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ESG & investment performance: think strategically

Key takeaways

- The key to sustained long-term returns from ESG investment is effective strategic asset allocation. This is more important than a focus on tactical performance.
- Incorporating ESG into strategic asset allocation needs to be done at three levels: macroeconomic and asset class predictions, understanding of risk implications, and individual security selection. We discuss ways to do this.
- Strategic asset allocation will help us distinguish between long-term and temporary impacts on performance. Better understanding of global value chains and concepts such as "double materiality" will allow increasingly sophisticated ESG investing.

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01 Introduction

In the last CIO Special – ESG and investment performance: challenges ahead?, published in August 2022, we argued that ESG was entering a new third phase of **consolidation** and **reorientation**, after the two previous phases of acceptance and then rapid growth.

Consolidation has made one thing very clear: as ESG has become central to many investors' portfolios, the emphasis will increasingly shift to how to achieve sustained **long-term returns** from ESG investment in a portfolio context.

For us, the key to this remains effective **strategic asset allocation**. But, as discussed below, environmental change will have multiple implications for the three key components of strategic asset allocation: macroeconomic and asset class predictions, understanding and management of risk implications and individual security selection.

Effective incorporation of strategic asset allocation into portfolios will be bolstered by our society's growing understanding of global value chains and concepts such as "double materiality". Strategic asset allocation processes, as discussed below, are likely to develop further to reflect this **growth in knowledge**.

Recent events are a reminder that the world is on a **period of transition** to a more sustainable economy. This process will not be smooth and returns on investments will vary, be it traditional or ESG investments. But it will be important to understand which impacts of ESG investment on performance (both positive and negative) are likely to be transitory and which could be more sustained.

This process of transformation will take time and ESG investments need to reflect this: a more strategic approach is likely to yield benefits for both investors and the planet.

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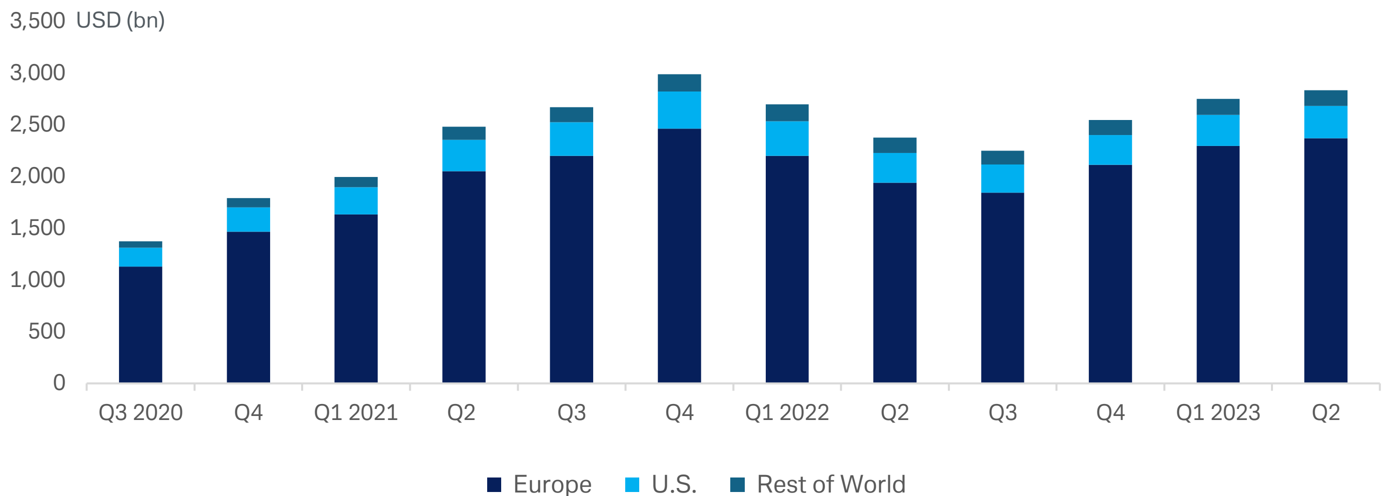
Figure 1: Quarterly global sustainable fund assets



Source: Morningstar, Deutsche Bank AG. Data as of June 2023.

02 ESG investment: where are we now?

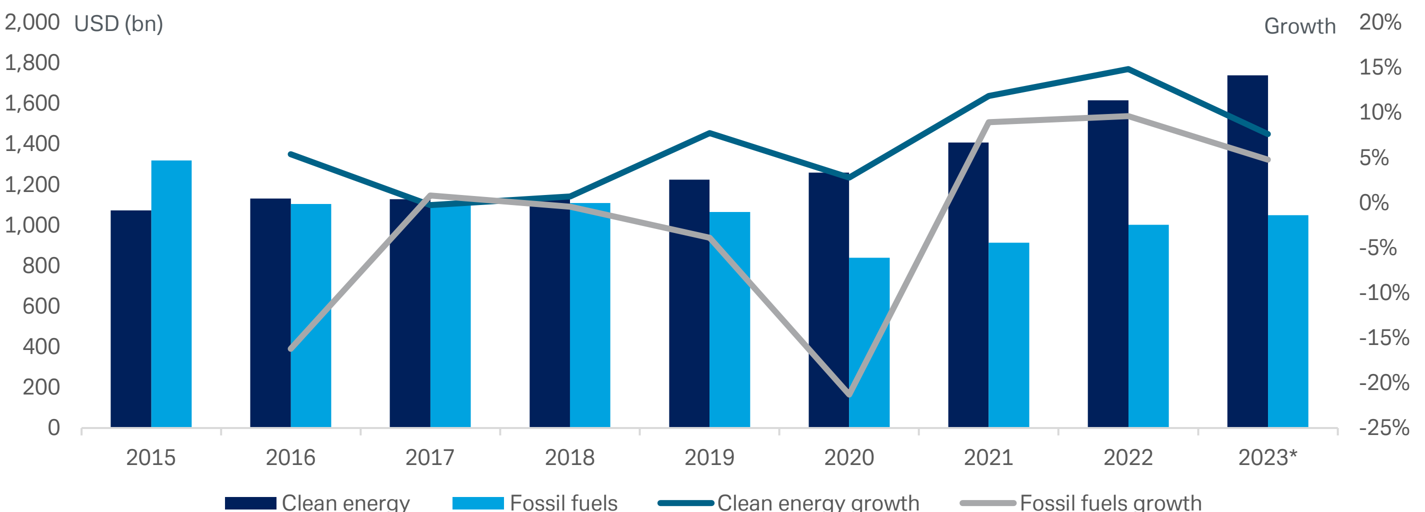
ESG investment levels remain high but variable. Investor interest remains considerable, despite recent debate, and green policies are accelerating investment growth in some areas.

At the end of the second quarter of 2023, **global sustainable fund assets** totaled around USD2.8tn, an increase of 3.1% compared to the end of Q1 2023 and higher than the 2.9% growth of the overall global fund market.[1] Total sustainable fund assets, however, remain below their levels at end-2021 (Figure 1). In the bond market, **green, social, sustainability, transition and sustainability linked bonds** (collectively GSS+) reached a recorded cumulative volume of USD4.2tn by the end of the first half of 2023.

Our annual client surveys continue to confirm high levels of client interest in ESG and its potential role in enhancing investment decision making in portfolios. However, while we have seen recently significant **advances** in ESG policy, markets and corporate attitudes to it, there has also been **questioning** of the process around and value of ESG investment. Analysis of the impact of ESG on portfolio performance remains limited and the focus has remained on how exclusionary strategies (e.g., removing hydrocarbons) can impact short- and medium-term investment performance.

In several sectors, a **significant share of global financial flows** is being directed into sustainable activities. For example, last year, global clean energy investments were significantly higher than global investments into fossil fuels. As Figure 2 shows, in 2022, over USD1.6tn was invested in clean energy, around 60% higher than the investment in fossil fuels (USD1tn) in the same period.[2] This trend is likely to continue. The International Energy Agency (IEA) estimates that USD2.8tn will be invested in energy (both clean energy and fossil fuels based) in 2023. Of this, the majority – more than USD1.7tn – will go to clean energy (including renewables, nuclear, grids, storage, low-emission fuels, efficiency improvements, and renewable energy and end-use electrification).[3]

Figure 2: Global energy investment in clean energy and in fossil fuels



*Forecast for the year 2023 by IEA. Source: IEA, Deutsche Bank AG. Data as of May 24, 2023.

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Green policies, such as the IRA (Inflation Reduction Act) in the U.S., are amplifying the associated technologies and markets further. In Europe, policy intervention is advancing at a fast pace, with the EU taxonomy, CSDR (Corporate Sustainability Reporting Directive) and SFDR (Sustainable Finance Disclosure Regulation).

One important development is the EU's CBAM (**or Carbon Border Adjustment Mechanism**) which aims to put a price on the carbon emitted in the production of goods entering the EU, making it equal to the price of carbon emitted within the EU. CBAM creates the closest equivalent (as now exists) to a global carbon tax. It may also encourage the adoption of domestic carbon tax schemes (as countries can apply for exclusions as long as they have equivalent domestic carbon pricing mechanism in place), and the removal of EU ETS (Emissions Trading System) free allowances may increase investment in green technologies and solutions to reduce emissions in manufacturing.

03 Strategic asset allocation and risk

ESG can and should have a variety of non-monetary aims. But, when a substantial amount of portfolio is in ESG investments, you must consider the implications for longer-term overall portfolio performance.

Our position remains that strategic asset allocation is key to sustained portfolio returns. There are a variety of academic studies supporting this view including Ibbotson and Kaplan (2000). They found that asset allocation accounted for more than 90% of a portfolio's long-term returns.[4]

The principle remains that a robust strategic asset allocation (ESG or non-ESG) should prepare a portfolio for a variety of future outcomes, even if it cannot fully protect a portfolio from extreme adverse events. The corollary is that constructing a strategic asset allocation that ignores the implications of likely future events (e.g., increased climate and nature-related risks) can suffer from unexpected, negative outcomes and lost opportunities.

Creating an effective strategic asset allocation, for ESG or non-ESG investment requires three basic components: first, **macroeconomic and asset class predictions**, second, consideration **of risk implications and their management** and, third, **individual security selection**.

ESG has implications for all of these. A changing climate will itself affect the long-term forecasts **for macroeconomic indicators** and broad asset class performance. Rising temperatures, loss of biodiversity, and less-stable weather patterns, inter alia, will impact base interest rates, GDP growth, and inflation in various ways with implications for overall allocation decisions. It is highly likely, for example, that climate change and nature-related risks result in a decline in GDP growth and an increase in inflation (relative to what would otherwise have been the case) in coming years.[5,6]

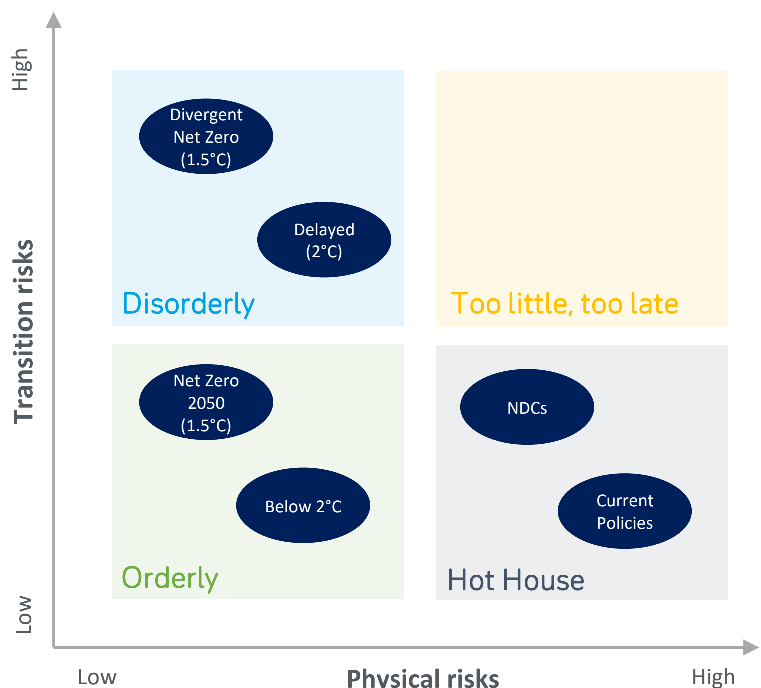
This, in turn, has a significant influence on the **risk-return** characteristics of investment portfolios, as changing macroeconomic factors interact with the more physical and transitional dangers arising from climate change. The exposure and vulnerability of different regions, sectors and asset classes will vary. In general, climate change and nature-related risks introduce more uncertainty, and this will have an impact on the expected volatility used in asset pricing models.

Figure 3: Physical and transition risks – four scenarios developed by the Network for Greening the Financial System (NGFS)

Orderly
- Net zero CO_2 emissions is achieved worldwide by the year 2050, limiting global warming to 1.5°C.
- Below 2°C, climate regulations become more stringent, offering a 67% likelihood of keeping global warming below 2°C.

Disorderly
- In a Divergent Net Zero scenario, net zero is achieved around 2050, but at a costlier price as a result of conflicting policies adopted across sectors.
- Delayed transition assumes no reduction in yearly emissions until 2030.

Hot House
- Nationally Determined Contributions (NDCs) encompass all promised objectives, even those that have not yet been supported by successfully implemented policies.
- Current Policy scenarios posit that only already enacted policies are kept, resulting in significant physical hazards.



Source: NGFS, Fidelity, Deutsche Bank AG. Data as of September 2022.

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Investors should also be careful **not to underestimate the risks** that climate change may pose. The temptation is to assume that the effects – on sea levels and agricultural output, for example – will accumulate only gradually, implying that major changes will not happen for some time. However, this is not guaranteed. Possible extreme climate outcomes and sudden regime shifts (the "fat tails", in risk distribution terms) do not gather the attention they deserve.[7] The recent history of financial markets suggests that when conventional models struggle to handle the consequences of fat-tail events (i.e., extreme outcomes), the results can be serious.

One approach is to divide long-term risk into **physical risk** (to activity, from climate change, biodiversity loss etc.), **transition risk** (from consumer sentiment, technology, regulation and policy change), **liability risk** (litigation) and **contagion risk** (feedback from challenges elsewhere). The impact of such risks on portfolios can be via disruption of production processes or value chains, capital destruction, adjustment or relocation of activities, pricing externalities, stranded assets and so on.

Physical risks are real and immediate: according to research by the International Food Policy Research Institute (IFPRI), current water management practices and productivity levels could jeopardise USD63tn, or 45%, of the projected global GDP in 2050, equivalent to 1.5 times the size of the entire global economy today.[8]

The **relative importance of these different sorts of risk will change over time**. Figure 3 illustrates the possible set out of outcomes for physical and transition risks. Based on the current understanding of climate change, transition risk may be prevalent in the short- to medium-term while physical risk becomes increasingly significant over the medium- to long-term. Transitional risks for individual economies will be influenced by factors such as economic structure, energy security, and trade composition.

The **orderliness of the transition process** will also affect risk and, as a result, the relative attractiveness of different asset classes. A disorderly transition, where attempts to manage climate change fail and prices rise due to scarcity of goods (e.g., food) could result in central banks tightening policy rates and rising bond yields in an attempt to contain inflation.

This would have the most immediate implications for bonds. Higher interest rates also impact equity valuations, as equities (in effect) represent perpetual claims on companies' future cash flows (which may also be under threat from physical and other risks to production from climate change and any related slowdown in economic growth).

Effective **individual security selection** will involve not only assessing the likely future financial performance of an asset but also (in an ESG context) whether it should – on environmental, social and governance grounds – be included in a portfolio as these factors will become increasingly material due to above mentioned risks.

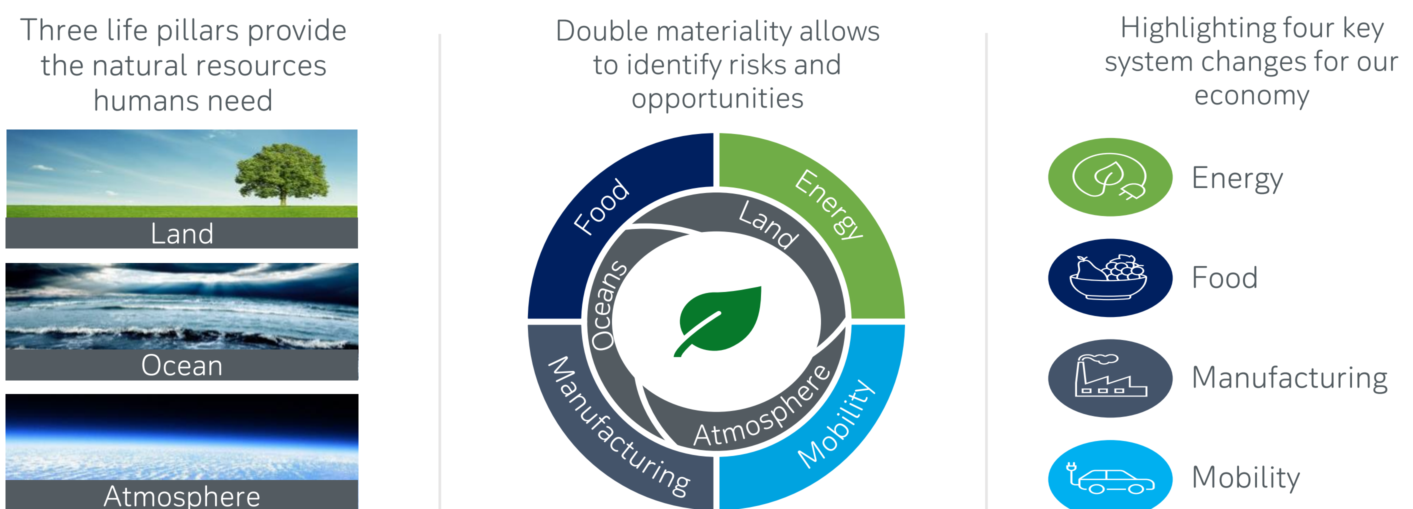
Traditionally, as we have noted above, this has been done through any exclusionary approach (i.e., not investing in sectors seen as problematic). However, this exclusionary approach is a blunt instrument and may not address the need for investment in existing firms transitioning to a sustainable business model.

Making a more sophisticated assessment of what is desirable/undesirable will depend on a deeper understanding of key value chains in the global economy and how they affect planetary boundaries. This indicates the necessity of developing a sophisticated analytic toolkit, which will likely be focused on the concept of **double materiality** – assessing both the material impact a company's activity can have on the environment (or the social and governance elements), and material impacts/risks that environmental change can have on a company.

Double materiality highlights four basic human demands (energy, food, manufacturing and mobility) which require use of inputs from nature, via ecosystem services. The challenge is to understand these market demand structures, and the **key value chains** that underpin them.

These value chains represent the principal areas our society needs to focus on in order to move towards a more sustainable way of living. As shown in Figure 4, they can be defined as the necessary **system changes**, a hierarchy for mitigation and adaptation toward the economy's sustainable transition.

Figure 4: A new approach is needed to understand our global economy



Source: Deutsche Bank AG. Data as of September 2023.

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Based on the necessary system changes, better integration of environmental risks and opportunities into valuation models can affect a company's perceived value by investors and its financial operating environment. This is already happening: for example, the average cost of capital of the MSCI World Index's highest-scoring quintile on ESG measures has been estimated at 6.16%, while the lowest-scoring quintiles was 6.55%.[9]

Aside from considering how ESG can impact the individual components of strategic asset allocation – forecasts, risk, individual security selection – you also need to consider possible overall integration approaches. At present, ESG integration into strategic asset allocation is usually based on so-called **replacement approaches**. These start with a traditional optimization methodology based on capital markets assumptions on the risk/return characteristics of the different asset classes to build an "efficient frontier" (i.e., the highest return possible for a given level of risk) but without taking ESG factors into account.

Having obtained this theoretically optimal portfolio, replacement approaches then exchange non-ESG indices for equivalent ESG versions at the sub-asset class level, with the aim of generating the best achievable ESG outcome.

This approach has the advantage of simplicity, but there is substantial **room for improvement in how ESG can be integrated into strategic asset allocation.** A more comprehensive approach would (building on the concepts discussed above) be to first account for ESG-related risks in the strategic asset allocation's long-term macroeconomic assumptions. In a second step, ESG key performance indicators (KPIs) are included, meaning that the double materiality concept is reflected at the individual security level of the ESG strategic asset allocation.

There are various ways to do this – in essence, selecting suitable asset classes and ESG indices, designing and measure ESG metrics, using them to run optimisation processes against various scenarios.

Simulations by DWS[10] suggest that this approach can outperform unsophisticated replacement strategies, improving ESG outcomes at lower and higher tracking errors. For passive strategies, it may be possible to achieve performance that is more aligned to the selected benchmarks, while enhancing the ESG characteristics of the portfolio.

It is important to remember, however, that ESG portfolios could achieve real-world impacts that go beyond the selected ESG KPIs. Exerting influence on companies' behaviour via capital allocation and (reciprocally) divestments, as well as through other channels such as signalling, may provide different degrees of contribution depending on the asset class and the market.[11] In this context, fixed income investment, notably via sustainability-linked bonds and loans may provide greater opportunity for impact than equity.[12]

04 Learning from recent events

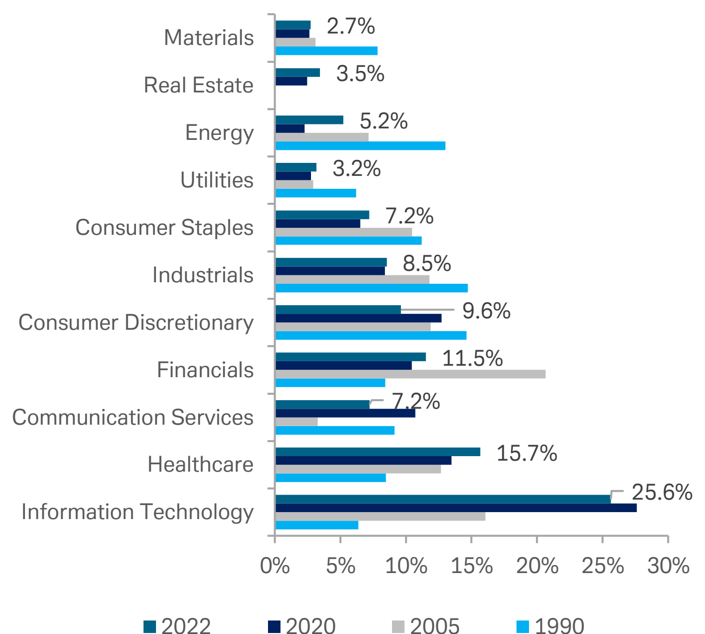
ESG factors will have a material impact on both the short-/medium-term and long-term returns of asset classes. The short-/medium-term impact of incorporating ESG in a portfolio has recently received more attention. One focus here has been on the performance implications of including ESG exclusionary strategies (those that restrict investment in firms or areas seen as problematic).

Such exclusionary strategies can certainly have unforeseen impacts on short-/medium-term investment performance. During 2022, for example, the **Russia/Ukraine war** resulted in a temporary boost to oil and gas prices, in turn boosting many hydrocarbons-related stocks on expectations of greater profitability.

As a result, ESG strategies that excluded hydrocarbons investments underperformed relative to the overall market for much of 2022, with the S&P Global Clean Energy index and MSCI Alternative Energy index achieving total returns of -5% and -7% respectively against a positive performance of 45% for the MSCI World Energy index.[13] Eventually, of course, fears around the supply of oil and gas eased and prices started to move down again.

It is important to highlight, though, how the focus on ESG exclusionary approaches and their impact on short-/medium-term performance can easily be overstated, particularly with regards to energy. Figure 5 above shows that, despite 2022 gains, energy still has a much lower weighting in the S&P 500 index than it did 30 years ago. At a global level, energy is now a much smaller sector (in terms of equity markets) than technology: it represents ~5% of the MSCI World index, compared ~22% for the IT sector.

Figure 5: S&P 500 sector weightings over the past 30 years



Source: Bloomberg L.P., Deutsche Bank AG. Data as of August 2023.

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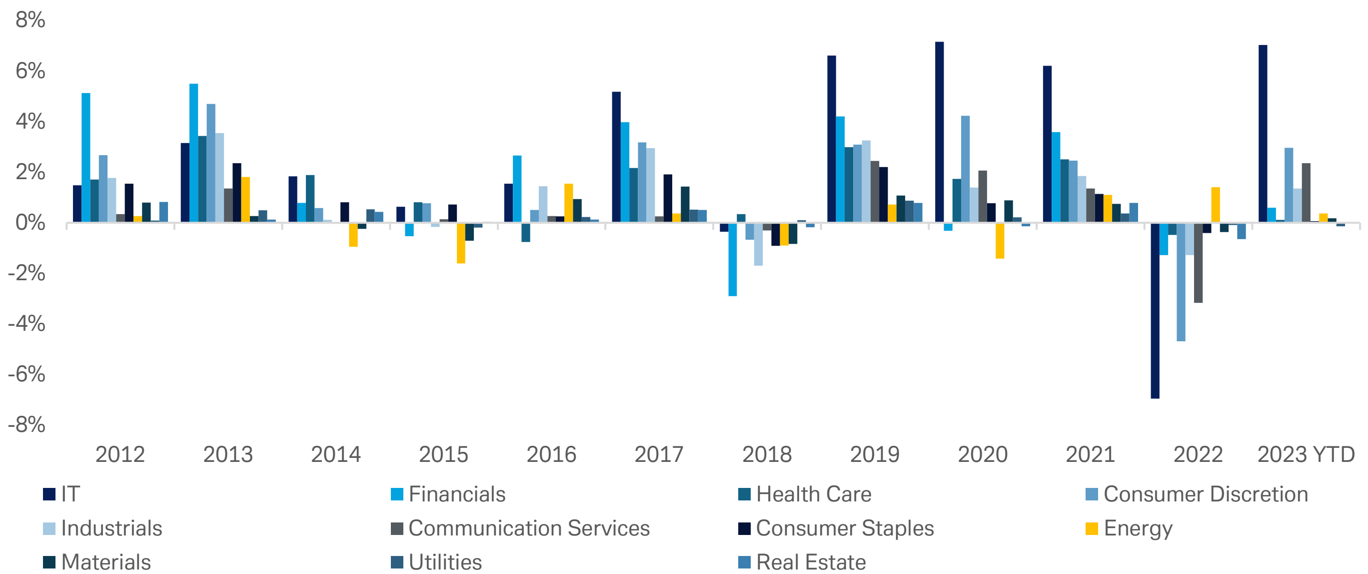
Figure 6: Sectoral contributions to MSCI World Index market performance



Source: Bloomberg L.P., Deutsche Bank AG. Data as of August 2023.

Figure 6 shows different sectors' contributions to broad equity market performance, with energy highlighted in yellow. It highlights that energy sector outperformance in 2022 can be considered an exception; in other years, energy has had a much smaller impact on performance (positive or negative) than IT or financials.

In a diversified portfolio, the performance contribution of the energy sector may be further reduced. In a portfolio with a 60% equity allocation represented by the MSCI World index, for example, a 3% equity weight for energy would be reduced to a 1.8% weight (3% x 0.6) in the overall portfolio. Over the past 10 years, with the same set of assumptions, the energy sector would have contributed less than 15 bps to the performance of this simulated balanced portfolio on average, against the 144 bps and 113 bps contributed by IT and financials sectors, respectively.

More important than exclusionary approaches, shifts in the **macroeconomic environment** have had short- and medium-term implications for ESG portfolios, even if these shifts are not strictly related to ESG issues.

High and sustained **inflation** in many economies has recently led to further tightening of monetary policy. This had a particularly important impact on ESG strategies as many sustainability themes focus on long-term opportunities where companies are at an early stage of their development. Corporate valuations here can therefore be highly dependent on expectations around future cashflows. Higher interest rates mean that current value of such future returns must be more heavily discounted, impacting their valuations negatively even if their long-term potential remains good. Similarly, in fixed income markets, sustainable funds and strategies have a tendency towards medium credit quality and longer-term duration.

One deduction from this is that ESG investment is more akin to a conventional "growth" rather than "value" approach. Indeed, Figure 7 shows how the average price/earnings (P/E) valuation for the MSCI ACWI ESG Leaders index is generally higher than the corresponding broader MSCI ACWI index. It also highlights the impact of raising rates, with P/E ratios falling during 2022 as rates were tightened, although there has been some recovery in 2023. As "value" outperformed "growth" across the broad market cap spectrum, ESG strategies were consequently penalized.

Figure 7: Price/earnings ratio of MSCI ACWI ESG Leaders index vs. MSCI ACWI index

Source: Bloomberg L.P., Deutsche Bank AG. Data as of October 2023.

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This inherent bias towards "growth" is partly due to how **regulation** itself affects ESG investment performance. There is an argument that current regulation (e.g., the EU's Sustainable Finance Disclosure Requirement, SFDR) may favour divestment over transition or transformation, even when the latter could provide a valid route to environmental goals. Regulation may be deterring investment into carbon-intensive economic activities that need to be transformed.

As shown in Figure 8, so-called European Article 8 and 9 funds are certainly significantly underweighting some economically fundamental, carbon intensive activities. (Article 8 funds are those promoting environmental or social investments; Article 9 funds have ESG as the primary objective of investment.) The worry is that investing, especially in Europe, is currently becoming polarized: "sustainable" products that only divest from controversial or difficult sectors versus "traditional" investment products with no middle ground.[14] This is unfortunate as our society largely depends on the "old economy" for its basic needs: it is necessary to transform this in a way that makes it suitable for a more sustainable future.

Lastly, there is an important question as to whether ESG sustainable equity funds can provide a **diversification** advantage for portfolios if they are decoupled from non-sustainable equity funds. Some research by our colleagues in Deutsche Bank Research suggests this may be the case.[15] They found that Article 9 equity ETFs in Europe ("dark green" funds having sustainable investing as objective) were found to be to some extent delinked from price developments in Article 8 ETFs ("light green" funds, which only promote environmental or social characteristics) and Article 6 ETFs (funds that do not have an explicit ESG mandate). It should be noted, however, that the same cannot be said for fixed-income ETFs.[16]

05 Conclusion: think strategically

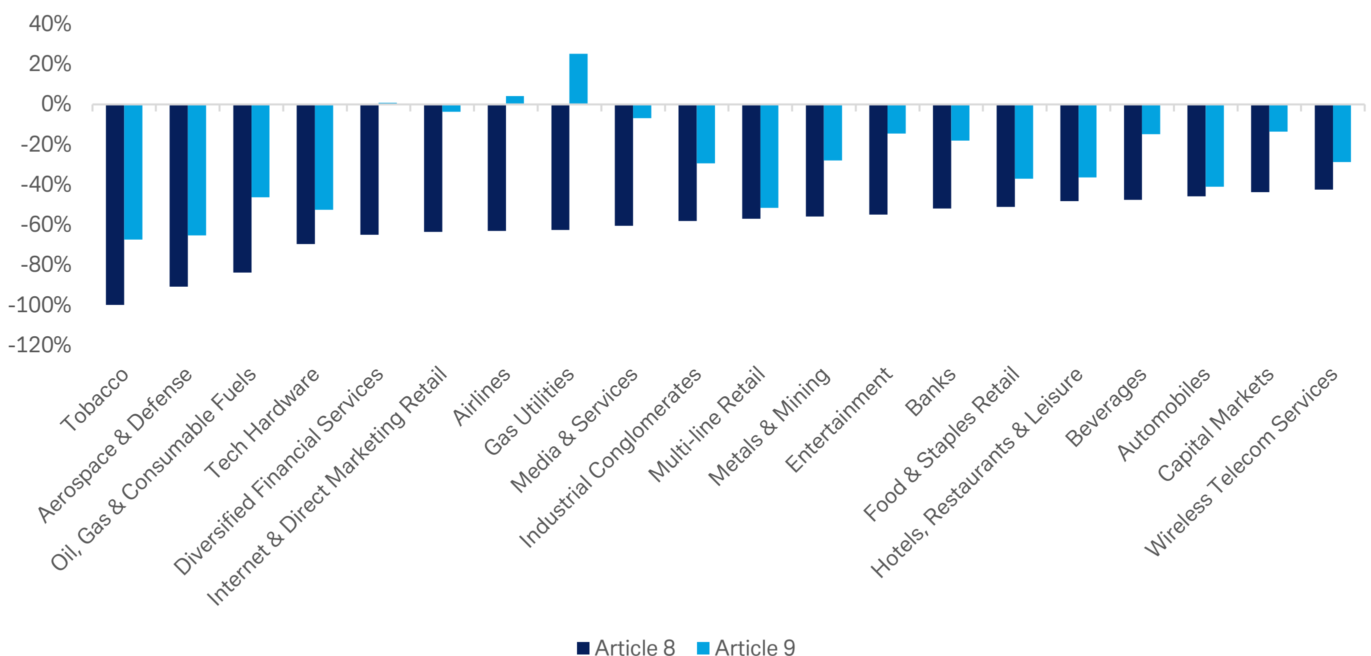
The level of ESG investment appears to be holding up, ESG-related policy advances continue, and our client surveys indicate continued high levels of interest in ESG. However, there remain many questions about what ESG investment is intended to do, how it will affect investment returns and how best to integrate it into portfolios.

We think that it will be increasingly important to **think strategically**, and to be clear about what performance impacts from ESG investment are likely to be temporary and which will be longer-lasting. Recent temporary setbacks to some ESG exclusionary strategies (e.g., related to hydrocarbons) do not detract from the overall case for ESG investment. The way to do this is to incorporate ESG within a **strategic asset allocation** framework. This will have implications for the key components of any strategic asset allocation approach: macroeconomic and asset class predictions, risk assessment and management as well as individual security selection.

All of these three components will be profoundly affected by climate change, and whether or not the world manages an orderly transition to a sustainable economy. To understand the implications, a better understanding of the **value chains** in the global economy is needed, together with more awareness of concepts such as **double materiality**. More detailed understanding of environmental risks and opportunities can help investors achieve better returns and, as importantly, make their contribution to fighting climate change.

Thinking strategically will likely result in current exclusionary strategies being augmented by more sophisticated approaches that acknowledge the complexities around economic transformation. This is likely to have benefits both for investors and the impact of ESG investment on the planet.

Figure 8: Sectors underweighted by Article 8 and 9 disclosing funds



Source: Goldman Sachs Equity Research, Deutsche Bank AG. Data as of October 2022.

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Glossary

Article 8 and Article 9 funds (EU terminology) either promote environmental or social investments (Article 8) or have ESG as the primary object of investment (Article 9).

The EU Carbon Border Adjustment Mechanism attempts to price the carbon embedded in carbon-intensive imports entering the EU, with the aim of equating it to the carbon price of domestic production.

The EU Corporate Sustainability Reporting Directive will require companies (not just EU-based) to provide detailed ESG reporting.

Double materiality acknowledges that it is necessary to look both at the impact of a company's operations on the environment, and the implications of environmental developments for the company's future development.

The EU Emissions Trading System, set up in 2005 was the first such trading system in the world. It limits overall greenhouse gases that can be emitted, with trading of allowances.

Fat tails refer to higher likelihoods of extreme outcomes than suggested by a normal distribution.

A growth approach in equity investment is through investing in companies thought likely to have above-earnings revenue or profits growth. A value approach focuses on stocks that are seen as trading lower than is justified by underlying fundamentals.

The MSCI ACWI ESG Leaders Index is a market-cap weighted index of companies selected from the MSCI ACWI Index on ESG criteria.

The MSCI Alternative Energy Index includes companies that derive more than 50% of their revenues from alternative energy.

The MSCI Global Environment Index includes companies that derive 50% of their revenues from environmentally beneficial activity.

The MSCI World Energy Index includes large and mid-cap firms in Energy sector across 23 Developed Markets.

The Paris Agreement is an international treaty on climate change agreed in 2015, aiming to hold temperature gains to well below 2OC on pre-industrial levels, and pursue efforts to hold it to 1.5OC.

The S&P Global Clean Energy Index includes companies in global clean energy-related businesses from developed and emerging markets.

Strategic asset allocation involves setting preferred allocations for asset classes on a medium to long-term horizon.

The EU Sustainable Finance Disclosure Regulation is intended to make financial products have sustainability profiles that are more transparent and comparable by investors.

The U.S. Inflation Reduction Act of 2022 has a wide variety of aims, including substantial spending to address energy and climate change issues.

Life Pillars refer to the three components of Natural Capital. They reflect the three components of the biosphere, namely (1) lithosphere, (2) atmosphere, and (3) hydrosphere.

System Changes refer to the market structures currently addressing Key Market Demands and the transition pathway our CIO envisions for them over the foreseeable future.

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