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CIO Special

ESG Survey 2023

Sustainable transition and investment

Contents

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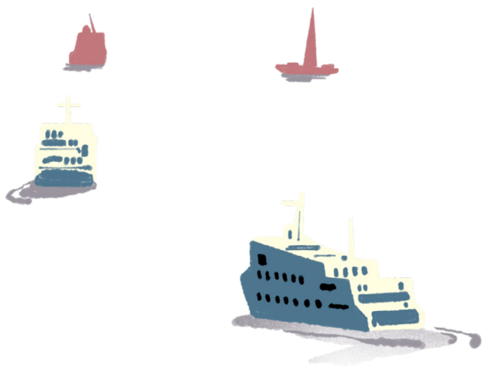

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01 Introduction

Markus Müller
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Over the last three years, our annual survey has examined our private, business and institutional clients' attitudes to the multiple dimensions of ESG (environmental, social and governance) investing. This year, we had 1,759 responses to our survey, double the 849 received in 2022. The survey was conducted between the beginning of June and the end of July this year.

ESG investment remains a rapidly evolving area – in terms of products, regulation, information and so on. The aim of our survey has therefore always been not only to establish clients' attitudes to ESG investment, but also their views on environmental priorities and policy more broadly. This year's survey continues with this twin-pronged approach, also looking in detail at client opinions on specific markets.

We discuss 10 key findings from the survey below, divided into the two areas of the sustainability transition to a less environmentally-damaging economic model and ESG investing approaches.

What general conclusions can we take from this year's survey? We would highlight two. Firstly, that investors remain strongly focused on sustainability. They are concerned about what will be needed to transition to a more sustainable economy, corporate disclosure and the preferable policy approaches. Secondly, that ESG investment must show it can deliver on investor needs. Investors expect environmental change to impact individual asset classes and think that nature will be a key factor in individual investment decisions. But they are getting slightly more sceptical about ESG investment's ability to improve portfolio returns and manage risk: new approaches are needed, including on portfolio management.

Box 1

10 key findings of 2023

The sustainability transition

1 Investors prefer market-driven solutions to more regulation. Technology, production processes and consumer education are preferred ways to achieve a sustainable economy.

2 Investors expect transition opportunities particularly in the energy transition. AI, sustainable manufacturing, the circular economy and infrastructure are also among the areas that are seen as interesting opportunities.

3 More corporate transition information is wanted although our business clients report an increasing number of sustainability/ESG plans. Disclosure requirements are not on balance seen as a burden.

ESG investment approaches

4 Transition is the investor focus – not exclusion. Few investors would completely exclude companies that do not act sustainably, or only invest in sustainability leaders.

5 ESG is still seen as an additional factor to financial indicators. However, we believe that the distinction between ESG and traditional financial indicators will become less relevant over time.

6 Climate risks will impact risk/return profiles of asset classes. Equities are expected to experience greater sensitivity in the long term.

7 Nature will become a more important investment factor. Investors think we need to consider a company's dependence on nature, as well as its impact on the environment.

8 Few investors consider themselves ESG experts. Just 3% of respondents identified as ESG experts, and only 15% thought they had a good knowledge of it – investor education is needed.

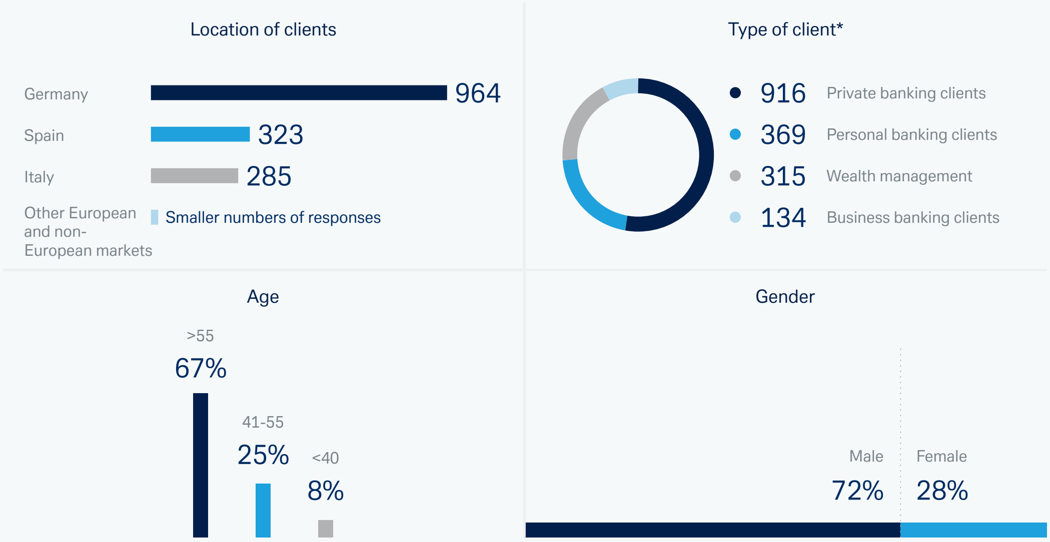
9 Many investors still think ESG can improve portfolio returns but doubts are growing. Recent events and macroeconomic shifts have had an impact here.

10 Faith that ESG can manage portfolio risk is waning. 37% of respondents strongly or slightly agree that considering ESG factors can manage portfolio risk, a lower share than last year.

Box 2

Basic survey demographics

Out of 1,759 responses



* Clients may have both a personal and business relationships.

Box 3

European spotlight: Germany, Spain and Italy

Around 55% of survey respondents were from Germany. We also had large number of respondents from Spain (18% of total responses) and Italy (16%).

National variations help shed additional light on some of the key dimensions of ESG investing discussed elsewhere in this report.

One key revealed issue is the degree of investor belief and strong conviction in ESG. German investors, notably, were less likely to strongly agree to many survey propositions around ESG – and more likely to strongly disagree. They were more sceptical about ESG's impact on portfolio performance and risk, or the availability of ESG product solutions. They also appear to care less about an ESG financial services providers' ESG expertise or the need for companies to provide more information on sustainability planning. To a great extent, however, national differences reduce considerably when you combine responses for strongly and slightly agree, as in the table below. Are Germans simply more cautious in showing strong enthusiasm?

Figure 1: German ESG caution, Spanish and Italian optimism?

Source: Deutsche Bank AG. As of November 2023.

	Germany	Spain	Italy
Considering ESG factors will improve the return of a portfolio			
Strongly agree	4%	12%	27%
Strongly or slightly agree	24%	40%	50%
Strongly disagree	10%	8%	7%
Investing based on ESG factors can help manage risk in a portfolio			
Strongly agree	4%	12%	19%
Strongly or slightly agree	35%	38%	43%
Strongly disagree	8%	6%	6%
There are adequate investment vehicles to support my ESG preferences			
Strongly agree	7%	21%	21%
Strongly or slightly agree	43%	51%	44%
Strongly disagree	5%	3%	3%
ESG is a primary factor for me in choosing a financial services provider			
Strongly agree	9%	20%	32%
Strongly or slightly agree	36%	51%	54%
Strongly disagree	15%	8%	7%
Investors need more information on how companies plan to transition to a sustainable business model			
Strongly agree	26%	43%	65%
Strongly or slightly agree	73%	74%	78%
Strongly disagree	5%	3%	4%

02 Key survey findings of 2023

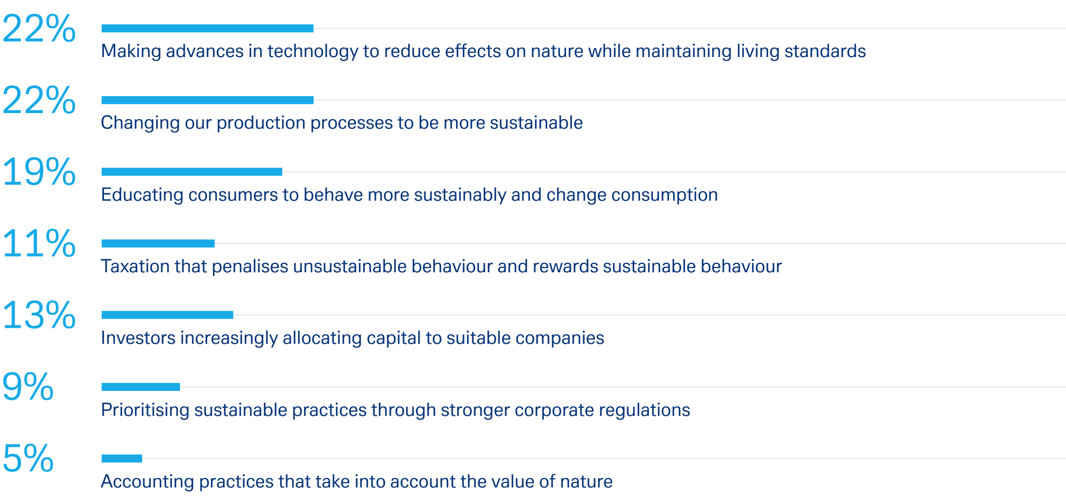
The sustainability transition

1. Investors prefer market-driven solutions to more regulation. Survey respondents were asked to choose three of seven options for the most effective way to achieve a more sustainable economy (Figure 2). Favoured options include technological advances to reduce effects on nature while maintaining living standards (22% of total responses), changing production processes to be more sustainable (also 22%), and educating consumers to behave more sustainably (e.g., to reduce demand, 19%). Regulatory options were less liked. Taxation to penalize unsustainable behaviour/reward sustainable behaviour got only 11% of responses, corporate regulations to prioritise practices just 9% and accounting practices based on nature 5%.

Figure 2: Market-driven solutions are preferred to more regulation

Source: Deutsche Bank AG. As of November 2023.

What are the most effective ways to achieve a more suitable economy? (Pick three responses)



2. Investors expect transition opportunities particularly in energy. We asked respondents to choose the three most interesting areas from an investor's perspective. With 18% of all responses, the energy transition was the most frequently selected area. Next in line are artificial intelligence, sustainable manufacturing, circular economy, and infrastructure (11% each). Low levels of interest are expressed in developments around demographic changes and the sustainable blue economy (2%).

   This focus on the energy transition probably makes sense, from both an investor and environmental perspective. Addressing climate change will also have an impact on another existential issue, biodiversity loss. At this point, our understanding of climate change is more advanced than our understanding of biodiversity loss, making it easier to identify what to do. Technological solutions to enable the energy transition are also more readily available.

But, as we note in our special report, Energy transmission: the quest for emissions free energy,[1] we need to move beyond the usual emphasis on switching sources of energy production to sources that do not involve CO_2 emissions. In addition, as we argue, this energy transition will also involve changing the ways in which we distribute, store and consume energy. Greater electrification is a central theme here.

Figure 3: Most interesting developments from an investor's point of view

Source: Deutsche Bank AG. As of November 2023.

Which of these developments are most interesting from an investor's point of view? Please pick the three most interesting

	Absolute share of all responses	% share of all responses
Energy transition (from fossil fuels to sustainable energy sources)	960	18%
Artificial intelligence (deep learning, chatbots, etc.)	573	11%
Sustainable manufacturing (processes in production of clothing, infrastructure, etc.)	555	11%
Circular economy (sustainable use of resources)	550	11%
Infrastructure (power grids, transmission towers, ports, airports, etc.)	550	11%
Cyber security (protection of technology, data, etc.)	527	10%
Health Care and MedTech (data and modern analytical methods, etc.)	447	9%
Food system revolution (using sustainable agriculture, a marine economy, etc.)	412	8%
Smart Mobility (electric vehicles, new traffic concepts, etc.)	405	8%
Demographic changes (Millennials and GenZ)	126	2%
Sustainable Blue Economy (sustainable economic activities in marine sectors)	94	2%

We can already see major advances in the energy transition. Note for example the 20-fold increase in solar capacity between 2010 and 2021, helped by cost reductions, increased policy support, innovative finance and greater awareness. Nonetheless, effective sustainable investment requires going beyond targets (like Net Zero) and thinking in more depth about the required system changes for the sustainable transition as we discuss in Box 4.

Our environmental predicament is largely the result of meeting four key human demands for energy, food, manufacturing (including housing) and mobility. In the past, corporates have responded to these four key demands by increasing supply – without consideration of the impact on natural capital or other environmental factors. As a result, we now have complex corporate and economic structures in place to meet these demands which appear increasingly inappropriate. But these supply structures cannot immediately be dismantled as the global population's demands must continue to be met.

The emphasis therefore needs to be on changing the way we meet these four demands as part of a process of transformation to a more sustainable model. Working out how to do this will require developing greater understanding of key value chains in the global economy. The process of change will create great opportunities for investors but also risks around established industries and sectors linked to them.

3. More corporate transition information is wanted. The proportion of respondents' companies with a dedicated sustainability/ESG strategy is growing: 53% now, up from 44% in our 2022 survey.[2] An even higher proportion (65%) think that their company is addressing the question of how we can adapt to changing environmental conditions. But smaller proportions agree that their company has a plan for the transition to net zero (37%) or for biodiversity loss (30%). Even so, more information is wanted by investors on companies' transition plans (75% of respondents strongly or slightly agree with this statement, whereas only 10% disagree). What is also interesting is that corporate data disclosure requirements on minimizing greenhouse gas emissions/negative impacts on nature are not, on balance, seen as a major burden by our business clients. Some 39% of respondents think that they pose a burden – but 31% think they provided an opportunity and 29% of respondents regard them as unimportant.

Box 4

System change challenges

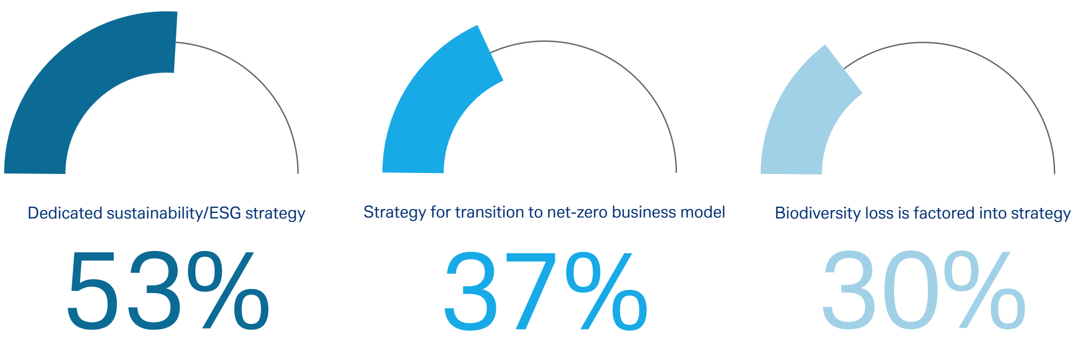
Our view is that environmental limits – the so-called "planetary boundaries" – will enforce major system changes in how we meet mankind's four key economic demands for energy, food, manufacturing and mobility. We discuss this concept in a recent special report, ESG investment: understanding system changes.[7]

System change will not be easy and we wanted survey respondents' views on what they think will be the biggest challenges. Regarding the energy transition to renewable sources, respondents worried most about energy system reliability/intermittency as the most important barrier to change, followed by local availability of renewable energy sources and cost effectiveness vs. fossil fuels. The three most important changes to the current food system are a stronger focus on preventing food waste, measures to sustainably transform agriculture and aquaculture and making products with a strong negative impact on the environment more expensive. Manufacturing sector priorities were seen as development of sustainable materials/new technologies, adoption of circular economy principles and emission reduction. Mobility drivers are improving public transport and infrastructure, innovation and scaling of efficient technologies, and reducing emissions from road freight, shipping and aviation.

Figure 4: The importance of sustainability strategies is increasing

Source: Deutsche Bank AG. Percentage of respondents strongly or slightly agreeing that their companies have such strategies. As of November 2023.

Sustainability strategies: share of respondents' companies



ESG investment approaches

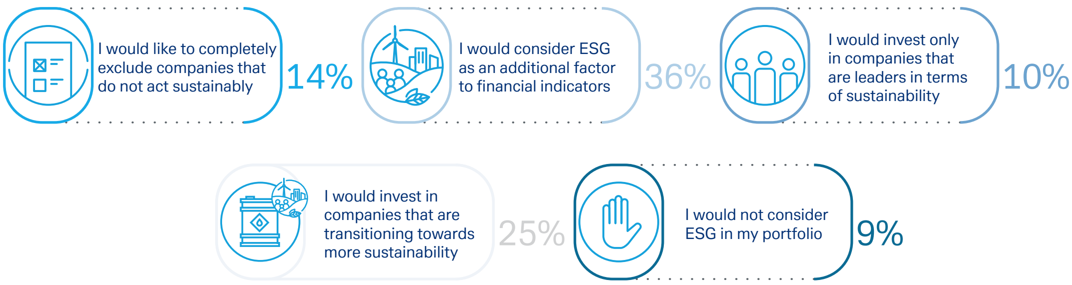
4. Transition is the investor focus – not exclusion. When asked to what extent would they consider sustainability in their portfolios (Figure 5), survey respondents' most important consideration was investing in companies transitioning towards sustainability, accounting for 25% of responses. This and the other responses to this question suggest a significant shift to looking at companies which have the potential to change and make a real contribution to the sustainability transition, rather than simply excluding them from consideration. Only 10% of respondents would invest only in companies that are currently sustainability leaders and just 14% would completely exclude companies that do not act sustainably.

"The proportion of respondents' companies with sustainability strategies is growing and investors still want more information"

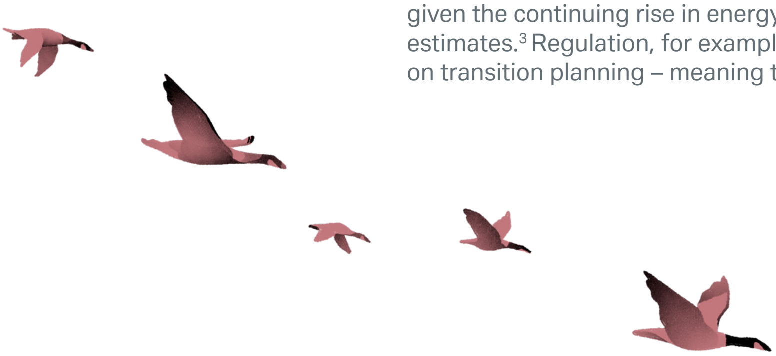
Figure 5: Sustainability priorities in portfolios

Source: Deutsche Bank AG. Percentage of total responses. Total includes 6% "don't know". As of November 2023.

To what extent would you consider sustainability in your portfolio? Please choose three



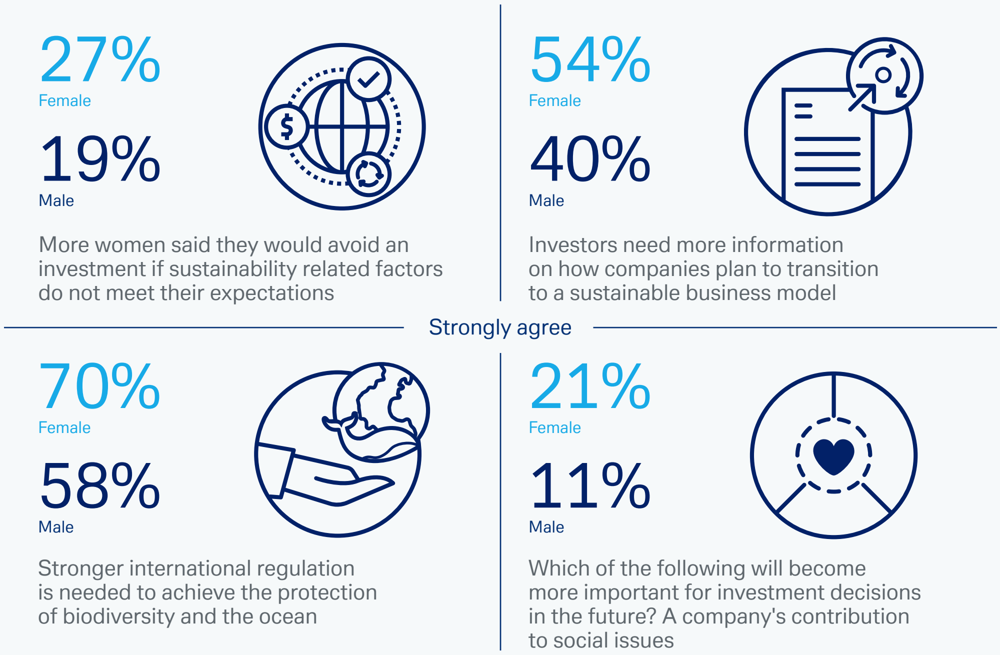
This investor preference for transition over exclusion may sit uneasily with current underweighting of economically-fundamental, carbon intensive activities in sustainable investments such as European Article 8 and Article 9 funds (see our special report, ESG & performance: think strategically). But greater emphasis on transition now seems needed, given the continuing rise in energy-related carbon emissions in 2022, according to IEA estimates.[3] Regulation, for example in the EU, is also starting to put a much greater emphasis on transition planning – meaning that this has to become a part of any portfolio assessment.



Box 5

Figure 6: Women expect more

Source: Deutsche Bank AG. As of November 2023.



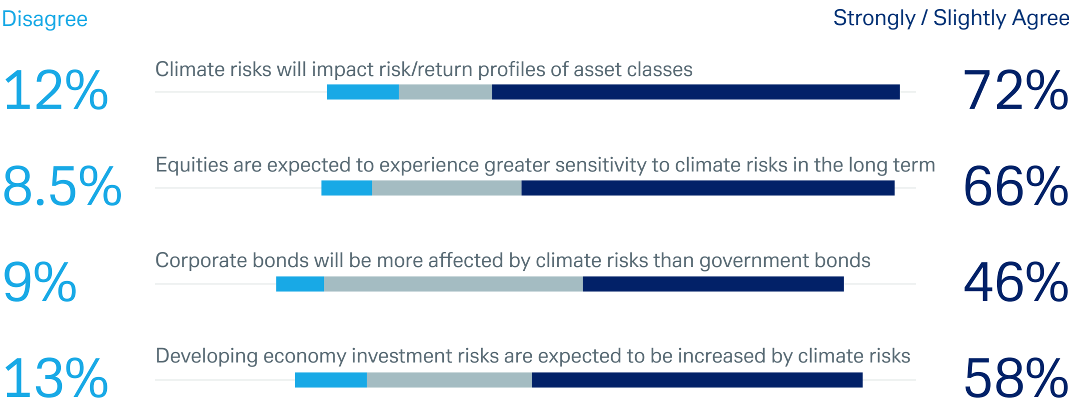
5. ESG is still seen as an additional factor to financial indicators. As Figure 5 also shows, a lot of investors (36% of the total responses) reckon that ESG should be considered as an additional factor to financial indicators, despite separate investor acknowledgment that nature is likely to become more important in investment decision making (see below). Ultimately, we believe, this distinction between ESG and traditional financial indicators will become less relevant as sustainability-related considerations will be included by default in macroeconomic and asset class forecasts (see our special report, ESG & performance: think strategically).

   Investors should also be aware, that ESG factors will not operate independently of traditional financial indicators. A changing climate will affect the long-term forecasts for macroeconomic indicators (such as growth and inflation) and broad asset class performance. This, in turn, has a significant influence on the risk-return characteristics of investment portfolios, with changing risks having an impact on the expected and long term assumptions volatility used in asset pricing models.

6. Climate risks will impact risk/return profiles of asset classes. 72% of respondents strongly or slightly agree that they will; only 12% disagree. Equities are expected to experience greater sensitivity to climate risks in the long term (66% strongly or slightly agree with this; 8.5% disagree). Corporate bonds will be more affected by climate risks than government bonds. 46% strongly or slightly agree with this assertion; only 9% disagree. Developing economies investment risks are expected to be increased by climate risks. 58% strongly or slightly agree that climate risks would boost developing economy investment risks; only 13% disagree.

Figure 7: Climate risks will impact risk/return profiles of asset classes

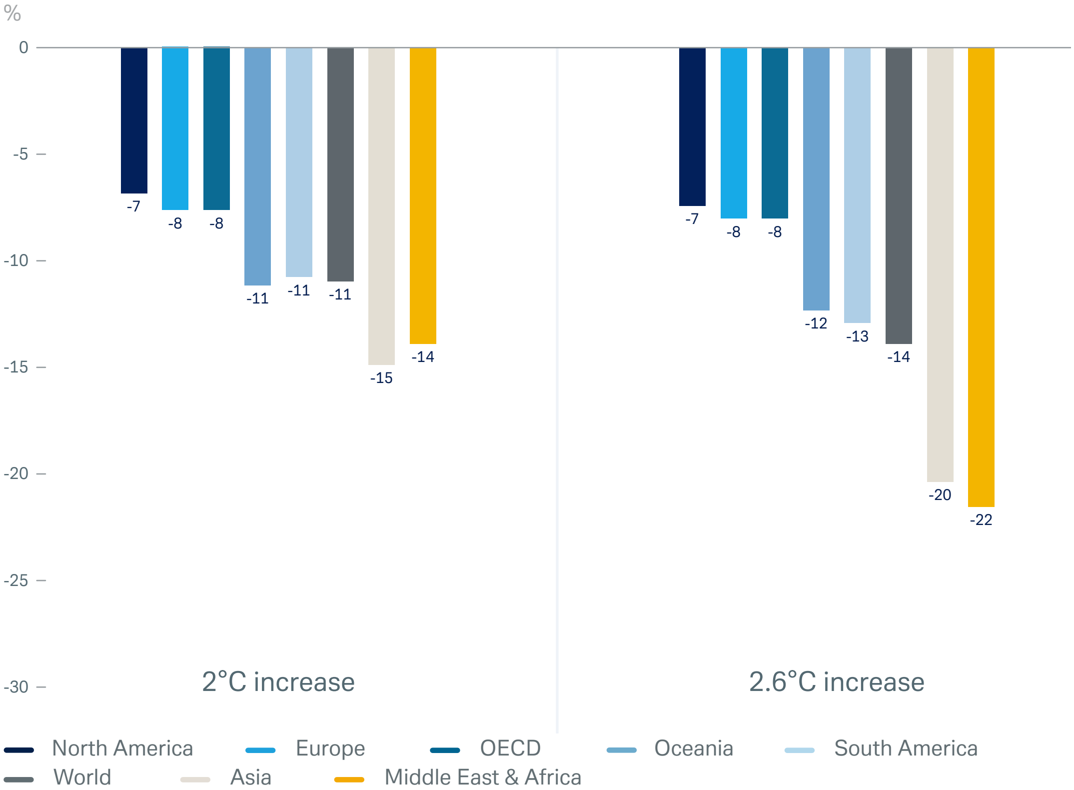
Source: Deutsche Bank AG. As of November 2023.



Investor understanding of the changing risk profiles of asset classes is likely to grow and encourage changes to asset allocation processes. The threat posed by climate to many developing economies is immediate and will have an impact not just on individual investments, but on overall rates of GDP growth. Some tentative forecasts of the impact of temperature rises above the target 1.5°C suggest possible double-digit GDP losses for emerging market regions (Figure 8 summarises). However, if the energy transition can be managed effectively, developing markets could also benefit from some technological "leapfrogging" (i.e., skipping the economic growth phase enabled by the use of fossil fuels) around renewables technology, possibly allowing stronger growth.

Figure 8: Projected loss in GDP based on highest probability temperature rises scenarios by 2050

Source: NASA, Swiss Re, Deutsche Bank AG. As of October 2023.



Overall, we think investors should 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. 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.

As we discuss in our special report, ESG & investment performance: think strategically, the relative importance of these different sorts of risk will change over time. 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) will create major policy changes with varying implications for asset classes.

Box 6

Talking the talk vs. walking the walk

Climate change is still the biggest environmental issue for investment decisions. According to the survey, 44% of investors see it as the most important, with 20% identifying land degradation, 15% ocean pollution and unsustainable use of marine resources. Just 12% identify biodiversity loss as most important, but this is up from 7% last year.

But is concern translating into investment action? Not consistently. Renewable energy is the most obvious way to address climate change issues, but renewable energy investments have markedly underperformed in recent months with substantial outflows.[6]

Attitudes to policy intervention are also conflicted. Survey results suggest that there is not great support for further taxation or accounting requirements in the sustainable transition (see finding 1). But a separate question shows 80% of respondents wanting stronger international regulation to achieve biodiversity and ocean protection, with an accompanying belief that this will have a positive long-term impact on the economy and therefore investments. Investors therefore appear in favour of regulation to protect the environment (and perhaps to open up new areas), but less keen on regulation directed towards the activities of individual companies.

7. Nature will become a more important investment factor. Investors were asked to identify which of five criteria would become more important for investment decisions in the future. 31% of respondents thought that we need to consider both the dependency on and the effect of a company on nature, much more than selected either of the two components individually (the effect of the company's activity on nature was selected by 16% and how dependent a company is on nature by just 6%). This suggests that while the "double materiality" term (which expresses, indeed, the two ways relationship of a company toward the environment, both its dependency and impact) is still not well-known, investors are already thinking in this way and it is likely to become a major driver of investment performance (see our recent special report, ESG & investment performance: think strategically).[4] Also note that more investors selected this option than traditional economic indicators currently used to evaluate a company (22%).

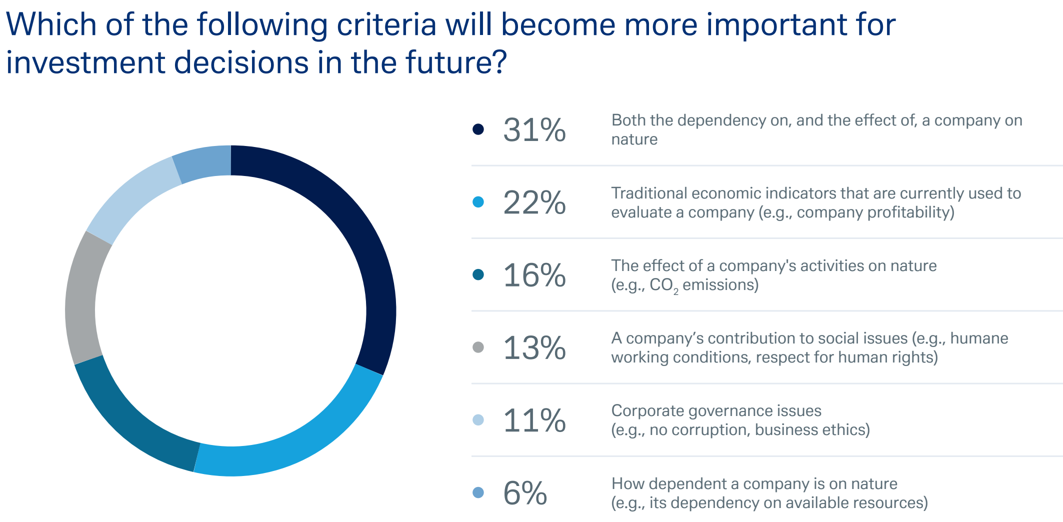
Box 7

Not just the "E" – don't forget the "S" and the "G"

The environment is still the most important ESG issue for investors. However, the proportion of respondents believing this has fallen from 50% in last year's survey to 43% now. The shares identifying social or governance factors as the most important ESG category have risen (from 23% to 25%, and from 28% to 31% respectively). Figure 7 above also shows significant scores for social and governance issues when investors are asked to identify those criteria which will become more important for investment decisions in the future. Specific factors, e.g. concern around the social stresses resulting from higher inflation in many economies, may have contributed to this increased interest in social ("S") and governance ("G") issues. But, as we argued in our 2022 ESG investment survey, it also seems likely that "S" and "G" factors will increasingly be seen as integral to progress on the "E" pillar and thus automatically gain more prominence.

Figure 9: Criteria for future investment decisions

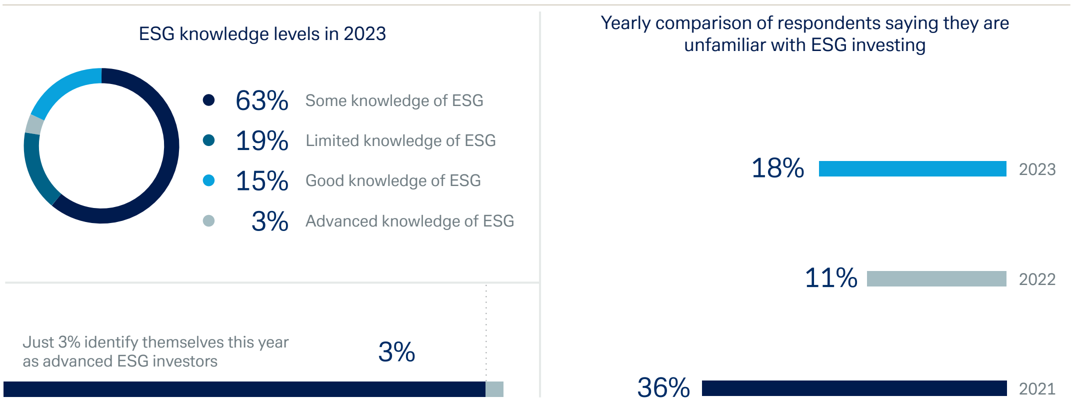
Source: Deutsche Bank AG. As of November 2023.



8. Few respondents consider themselves ESG experts. Just 3% identify themselves this year as advanced ESG investors, with a further 15% having a good knowledge of ESG. A rather bigger share (63%) say they have some knowledge or awareness of it. These proportions are similar to the 2021 and 2022 survey, although the share of respondents saying they are unfamiliar with ESG investing as a concept has increased from 36% in 2021 and 11% in 2022 to 18% now. That the survey is still recording such low levels of perceived ESG expertise/ knowledge – for the third year in a row – suggests policymakers, regulators and financial institutions still have plenty to do here. Recent regulatory steps (e.g. the EU's requirement of inclusion of client sustainability preferences in investment suitability assessments)[5] are probably not enough to resolve this problem. A lot of investor education still seems needed to boost awareness and, importantly, confidence.

Figure 10: Few respondents claim "advanced" knowledge of ESG

Source: Deutsche Bank AG. As of November 2023.



9. Many investors still think ESG can improve portfolio returns but doubts are growing. The proportion strongly or slightly agreeing that it can boost portfolio returns falls from 41% in 2022 to 31% this year (Figure 11) – with the proportion of those strongly or slightly disagreeing rising from 17% to 24%. (We asked a slightly different question in the 2021: then 3% of respondents expected much higher returns if some or all of investment was based on ESG criteria, and 32% higher returns.)

Some questioning of ESG's impact on portfolio returns is perhaps not surprising, given increased scrutiny of ESG and the visible short-term impact of the Russia/Ukraine war on ESG portfolios that excluded hydrocarbons energy stocks (and thus did not benefit from increase in energy prices early in the war). It remains important, however, not to overstate the impact of such exclusionary ESG approaches on overall investment performance, particularly given energy's relatively low weighting in global indices - c.5% of the MSCI World now, compared to c.22% for the technology sector). (See our special report, ESG & performance: think strategically, for a discussion of the historical impact of the energy sector on portfolio performance).

It is also clear that shifts in the macroeconomic environment have already 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, for example, has led to a tightening of monetary policies, impacting ESG strategies performance as many sustainability themes focus on long-term opportunities where companies are at an early stage of their development, where corporate valuations are highly dependent on expectations around future cashflows (which must be more heavily discounted if interest rates are high).

Figure 11: ESG and portfolio performance

Source: Deutsche Bank AG. As of November 2023.

10. Faith that ESG can manage portfolio risk is waning. Some 31% of respondents strongly or slightly agree that considering ESG factors help to manage risk, down from 41% in 2022 and 51% in 2021. Meanwhile, the proportion of those strongly or slightly disagreeing rose from 9% in 2021 to 17% in 2022 and then to 24% this year (Figure 12).

    In view of the challenges that ESG has recently experienced (see above), this decline seems understandable to us to a certain extent. We think a greater focus on the underlying risks is also likely as the distinction between ESG and traditional financial indicators becomes less distinct over time.

Box 8

ESG investment provision: current preferences

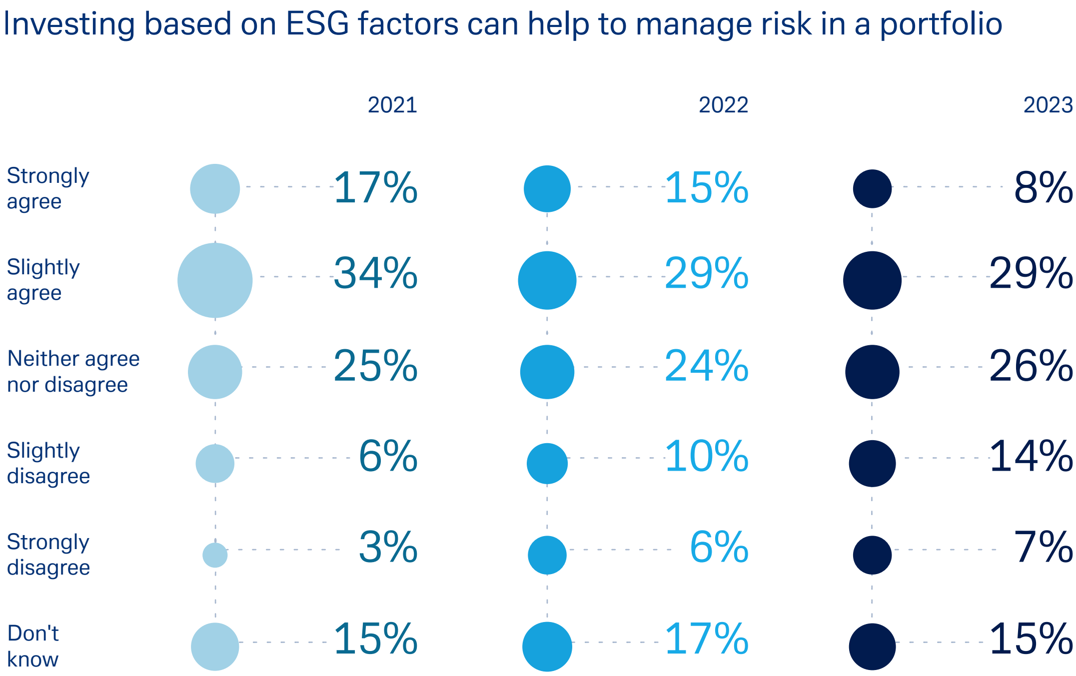
As might be expected, the survey suggests that most investors think that ESG expertise is important in choosing a financial services provider. However, there is a significant minority of investors (23%) who disagree with this idea – which suggests that ESG investment providers still need to convince many.

Actively-managed mutual funds, single stocks and ETFs are all popular ESG investment vehicles: taken together, they account for around 65% of investor first-choices. Structured notes/sustainability-linked bonds are less popular as a first choice (11%) and only a minority of investors use private markets as their first choice to achieve sustainability goals.

Will these preferences change? When asked whether there were adequate investment vehicles to support their ESG preferences, many more agreed than disagreed (45% vs. 11%). But we suspect that there could be demand for new individual vehicles, if ESG portfolio management methods change.

Figure 12: ESG and portfolio risk

Source: Deutsche Bank AG. As of November 2023.



In Europe, Middle East and Africa as well as in Asia Pacific this material is considered marketing material, but this is not the case in the U.S. No assurance can be given that any forecast or target can be achieved. Forecasts are based on assumptions, estimates, opinions and hypothetical models which may prove to be incorrect. Past performance is not indicative of future returns. Performance refers to a nominal value based on price gains/losses and does not take into account inflation. Inflation will have a negative impact on the purchasing power of this nominal monetary value. Depending on the current level of inflation, this may lead to a real loss in value, even if the nominal performance of the investment is positive. Investments come with risk. The value of an investment can fall as well as rise and you might not get back the amount originally invested at any point in time. Your capital may be at risk.
This document was produced in November 2023.

03 Conclusions

Investors remain focused on the sustainability transition, but how it is achieved will be important. Investors see changing production processes, technological processes and educating consumers as more effective in ensuring a sustainable transition than purely regulatory approaches around taxation, accounting and so on. We do however see continuing interest in company transition plans: investors would however appreciate more information.

Investors expect climate risks to impact the risk/return profile of asset classes and some consensus (right or wrong) on the most vulnerable asset classes is emerging. They are also implicitly factoring in the concept of "double materiality" into individual company investment decisions – i.e. that it is important both to consider the impact of a company on the environment and the impact of environmental change on a company. However, at a portfolio level, it is clear that ESG is still seen as an additional factor to traditional financial indicators.

ESG investment providers however still have work to do. It is surprising that, despite ESG becoming increasingly mainstream, so few investors still consider themselves ESG experts: this needs to change. ESG investment providers must also demonstrate how, and in what context, ESG can help manage portfolio returns and risk. ESG investment needs to continue to evolve, and we think that more work is needed on developing ESG portfolio management in particular. Survey results suggest that most investors are focused on helping the sustainable transition, rather than pursuing purely exclusionary strategies, and ESG investment needs to reflect this.

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Glossary

Asset classes are commonly-understood groupings of asset classes that have similar characteristics. They can be further divided into sub-asset classes based on geographic or other characteristics.

Biodiversity means variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems.

The Blue economy can be defined as the sum of the economic activities of Ocean-based industries, together with the assets, goods and services provided by marine ecosystems.

Climate change refers to long-term shifts in temperatures and weather patterns that will alter the ecosystems that support life on the planet.

Climate-related risks are the financial risks posed by the exposure of institutions to counterparties that may potentially contribute to or be affected by climate change.

Double materiality assesses 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.

ESG investing pursues environmental, social and corporate governance goals.

Fossil fuels are natural fuels such as coal or gas, that are formed from the remains of ancient plants and animals. Fossil fuels related business activities, include extraction, processing, storage and transportation of petroleum products, natural gas, and thermal and metallurgical coal.

Greenhouse gases are the gases in the atmosphere that raise the surface temperature of planets such as the Earth. What distinguishes them from other gases is that they absorb the wavelengths of radiation that a planet emits, resulting in the greenhouse effect.

The International Energy Agency (IEA) is an intergovernmental agency studying energy-related issues.

Key Market Demands are specific human needs which involve market structures and supply chains having the highest materiality towards Natural Capital.

Natural capital refers to the world's stock of natural resources, living and non-living, that have value (in the broadest sense) to society.

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.

Transition risks are risks of any negative financial impact on the institution stemming from the current or prospective impacts of the transition to an environmentally sustainable economy on its counterparties or invested assets.

Transmission channels are causal chains that explain how these risk drivers impact institutions through their counterparties and invested assets.

The Triple Planetary Crisis refers to the three interlinked issues of climate change, air pollution and biodiversity loss.

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