Launching climate-aware return assumptions

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- **Most forecasters ignore the effects of climate change in their economic projections or long-term return expectations. We don't believe this is right.**
- **Our return expectations – the building blocks of our strategic asset allocation – now reflect the impact of climate change on the investing landscape.**
- **This is an integral part of a series of actions that BlackRock is taking to prepare for a net-zero world.**
- **We see the transition to a more sustainable world helping growth and presenting a historic investment opportunity.**

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The popular notion that tackling climate change comes at a net cost to the global economy is wrong, we believe. Avoiding climate-related damages will help prevent economic deterioration and improve risk-asset returns, in our view. We see the "green" transition to a carbon-neutral world rewarding companies, sectors and countries that adjust and penalizing others.

That is why our capital market assumptions (CMAs) – long-run estimates of risk and return – now reflect the impact of climate change. Estimates in this area are highly uncertain, yet our framework is designed to account for this. We will refine the framework as we monitor the evolution of the "green" transition.

We focus on climate because we believe a broad consensus around its impact and measurement suggests that climate change is fast becoming a key driver of asset pricing. Our updated CMAs are driven by sectoral views, with exposure to climate risks and opportunities a key determinant.

We see technology and healthcare benefiting the most from that perspective, and carbon-intensive sectors such as energy and utilities lagging. This in turn increases our strategic preference for developed market (DM) equities, at the expense of high yield and some emerging market (EM) debt.

Why? The composition of DM equity indexes better aligns with the climate transition because they include many technology and healthcare companies. Sectors that face structural challenges due to rising climate awareness, such as energy and utilities, are more prevalent in high yield and EM debt indexes.

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Climate risks and opportunities

The green transition

Climate change and efforts to curb it will have major economic outcomes, we believe, not just far into the future but even in the next five years. Economic projections that ignore climate change are widely relied upon – yet are based on an unrealistic future scenario, in our view. The two scenarios to compare from this perspective: a transition to a low-carbon economy in which policies to fight climate change are enacted, and a no-climate-action scenario with no actions to limit damages.

A commonly held notion is that tackling climate change has to come at an economic cost. We think that's wrong. We assume the global economy transitions to a lower carbon path consistent with Paris Agreement goals. The positive effect of this transition rests on a gradual phasing in of carbon taxes, green infrastructure spending consistent with the IMF's recommendation, and subsidies on renewable energy. If none of these actions are taken to mitigate climate change, we estimate a cumulative loss in global output of nearly 25% in the next two decades. The stylized *Accounting for climate change* chart illustrates the potential difference between the two paths.

Climate change will drive dispersion of returns at a sector level, in our view. There will be sectoral winners and losers – underpinning why we believe a sectoral approach to sustainable investing is more appropriate than a regional one. Likely beneficiaries are technology and healthcare, we believe, while laggards include energy and utilities.

We focus on the "E" (environmental) of ESG in our updated CMAs. Why? First, there is wide recognition of the importance of climate change on economic and social outcomes. Second, there is consensus on the measurement of an entity's contribution to climate change: carbon emissions. Carbon emissions have become a widely enough adopted indicator of sustainability for investors to be a driver of repricing at the broad market level.

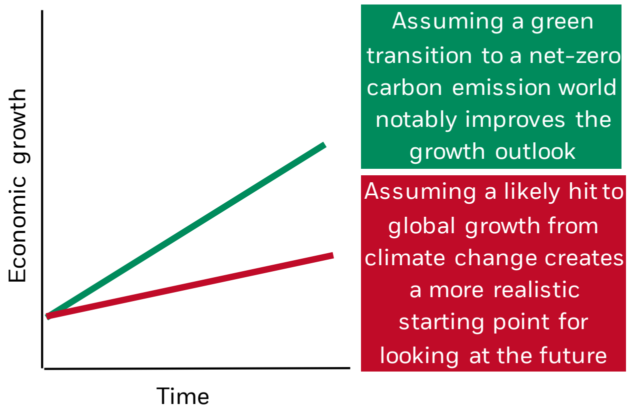
We see insights into S (social) and G (governance) as key sources of potential returns through security selection, rather than as systematic drivers of returns. We will consider incorporating them in our framework once consensus around their impact and availability of consistent data improve in coming years.

“We see a green transition as a positive for growth and risk asset returns.

Natalie Gill
Portfolio strategist,
BlackRock Investment Institute

Accounting for climate change…

Stylized illustration of global growth paths



Source: BlackRock Investment Institute, February 2021. Notes: This is a stylized depiction of our best estimate of how we believe global growth will evolve in two scenarios, based on information currently available. It is not intended to reflect the size of the potential difference between the two paths. **There is no guarantee that a positive investment outcome will be achieved.**

…leads to a change in views

Impact of climate-aware CMAs on our views

Sector preferences	Asset preferences
↑ Tech	↑ DM equities
↑ Healthcare	↓ High yield
↓ Utilities	↓ EM debt
↓ Energy	

Sources: BlackRock Investment Institute, February 2021. Notes: This is a stylized depiction of our sectoral and asset class preferences on a strategic horizon as a result of incorporating climate change in our capital market assumptions. They are not meant as investment advice or an investment recommendation. **There is no guarantee that a positive investment outcome will be achieved.**

How does all of this translate into our strategic views? There are broad differences between our new, climate-aware views versus those based on scenarios that ignore climate change or assume no mitigation. See the table.

Our preference for DM equities has become stronger, at the expense of high yield and some EM debt. Why? The composition of DM equity indexes better aligns with the climate transition, with large weights of technology and healthcare companies, less vulnerability to transition risks and lower carbon intensity. Equities also can better capture potential opportunities of the green transition, as bonds are capped in their capital appreciation.

Incorporating climate change

The climate framework

Our framework, illustrated in the schematic below, outlines how we incorporate climate change and shifting investor sustainability preferences into expected asset class returns and, ultimately, strategic asset allocation. We see climate change entering the equation through three channels: macro, repricing and fundamentals.

Macro: We believe macro variables will be different in a world that is transitioning to a sustainable future. Such changes mean sustainability affects everything that goes into forming a view on long-term asset class returns. We see changes in so-called risk premia for all asset classes – the compensation investors require for holding them.

Repricing: The price investors are willing to pay for sustainable assets is changing. The BlackRock Global Sustainability Survey of September 2020 found 425 institutional investors planned to double their sustainable assets under management in the next five years to 37%. We see this as a tectonic shift toward sustainable assets. Changing investor preferences will spur a climate change-led repricing due to the falling cost of capital for sustainable assets. These assets will generate higher returns than traditional peers as a result, in our view. Investors are just starting to respond to the structural shift, suggesting it is not yet in the price. Once this repricing phase has passed, we believe this channel will eventually no longer be this channel is no longer a boon for "greener" assets' expected returns.

Fundamentals: Climate change and policies will affect profitability across sectors, we believe. This will have knock-on effects for other variables such as credit default and downgrade assumptions. We estimate corporate earnings consistent with our green transition scenario. To arrive at estimates, we first assess the sensitivity of earnings to carbon pricing. We then assess the impact of transition risks – or the financial risks arising from the transition to a low-carbon economy – and physical risks.

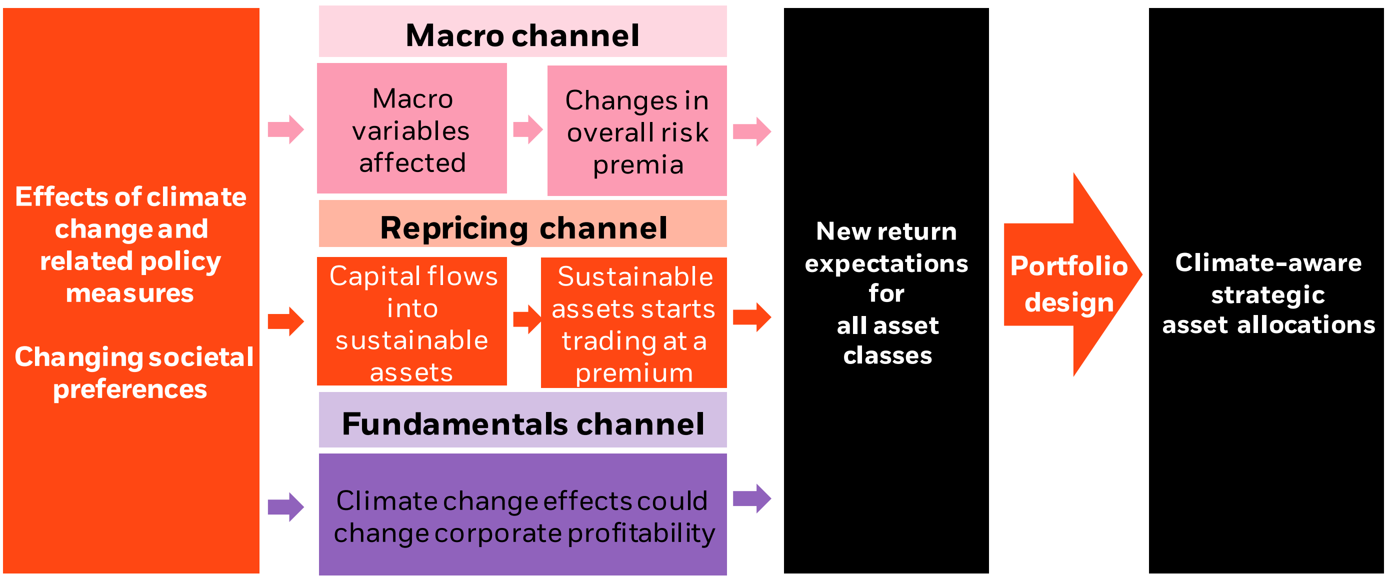
We score sectors on two dimensions: How exposed they are to climate change, and whether that exposure represents a risk or opportunity. For example, a company could be a high carbon emitter and have a high carbon price sensitivity as a result, yet still benefit from the green transition. Think of chemical companies that manufacture materials for electric vehicle batteries.

No one knows yet what a low-carbon world will look like. Climate change projections are highly uncertain. This is due to the complexity of modeling the dynamics and myriad dependencies between climate and carbon emissions, economic variables and mitigation policies.

Our framework allows us to systematically monitor key metrics and the evolution of the green transition, and we plan to adapt it accordingly. Our approach explicitly accounts for uncertainty - highly relevant for climate change that will have varying but highly uncertain impacts over time. We believe this approach lends itself well to the structural transformation taking place.

Three channels drive the climate change impact on assets

BlackRock framework for climate-aware portfolios



Source: BlackRock Investment Institute, February 2021. Notes: For illustrative purposes only. Subject to change without notice.

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