Pensions Management Institute Academy

BlackRock.

Digital Learning Manual 2022

HOW TO NAVIGATE CLIMATE RISK

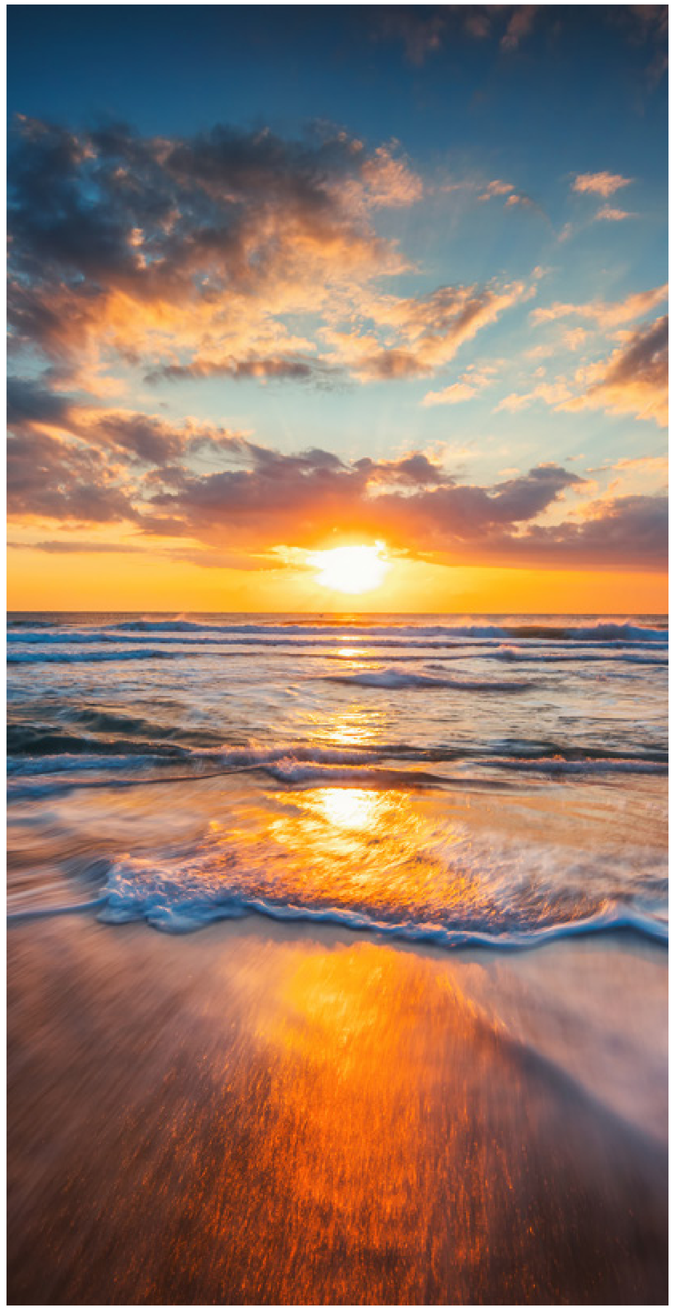
Knowledge & Integrity

Pensions Management Institute
Moving pensions forward

Contents

Introduction

The world needs to reduce carbon emissions by approximately 1.7 billion tons each year to achieve net zero by 2050[1]. The global transition to a net zero economy is accelerating, with dramatic implications for investors, including pension scheme trustees.



Five years ago, adding an environmental, social and governance (ESG) tilt to your investment portfolio was seen as a nice-to-have. Today, there is a recognition that if you don't consider this, it will impact performance. This has added pressure to time-pressed pension trustees to consider the potential effect of climate change on their scheme's investments.

The pensions landscape is constantly changing and trustees are facing increased ESG demands from their stakeholders as well as new regulations. We want our clients to be ahead of the game and so are taking steps to help investors prepare their portfolios for a net zero world.

We are committed to providing trustees with the solutions, tools and the data to navigate the transition and to help them achieve the outcomes they seek on this journey to a greener future.

[1] Decarbonization Partners, BlackRock, 2022, **https://www.blackrock.com/corporate/sustainability/blackrock-temasek**

Why is net zero important?

Climate risk is investment risk
Climate risk will fundamentally reshape finance and drive a significant reallocation of capital.

The transition creates opportunity
The net zero transition will create risks, but also a historic investment opportunity.

A successful transition benefits the world
We believe a successful and orderly net zero transition is in the financial interest of both our clients and the economy as a whole.

The journey to net zero carbon emissions is unfolding now - and offers extraordinary investment risks and opportunities.

The transition to decarbonize the world is happening. Whether the goal of net zero carbon emissions is achievable by 2050 is far from certain. What is clear: ignoring the transition is no longer an option. Understanding how the journey will unfold in years to come has never been more important for companies and investors alike.

Planning for long-term decarbonization is challenging, especially at a time of convulsions in the energy sector. Booming demand in the powerful restart of economic activity and snarled supply have driven up prices of fossil fuels and their producers. This is happening even as companies, financial institutions, and governments seek to redouble their efforts to accelerate decarbonization to mitigate climate risk. For investors, the resulting picture can be confusing.

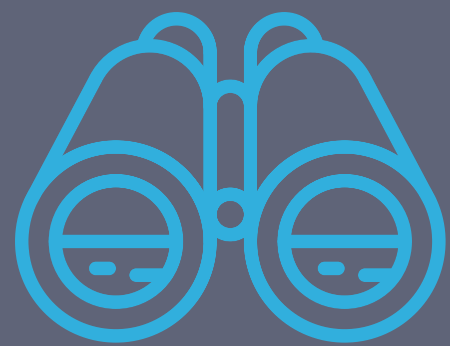
Indeed, the path ahead is deeply uncertain and uneven, with different parts of the economy moving at different speeds. The transition will rewire economies, fundamentally reallocating resources. This process will bring value creation—and destruction. Spurred by government, consumer and investor actions, many companies have already started to transform their business models.

A gradual and orderly transition will help mitigate pressure points that could disrupt economic activity and drive up inflation, in our view. This will allow time to make the necessary investments, phase out carbon-intensive activities, redeploy workers, and develop new technologies to power the net zero economy. Such a transition is the best macroeconomic outcome, we believe, one that we see translating into a manageable rise in inflation and a net gain for the global economy. Sure, economic outcomes would be even better if there were no climate change. But that's the wrong starting point for comparisons because climate change is real.

A smooth transition, crucially, depends on government policy. The risk to growth is that the current global drive to engineer an orderly transition loses momentum. As each year passes without translating commitments into sufficient action, the transition path becomes steeper and more disruptive. This increases the risk of stranded workers, communities and assets, higher inflation and economic disruption amid an eventual rush to decarbonize.

Companies and investors must choose an approach to manage the transition. All will need to navigate it by taking a view on how it will unfold, and overhaul operations and portfolios accordingly. Some will actively drive the transition with new investment or the financing to enable it. And within that, some will focus on inventing the new technologies needed to fully decarbonize. We see this creating extraordinary investment opportunities in years to come.

The transition won't happen overnight, and the world will need to pass through shades of brown to reach shades of green, as Larry Fink's 2022 letter to CEOs points out. Whether navigating, driving or inventing, companies and investors need a map to plot their journey. We aim to build out this map throughout the year, with more insights on the speed and shape of the transition to come.



The transition in practice

The transition's path is deeply uncertain, making it crucial to manage its risks and opportunities. We show how companies and investors can navigate, drive and invent the transition.

Navigating transition uncertainty

There is huge uncertainty about how the transition's drivers will evolve from here. Government commitments to reach net zero are now nearly universal, yet they are not enough to deliver net zero by 2050. Already enacted policies are even further behind, creating an "implementation gap" between current policies and pledges and an "ambition gap" between pledges and the goals of the COP 21 Paris Agreement[2].

The question is whether governments will actually close these gaps. Could they even backtrack? New elections could bring new approaches. A focus on the short term could start to crowd out climate considerations. The answers to these questions are crucial to the transition's path, or how fast and smoothly carbon emissions are reduced to net zero.

The stylized charts below show the two key measures: speed and shape. Transition speed describes how quickly the economy reaches net zero. Various policy paths give a wide range of outcomes for how fast CO_2 emissions can be cut, as the left chart shows. Transition shape describes how smooth the path will be, or how orderly. The shape ranges from smooth to abrupt amid an eventual rush to decarbonize.

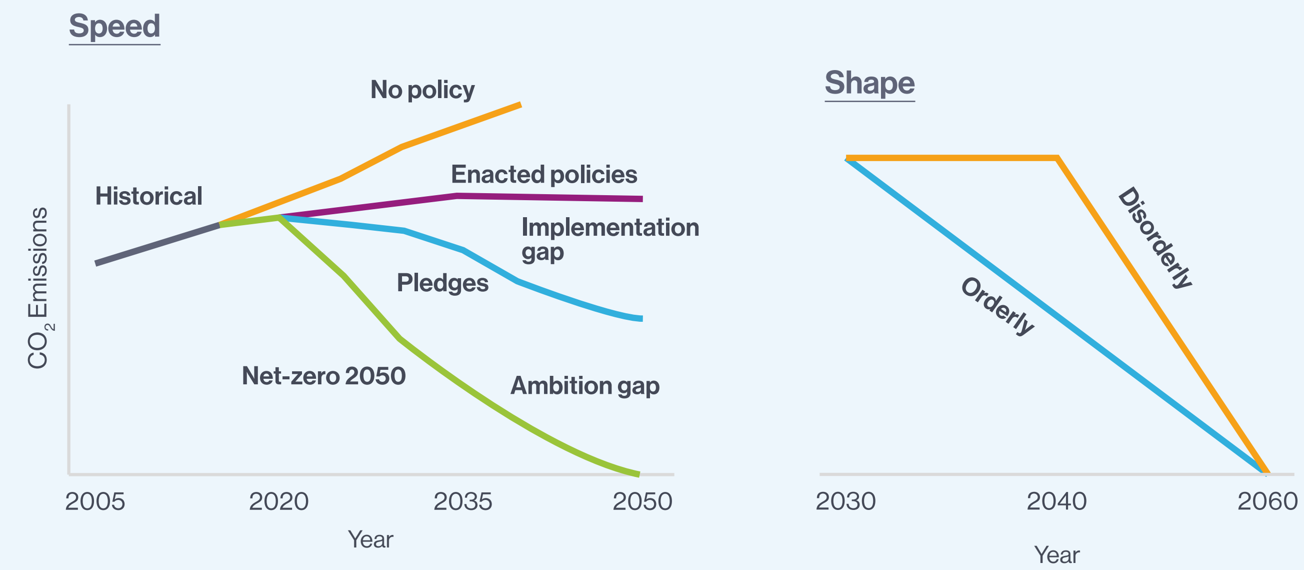
The speed and shape of the transition are likely to power risk and returns in coming years, so companies and investors need to navigate this. To do so, they must develop informed views about the evolution of climate policy, societal preferences and technological innovation; the size and timing of mismatches in supply and demand between and within sectors; and the timeframe and shape of the key energy transition.

How should companies and asset owners go about this? First, they need data, models, analytics and tools at a granular level as they become available. Navigation requires an increasingly precise map over time. Second, companies and asset owners need to act on the views they have developed with the help of these new insights.

Companies are overhauling their business models, choosing where to invest and what operations to phase out. Industry leaders are focusing on core competencies geared toward the transition or are diversifying into growth businesses of the net zero future.

Many asset owners are navigating the transition through security selection strategies that aim to manage the value creation and destruction from these shifts. Two principal navigation approaches have been used at scale: removing companies or sectors viewed as not aligned with the transition (screening), and over- or underweighting companies based on static, backward-looking Environmental, Social and Governance (ESG) metrics.

We think asset owners can do more to effectively navigate the transition. First, investors can measure transition readiness with forward-looking indicators, like emissions targets or other data sources that give insight into how issuers are progressing along several ESG dimensions and positioning themselves for the future. Second, stewardship—corporate engagement and the use of shareholder votes—can help make sure portfolio companies properly manage transition risks. And third, ESG integration—using transition metrics throughout the investment process—can help ensure that even portfolios without a climate focus are managing their transition risk.



Source: BlackRock Investment Institute, Feb. 1, 2022. Notes: The diagrams above serve as a general summary and should not been seen exhaustive nor construed as investment advice. The left chart describes how quickly the economy reaches net zero. The implementation gap is the difference between current policies and pledges ; the ambition gap is the difference between pledges and the goals of the COP 21 Paris Agreement. For illustrative purposes only.

Driving and inventing net zero

Some companies and investors want to go beyond navigating the transition to drive it forward or even help invent it. They help shape the transition by accelerating its advance or by enabling future progress. The latter is critical because many sectors do not yet have viable, cost competitive technology to get to net zero. Some of these technologies are only at the prototype phase; others have yet to be invented. We see this chance to invent the net zero world as an extraordinary investment opportunity.

For companies, to drive the transition means proactively revamping business models and to invent it can take the form of funneling R&D toward new technologies. A utility might phase out a coal-fired power plant and invest in grid-scale battery technology. A steel producer might replace traditional blast furnaces with electric arc furnaces. An automaker might commit to an all-electric vehicle platform and devote R&D toward that goal.

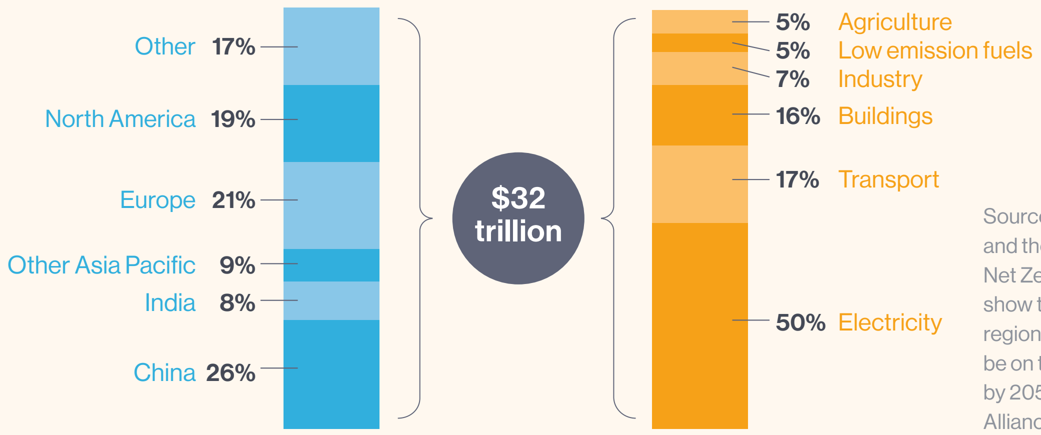
For investors, to drive means mean identifying opportunities in companies making these changes. Investing in early-stage technologies is about helping invent the net zero economy. Dialogue between companies and investors on transition plans and capital needs is crucial to delivering the capital to the right places at the right time, in our view.

This goes beyond channeling capital to companies with green business models, we believe, and includes funding carbon intensive companies leading decarbonization within their industries. Withholding capital or divesting from these firms is counterproductive to the transition, in our view.

All these changes require massive amounts of capital from investors and the public sector. Reaching net zero by 2050 would require USD $125 trillion flowing into low carbon energy supply (primarily electric power) and demand (transport, buildings and industrial equipment), according to the Glasgow Financial Alliance for Net Zero.

Wanted: Net zero investment

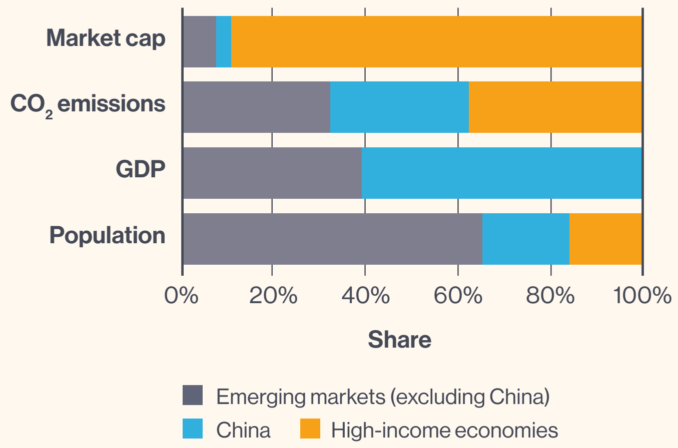
Breakdown of capex needs by 2030 by region and sector



Sources: BlackRock Investment Institute and the Glasgow Financial Alliance for Net Zero, Feb. 1, 2022. Note: The charts show the estimated capex needed across regions and economic sectors by 2030 to be on track for achieving net zero emissions by 2050, according to Glasgow Financial Alliance for Net Zero.

Mismatched resources

Distribution of global resources, pollution and assets



Sources: BlackRock Investment Institute, IMF, World Bank, MSCI, using data from Haver Analytics and Refinitiv DataStream, February 2022. Note: The chart shows the shares in different concepts of EMs (excluding China), China and high-income economies (i.e. rest of the world). EMs are those classified as low and middle-income countries by the World Bank. For market cap, this is the share of each group/country in total world stock market capitalization measured by the MSCI world stock market capitalization, as of 4 October 2021. For CO_2 emissions, this is the share of each group in total world CO_2 emissions in 2018 (latest data point). For GDP this is the share of each group in world GDP measured using purchasing power parity exchange rates, as of 2019 (before the Covid shock). For population, it is the share of each group in world population in 2020.

A quarter of this capex, or USD $32 trillion, is needed by 2030. We see a large investment opportunity here – if governments do their part. Public investment will be needed to de-risk private capital, especially in emerging markets (EMs). Climate change is a global problem. Without a successful transition to net zero everywhere, climate risk is unmanageable anywhere.

The problem: EMs have too little capital to address growing populations and CO_2 emissions, as the chart shows. We estimate EMs will need at least USD $1 trillion per year to achieve net zero emissions by 2050 –more than six times current investment. See Financing the EM transition from October 2021.

Conclusion

The transition is happening, and we believe companies and investors need to have view on how it's evolving. A gradual and orderly transition will help mitigate pressure points that could disrupt economic activity and drive up inflation.

This will allow time to make the necessary investments, phase out carbon-intensive activities, redeploy workers, and develop new technologies to power the net-zero economy. Such a transition is the best macroeconomic outcome, we believe, one that we see translating into a manageable rise in inflation and a net gain for the global economy.

All companies and investors must navigate the way economies are being re-wired by taking a view on how the transition will shape their operations or investments. Some may choose to drive the transition via thematic or impact investments or invent the net-zero world by funding new technologies.

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Sources

1. Decarbonization Partners, Blackrock, 2022, https://www.blackrock.com/corporate/sustainability/blackrock-temasek
2. The Paris Agreement, United Nations Climate Change, https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

Risk Warnings

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