

KEYNOTE INTERVIEW

Facing the uncertain future of climate



Climate scenario analysis is vital to help investors identify safe bets for navigating climate-related risks, say Ortec Finance's Bronwyn Claire and Sophie Heald

As COP28 approaches, the global financial sector is scrambling to help accelerate the transition towards a net-zero economy. We sat down with Bronwyn Claire, climate science lead in the climate and ESG solutions team at risk and return management specialists Ortec Finance, and her colleague Sophie Heald, a senior climate specialist at the firm, to discuss what investors need for robust scenario planning.

Q How do you see investors approaching climate risks and impacts ahead of COP28?

Bronwyn Claire: One of the themes for COP28 is the need to scale up financing for net zero. If we want

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investors to respond to that, they need to understand the risks, as well as the investment opportunities that will emerge, depending on future climate trends and the global policy response.

We think that climate scenario analysis can provide really valuable insights to help investors dissect the economic and financial impacts of climate change and the energy transition. It helps them spot the sectors and locations that are most at risk, or have most to gain. They can also use the analysis to identify 'safe bets' – sectors, technologies or asset

classes that will do better in whatever scenario unfolds.

There's no doubt that climate change and the transition is going to have impacts for risk and return across asset classes. Equities are typically more volatile than other asset classes, given that valuations are sensitive to GDP shocks. Therefore, equity returns will be affected if certain assets look as though they will be 'stranded'. On the other hand, however, fixed-income assets such as government bonds could provide some short-term protection against climate-related shocks.

Sophie Heald: Although the transition is often portrayed as a huge burden for

the global economy and will obviously be challenging, it also presents massive opportunities, for example in companies that manufacture green technologies. The key value-add of climate scenario analysis is it helps inform investors about the distribution of impacts – how companies, sectors, regions and asset classes are affected differently – and gives them information they can use to conduct stress tests and risk assessments that support strategic asset allocation decisions.

Q And what kinds of data do investors need to support this analysis?

BC: To understand the many plausible climate scenarios, investors need sector-specific and regional data, as well as data on macroeconomic variables like GDP and inflation, to help them work out the risk-return impacts. With this data in hand, they can adjust their portfolios to reduce risk. They can also better hedge their exposure across regions, asset classes and sectors, and identify new opportunities.

To do this, investors need to look at the physical, transition and market risks. These can be broken down into extreme weather events, gradual impairment of productivity, policy changes or technology shifts and pricing shocks. Then in terms of environmental impact, they want data to help them figure out if their portfolio companies are aligned with net-zero targets. That data is much more granular.

SH: The data that's needed depends on the use case – but overall, what investors really need are insights they can act on. So, an investor evaluating real assets in a specific location would find granular physical risk data useful. Then for stress testing and strategic asset allocation, it's more important to capture the systemic risks. These include the physical, market and transition risks from climate change, using an approach that captures indirect and networked effects.

“What investors really need are insights they can act on”

SOPHIE HEALD

Q How are investors adapting their approaches to working with climate data?

SH: Among our clients, we used to see that responsible investment, risk and fund management teams tended to be quite siloed. Now we are starting to see that teams are working more collaboratively to embed a specific view across an organisation. That means they need datasets that quantify the risk and return impacts, as well as providing insights into sector growth and technology investment opportunities.

The quality of the data is key to avoiding systemic bias or underestimating risks, so we encourage investors to question whether their analysis is based on plausible scenarios and uses a credible modelling approach. Investors get the most value by combining high level information on macro trends with more granular company engagement.

BC: Investors are evaluating where to engage and building their own knowledge so they can ask more complex questions. They are very focused on scrutinising the data quality. This comes back to the ‘garbage in, garbage out’ problem. Investors know high-quality data and high-quality modelling are needed to truly understand the risks and opportunities in different scenarios.

Q How do you deal with the limitations of modelling?

BC: The challenges around modelling are not new for investors. But climate change, unlike other financial risks

where you can input historical data and events, is an unprecedented phenomenon: the economic and financial impacts of climate change are fundamentally uncertain.

We know that some models and scenarios are better than others in capturing real world complexities and economic and financial frictions. Part of our job is to tailor bespoke scenarios for our clients. In-depth modelling is a key starting point for investors to explore potential impacts, as well as support investment decisions and regulatory reporting.

Investors need to be aware of the nature of the system being modelled and understand the data sources. And they also need to use sensitivity analysis and compare assumptions to interpret results – bearing in mind that all models have limitations. But new ways to consider short-term and shock scenarios are emerging. There's a lot of innovation in this space.

Q Where are the significant gaps in the data?

SH: It's becoming pretty clear that public reference scenarios have underestimated physical risk. Also, not many investors are factoring in how short-term shocks, around stranded assets or extreme weather events for instance, could trigger abrupt repricing in financial markets. And there are gaps in emissions disclosures and operational data, which affects the quality of granular data at the portfolio company level.

BC: Let's remember that quantitative data won't tell the whole story. We need narratives that explain how modelled scenarios apply in practice and how they will impact people's lives in the real world. After all, that's the real unknown risk of climate change. Qualitative analysis can address areas where we have enough information, such as migration or biodiversity, and provide an alternative way to discuss them. Storytelling is a powerful way to prompt action. ■