Signs on the road to net zero

Conversations with climate experts, asset owners and other stakeholders surfaced issues central to tackling net zero, including sharpening investor skills, strengthening engagement and making data better and more accessible.

By Sara Rosner and Arthur Lerner-Lam



However, we should remain hopeful. Reductions of 50% by 2030 are possible, aided by changing investor sentiment and declining renewable energy prices. But further progress requires public policy, private sector activity and academic expertise to coalesce.

Public policy can help craft regulatory and fiscal frameworks which shape private sector action, unlock business opportunities and incentivize climate disclosure, data and transparency. But the private sector must lead the way. As much as \$ 100 trillion is needed by 2050, mostly from non-

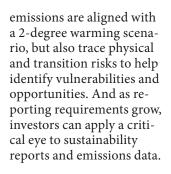
government sources to enable the transition, with all stakeholders ensuring that this capital goes to net-zero solutions while also meeting fiduciary obligations.

Growth in ESG-aligned investing is key, through integration and purposedriven strategies. Solutions need to expand and diversify, including those directed at climate response and innovation. Targeted investment - not divestment will enable net zero.

Climate scientists, economists and policy experts are critical constituents, as their deep knowledge, data access and connections to public research initiatives can help investors better understand climate change and sharpen their analytical tools.

Investors must expand climate knowledge and tools

Asset owners and investors are crucial in targeting private capital to enable the net-zero transition. Analysts must not only determine whether a company's



Engagement is equally important in understanding risks and enforcing progress. We've answered the 'whether' and 'why' of net zero - asset owners and investors will help determine the 'how'. Transition plans must be assessed quickly and accurately, with broader issuer coverage. From large-cap, developedmarket firms to emerging markets, engagement is a conduit in holding companies accountable.

Focused engagement campaigns can help, as can collaborative engagement through international coalitions. Progress may be incremental, but must be tangible. The process needn't be highly prescriptive, but issuers should be held to

their commitments, even if it requires escalation from broader discussions to open letters or shareholder resolutions. Divestment is a last-ditch effort. Capital is most effective when present and encouraging change, and is not absent.

Brown and green industries have vital roles

The focus on net zero and limiting global warming are already translating into investment preferences, with higher premiums for leaders. But there's a clear place for 'brown' issuers – companies making progress and playing critical roles in enabling the transition.

The electric vehicle (EV), for example, is a major cog in the plan to achieve net zero emissions. Automakers are planning to sell more of them – prodded by consumer demand and regulation. But batteries make EVs run, and that supply chain relies on brown industries – notably mining lithium, cobalt, nickel and other minerals.



Capital must be deployed along the EV chain to tap opportunities and encourage growth. This doesn't mean 'brown' industries and issuers can keep operating at their own discretion. But simply divesting from brown industries that are transition enablers ignores the complex challenge of shifting an entire planet and society to net zero emissions – and may slow progress.

Instead, a distinction is needed between green-washing – investors or issuers claiming to have sustainable strategies or products when they don't – and issuers with high but falling emissions. Heavy construction industries are indispensable in building wind turbines or dams – and fortifying or relocating buildings in areas at risk from rising sea levels and severe weather.

A pragmatic lens views brown industries and organizations along a continuum, acknowledging they're critical to the transition and need time – spurred by active engagement – to evolve. But there's no indefinite lease for companies to clean up their act, so stakeholders must press for progress.

Data needs: better quality, broader availability and culture change

Whether it's measuring climate risks in portfolios, assessing progress toward net zero, or evaluating avenues for private funding to facilitate the transition, data and information are key.

Climate-risk models are still young, with a wide variety of approaches, strengths and weaknesses. Expanding asset coverage should be a data priority, so asset owners can better evaluate their adherence to net zero-related commitments. Public assets are reasonably well covered, but it's harder to get data on nonpublic assets and categories like derivatives. Asset owners have enlisted asset managers and consultants to help.

Advances in data collection technology could help verify GHG emissions globally, though they remain several years away. Advances in sensor platforms, including mini-satellites and drones, could measure emissions in remote locations. As those data mature, climate scientists can help investors derive relevant information.

What can stakeholders do while data 'catches up' to net zero ambitions? Scope 1 emissions data are in relatively good shape; some aspects of scopes 2 and 3 data are useful but need refining. The best foot forward for now is to use scopes 1 and 2 data while acknowledging that fundamental analysis and direct engagement will always be needed to interpret portfolio and issuer footprint calculations.

Broad agreement on a dataculture shift is seemingly welcome. Data are costly even when they're available. Better transparency and norms around data sharing would enable a shift from the notion of proprietary data toward publicly available repositories that can be reviewed for accuracy and interrogated by stakeholders.

This shift requires overcoming hesitancy in providing proprietary company-level data – usually driven by reputational concerns or

inaccurate data. Government and auditors could create a 'safe harbor' of sorts for the more transparent issuers and first movers in climate-data disclosure.

Don't let the 'E' of the climate transition obscure the 'S'

We've seen the desire to maintain a strong link between the 'E' and 'S' in ESG during the net zero transition – a 'just transition', as the Paris Agreement puts it.

Marginalized groups are more prone to suffer from global warming and face transition risks as economies and industries reshape.

What happens to lowerskilled workers as the available job base becomes greener, shifts locations and requires different skills and training? What happens to communities relying on declining industries to support social and infrastructure needs? Recall the impact on the US Midwest a generation ago from offshoring manufacturing jobs. The investment community must also recognize that, even as industries less environmentally friendly enable the transition, they continue to have ecological impacts on regions and people. Those impacts must be managed and remediated.

Ensuring a just transition is a complex challenge requiring a concerted effort to avoid leaving marginalized groups behind. From an investor's perspective, the ability to accurately integrate social considerations into decisions and target capital to avoid undue harm to marginalized groups are key tools that can empower better outcomes.



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SUMMARY

Considerations in the drive to net zero highlight the need for advances and collaboration across the public, private and academic spheres to match growing ambitions and commitment.

A common thread is the need for pragmatism.

This doesn't mean lowering the bar for net zero ambitions. It means staying focused on the ultimate goal while taking tangible, meaningful steps to advance progress while the world develops better mechanisms, tools and processes to facilitate it.

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