

A Framework for Environmental Social and Governance Considerations in Portfolio Design

*From the eyes of a quant where ESG intersects with
alpha beta separation.*

It is often argued that the world is changing and that the impact of Environmental, Social and Governance (ESG) issues could pose a significant risk or potential opportunity for pension assets. While this argument may well have merit, it rarely leads to actionable steps or clarity of direction. In some sense it is a call to arms against an unknown enemy. The inherent breadth and ambiguity of issues has resulted in the integration of ESG considerations into portfolio design remaining largely a philosophical push without clarity on the direct and indirect impacts on shareholder value.

This paper proposes a simple framework to consider the impacts of ESG issues with respect to their role in investment decisions. This framework allows ESG considerations to be disentangled and provides a clearer path for further investigation of the impact of good/bad ESG policies on shareholder value and how these considerations may be appropriately included in the investment decisions of both investors and fiduciaries.

A Framework- ESG Meets Alpha Beta Separation

Many Funds are currently trying to tackle ESG holistically, when a more effective approach may be to disentangle the issues. As such, we propose a framework that categorizes the key areas of ESG consideration by how they impact a fund's investment results. The simple exercise of viewing ESG consideration in a more segmented way explicitly allows recognition of the multiple facets to incorporation of ESG issues. It also allows for smaller advances towards more achievable goals than may be possible by embracing ESG as one amorphous challenge.

As a first step, we identify three distinct avenues by which ESG consideration may impact on fund investment performance.¹

1. **Systemwide changes in ESG management:** The impact on portfolio returns resulting from changes in ESG management on the economy as a whole.
2. **Company-specific changes in ESG management:** The impact on portfolio returns resulting from changes in ESG management of individual companies.
3. **Investing in ESG leaders:** The impact on portfolio returns of owning better run companies, or a return premium for 'good' ESG management.

Potential For Creating Shareholder Value

While ESG consideration in each of the categories we have identified does not necessarily create shareholder value, each has the potential to do so. Consider the following possible ways in which shareholder value can be created;

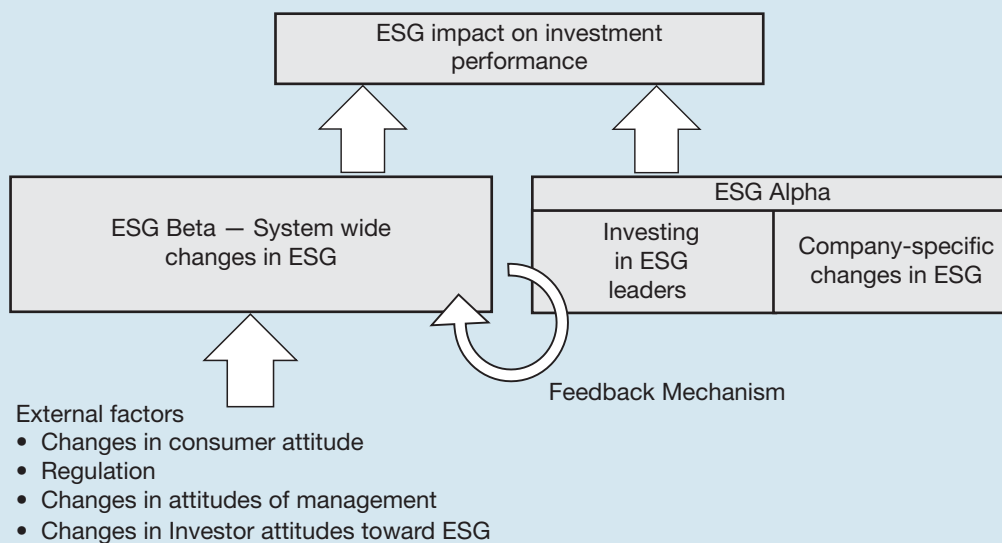
- a) Increased current earnings
- b) Increased growth of future earnings
- c) Decreased risk of future earnings (lower discount rate)

How can ESG consideration help identify these value additive potentials?

- a) Decreased costs (at the firm or economy level) through removal of inefficiencies may lead to increased earnings
- b) New products and markets to meet changing consumer needs may provide earnings growth
- c) Decreased risks to earnings through better management of future risks and liabilities may justify lower discount rates.

In order to progress this framework, we further categorize each of these key areas as either "ESG Beta" (Systematic) or "ESG Alpha" (Idiosyncratic) impacts. While the idea of ESG Alpha and ESG Beta do not completely parallel their more traditional Alpha and Beta counterparts, there are many overlapping characteristics which allow for some useful and intuitive interpretations to be made. Consider the framework and classifications shown in Figure 1 that is discussed in detail in the remainder of the paper.

Figure 1. A Framework For ESG Consideration In Portfolio Design



¹ This is not a statement that each of these categories has an equal or even positive impact on investment outcomes. Rather it is a representation of three areas which broadly capture the way funds are currently looking at ESG either explicitly or implicitly.

ESG Beta

ESG Beta is best described via the concept of a "universal owner." Superannuation funds both individually and collectively own a diversified portfolio of assets covering practically the entire capital market — that is, they own a share of the entire economy; they will benefit when the economy expands and suffer when it contracts. One very important implication resulting from this insight is that the majority of a fund's returns are driven by market exposure or systematic risk. ESG Beta is about getting better risk-adjusted returns from that market exposure by removing inefficiencies and costs associated with poor management of ESG issues, thereby benefiting the collective investments of the fund.

This effect is termed "ESG Beta" because it does not require a fund to actively do anything to benefit from improved efficiency in the economy — it is the passive return from systematic ESG improvement. Also, in parallel to more traditional definitions of Beta, ESG Beta is about systemwide changes, not changes in individual companies.

An implication of the systematic nature is that ESG Beta has more potential benefit to investors than ESG Alpha (on average) and funds will benefit just by being invested broadly in capital markets — so where's the

catch? Well, ESG Beta will not eventuate on its own, unlike more-traditional risk premia, which are a reward for taking systematic risk. ESG Beta bears no such systematic risk and instead requires improvement in systematic efficiency to gain reward and that can only come about through change; change in consumer behaviour, social attitudes, regulation, or even through the cumulative impact of investors' influence on companies and the allocation of capital. While an individual fund does not necessarily have to participate in creating any of this change to benefit from the potential improvement it does require someone to pursue change.

The existence of an ESG Beta raises questions analogous to, and as complex as: "How much is the Equity Risk Premium?," "What is the potential magnitude of the benefits of ESG Beta?," "How much inefficiency can be removed from the system?," "What is the value of future growth that can be created or saved?" This is an area that will receive its due attention by the industry over time though its complexity and reach will undoubtedly lead to many competing views.

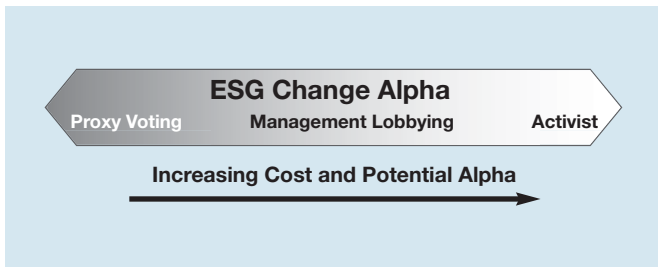
A Simplified ESG Beta Example

To clarify the idea of ESG Beta, consider the following example. Assume that the entire economy is represented by a mining sector, a food production sector and a manufacturing sector. The miners supply the inputs to the manufacturing sector, the food producers fuel the labor force and all three sectors consume the manufactured goods as a discretionary luxury. And a fund owns a share of each of these sectors.

If the miners pollute the land it may not hurt the business of the miner directly but it may have a flow-on effect. It may for example increase the cost to food suppliers who now have to deal with contaminated water that needs filtering. So the cost of food rises, which increases the cost of labor (fueled by this food). This in turn increases the cost of all goods (manufacturing, mining and food) and would lead to lower real demand in the total economy for manufactured goods (in our example this is like discretionary goods) which then has a flow-on multiplier effect to less demand for mining outputs. The net result is lower output from the economy and therefore diminished returns for the fund that is tied to that economy.

The argument for ESG Beta is that if improvement can be made to the efficiency of the mining company, although it may (or may not in the long term) create a direct cost for the miner, it would be to the benefit of the entire system through improved future economic output and thus an improvement to the fund's returns. Such a change could come about through various means — possibly changes in consumer behaviour, explicit pricing of environmental impacts and ensuing competition within the sector or through change in regulation.

This example uses E but it can equally be argued for the S and G components of ESG. For example, removal of social costs may reduce the reliance on social security and thus may reduce taxation requirements. Also improved governance may reduce the need and cost of regulation.



ESG Alpha

ESG Alpha, like the more traditional definition of alpha, is about seeking value through information advantages or improvement of underlying assets. Also like traditional alpha, it has to be a zero-sum game (before fees) relative to the benchmark. That means the argument for seeking ESG Alpha must be that you believe you can take money off someone else — for you to beat the benchmark, someone else has to under-perform it.

We distinguish between two forms of ESG Alpha. "ESG Change Alpha," which derives value from improvement in the underlying asset in order to create shareholder value; and "ESG Information Alpha," which seeks to capture a return premium through better use of available information — an ability to identify leading ESG management.

1. ESG Change Alpha

Creating company specific changes in ESG management to increase asset values

The fundamental concept underlying this category of ESG Alpha is that improvements in ESG management may result in reward to the company's shareholders. It is classified as ESG Alpha because it requires specific action on the part of the asset owners in order to capture any associated return. Also, like more traditional alpha, there is a cost associated with research as well as the execution of change through lobbying, proxy voting, management intervention, or other responsible ownership practices.

ESG Change Alpha covers a spectrum of actions that range from simply voting proxies on existing investments (which are held for more traditional reasons) through to seeking out companies with the direct intention of creating change in ESG behaviour as a core driver of future returns. This range of possible activities also aligns with a range of skills and cost required to execute such a strategy.

While the link between future stability and growth potential arising from better management of ESG by companies is

intuitive, ESG Change Alpha is currently very difficult to assess in terms of its true impact on shareholder value. Specific examples of shareholder reaction to ESG changes certainly exist but it is not yet clear whether the market recognises and rewards improvement in ESG management on average.² Adding to the challenges for funds, it is also conceivable that the efficacy of ESG Change Alpha will itself change over time, as investor attitudes change and as externalities are more accurately priced through regulatory or market advances.³

2. ESG Information Alpha

Investing in ESG leaders — A return premium for 'good' ESG companies

The basis for this category of ESG Alpha is to more completely utilize available information and include ESG-related considerations into one's investment process, either as an adjustment to return or risk estimates for a company. It is based on the premise that companies that have better ESG practices tend to be better investments. Unlike ESG Change Alpha, ESG Information Alpha is reliant on selection of better managed companies and extracting a premium over time rather than actively creating change.

Many investors believe that ESG factors should generate alpha, and therefore should be incorporated into the valuation process for all investments. For this reason, the Information component of ESG Alpha often gets the lion's share of attention from funds, yet it has the potential of being the least fruitful from an investment perspective. Here, we postulate some theories that may justify an investment case for ESG Information Alpha⁴:

- **Time horizon arbitrage:** In a world fixated on the shortterm and where discount rates incorporate this short-termism, taking a longer term view of a company's prospects may result in superior returns. This is an argument that ESG-related issues are outside of the time period of analysis for most investors.
- **Proxy for good management:** If management is capable of dealing with non-financial issues, then it may be better equipped to manage the full breadth of a company and more likely to surprise the market on the upside. For example petroleum companies that are looking at alternative sources of energy may be less likely to be hurt by a move to a carbon-free economy and may benefit by leading the way. Or, companies who protect their staff will likely retain them longer and have a more productive workforce without having to bear the cost of staff turnover.

² We note that the PRI and UNEP FI are currently commissioning a report under the Universal Owner Project which aims to demonstrate a clear financial and economic rationale for collective shareholder engagement on a range of issues that fall under the general area of economic externalities.

³ Another interesting aspect to consider is the regional variation in the viability of such a strategy. It is likely that Japanese companies who have high levels of cross ownership and employee shareholders would be less open to active intervention by outside shareholders than say in the UK where there is a well established mechanism for shareholder interactions.

⁴ While these investment cases may seem reasonable the evidence as to their validity is currently very weak at best and should be the focus of future research analysis.

- **Proxy for sustainability** and therefore a justification for higher multiples — Even in the absence of a clear market reward for superior ESG management, measuring a company’s ESG record may help to complement other company valuation tools and provide additional information as to the relative risks and appropriate valuations of otherwise similar companies (i.e., a company that is more sustainable is better value than an otherwise similar investment and deserves a higher multiple).

The major issue with this category of alpha is that it is highly susceptible to emotive example. It is very easy for a fund manager to tell a story about a company that has been punished because of poor treatment of employees and how it was possible to identify the risk. But the issue must be considered at a much higher level. For example, one should ask “on average are good ESG companies rewarded by the subsequent out-performance of their stock price? Or for every company with poor ESG management that gets punished, how many prosper?” The problem for pursuers of ESG Information Alpha is that the investment community may already recognise the good and bad management teams, and already price this in. Intuitively there is no reason to be rewarded in a capital market for purchasing well managed assets — you should not expect additional returns when you are not taking on additional risk. Having said that, it is entirely possible that ESG information is not efficiently incorporated by the market and ESG Information Alpha may exist for those willing to do the work. The data and studies on this effect are mixed but there is clear room for improvement in the way they have been conducted and this is an obvious area for future research.

Feedback Mechanisms

One important difference between ESG Alpha and ESG Beta and their traditional counterparts is the existence of a feedback mechanism between ESG Alpha and ESG Beta.

1. Alpha becomes Beta

We noted that ESG Beta required changes at the systemic level to create value — one possible source of such change is through an accumulation of individual company changes, which may result from ESG Alpha seeking behaviour. In other words, although the alpha seeking strategies are a zero-sum game they can change the allocation of capital toward more efficient ESG companies and change the behaviour of company management. The combination of these effects can create ESG Beta.⁵

This may have an important implication on the tolerance funds have for the costs involved in seeking ESG Alpha. Funds may choose to participate in ESG Alpha seeking activities even if they believe there is a zero or even negative expected return to the alpha if they believe the positive impact on ESG Beta is large enough to compensate for the cost of actively pursuing alpha.

2. Beta promotes Alpha

It is also possible that the efficacy of ESG Alpha seeking strategies may be impacted by the evolution of ESG Beta. Many ESG Alpha strategies rely on market recognition of the importance of ESG considerations — either implicitly or explicitly. Thus as more market participants are forced to consider the implications of ESG issues, either through client pressure or through the development of markets such as carbon trading, then conditions may become more conducive to ESG Alpha strategies.

Concluding Remarks

The industry collectively needs to take a step back and consider the issue that should motivate ESG consideration: Do Environmental, Social and Governance issues impact shareholder value at either a company level or at the aggregate economy level? It is hoped that our ESG Alpha Beta framework helps clarify and structure attempts to answer this question and the resulting action plans for the inclusion of ESG considerations into portfolios.

The simple exercise of grouping goals and activities into either ESG Alpha or ESG Beta categories has the potential to provide intuitive insights and perspective. We have argued that the systematic component of ESG consideration or ‘ESG Beta’ should be the core component to any funds incorporation of ESG consideration. ESG Beta has the greatest potential benefit to fund returns on average and can simultaneously benefit all funds. Unlike ESG Alpha which is, by our definition, a zero-sum game on average. But we also argued that while ESG Alpha can not be the savior of the average fund, it may provide an avenue for additional return for a more active subset of the industry, while potentially helping all investors in the creation of ESG Beta through a positive feedback mechanism.

It is hoped that at the very least our discussion will spark some thought and debate on the topic and we welcome any feedback that may help to improve or evolve our thinking as we look to further our research in ESG issues.

⁵ Arguably the strength of the feedback mechanism and the resulting impact on ESG Beta is larger for ESG Change Alpha than for ESG Information Alpha as the feedback loop is more direct given explicit dialogue with company management.

Engagement of Fund Managers

One of the principles of the UN Principles for Responsible Investing (UNPRI) is “We will incorporate ESG issues into investment analysis and decision-making processes.” This principal can take many forms including approaching service providers and investment managers to incorporate ESG considerations into their service. Specifically when approaching investment managers on this topic we believe the framework provided can help investors more clearly communicate their needs to service providers.

When asking investment managers to consider ESG in their investment process provide them with some rationale as to what you are trying to achieve. For example if you believe that ESG Beta is the component you are really chasing then state that explicitly. The best way to fight skepticism is to have a well-structured philosophy and be able to communicate (in this example) that you do not expect that either investing in good ESG companies or effecting change will add value at the company level or potentially even at the mandate level but that doesn't mean we don't want you to do it as we believe it has larger benefits to the portfolio as a whole through the removal of inefficiencies and with a timeframe beyond a typical investment horizon. That is pretty hard to argue with.

Understand where your managers' core skills lie and try to align your needs with them. If you do believe ESG Alpha exists, are your managers better equipped to create change by communicating issues to management or are they only set up to deal with the outcome of management decisions after the fact? There is danger in forcing managers to change their process as it may reduce resources available to their core functions or may just result in your portfolio receiving less attention as it is 'different' to the rest of their book.

Of course you are not limited to your existing managers but you will be able to get more out of them and other potential candidates if you can communicate your needs clearly.

DISCLAIMER:

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC (“AQR”) to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is intended exclusively for the use of the person to whom it has been delivered by AQR, and it is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such.

Note to readers in Australia: AQR Capital Management, LLC, is exempt from the requirement to hold an Australian Financial Services License under the Corporations Act 2001, pursuant to ASIC Class Order 03/1100 as continued by ASIC Legislative Instrument 2016/396, ASIC Corporations (Amendment) Instrument 2021/510 and ASIC Corporations (Amendment) Instrument 2022/623. AQR is regulated by the Securities and Exchange Commission ("SEC") under United States of America laws and those laws may differ from Australian laws. **Note to readers in Canada:** This material is being provided to you by AQR Capital Management, LLC, which provides investment advisory and management services in reliance on exemptions from adviser registration requirements to Canadian residents who qualify as "permitted clients" under applicable Canadian securities laws. No securities commission or similar authority in Canada has reviewed this presentation or has in any way passed upon the merits of any securities referenced in this presentation and any representation to the contrary is an offence. **Note to readers in Europe:** AQR in the European Economic Area is AQR Capital Management (Germany) GmbH, a German limited liability company (Gesellschaft mit beschränkter Haftung; "GmbH"), with registered offices at Maximilianstrasse 13, 80539 Munich, authorized and regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, „BaFin“), with offices at Marie-Curie-Str. 24-28, 60439, Frankfurt am Main und Graurheindorfer Str. 108, 53117 Bonn, to provide the services of investment advice (Anlageberatung) and investment broking (Anlagevermittlung) pursuant to the German Securities Institutions Act (Wertpapierinstitutsgesetz; "WpIG"). The Complaint Handling Procedure for clients and prospective clients of AQR in the European Economic Area can be found here: <https://ucits.aqr.com/Legal-and-Regulatory>. **Note to readers in Asia:** This presentation may not be copied, reproduced, republished, posted, transmitted, disclosed, distributed or disseminated, in whole or in part, in any way without the prior written consent of AQR Capital Management (Asia) Limited (together with its affiliates, "AQR") or as required by applicable law. This presentation and the information contained herein are for educational and informational purposes only and do not constitute and should not be construed as an offering of advisory services or as an invitation, inducement or offer to sell or solicitation of an offer to buy any securities, related financial instruments or financial products in any jurisdiction. Investments described herein will involve significant risk factors which will be set out in the offering documents for such investments and are not described in this presentation. The information in this presentation is general only and you should refer to the final private information memorandum for complete information. To the extent of any conflict between this presentation and the private information memorandum, the private information memorandum shall prevail. The contents of this presentation have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution and if you are in any doubt about any of the contents of this presentation, you should obtain independent professional advice. AQR Capital Management (Asia) Limited is licensed by the Securities and Futures Commission ("SFC") in the Hong Kong Special Administrative Region of the People's Republic of China ("Hong Kong") pursuant to the Securities and Futures Ordinance (Cap 571) (CE no: BHD676). AQR Capital Management (Asia) Limited Unit 2023, 20/F, One IFC, 1 Harbour View Street, Central Hong Kong, Hong Kong Licensed and regulated by the Securities and Futures Commission of Hong Kong (CE no: BHD676). **Note to readers in China:** This document does not constitute a public offer of any fund which AQR Capital Management, LLC ("AQR") manages, whether by sale or subscription, in the People's Republic of China (the "PRC"). Any fund that this document may relate to is not being offered or sold directly or indirectly in the PRC to or for the benefit of, legal or natural persons of the PRC. Further, no legal or natural persons of the PRC may directly or indirectly purchase any shares/units of any AQR managed fund without obtaining all prior PRC's governmental approvals that are required, whether statutorily or otherwise. Persons who come into possession of this document are required by the issuer and its representatives to observe these restrictions. **Note to readers in Singapore:** This document does not constitute an offer of any fund which AQR Capital Management, LLC ("AQR") manages. Any fund that this document may relate to and any fund related prospectus that this document may relate to has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor pursuant to Section 304 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA") or (ii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. **Note to readers in Korea:** Neither AQR Capital Management (Asia) Limited or AQR Capital Management, LLC (collectively "AQR") is making any representation with respect to the eligibility of any recipients of this document to acquire any interest in a related AQR fund under the laws of Korea, including but without limitation the Foreign Exchange Transaction Act and Regulations thereunder. Any related AQR fund has not been registered under the Financial Investment Services and Capital Markets Act of Korea, and any related fund may not be offered, sold or delivered, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to applicable laws and regulations of Korea. **Note to readers in Japan:** This document does not constitute an offer of any fund which AQR Capital Management, LLC ("AQR") manages. Any fund that this document may relate to has not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law no. 25 of 1948, as amended) and, accordingly, none of the fund shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit, of any Japanese person or to others for re-offering or resale, directly or indirectly, in Japan or to any Japanese person except under circumstances which will result in compliance with all applicable laws, regulations and guidelines promulgated by the relevant Japanese governmental and regulatory authorities and in effect at the relevant time. For this purpose, a "Japanese person" means any person resident in Japan, including any corporation or other entity organised under the laws of Japan. **Note to readers in United Kingdom:** This material is being provided to you by AQR Capital Management (Europe) LLP, a UK limited liability partnership with its office at Charles House 5-11, Regent St., London, SW1Y 4LR, which is authorised and regulated by the UK Financial Conduct Authority ("FCA"). **Note to readers in Dubai:** AQR Capital Management (Europe) LLP (DIFC Representative Office) is regulated by the Dubai Financial Services Authority of the Dubai International Financial Centre as a Representative Office (firm reference number: F007651). Its principal place of business is Unit 34, Level 12, The Gate Building, DIFC, Dubai.