investments. The challenge with investing in waste-based biofuels and SAF over the last two years has been that capacity has been built faster than the growth in underlying demand, which is generally determined by regulation. The greatest potential for waste-based biofuels will be in sustainable aviation fuel, as electrification of long-distance air travel is challenging.'

- **Guinness Sustainable Energy** invests in companies in the solar, wind, hydro, geothermal, biofuels, biomass, and energy efficiency sectors. They demonstrate an approach to investing in the transition to a low-carbon economy with a high purity target for investees. The team provided the following comment: 'It is important to remember that alternative fuels broadly remain more expensive than their fossil fuel counterparts, meaning that policy support is key to underpinning future growth. Broadly speaking, investments requiring subsidy or consumer incentivisation will continue to be less well placed as a result of pressured government finances, meaning that economic competitiveness will likely be more important than decarbonisation.'

The key takeaway for fund managers is that biofuel investing remains niche, however it is often as a smaller component within broader sustainable portfolios.

Further cost reductions are necessary and consumer incentivisation and demand growth will be key for this industry to reach the mainstream.

4.2 THE STATE OF WATER IN 2024: A RESOURCE IN CRISIS AND A GROWING INVESTMENT OPPORTUNITY

As the effects of climate change intensify, water scarcity has emerged as one of the most pressing challenges of our time. **With 40% of the world's population already impacted by water scarcity**, the urgency to find Sustainable solutions has never been greater. Freshwater accounts for only 3% of the world's water, and less than 1% is accessible for human consumption. Despite these daunting statistics, the situation is not solely driven by physical water scarcity; it is often tied to a lack of political and financial will to build the necessary infrastructure to ensure access to clean water.
As water becomes an increasingly valuable resource, the infrastructure and technology supporting its treatment and distribution presents both significant challenges and a compelling investment opportunity.

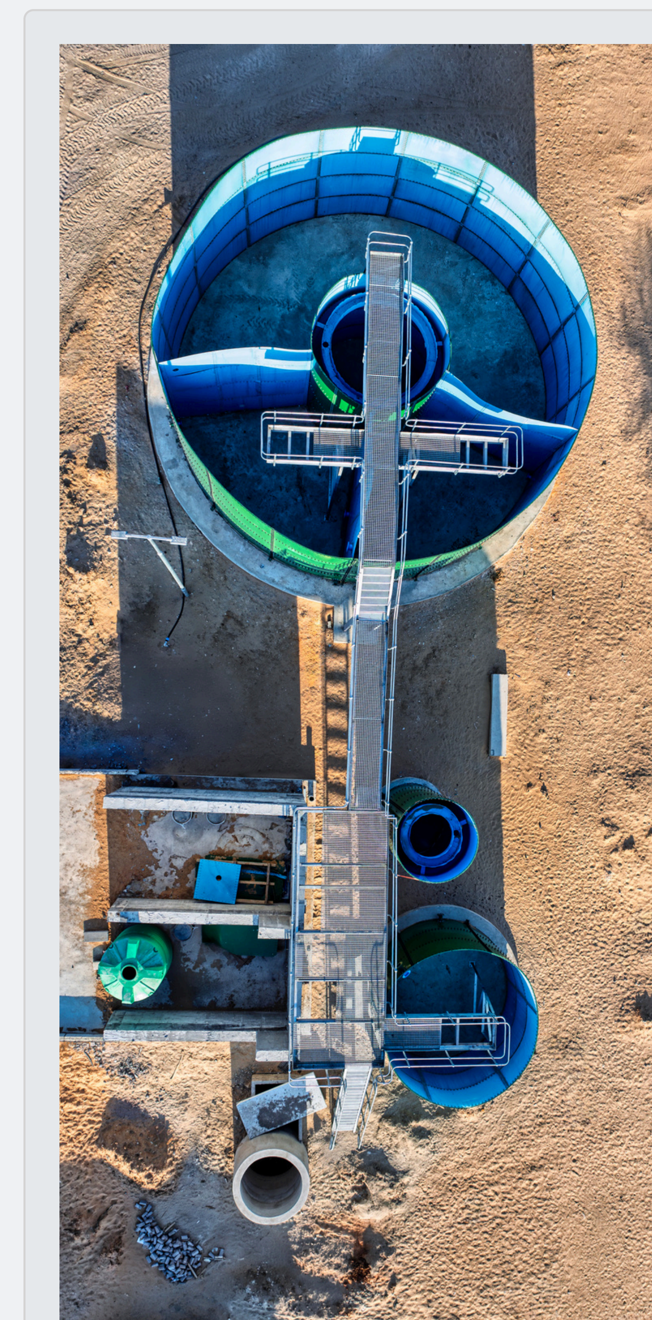
DESALINATION: A LIFELINE AND ITS LIMITATIONS

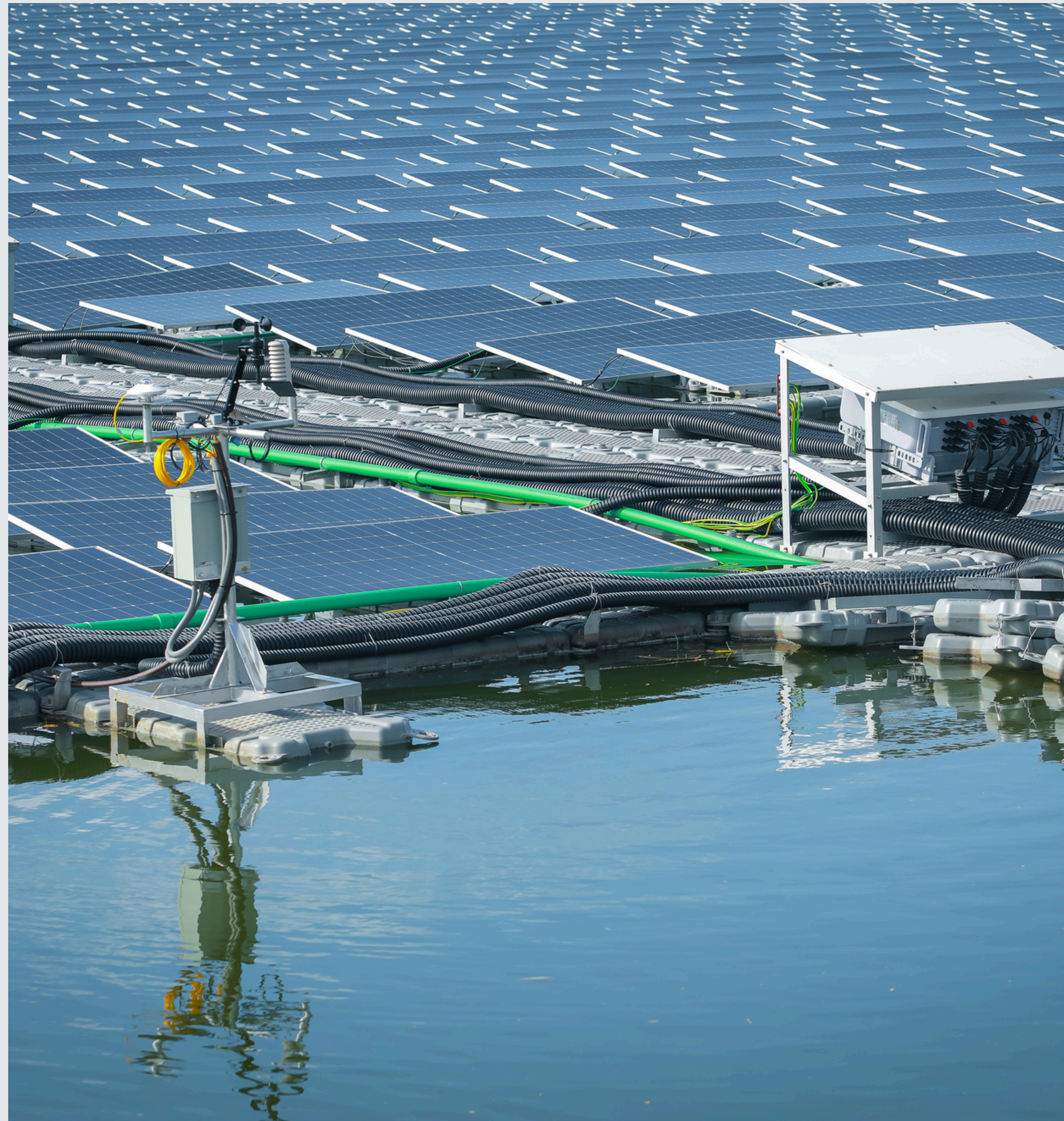
Desalination has emerged as a crucial solution for many regions grappling with water scarcity. The process, which converts seawater into drinkable water, has become a lifeline for millions of people, particularly in water-scarce areas such as the Middle East, North Africa, and parts of Asia. Globally, there are over 16,000 desalination plants operating in more than 150 countries, providing fresh water to approximately 300 million people. This technological innovation has enabled nations like Saudi Arabia and Israel to support the water needs of their populations, with desalinated water accounting for up to 50% of drinking water for the former, and around 25% in the latter. The current scale of desalination is impressive, with desalination plants producing about nine billion litres of fresh water daily. However, desalination is not without its challenges. The process is inherently energy-intensive, requiring significant amounts of power to remove salt from seawater. This demand for energy threatens to exacerbate environmental issues as fossil fuels remain the dominant power source. Desalination, a critical freshwater source in regions like the Middle East, faces challenges of energy sustainability and significant environmental impact.

The high energy consumption of the desalination process has spurred the development of renewable-powered technologies, including passive desalination and solar-driven systems, with countries like Saudi Arabia investing in solar-powered desalination to reduce plants' carbon footprints.

Innovative solutions in brine disposal are also gaining momentum. Brine, a byproduct of the process generated at 1.5 to two times the volume of desalinated water, presents significant ecological risks – rich in salts and chemicals, it is often discharged into oceans, threatening marine life; current annual volumes could blanket an area the size of Florida with a thirty-centimetre layer of residue. Technologies such as Zero Liquid Discharge aim to recover valuable minerals like magnesium and lithium from brine, transforming waste into economic opportunity. Additionally, brine concentrators are being developed to evaporate, condense, and discharge water, minimising waste volumes and reducing environmental harm.

These advancements signal a promising shift toward more Sustainable and eco-friendly desalination practices, and while desalination remains one of the most viable solutions for providing freshwater to water-stressed regions, the process must evolve to become more energy-efficient and environmentally sustainable.





INVESTMENT IN WATER: A GROWING TREND IN THE FINANCIAL SECTOR

The water sector is drawing increased attention from investors, not only due to the urgent need for water infrastructure but also because of the immense opportunities it offers for long-term growth. We analysed close to 30 water focused funds to identify the most common water solutions providers held across this select group of thematic funds. We have collated several views on desalination from research papers from asset managers with Water Funds.

- **Robeco** "advances in pumps, filtration membranes, and energy-recovery devices have increased the energy and cost-efficiency of desalination plants that convert seawater to increase regional water supplies."[1]
- **Swisscanto.** "Seawater desalination offers a solution to water scarcity, particularly in coastal areas, but is energy-intensive, costly, and produces problematic brine waste. Innovations like renewable energy and advanced membranes aim to improve efficiency and sustainability. With rising demand for clean water, the desalination market is growing, but responsible water management and treatment remain crucial to minimize environmental impacts."[2]
- **Allianz**. "Water is heavy, so pumping it from underground reservoirs or across long distances is requiring large amounts of pumps and electricity. Desalination plants might be the only option for locations like Cape Town, but these, too, are very energy intensive and expensive."[3]

1.robeco.com/files/docm/docu-202109-sustainable-water-investment-opportunity.pdf
2.swisscanto.com/int/en/blog/asset-management/2024/blue-gold-is-gaining-in-importance.html
3.wealthmanagement.com/investment-news/more-than-a-trickle-investment-implications-of-the-cape-town-water-shortage

THE PATH FORWARD: BRIDGING THE GAP WITH INNOVATION AND INVESTMENT

As global freshwater supplies continue to decline the need for large-scale investment in water infrastructure, especially in developing countries and regions affected by climate change, is urgent. **To address the water crisis, innovation, public-private collaboration, and Sustainable finance are crucial, with technologies like desalination, wastewater recycling, and smart water metering leading the charge.** However, much more is required.

The United Nations' Sustainable Development Solutions Network estimating that $735 billion will need to be invested by 2030 to meet global water and sanitation goals. Private sector involvement is vital, as organisations like the World Bank Group, the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the 2030 Water Resources Group collaborate to develop the Strategic Framework for Scaling Up Finance for Water, aiming to mobilise and scale investments in the water sector.

Historically, water infrastructure has been relatively unchanged, and existing models are often too unprofitable to incentivise investment in new technologies, but the current crisis presents a unique opportunity to align financial, environmental, and social objectives.

This shift could open doors for investors to address one of the world's most pressing challenges while ensuring water remains a resource for future generations. In conclusion, the state of water in 2024 reflects both a crisis and an opportunity, where the right investments and innovations could turn water management into a Sustainable, profitable solution.

5) CONCLUSION

Analysis of MainStreet's fund universe highlights our continued efforts to increase coverage while retaining the quality of our ratings. **Our three pillar approach remains consistent and supports a forward-looking approach to ESG and Sustainability Fund and ETF research.** We have highlighted some unique insights into the current ESG and Sustainable landscape, and wider UK and European opportunity set.

The increasing risk of greenwashing particularly in the SFDR Article 8 classification to greater than 20% of funds highlights the importance of thorough ESG and Sustainability due diligence alongside considered and specific regulation.

We look forward to a full year of the UK's SDR implementation and toward the EU SFDR's next iteration. Like previous editions of the Barometer, we continue to be mindful of the challenges of data quality in the EET given the uptick in the 'undisclosed' category for Article 8 funds. Like many others we hope consistent reporting arrives in the not-to-distant future.

Most of the focus in the market continues to broadly target climate transition but topics such as biodiversity, water shortages and adaptation are likely to continue to gain ground as the market recognises the significant risks as well as the potential opportunities linked to these themes.

Our thematic research this year centred on the need for alternative sustainable fuels, and the challenge we face with the number of water stressed areas growing and the imperfect solutions available. Consideration of themes such as this are key to achieve long-term sustainability for our planet.

We continue to monitor and cover funds with exposure to these themes and to new products launched specifically designed to help solve these issues and other sustainable challenges.

We look forward to working together with our clients for another exciting year in sustainable investing.

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