Expanding ESG Coverage in Barclays Research

Introducing our enhanced ESG Research analysis to deliver multi-dimensional ESG insights for institutional investors.

BARCLAYS

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EXECUTIVE SUMMARY

The rise of ESG from niche to mainstream

In the 15 years since 'environmental, social and governance' was coined as a term by the UN Global Compact, ESG investment has grown from a niche position to one that influences tens of trillions of dollars in assets under management.

This has been driven by asset owners who increasingly wish to align their investment decisions with their own values. ESG factors capture non-financial information that is material to financial performance, as well as regulations and voluntary codes such as the UN's Principles for Responsible Investment (PRI) that require investment managers to report on ESG considerations.

Yet there is a significant 'aspiration gap' between the amount of AUM that falls under the umbrella of high-level commitments such as the PRI and the de facto implication of ESG constraints on investment processes. In our view, closing this gap is set to be the biggest driver of ESG adoption over the next few years. In particular, we think that asset managers and owners will be increasingly pressed to embed ESG considerations into all the money that they manage – not just specialist ESG funds.

Delivering comprehensive ESG insights to our clients

To support our clients as ESG moves into mainstream investing, we are launching Barclays Fundamental ESG Research. This new pillar will complement the two existing pillars of Barclays ESG Research: our thematic research, led by our Sustainable & Thematic investing team, which presents multi-decade, top-down trends such as Gen-Z, food waste, micromobility, plastic waste, tourism, global fashion and global beef consumption; and our systematic research, led by our Quantitative Portfolio Strategy team, which has focused on the relationship between ESG ratings of issuers and the performance and valuation of their securities.

These three pillars of Barclays ESG Research will feed into and inform each other to produce new and actionable ESG insights that enable investors and asset owners to assess the extent of adoption of ESG principles by the companies we cover; the impact of regulatory and consumer change on markets and industries; and how and to what extent adoption of ESG is influencing the performance and valuation of securities.

Supporting investors' ESG activities

Barclays Fundamental ESG Research will support the three core approaches used by investors to integrate ESG into their portfolios:

- **Negative screening** – Our ESG Fundamental Research will track the sectors and issuers most affected by negative screening and analyse the impact of investor divestment on valuations.
- **Positive screening** – We will seek to identify the positive impact that companies are having on the environment and the societies in which they operate. We will track how the companies we cover are being scored by independent ESG score providers and whether we believe they are being accurately assessed. Given the many challenges that ESG score-providing faces, our focus will be on aggregating existing ESG scores rather than creating an ESG score of our own.

- **ESG products and securities** – We will track issuance of all types of ESG products and securities, assess how valuations differ from non-ESG equivalents, and provide analysis on which structures are best aligned with an investor's underlying ethos of ESG investment.

Finally, for investors focussed on direct corporate engagement as a means to improve ESG standards, our fundamental research will seek to highlight areas of weakness and opportunities for improvement at the company level.

We believe our three-pillared approach, combining fundamental, thematic and systematic ESG research comprehensively reflects the balance of the ESG ecosystem. With our thematic and systematic research teams having already built up a body of analysis and opinion – which we summarise in this report – we are well positioned to deliver differentiated and actionable insight that can help investors more successfully align their investment choices with their ESG goals and values.

PART ONE

The rise of ESG from niche to mainstream

In the 15 years since 'environmental, social and governance' was coined as a term by the UN Global Compact, ESG investment[1] has grown from a niche position to one that influences tens of trillions of dollars in assets under management[2]. It has expanded from being a bespoke component of European equity markets to an investment approach that increasingly influences all asset classes and geographies.

Assets under management within the ESG space grew 34% from 2016 to 2018 according to the Global Sustainable Investment Review. While there is significant debate as to what qualifies as ESG investment, there is no escaping the fact that ESG is dominating more and more conversations within the investment community. We see three main reasons for this:

1. **Asset owners increasingly wish to align their investment decisions with their own values.** Demographic and social shifts have supported this trend. A 2018 survey from the US Trusts' Insights on Wealth and Worth found that 87% of high net worth millennials believe that a company's ESG track record is an important consideration when determining whether to make an investment.
2. **There is evidence that ESG factors capture non-financial information that is material to financial performance.** Asset managers are increasingly aware of both risks and opportunities stemming from environmental and social issues. This represents a potential source of alpha for active managers, which is helping to broaden the appeal of ESG investing. Barclays Quantitative Portfolio Strategy team has been at the forefront of researching ESG as a source of excess returns, and we highlight their work in Part Four of this report.
3. **A growing number of regulations and voluntary codes of practise either require or encourage investment managers to report on ESG considerations.** Global initiatives such as the UN Principles for Responsible Investment are helping to increase awareness of ESG considerations and are requiring money managers to incorporate ESG into their investment processes.

ESG funds see strong AUM growth

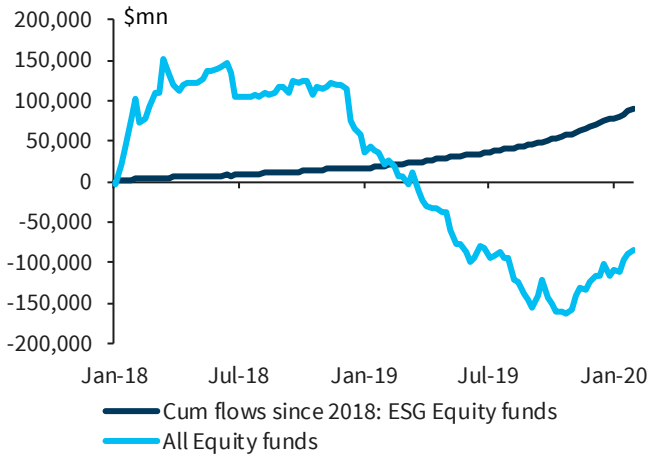
ESG investing began with ESG-labelled funds (variously also called impact, sustainable, green, environmental or responsible investment funds) with explicit ESG constraints on their investments.

According to fund-level data on Bloomberg, there are close to 2,000 ESG-labelled funds with a total AUM of c.$740bn[3]. These funds are taking an increasing share of the overall market as shown in Figures 1 and 2, which track the growing importance of ESG-labelled funds in both credit and equity markets. Figure 1 shows that ESG-labelled equity funds have seen steady inflows over 2018-2019 despite overall equity funds enduring large outflows since the beginning of 2019. In credit, Figure 2 shows that ESG-labelled funds now make up almost 10% of €- and £-denominated corporate bond mutual funds' assets under management (AUM). Although ESG-labelled funds are much smaller as a percentage of total mutual fund AUM in the US market, they saw $1.35bn of inflows in 2019.

[1] We define ESG investing as the explicit consideration of environmental, social, and governance factors in an investment process. The term tends to be used interchangeably with responsible and sustainable investment.
[2] High-level figures produced by ESG think tanks tend to be large and loosely defined due a lack of agreement over what constitutes 'ESG investing' and the inclusion of funds and firms with very 'loose' ESG constraints.
[3] The large gap between this figure and the tens of trillions of AUM cited by ESG investing think tanks drives our skepticism towards how high-level commitments to ESG are being estimated.

FIGURE 1

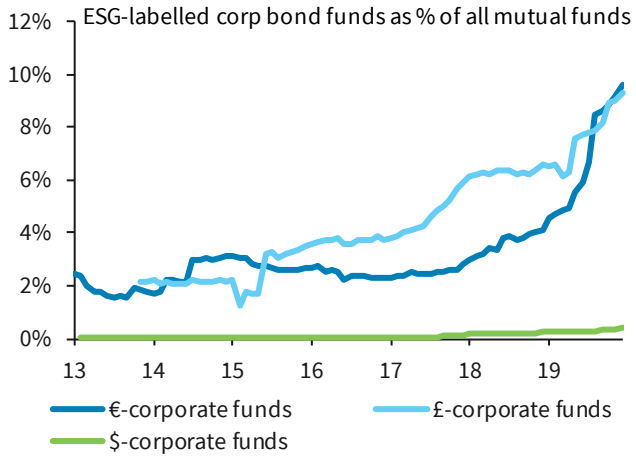
Inflows into ESG-labelled equity funds stand in stark contrast to the outflows from the wider equity market



Source: EPFR, Barclays Research

FIGURE 2

ESG-labelled corporate bond funds are making up a greater share of all mutual funds, especially in Europe



Source: EPFR, Barclays Research

The growth of ESG-labelled funds is impressive, but their AUM is still small relative to total outstanding investments. This is likely to remain true as mutual funds are only a fraction of the investor base for equities and corporate bonds. For example, based on EPFR data, we estimate that mutual funds hold less than 10% of €-Investment Grade credit and 15% of the global equity market.

ESG set to influence all AUM

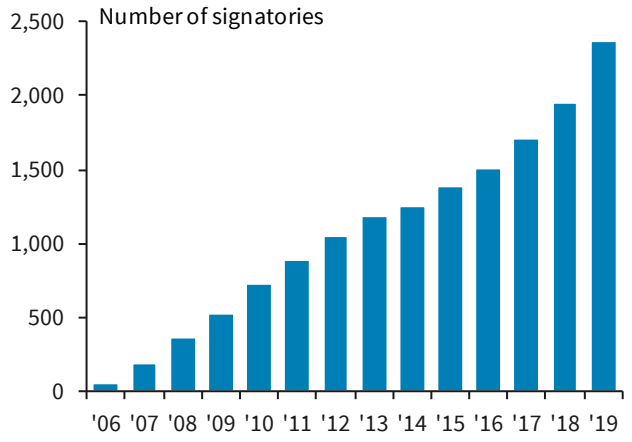
In our view, the most important driver of adoption of ESG principles is the increasing number of actions taken by investment managers at a firm-wide level that have the potential to be applied to ALL existing AUM – not just specialist ESG funds.

As mentioned above, a growing number of major investors have made high-level commitments to ESG by signing up to the UN Principles for Responsible Investment (PRI) or initiatives such as Climate Action 100+ and the UN Environmental Programme's (UNEP) Tobacco-Free Finance Pledge.

Figure 3 shows the rapid growth in signatories to the UN's PRI. Investors that have signed up to the PRI have committed to six principles **including Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes**.

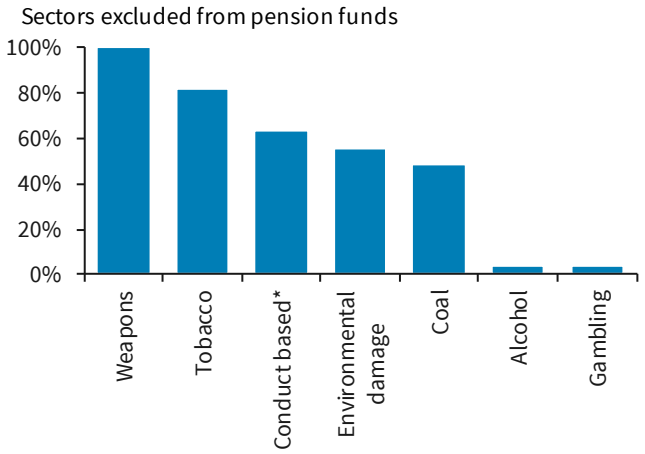
We believe there is a significant 'aspiration gap' between the amount of AUM that falls under the umbrella of high-level commitments such as the PRI and the *de facto* implication of ESG constraints on investment processes. In our view, closing this gap is set to be the biggest driver of ESG adoption over the next few years.

FIGURE 3
The number of UN PRI signatories has grown rapidly



Source: UN PRI

FIGURE 4
Sectors excluded from European pension funds using negative screening



*Companies that break UK regulations on issues such as child labour and other human rights. Fund AUM taken as at most recent reporting data for each pension fund. Source: Company reports, Barclays Research

Pressure on PRI signatories to demonstrate implementation

In fact, this gap could close significantly over the rest of 2020. This is partly because, in 2018, the PRI issued a set of minimum requirements for signatories. These include: a responsible investment policy that covers at least 50% of total AUM; independent staff responsible for implementing that policy; senior-level commitment; and accountability mechanisms.

Signatories were given a two-year engagement period to comply. According to the PRI, the first set of signatories who fail to meet the imposed requirements could be delisted from June 2020. In June 2019, the Financial Times reported that 50 signatories have been warned they are likely to be delisted at the end of 2020.[4]

Barclays ready to support large-scale ESG adoption

Given the breadth of the commitment under the PRI, setting up one or even a suite of ESG-labelled funds is unlikely to be sufficient for an asset manager to evidence adherence to the UN principles or to claim that their sustainable investment policies covers at least 50% of AUM.

Long term, therefore, we think that asset managers and owners will be pressed to embed ESG considerations into all the money that they manage, with pressure coming not only from initiatives such as the UN PRI but also investor action groups and asset owners holding asset managers with weak ESG policies to account.

Barclays ESG Research is ready to support investors with a comprehensive insight capability spanning fundamental, quantitative and thematic research and analysis – and all core ESG investing approaches – as we explain on the following pages.

[4] UN responsible investing body set to delist 50 groups next year' – Financial Times, June 17 2019

PART TWO

Delivering comprehensive ESG insights to our clients

To support our clients as ESG moves into mainstream investing, we are launching Barclays ESG Fundamental Research. This new pillar will complement the two existing pillars of Barclays ESG Research: our thematic ESG research from our Sustainable & Thematic team and our systematic ESG research, from our Quantitative Portfolio Strategy team.

These three pillars of Barclays ESG Research will feed into and inform each other to produce new and actionable ESG insights that enable investors and asset owners to assess the extent of adoption of ESG principles by the companies we cover; the impact of regulatory and consumer change on markets and industries; and how and to what extent adoption of ESG is influencing the performance and valuation of securities.

Barclays Fundamental ESG Research seeks to offer clients a multi-dimensional analysis of where companies sit on the spectrum of ESG performance and to what extent markets are incorporating ESG attributes into the pricing of their equities and bonds. Our Research will span our full company universe – comprising 2311 corporates in 73 countries and all industry sectors as of 18 March 2020 – supported by our teams of analysts networked across the globe.

To complement the existing work of our colleagues from our Sustainable & Thematic team and our Quantitative Portfolio Strategy team, Barclays Fundamental ESG Research will:

- leverage the existing fundamental expertise of our analysts on companies under coverage and will focus on what these companies are doing with regards to ESG;
- focus on how to construct portfolios of corporate securities that reflect investor attitudes toward ESG themes;
- seek to identify where our opinions about a company's ESG credentials differ from that of leading ESG score providers.

We see two main advantages to our approach. First, we believe the fundamental ESG quality of a company is information that we can unearth through careful analysis whereas the scoring or ranking of that information remains controversial.

Second, it allows us to observe, measure, and comment on the price that financial markets place on ESG characteristics without expressing a moral opinion on whether that price is the 'right' one. Rather than taking a view of how investors should price environmental or social factors, we will seek to discern what financial markets are (or are not) pricing, and whether the relative pricing of corporate ESG is aligned with our fundamental views on a company.

FIGURE 5
The three pillars of Barclays ESG Research

1. FUNDAMENTAL	2. THEMATIC	3. SYSTEMATIC
Barclays ESG Fundamental Research	**Barclays Sustainable & Thematic Research**	**Barclays Quantitative Portfolio Strategy**
Analyses ESG activity of the companies we cover and impact of ESG on security pricing	Analyses how consumer and regulatory attitudes to ESG are changing operating environments	Analyses how ESG scores relate to asset performance

Our Fundamental ESG Research will also track the development of ESG investing in financial markets, including the flow of capital into these strategies and how it is being deployed, as well as financial innovation in ESG-linked investments such as specialist funds, products, and investment benchmarks. Combined with our fundamental insights, this analysis will help asset managers to identify issuers that align with their particular ESG aspirations and structure their portfolios and investments in a way that is consistent with the ESG goals of the asset owner.

The philosophy of Fundamental ESG Research

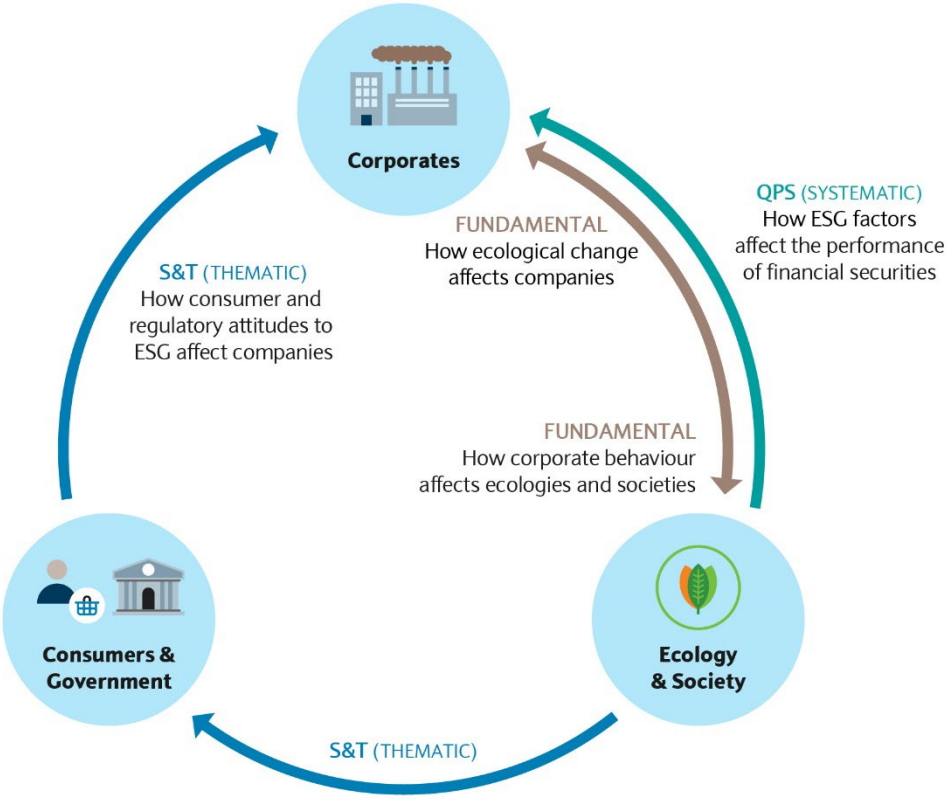
In simple terms, we define fundamental ESG investing as considering the externalities of a company's operations and actions before making an investment in equity or debt. With this in mind, our research aims to address the following two core questions:

1. **How do the companies that we cover affect the environment and the societies that they operate in?**
2. **How can investors measure and consider ESG factors in their investment process?**

Figure 6 places the first of these questions in the context of a broader ESG cycle, which highlights alternative approaches to tackling ESG as an investment theme and shows how the three pillars of Barclays ESG Research feed into and inform each other in order to answer this question.

FIGURE 6

The ESG Cycle: How corporate actions affect people and the world – and feed back to companies



Note: S&T - Barclays Sustainable & Thematic Research; QPS - Barclays Quantitative Portfolio Strategy Research.
Source: Barclays Research

Our philosophy in action

Understanding how ESG is likely to influence financial markets requires us to ask both how ESG investing is changing the preferences of investors and whether some of the external costs of corporate activity (e.g. poor health, safety or environmental track records) eventually end up being on-balance-sheet costs for companies. In either case, understanding how companies are operating and the extent to which they are exposed to these factors is relevant for all investors – even those that are not focussed on ESG.

Below we detail how our fundamental research seeks to assess the drivers summarised in the ESG cycle in Figure 6.

How ESG factors affect the performance of financial securities

To date, ESG factors appear to have had limited influence on the performance of financial securities. Our Quantitative Portfolio Strategy (QPS) team have shown, for example, that environmental and social factors have not historically been predictors of corporate bond returns whereas governance has had an influence[5]. In a follow-up report[6], QPS did find that the importance of environmental scores had risen in recent years, perhaps reflecting a rise in ESG constraints on investments (see Part Four for more details).

Today, however, plenty of work is being done to identify the ESG factors that best predict bond and stock performance. A growing number of data and signal providers scrape media and corporate reports, for example, to extract signals on emerging ESG controversies. These algorithms and machine-learning approaches need to be calibrated to a metric, which tends to be the share price of a company.

Another important piece of financial analysis involves quantifying the externalities of a company and the risk that those external costs become internal costs, for example, through the impact of ecological change on businesses or the shift in consumer and regulatory preference into ESG themes.

Data-driven approaches might identify the companies with the highest externalities in terms of the ecological or social impact they have. In general, however, it is well established that capital markets generally do a poor job of pricing externalities. Indeed, if markets already rewarded the most ESG-friendly companies with higher stock multiples and a lower cost of debt, while punishing those that are falling short, then ESG investment overlays would not be necessary. The existence of ESG investing as a movement is a tacit acknowledgement that capital markets fail to price the societal and environmental costs of corporate activities correctly.

How ecological change affects companies

Ecological change is an ESG issue that is being increasingly addressed by credit rating agencies that are seeking to include ESG consideration in their credit evaluations and other areas of risk assessment, such as bank stress tests. Agencies have started to ask how factors such as climate change and rising sea levels could create significant costs and business risks. The sectors most affected by these questions tend to have physical assets at risk from the effects of climate change. However, investors and regulators are also increasingly focussing on second-order exposures: for example, the Bank of England recently asked insurance companies to measure their exposure to climate change.

[5] See '*Sustainable investing and bond returns*'
[6] See '*The case for sustainable bond investing strengthens*'

How consumer and regulatory attitudes to ESG affect companies

The most visible and rapid experience companies have of externalities being pushed back onto their balance sheets is when regulators or consumers directly act to impose costs on companies, for example through fines or product boycotts.

Our Sustainable & Thematic Research group has produced an expansive body of work on how consumer and regulatory ESG preferences can affect corporate revenue growth and profitability (see Part Four for details). Evolving consumer opinion on ESG-related themes such as fast fashion or plastic pollution require investors to imagine how the operating environment for companies could evolve over the medium to long term as a result. Analysts can identify those companies best positioned to prosper (or fail) in light of these themes and what mitigating strategies they could adopt.

How corporate behaviour affects environment and societies

All the issues addressed above are part of the ESG investing ecosphere. However, most of them are *ex-post* efforts to determine the companies, stocks, and bonds that will benefit from, or be adversely affected by, ESG trends. However, we believe that Fundamental ESG Research primarily needs to focus on *ex ante* analysis of how well or poorly behaved companies are, and the effect their actions have on the environment and societies in which they operate. This allows for an assessment of the risk that the external costs of their business models will be pushed back onto their balance sheet as real costs or reflected in the pricing of their debt and equity due to investor preferences.

In this way, our ESG Fundamental Research complements our existing thematic research and systematic analysis, filling a gap between identifying long term themes and analysing short term asset performance.

PART THREE

Supporting investors' ESG activities

The methods by which investors are integrating ESG commitments into their investment decisions can be divided into three main approaches: negative screening, positive screening, and investing in ESG-focussed products and securities.

Most investors currently focus on one of these techniques as their main implementation strategy, but we expect the prominence of all three to grow. On top of these three approaches, investors are also exploring the scope for corporate engagement, either bilaterally or through shareholder voting. Below we outline and assess each of these approaches and outline how Barclays Fundamental ESG Research will support investors who deploy them.

1. Negative screening

Barclays Fundamental ESG Research will track the sectors and issuers most affected by negative screening and analyse the current and expected impact of investor divestment on their valuations. We will also track evolving social and regulatory attitudes, to highlight sectors at risk of falling into the scope of negative screening.

Negative screening is the exclusion of specific sectors or companies, using a 'blacklist', and is the most commonly recognised method used for ESG integration. It can typically be split into two types: values-based exclusions, which target sectors/companies operating in controversial business lines; and norms-based exclusions targeting companies that fail to meet internationally accepted norms (e.g. the UN Global Compact principles). Sectors commonly targeted by negative screening include weapon manufacturers, tobacco, and adult entertainment.

ESG activism and investor pledges are expanding the scope of negative screening, leading to divestment from targeted sectors. For example, UNEP's Tobacco-Free Finance pledge has attracted 151 signatories with AUM of $8.1trn since it was published in September 2018. Additionally, many investors, after joining the Climate Action 100+ alliance or other climate change initiatives, have announced plans to divest away from certain fossil fuel companies. For this reason, we believe that negative screening will remain an accompaniment to other types of ESG strategies, even if it is not an investor's sole ESG approach.

A key attraction of negative screening is that, once the exclusions have been prescribed, it is transparent, credible and relatively simple to implement. However, the process of creating a list of prohibited investments can still be fraught. For example, an investor committed to reducing their exposure to coal production and consumption would need to define what constitutes a 'coal producer' because, in practise, there are very few companies whose business pertains solely to mining or burning coal.

The scope of the negative screen could be determined by targeting a certain percentage of revenues. However, this still leaves the question of where to draw the line and how to manage exposure to companies very close to the line.

2. Positive screening

Barclays Fundamental ESG Research will seek to identify the positive impact that the companies we cover are having on the environment and the societies in which they operate. We will track how our companies are being scored by independent ESG score providers and provide our opinions on whether we believe companies are being accurately assessed. We believe the value of this approach will grow as positively-screened AUM increases.

Positive screening involves actively investing in companies with better ESG credentials. Usually this is done by scoring or ranking companies based on certain ESG metrics and then skewing investments toward those companies that screen as 'higher' ESG quality. According to the 2018 Global Sustainable Investment Review, the AUM of funds managed that apply positive screening is much smaller than those use negative screening, but the recent pace of growth has been much faster.

We expect positive screening to be the main growth area for ESG investing because it allows for more differentiation in ESG implementation and therefore is attractive to asset managers who want to distinguish their ESG processes from their peers'. Positive screening allows for granular and nuanced investment decisions. It also allows investment to act as a catalyst for changing corporate behaviour. By creating incentives for companies to improve their ESG credentials, positive screening has the potential to lift corporate standards in a way that negative screening cannot.

Scoring companies on their ESG credentials

For all these advantages, positive screening is more difficult to implement as it requires a mechanism for rating and ranking companies. There are two main ways this is done:

1. **Taking scores directly from ESG score providers.** There are a number of ESG score providers – the current market leaders are Sustainalytics and MSCI who have partnered with index providers to create ESG benchmarks in equities and fixed income. Score providers collect both quantitative and qualitative data on companies under coverage on a variety of issues such as occupational health and safety and community relations. They use this data to score the company on issues individually as well as on their overall ESG credentials. We outline the challenges of ESG scoring in the panel on page 13.

2. **Investors create their own in-house scores.** In this case, investors are still likely to take data from ESG score providers or from ESG data providers such as Bloomberg or CDP. They then use this data to create their own scores, applying in-house weightings to different categories depending on what they deem to be the most relevant ESG factors. The main downside to this method is the lack of external accountability.

Why we're not creating a Barclays ESG scoring system

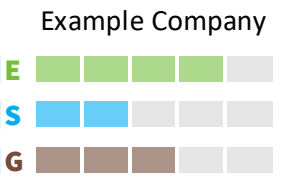
Our goal for Barclays ESG Fundamental Research is to leverage our analysts' fundamental knowledge of their coverage universe. Analysis of corporate behaviour is broadly factual, however the discussion of whether these actions are 'good' or 'bad', and to what degree, is inherently subjective. In our view, this debate is what matters and generating a Barclays ESG score would obscure the nuanced discussion around company behaviour.

Further, the majority of investors have already adopted their own in-house scoring methods, so a Barclays score would be of questionable additional value, either as a measure of ESG quality or of how investors are likely to view companies from an ESG perspective.

We believe that a better approach is for us to observe the development of ESG score providers, identify those that are gaining traction with investors, to understand how those score providers evaluate companies and to compare those scores with the insights of our fundamental analysts. In short, we see more value in being an ESG score aggregator than another ESG score provider.

To achieve this, we have developed a method for averaging ESG scores across leading score providers and disseminating the resulting averages into 'ESG Indicators' that reflect the aggregated opinions of leading ESG score providers (see box below). These indicators will contextualise the views of our Fundamental Research analysts by providing a market perspective against which our fundamental views can be compared.

Barclays ESG Indicators



For each company covered by a Barclays Fundamental Research analyst, we will, over time, generate a set of ESG indicators derived from aggregated scores of leading ESG score providers. An example set of indicators is shown left.

Companies will be placed in cohorts from worst (one block) to best (five blocks) for each of the three ESG pillars. This will represent market perceptions of a company's ESG credentials, as indicated by leading ESG score providers.

The challenges of ESG scoring

Despite its obvious appeal, there are many fundamental challenges to implementing positive screening/scoring strategies. Specifically, there remain a large number of underlying issues in the collection, processing and representation of ESG data, primarily due to the lack of standards when it comes to corporate reporting.

- **A large majority of ESG 'data' is generated by scraping public information from the internet.** Many data and score providers have very little interaction with the companies themselves, either in the original data gathering phase or in the data checking phase.
- **Many of the data points are binary** such as whether or not the company committed to reducing emissions rather than looking at the extent of the commitment and whether it is likely to be realised. This means that companies with the most policies and commitments score better, even if the quality of those policies and commitments is poor.
- **Much of the underlying data that score providers gather is unverified.** Because there is little to no standardisation of what and how companies should report ESG metrics, there are legitimate concerns over the quality of the data collected including the risk of 'green washing'. A number of organisations such as the SASB are attempting to set up their own ESG reporting standards. However, we are still a way off from the market settling on and adopting a single set of standards.
- **The methods to combine data into overall scores are often complex.** This creates a challenge for investors seeking to understand how a company's score is related to its behaviour. Further, methodologies differ considerably so correlation between scores from different providers can often be very low.
- **Scores versus ranks:** Some score providers create their scores in an absolute format (all companies can be compared against each other) whilst others create scores in a relative format (a company is scored versus its peers, but cannot be compared to a company in another sector).

Until there is agreement on what data needs to be measured, how to measure it, and how to report it, we are unlikely to see standardized reporting of ESG metrics by companies. That, in turn, will constrain efforts to standardize the collection and processing of ESG data, and the production of clear, transparent, and understandable ESG scores or ranks.

3. ESG products and securities

Barclays ESG Fundamental Research will track issuance of and demand for all types of ESG products and securities, assess how the valuations of ESG securities and products differ from their non-ESG equivalents, and provide analysis and opinion on which structures are best aligned with an investor's underlying ethos of ESG investment.

Investing in ESG securities or portfolio products is growing in popularity. While the growth of green bond issuance has attracted most attention, many others have been created over the past decade, including:

- **ESG/low-carbon benchmarks**: Just as asset managers have raced to create ESG-labelled funds, so index providers have created ESG versions of benchmark indices against which fund performance can be measured. Benchmarks have been created to exclude certain sectors, while others work in partnership with ESG score providers to filter out companies with low ESG scores. In a similar vein, some index providers have created low-carbon indices that seek to minimise the carbon exposure of an existing benchmark.
- **ESG-labelled Exchange Traded Funds (ETFs):** As the market for ESG investment opportunities has grown, so has the availability of ESG-labelled ETFs across both fixed income and equities. These typically track ESG/low-carbon versions of benchmark indices.
- **Green bonds and loans:** These instruments are designed to fund environmental projects. A green bond does not have to be issued by a 'green' company, so long as proceeds are financing environmental initiatives. The coupons, interest and principal payments are not financed by the green projects themselves but are paid from the company's overall business operations.
- **Social and sustainability bonds:** These instruments are similar to green bonds in that the use of proceeds is restricted. For social bonds, the proceeds must be spent on social projects such as affordable basic infrastructure, access to essential services and socio-economic advancement. The proceeds of sustainability bonds can be spent on both social and green projects.
- **Transition bonds:** Transition bonds are a relatively new concept and are designed to provide financing for companies that wish to transition to a greener business profile but do not currently have sufficient green projects to fund with a green bond. The proceeds can be spent on projects that are not 'pure green' but that can still aid in transitioning towards a greener future – for example, funding a utility replacing coal generation with natural gas.
- **ESG-linked bonds and loans:** Also referred to as SDG-linked or sustainability-linked, these bonds and loans have payment terms that vary depending on whether the borrower meets various sustainability performance targets. These quantitative targets create clear incentives for borrowers to improve their ESG credentials. Unlike green bonds, there is no restriction on the use of proceeds.

Outsourcing the ESG challenge

The key advantage of ESG products and securities for investors is that they outsource the ESG analysis. Instead of developing their own ESG standards, the buyers of ESG products accept an external opinion as either credible or at the least a 'market standard'. This allows late adopters to increase the ESG quality of their investments quickly and in a quantifiable way (e.g. by allocating 10% of a portfolio to green bonds, or moving to a low-carbon benchmark for equity funds).

The key disadvantage is that ESG standards for these products remain formative. Company-level disclosure is generally poor and inconsistent and there is little-to-no agreement on which factors should have the greatest weight in ESG considerations. The risk to investors is that the green-labelled products that they buy today subsequently fall short of future ESG standards. At that point, investors may face a tricky decision as to whether to hold or divest their formerly 'green' securities. We will strive to keep investors informed of the shifts in regulatory and market standards and the potential implications for legacy securities.

4. Corporate engagement

Barclays Research analysts already track voting patterns, noting how they are changing corporate behaviour and the effect this is likely to have on a business's financial profile. Thus, coverage of ESG activism is a natural extension of our existing fundamental research coverage. By focussing on how companies under coverage are performing against key ESG metrics, our fundamental research will highlight areas of weakness and opportunities for improvement at the company level.

Corporate engagement constitutes a more 'active' form of ownership. It can involve active dialogue with companies on ESG-related matters or exercising shareholder rights to influence their behaviour. Rather than relying on market-based signals such as the cost of capital, corporate engagement allows investors to have a direct impact on the future direction of a company by proposing and voting on ESG-related issues at shareholder meetings. Regular dialogue between investors, corporate management and investor relations can help companies to understand and address the ESG issues that they face. Engagement can be a very powerful tool where investors have a large stake in a company.

Corporate engagement can also involve collaborating with other investors or groups. This is especially useful for investors that do not have the scale and resources to engage effectively alone, and for debt holders that do not have the right to vote in shareholder proposals. Collective action is being enabled by the emergence of groups and initiatives that have been established to target companies on certain issues. For example, Climate Action 100+ is an investor initiative set up in 2017 to ensure that companies with the greatest greenhouse gas emissions are taking the necessary action on climate change.

Although it is easy for investors to claim that they are actively engaging with companies on ESG issues, it is often more difficult to prove, which can render this approach subject to challenge or controversy. To be effective, investors must have a clear and detailed plan of what they wish to achieve and ensure that the correct companies are being targeted. They should also have a policy to manage situations where a company is unwilling to engage with their proposals.

PART FOUR

Our other ESG Research pillars

Our new Fundamental ESG Research function is fully supported and informed by our established thematic and systematic research capabilities, provided by our Sustainable & Thematic Research team and Quantitative Portfolio Strategy team, respectively. Below we briefly highlight some of the activities and outputs of these two groups.

1. Barclays thematic offering

The Sustainable & Thematic Investing team within Equity Research focuses on identifying global thematic trends that could shape the business environment over the coming five to 10 years. Such trends include demographic change, emerging industries & technology, and evolving consumer behaviour. All our analysis has a sustainability angle to it given we believe ESG and thematic investment approaches will become increasingly intertwined.

Sustainable & Thematic research highlights the companies that our sector analysts believe are well positioned or at risk from these long-term structural trends. Strategically, we aim to identify the potential new growth opportunities within sectors and how the companies under Barclays coverage are adapting.

Our research features:

Investor Guidebook and Sector Implications: To ensure top-down analysis is taken to the stock-level, the Sustainable & Thematic Investing team works closely with the underlying sector analysts across Europe and the United States. All research publications have an 'Investor Guidebook' section, where we outline the potential ways for an investor to gain exposure to long-term structural trends across both public and private companies.

ESG considerations: To aid company engagement, the reports also provide investors with key ESG considerations and questions for management. The research also indicates how the proposed investment opportunity addresses the United Nation's Sustainable Development Goals, given that many ESG/impact funds integrate the UN SDGs into their investment framework.

Thematic data-sets & external experts: To offer differentiated thematic insights, the research publications often leverage the Barclays' Research Data Science platform when developing proprietary datasets and may draw on a range of external experts including academics, private companies and industry specialists.

Some of our recent thematic publications

Global Fashion: Green is the new Black (15 January 2020): Global fashion's immense water-consuming, energy-exhausting and wasteful supply chain practices are creating environmental and social concern that we can no longer afford to ignore. We view 'Sustainable Fashion' as a clear business opportunity, with the scale-up of experimental materials, emerging technologies and new business models (e.g. resale & rental) offering the potential to move from linear to circular production.

Plastic Waste: Don't lose your bottle (19 June 2019): The plastics industry is undergoing a revolution as it seeks to address the c160m metric tonnes of plastic waste that leaks into the natural environment or ends up in landfill each year. We view PET plastic packaging – and in particular beverage bottles – as pivotal to this issue. In this report we argue PET waste

management should be viewed as an opportunity, with recycling demand likely to incentivize investment across the value chain.

Education Technology: Out with the Old School (12 March 2019): The World Bank has warned of a global learning crisis. As the modern learner demands new forms of education delivery, the industry is ripe for digital disruption. We believe education technology – EdTech – has the potential to scale profitably given global education expenditure is expected to reach $10tn by 2030.

Food Waste: Ripe for Change (04 March 2019): The world currently wastes about one-third of all food produced for human consumption – a greatly overlooked driver of climate change. Alongside calls to action from governments, consumers and industry, this report highlights innovation that could accelerate change such as shelf life extension, innovative packaging, artificial intelligence and surplus food platforms.

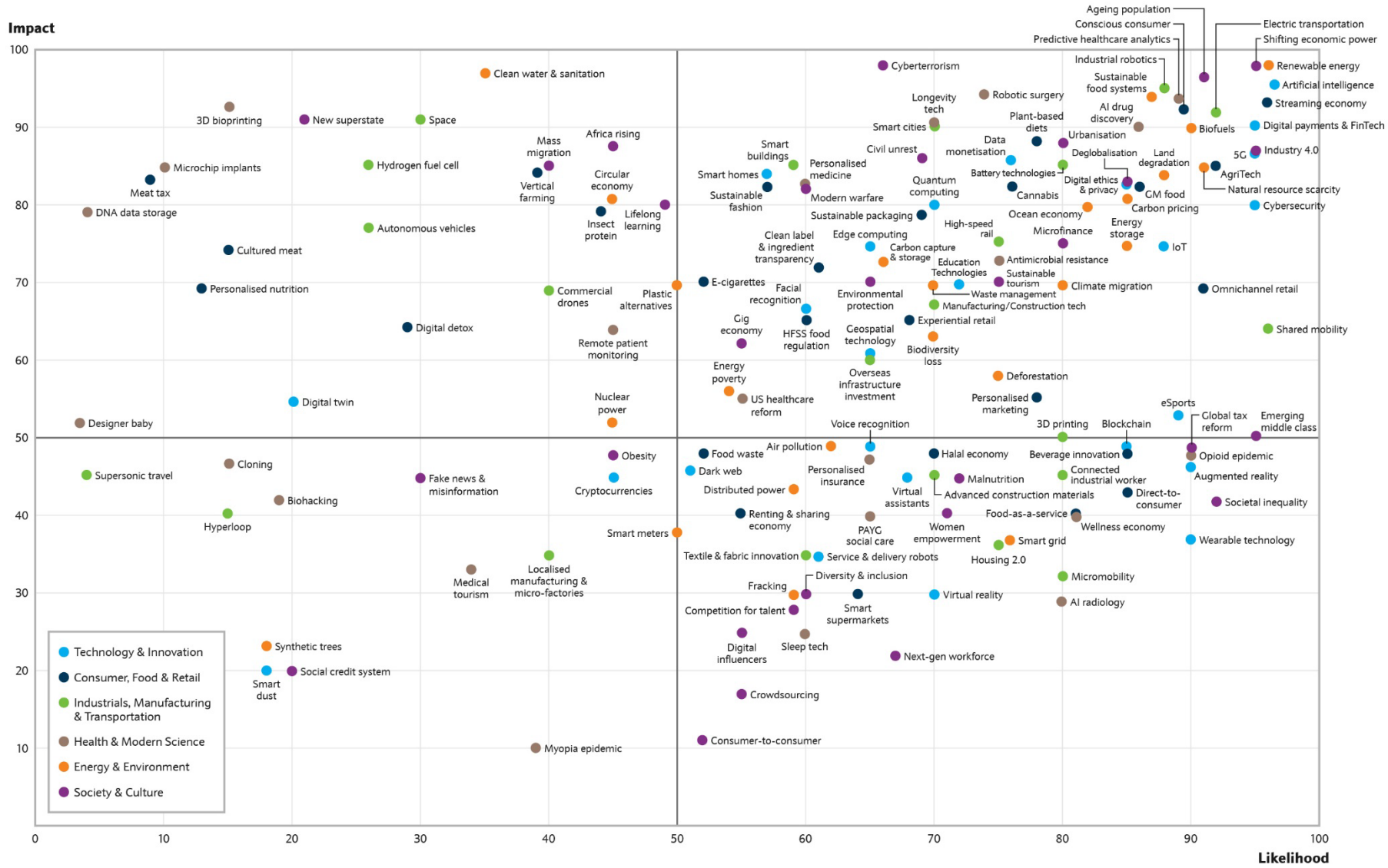
Given the growing relevance of ESG and thematic investing, our 2030 Thematic Roadmap provides our client base with a starting point for debate when drawing up their investment strategy for the next decade.

Leveraging the expertise of Barclays' sector analysts and our Research Data Science platform, we identify the 150 trends that could potentially affect investment decisions as the portfolio of the future is constructed.

Many of the trends identified in Figure 7 will be affected by the rise of ESG investing, either directly as the investment community consider the impact their investments are having on broader society and/or indirectly as companies adapt their business models to known mega-trends such as decarbonisation/ climate change, digital ethics & privacy, clean water & sanitation, sustainable food systems, obesity and social inequality.

FIGURE 7

The 2030 Thematic Roadmap – 150 Trends



2. Barclays systematic offering

The Barclays Quantitative Portfolio Strategy (QPS) group has a broad mandate to provide our clients with innovative insights into all aspects of the investment process, across asset classes. Our research features a systematic, quantitative approach, based on rigorous empirical studies and models.

Rather than offer subjective views, we prefer to 'let the data speak'. We have helped clients address issues of asset allocation, benchmark customisation, choice of investment style, and risk budgeting. On a more practical level, we have advised investors on portfolio/index hedging and replication, issuer diversification and risk management. In recent years, we have studied systematic investing and investigated style factors according to the specificities of individual asset classes. As part of this effort, we publish quantitative scorecards that rank securities according to their relative attractiveness in the context of a thematic factor. Our research offering covers *FICC, Equity, and Analytics*[7]. Credit investors in particular have engaged with QPS for many years on issues of portfolio construction[8].

Quantifying ESG's performance impact

Over the past five years, we have been approached by many investors regarding the effect of ESG investing on portfolio performance. Money managers, for example, wondered whether an ideals-driven shift to integrate ESG principles in portfolio management might conflict with their fiduciary obligation to produce the best possible returns for clients. They valued the data-driven approach taken by QPS, and engaged us to study the effect of ESG investing on corporate bond valuation and performance.

For some of the most committed ESG investors, the knowledge that their funds are being invested to support the values in which they believe is so important that they would accept a lower return on their investments. A much larger group would be happy to support these values, but only once they are convinced that there is limited negative return effect. If consideration of ESG principles can actually help to improve portfolio performance, then it would be hard to justify any resistance to their adoption. The relationship between ESG characteristics and performance is therefore of primary importance.

Our focus on credit markets

To date, a lot of our quantitative research has focussed on credit markets. This is for several reasons: first, a growing number of bond investors are interested in ESG investing. Second, the relationship between sustainability and portfolio performance had been much less actively researched in credit than in equity markets. Third, credit investing is dominated by institutional investors, including pension funds, who are leading demand for sustainable returns.

Finally, corporate bonds are complex: they combine exposure to interest rates and credit spread, so allocations along both dimensions influence risk and performance. To aid bond managers in evaluating the potential performance effect of integrating ESG data into their portfolio construction, we must carefully control any systematic risk exposures.

[7] QPS Analytics features Liquidity Cost Scores (LCS), which measure liquidity at the security level across a wide range of fixed income markets.

[8] Our books *Quantitative Management of Bond Portfolios*, Princeton University Press, 2007 and *Quantitative Management of Bond Portfolios*, Wiley, 2012 illustrate our historical work. Our book *A Decade of Duration Times Spread (DTS)*, Barclays, 2015 focuses on credit risk management.

Our ESG fixed income reports

ESG ratings and performance of corporate bonds (2015) – Our first report drew upon on ESG ratings provided by MSCI ESG Research for the US investment-grade corporate bond market. We found that bonds with high ESG ratings had slightly lower spreads, all else equal. We also found that bonds with high ESG ratings modestly outperformed their lower-rated peers when controlling for systematic risk exposures including sector and quality allocations. This outperformance was not accompanied by an increase in relative valuation as indicated by historical ESG spread premia.

ESG investing in credit markets (2016) - This second report expanded our analysis of ESG investing in the US credit market. It showed that ESG characteristics are closely linked with credit ratings and bond spreads. As a result, a simplistic portfolio tilt towards higher ESG ratings was likely to lead to higher average credit quality, lower average spreads, and hence a bias towards lower returns.

ESG investing in credit: A broader and deeper look (2018) - Following strong investor interest, market coverage in this third report was broadened to include the euro investment-grade and the US high-yield corporate bond markets, in addition to US investment-grade. We found that tilting a credit portfolio in favour of high ESG bonds, while keeping all other risk characteristics unchanged, led to higher performance in all three markets. But while our earlier studies found that the Governance rating was most closely associated with performance, Environment had the strongest effect in the most recent two years of our analysis in the US and over the whole nine-year history in Europe.

Final word

In bringing a new fundamental research pillar to the Barclays ESG Research offering, we hope that our clients, will continue to find our research on ESG and sustainable investing enlightening, enrichening, and useful in their journey of integrating ESG factors into portfolios and investment strategies.

We believe our three-pillared approach comprehensively reflects the balance of the ESG ecosystem. Corporate actions affect the environment and the societies that they operate in: this will be the focus of Barclays Fundamental ESG Research. Alongside this, corporate ESG behaviour will, in some cases, feed into the performance of issuer securities directly through shifting investor preferences. So measuring how ESG factors drive security performance is the focus of the systematic research conducted by our Quantitative Portfolio Solutions team.

At the same time, the effect of corporate actions on the environment and society will drive consumer and regulatory preferences, creating new patterns of consumption and regulation. Here, our Sustainable & Thematic team will continue to bring thoughts and insights. Eventually many of these themes are likely to feed back into the fundamental performance of the companies we cover, which completes the ESG cycle.

Outside of, but related to, the ESG cycle is the evolution of ESG in financial markets – and tracking this will be another important part of our Fundamental ESG Research offering. By tracking investor preferences through the lens of flows into ESG investment products and how ESG is being integrated into investment processes across regions, asset classes, and investor bases – we hope to keep clients at the forefront of ESG trends as they shape the global investment landscape.

Contacts

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Hiral Patel is the Head of Sustainable & Thematic Investing within Equity Research at Barclays. Hiral joined the team in June 2018, following five years covering the European Technology, Payments and FinTech sector. Prior to that, she qualified as a Chartered Accountant with KPMG, where she worked in Audit covering Financial Services. Hiral graduated from the University of Warwick with a degree in Economics, Politics and International Studies.