

Measure and mitigate climate risk in portfolios



By Dexter Tiah

THE 2020 Covid-19 pandemic was an unexpected event that took portfolio managers and investors around the world by surprise.

Most, if not all, investors experienced increased volatility in their portfolios, but as we approach the end of 2020, many diversified equity investment portfolios would have recovered by various degrees due to positive news from the anticipated recovery of the global economy and impending Covid-19 vaccines mass rollouts.

As portfolio managers and investors usher in the new year, I wish to revisit an even bigger risk looming in the coming decades: climate risk.

What is climate risk?

While the human race has experienced improvements in living standards and quality of life over the past few centuries, these were not achieved without costs. The by-products of industrialisation are greenhouse gas (GHG) emissions such as carbon dioxide and methane.

Because GHGs in the atmosphere trap heat from the sun's radiation and it is re-radiated back to Earth, we have been experiencing a gradual increase in temperature since pre-industrial times from GHG accumulation.

Today, the global temperature is one degree higher than pre-industrial times. If we continue with the status-quo, the Earth will experience global temperature increases of at least four degrees higher than pre-in-

dustrial times at the turn of the century.

If that happens, not only will we experience drastic climate changes, such as extreme precipitation, melting of polar ice caps and heat waves in many parts of the world, we will also observe an increasing frequency of floods and tropical storms.

The likelihood of this scenario panning out in the future is the adverse physical aspect of climate risk, and is a critical reason why we should take action to mitigate climate change now.

Remedial actions

Through government policies, technology and other mediums, the world is trying to slow down the rate of increase in GHG emissions, and ultimately cut the quantum.

The 2015 Paris Accord is an international agreement between governments around the world to commit countries to reduce GHG emissions. It is encouraging that countries such as China have pledged to achieve net-zero emissions by 2060. The same goes for other developing and developed countries which have pledged to do so.

Even the Monetary Authority of Singapore has joined the action; it has issued an environmental risk assessment framework for asset managers and Reits to address climate change concerns.

We can also expect significant changes in regulations globally in the coming years, such as the imposition of heavy carbon taxes on industries that produce vast amounts of (and that do little to mitigate) GHG emissions.

The impact of these upcoming policies and technology changes, also known as transition risks, will create risks and new opportunities in existing portfolios.

Therefore, now would be a good time for portfolio managers to seriously consider addressing both the physical and transition risks associated with climate change that will undoubtedly impact their investment portfolios.

Getting started

I believe there are three pre-requisites that, if met, would enable a portfolio manager to effectively consider climate risk:

1) Integrating climate risk as part of investment risk assessment

It is difficult to even have a conversation about climate risk management if there is no buy-in and acknowledgement of this risk from the client.

Therefore, first and foremost, portfolio managers should communicate to clients that climate risk is not a hoax, but a material risk that can manifest as potential drawdowns in their investment portfolios.

The goal is to work with the client to include climate risk as part of a written investment policy statement, because with it, portfolio managers will have a mandate to look at investments in their portfolio from a lens other than considering the traditional sources of risks and return ob-

Portfolio managers should communicate to clients that climate risk is not a hoax, but a material risk that can manifest as potential drawdowns in their investment portfolios.

jectives and constraints such as time horizon and liquidity during portfolio construction.

Climate goals for the portfolio could come in the form of qualitative or quantitative guidelines that clients might agree to.

Having a soft target to deploy 5 per cent of their portfolio towards energy transition opportunities by a certain year in the near future is a quantitative target, whereas targeting to keep the client's portfolio compliant with a 1.5 degree scenario by 2030 could be a qualitative target.



Climate risk is a very real risk for portfolio managers and investors, especially those that have significant carbon emissions exposure within their portfolios.

BT FILE PHOTO

Senior management oversight or dedicated committees can also be established to guide the overall climate risk strategy for the investment portfolio on an ongoing basis.

2) Understanding and measuring the existing portfolio's climate risk exposures

To get to where one needs to be, one will need to know where the portfolio currently stands, and bridge this gap. The number one climate-related metric that is quite readily available is carbon emissions. A quick way to quantify climate risk is to use standardised metrics for portfolios.

An example is the tons of GHGs emissions per million dollars of revenue (also known as carbon intensity); another is the tonnes of GHG emissions per million dollars invested (also known as carbon footprint).

For resource-constrained portfolio managers, the carbon metrics of their portfolios can be obtained directly from platforms such as Bloomberg. Managers can also use the Paris Agreement Climate Transition Assessment tool (at no cost), which produces a useful report comparing their portfolio against global benchmarks and ascertains whether it adheres to different climate scenarios such as the 1.5 degrees scenario.

For managers with more resources to measure climate risk exposures, platforms such as S&P

Global's Trucost provides a more dynamic portfolio analytics tool. If there is intention to staff a team dedicated to analysing and measuring climate risk, it could be worthwhile considering recruiting analysts with the Sustainability and Climate Risk certificate, a newly launched exam administered by the Global Association of Risk Professionals that aims to help professionals understand the effect of climate change on organizations and how to manage that risk.

With such policies and processes on climate metrics established, the portfolio manager can even begin regularly providing disclosure on the material impact of environmental risks in their portfolios in accordance with frameworks such as the Taskforce on Climate-related Financial Disclosures (TCFD), thereby providing clients an avenue towards greater transparency and comparability of their portfolios and benchmarks.

3) Mitigating climate risks in existing portfolios

Once the carbon emissions exposures have been identified, portfolio managers can start making tweaks to rebalance their existing exposures away from companies that hinder the portfolio's ability to meet 1.5 degrees scenario, towards companies that facilitate the transition. For example, portfolio managers may consider replacing the oil and gas majors with stocks that have similar risk-adjusted returns potential but possess a lower carbon emission profile.

Another option for fund managers with an ETF portfolio is to consider switching to sustainability

ETFs with similar exposure as their non-sustainable counterparts. Blackrock has a whole suite of sustainability-related ETFs in their iShares product range that can provide a similar geographic exposure to ETFs that track global indices, but their ETFs would incorporate screens such as exclusion of companies with fossil fuel exposures.

For fixed income fund managers with investment grade bond portfolio exposures, it could make sense to transition their existing portfolio towards one with similar credit risks but with a higher sustainability profile. This can be done via investing in green bonds. Finally, for private equity investors, an allocation into private equity funds and directly investing in companies whose products or services facilitate the global energy transition could make sense. There is a host of opportunities today and many emerging opportunities to enable investors to do well and do good.

In conclusion, climate risk is a very real risk for portfolio managers and investors, especially those that have significant carbon emissions exposure within their portfolios. Forward-looking investors should seek to mitigate these risks or invest in new opportunities from climate change and the global energy transition. It is possible to make tweaks to portfolios so that investors can obtain comparable risk-adjusted returns as before, while having a lower carbon footprint.

Dexter Tiah, CFA, is an ESG specialist at Singapore-based Tsao Family Office and a certified financial risk manager