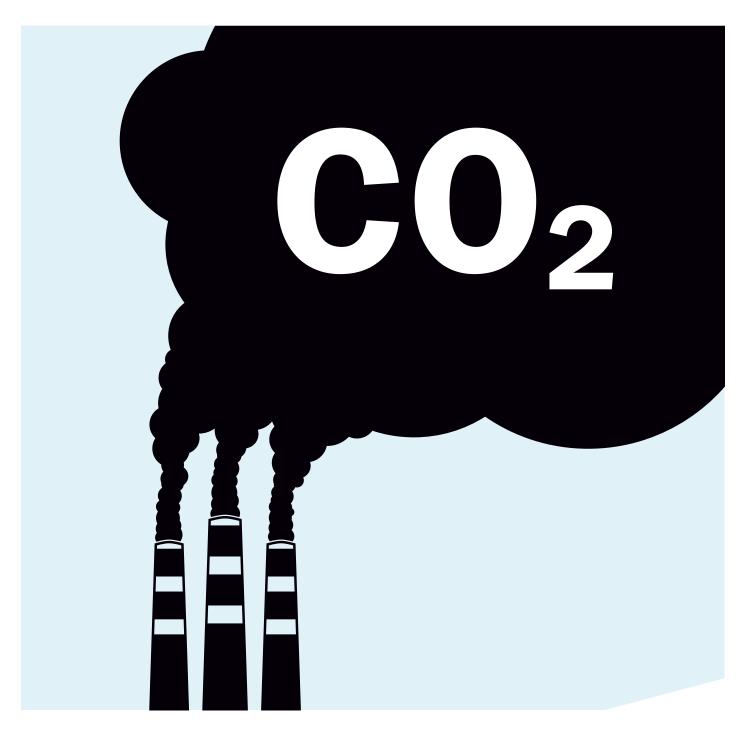


How best to approach climate change risk management?

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HOW BEST TO APPROACH CLIMATE CHANGE RISK MANAGEMENT?

Chris Wagstaff considers how asset owners might best approach climate change risk management by adopting a number of non-mutually exclusive mitigating actions to address transition and physical risks.

In cautioning against a disorderly and disruptive transition arising from a likely forceful near term policy response to climate change, the UN Principles for Responsible Investment (PRI) has, through its Inevitable Policy Response (IPR) project,¹ sought to prepare investors for these climate transition risks. By forecasting a central scenario of accelerated and disruptive policy actions, occurring between 2023 and 2025, the PRI identifies eight critical policy levers, of climate-related policy and technological developments that are likely to emerge between now and 2050, to ultimately secure an accelerated and just transition to a low carbon emissions world. These are illustrated in Figure 1.

Figure 1: The PRI's The Inevitable Policy Response forecast policies could secure an accelerated and just transition to a low carbon emissions world



- Early coal phase-out for first mover countries by 2030
- Steady retirement of coal-fired power generation after 2030 in lagging countries



- Zero carbon power
- Significant ramp-up of renewable energy globally
 Policy support for nuclear capacity increase in a small set of countries, nuclear managed out elsewhere



- Early sales ban for first mover countries by 2035
 Other countries follow suit
- as automotive industry reaches tipping point



Increase in coverage and

- stringency of performance standards • Utility obligation programs,
- Financial and behavioral incentives

- S
 Carbon pricing
 US\$40-80/tCO₂ prices by 2030
- for first movers

 Global convergence
 - accelerated by BCAs to \geq \$100/tCO₂ by 2050

₥≚₁

Land use-based GHG removal

- Strong policy support for re/afforestation
- Stronger enforcement of zero deforestation
 Controlled expansion of
- bioenergy crops



CCS and industry decarbonisation

- Limited CCS support in power
 Policy incentives primarily for
- Industrial and bioenergy CCS
 Public support for demonstration, and
- then deployment of hydrogen clusters



Agriculture

- Technical support to increase agricultural productivity
- Increasing public investment in irrigation and AgTech
- Incremental behavioural incentives
 away from beef

'Just Transition' lens to ensure social and political fea

Carbon capture and storage (CCS) is the process of capturing waste carbon dioxide (CO_2) usually from large point sources, such as a cement factory or biomass power plant, transporting it to a storage site and depositing it where it will not enter the atmosphere.

Source: PRI, The Inevitable Policy Response, December 2019.

Enabling a green economy

Against this backdrop, asset managers and asset owners in analysing the potential transition and physical risks across the various asset classes held in an institutional portfolio, can adopt a number of non-mutually exclusive mitigating actions to address them, by choosing to *engage*, *embed*, *effect* and/or *exclude*, as appropriate.

Of course, who exerts this influence is principally determined by whether a mandate is segregated or pooled. Within a segregated mandate the asset *owner* is in the driving seat, whereas in a pooled mandate, it is the asset *manager*. That said, the asset owner can, of course, make the manager aware of their climate policies and ultimately decide whether to hire or deselect the manager.

In considering these potential mitigating actions, Figure 2, below, separates the asset classes held within most institutional investor portfolios into three broad categories: listed and private equity; investment grade and alternative credit; and real assets, comprising real estate and infrastructure. It then analyses the potential responses (engage, embed, effect and/or exclude) to the climate change risk posed by each asset class.

Asset class/ Potential responses	Listed and Private Equity	Credit (Investment grade and alternative)	Real assets (Real estate and infrastructure)				
Engage	Engage on climate change with policymakers and corporates, either directly, collaboratively with other investors or with collaborative groups who collectively carry out engagement activities.						
	 Carry out and lead independent climate engagements Setup and enforce bespoke (and more aggressive) voting policy on climate (e.g. via moving to segregated mandates) Hire specialist stewardship provider to focus on climate² 	 Add credit exposure to listed equities to add volume and scale to engagements Negotiate more stringent conditions (e.g. additional covenants) linked to issuer strategy and disclosure around climate change and alignment to Paris Agreement 	 Encourage and monitor manager involvement to achieve better energy efficiency and green standards (e.g. through green retro-fitting) Encourage manager engagement with local communities and industry on climate impact 				
Embed	Adjust (tilt) existing portfolios to reduce the exposure to climate-related risks.						
	 Set carbon footprint target (relative or absolute) Climate tilted strategies according to specific climate or carbon metrics (e.g. tilts based on carbon emissions or reserves) ESG integrated strategies of which climate is one factor Develop bespoke strategy Adopt a low carbon index (passive equity) 	 Integrate sustainability concerns into the selection criteria for bonds, particularly within buy and maintain portfolios Set carbon footprint target (relative or absolute) Climate tilted strategies according to specific climate or carbon metrics (e.g. tilts based on carbon emissions or reserves), and ESG integrated strategies 	 Set climate related metrics and targets for real asset holdings (e.g. minimum carbon efficiency targets) Incorporate climate related metrics and targets into the asset selection process through mandate design 				
Effect	Investors allocate capital to investment strategies specifically designed to perform well in a low-carbon economy, such as companies involved in energy efficiency, renewable energy, carbon capture and clean technology, to capture the upside potential of climate change. Examples of strategies include renewable infrastructure strategies and green bonds linked to specific projects which have environmental benefits.						
	 Positively tilted climate strategies towards companies with a higher proportion of climate-friendly revenues/sustainable outcomes aligned with the United Nations' Sustainable Development Goals (SDGs) Private equity opportunistic investments in climate or environmental solutions Thematic fund allocation addressing climate (e.g. renewable energy, energy efficiency, carbon capture, clean technology, water and waste management)³ 	 Integrate sustainability concerns into the selection criteria for bonds, particularly within buy and maintain portfolios Set carbon footprint target (relative or absolute) Climate tilted strategies according to specific climate or carbon metrics (e.g. tilts based on carbon emissions or reserves), and ESG integrated strategies 	 Sustainable infrastructure linked to climate adaptation and resilience Low carbon/green real estate Impact investment mandates around transportation, cleaner electricity generation, energy efficiency, and sustainable agriculture or forestry (amongst others) 				
Exclude	Exclude fossil fuels or high carbon emitters from the portfolio. A divestment strategy requires definitions and thresholds for exclusion to be established. Examples include: divest from all thermal coal companies or divest from companies which derive more than X% of revenues or as a % of market capitalisation from fossil fuel related activities. Consideration should be given to the impact on the investible universe as a result of divestment. ⁴						
	 Bespoke exclusions policy (e.g. according to revenue or reserves thresholds, or ability/ willingness to transition) Move to a screened index (e.g. ex-fossil fuels) 	 Bespoke exclusions policy (e.g. according to revenue or reserves thresholds, or ability/ willingness to transition) Move to a screened index (e.g. ex-fossil fuels) 	 Bespoke exclusions policy (e.g. all assets that do not meet minimum green credential or energ efficiency requirements) 				

Figure 2: Asset class response matrix to transition and physical risks

Note: Caution should be exercised given that some of the approaches outlined above may impact the risk and return characteristics of a portfolio. In addition, while some may result in more appealing exposure disclosures, they may not make any contribution to climate change mitigation. Source: WTW 2019 (modified extract).

²There is a key difference between active and passive equity mandates when it comes to engagement. Passive equity managers have to exercise stewardship more widely than active, as they are compelled to hold those companies that populate the index being tracked, whereas active equity managers can make a more reasoned assessment of a company before deciding on whether to invest. Indeed, while engagement is becoming a key selection factor in passive equity mandates, there's a bigger a debate around the role of passive managers and whether they should engage or not a point of difference contested by two of the asset management industry's biggest indexers. ³ The institutional market is increasingly populated with low carbon global equity passive funds that can reduce the carbon intensity of an equity index by c.80% while prospectively offering the same investment return as the non-titled index +/ a c.30bgs tracking error.

⁴Seeking to decarbonise a portfolio is not a set and forget decision and comes with both short and longer-term frictional costs. As company policies and technologies evolve, the individual investments that comprise an appropriately divested portfolio will likely change. As a consequence, investors need to undertake ongoing research to maintain compliance with divestment goals. In combining estimates of transaction costs and ongoing compliance costs to US endowments, these frictional costs of divestment could result in up to 12% of value being lost over a 20-year period. (Source: Arizona State University University of Washington and Compass Lexecon: "Frictional Costs of Fossil Fuel Divestment", May, 2016). Moreover, these frictional costs are in addition to foregone diversification benefits and any reduction in investment returns that divestment might impose. See: Throwing the baby out with the bathwater? A case study on Divestment. Kyle J. Bergacker, CFA (2019). Columbia Threadneedle Investments. Selective risk-based disinvestment is appropriate (til away from worst offenders with poor transition pathways to best in class with transition pathways with low carbon lock-in) but engagement for change is an essential component in order to move to a low carbon economy.

Summary of actions available to asset managers and asset owners

Figure 3, comprising Asset Class RAG scoring, quantifies the climate change risk exposure of some of the main asset classes both *before* any asset owner actions are taken and *after* some of the more common asset owner actions are taken. It assesses the practicalities of these actions and how effective they may be. Accepting the subjective nature of this analysis, those asset classes classified as **red** are at particular risk of negative outcomes arising from climate change while those classified as **green** are either unexposed to – or even potentially positioned to take advantage of – efforts to combat climate change.

Asset class	Pre- action	Common actions	Post-action	Comments
Listed global equities		Employing climate- tilted passive equity Employing active management with a climate change focus		While climate-tilted passive equity reduces the exposure of the asset class, it is not a material enough change to remove the climate change risk associated with equity investment. There are also active managers with a climate change focus, employed either in part or as the main theme of a fund, which may reduce, by varying degrees, the climate exposure for investors with a long-term equity allocation.
Private equity		Managing the types of Private Equity opportunity invested in		Private Equity is a highly exposed asset class but with a potentially high degree of upside on offer if the "right" investments are made. As an asset class, any drag on the economy caused by climate change is likely to prove very negative for returns. However, impactful venture capital investments could potentially capture some of the upside from actions to combat climate change and mitigate its effects.
Investment grade credit (buy and maintain)		Putting mandates in place to screen issuers for climate change risk and other threats to sustainability		With credit assets, the main consideration is whether or not the issuer will be able to repay capital. Risk analysis for climate change and other threats to sustainability should be incorporated into the mandate design and the selection of managers. As visibility of the ability to repay deteriorates with longer time horizons, this should include rules on the term of assets purchased in certain sectors, credit and ESG rating bands.
Alternative credit		Careful mandate design and sub asset class selection		Alternative Credit is a large and diverse asset class with some sectors potentially more exposed to climate change than others. The principles of good mandate design from investment grade credit still hold but extend to selecting appropriate areas of the alternative credit universe. Some strategies, such as infrastructure debt financing renewable energy projects or mortgage debt that finances green housing, could be considered as climate change positive. Likewise, green bonds, linked to specific projects which have environmental benefits, sustainability bonds with an intentional mix of environmental and social benefits and sustainability goal-based bonds structured to reward issuers for having and adhering to defined sustainable business model metrics, which may be linked to UN Sustainable Development Goals (SDGs), can also mitigate risks associated with climate change. ⁵
Real assets		Seek to make impactful real investments Manage physical and transition risks of currently held real assets		Real Assets is another asset class that allows the potential capture of positive return effects, largely through investment in infrastructure (for example, renewable energy). Many of these assets can also supplement a cash flow matching portfolio by offering secure cash flows at a higher yield than government bonds. Additionally, while generic real estate and infrastructure investments may be exposed to climate change risk, there is scope to manage these risks, through physical risk analysis and encouraging real estate managers to meet efficiency standards.

Figure 3: Asset Class pre- and post-actions RAG scoring]

Source: WTW 2019 (modified extract).

⁵ The International Capital Market Association (ICMA) Green Bond Principles provide voluntary process guidelines to issuers on the key components needed to issue a green bond. Green bond issuers are required to build a Green Bond Framework, which should align to four components as specified under the Green Bond Principles. For sustainability bonds, the ICMA provides separate a separate set Sustainability Bond Guidelines. See: https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

CONCLUDING COMMENTS

Despite the key obstacles to assessing portfolio exposures to carbon and GHG emissions, asset owners have a considerable climate risk mitigation armoury at their disposal that can be deployed across both mainstream *and* more illiquid assets to great effect. In particular, those actions that can be applied to investment grade credit, infrastructure debt financing, renewable energy projects, green bonds linked to specific projects with environmental benefits, sustainability bonds, sustainable infrastructure linked to climate adaptation and resilience and low carbon real estate, are well positioned to guard against the transition and physical risks of climate change and may also potentially benefit from positive outcomes.

Additionally, many asset managers and asset owners are not only adopting a number of the above mitigating actions to address the transition and physical risks of climate change but are also unilaterally taking steps to align with and, indeed, move the low carbon transition agenda forward, while voluntarily signing up to an increasing number of collaborative initiatives with their peers to achieve the same objective. Given how well asset managers and asset owners are positioned to be the catalyst for major transformative change, more of the same is needed for the bar to continue to be raised.

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