



# Net Zero Investment Framework case study – WTW

## WTW's approach to net zero integration

### Net zero pledge

In April 2021 WTW made a public commitment to targeting net zero greenhouse gas emissions by 2050 in our fully discretionary delegated investment portfolios. WTW subsequently signed up to the Net Zero Asset Manager Initiative (NZAMI). Alongside this, WTW also committed to net zero by 2050, in alignment with the Science Based Targets Initiative, across the company's business operations.

In implementing our net zero pledge we aim to ensure that the principles we follow and the measures we use to assess progress are consistent with IIGCC's Net Zero Investment Framework (NZIF). With this in mind, we have set a portfolio-level reference target of at least a 50% reduction in greenhouse gases from our portfolios by 2030, consistent with the scenarios set out in the IPCC special report on Global Warming of 1.5°C. Recognising that it is important to reduce the probability of exceeding the carbon budget, and consistent with the NZIF, we focus on P1/P2/P3 pathways with limited/no overshoot and limited reliance on negative emissions technologies when setting our emissions target.

### Climate integration approach

WTW believes that being strategically ahead of a low-carbon transition will significantly improve risk-adjusted returns for our clients. We therefore think about our net

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**We also recognise that the actual goal of a net zero commitment is to reduce system-level GHG emissions, as opposed to pursuing self-decarbonisation in isolation, and we have therefore set a target to double our allocation to climate solutions, as defined by the EU Taxonomy and IIGCC criteria, by 2030.**

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zero pledge as the first step towards a “3-D” mandate incorporating real world impact alongside traditional risk and return metrics. In effect, the net zero pledge acts as a “carbon budget” for the portfolio and is a third strategic input to the portfolio design process alongside a client's target return and risk tolerance/risk budget. Climate considerations are then incorporated throughout our investment process as follows:

### Top-down mission and strategy

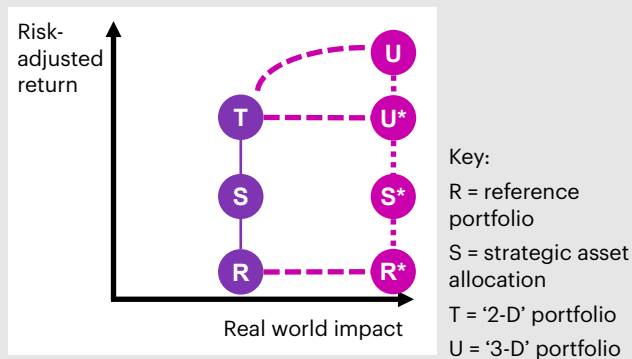
As noted above the net zero pledge essentially acts as the third dimension of a 3-D mandate encompassing risk, return and impact dimensions. This third dimension is defined using a Carbon Journey Plan (CJP), which sets a pathway towards our climate targets and is used to monitor whether our portfolios are on an appropriate long-term trajectory. Importantly though, we believe even this third dimension is expected to have potential

positive impact on risk-adjusted return through system-level impacts if implemented thoughtfully – this is discussed below:

In a conventional “2D” mandate the goal is to maximise risk adjusted returns relative to a simple reference portfolio (i.e. moving from R to T). Under a 3D mandate the aim is to add to risk-adjusted returns by improving the underlying beta through engagement, investing in solutions to system-level risks and underweighting externalities. Fiduciary duty means that the minimum goal is to achieve portfolio U\*, i.e. equivalent risk-adjusted returns to the 2D portfolio (T) but with additional impact.

In the context of WTW’s net zero goals, portfolio U has the same risk and return goals as portfolio T with net zero emission and climate solution targets implemented. We expect that Portfolio U to outperform portfolio T because:

- We believe that market prices do not fully reflect the likely path of a climate transition. Therefore, an understanding of the climate transition is expected to be a significant source of potential alpha.
- We expect climate solutions and more effective stewardship to improve future climate outcomes, thereby reducing the magnitude of potential systemic climate risks which can benefit all financial assets.



Source: Thinking Ahead Institute

### Bottom-up implementation

A thorough evaluation of the approach taken by our outsourced asset managers to integrating climate and broader sustainability issues into their investment processes is a critical part of our manager research process, whereby we look for our managers to have high-conviction approaches to climate integration and stewardship, and that the bar that represents best in class continues to “rise” over time.

### Portfolio construction

WTW applies a Total Portfolio Approach (TPA) which considers the contribution of different parts of the portfolio to overall portfolio quality through multiple dimensions or “lenses”. One of these lenses is broader sustainability (of which climate is a major component)

<sup>1</sup>In effect the portfolio “buys” and “sells” emissions whenever a cash inflow or outflow occurs.

which allows us to identify the combination of strategies that spends the carbon budget in the most financially efficient way while also balancing this against the other dimensions of portfolio quality (e.g. liquidity, costs etc...).

### Monitoring

As will be discussed later, WTW has developed a broad framework for evaluating the performance of our portfolios against our net zero goals. This framework was applied for the first time based on end-2021 outcomes and management actions and climate action plans are currently being developed based on this.

### Case study outline

This case study on WTW’s application of the NZIF covers the following areas:

- Setting and monitoring progress against top-down/strategic climate goals using a Carbon Journey Plan (CJP).
- The use of portfolio alignment metrics in interrogating the trajectory/progress of portfolio emissions towards net zero goals and setting of alignment targets.
- WTW’s framework for climate performance measurement via climate dashboards and how multiple metrics, including portfolio alignment metrics, are used to identify and prioritise management actions.
- The use of a proprietary Climate Transition Value at Risk (CTVaR) metric that we believe best encapsulates a financial assessment of the true risk being run in portfolios.

## Carbon Journey Planning

### Introduction

In measuring our progress towards our top-down decarbonisation goals we use a framework we refer to as a Carbon Journey Plan (CJP), which is analogous to funding journey plans commonly used to manage progress towards financial goals for defined benefit pension schemes. The CJP sets an intended pathway towards our top-down reference target and is used to monitor whether our portfolios are on an appropriate long-term emissions trajectory. Importantly, we recognise that it is not in our clients’ financial interests to force ourselves to always be ahead of the pathway to net zero regardless of market pricing or the magnitude of the risk posed by climate change. We believe that the important things for the long-term financial outcomes for our clients’ portfolios are the destination and the overall trajectory of decarbonisation, rather than the position at every point along the path to net zero.

### Challenges and learnings

The main challenges encountered when developing the CJP framework were:

#### Changing scale of portfolios over time

The majority of the portfolios that WTW manages for its clients have cash outflows or inflows and (absolute) financed emissions will therefore change due to inorganic changes in size<sup>1</sup>.

This means that setting the CJP based on absolute emissions is not appropriate and a carbon intensity measure (emissions / \$ invested) is used.

### **Asset price inflation**

We believe a key disadvantage of emissions / \$ invested that it is impacted by changes in market prices that are not related to genuine emission decreases or increases, e.g. a large increase in market values would result in a large decrease in emissions / \$ invested with no change in emissions and vice versa.

In the extreme, a 6.5% pa increase in market prices between 2019 and 2030<sup>1</sup> (which is not a particularly extreme outcome) could result in an impression that emission reduction goals have been achieved with no reduction in emissions. It is therefore important to factor asset price inflation into the design of and monitoring of portfolios against the CJP to avoid potentially significant overclaiming of portfolio decarbonisation outcomes – this is also reflected in the NZIF supplementary guidance issued in late 2021.

### **Setting review ranges**

As noted above we do not expect the pathway to net zero to be smooth and therefore the net zero goals for client portfolios and the associated CJP are not intended to be rigid constraints on the portfolio. In particular, there are times when it makes financial sense to be ahead of the planned average trajectory, and times when it makes sense to be behind.

It is therefore necessary to define review ranges around the CJP that reflect both the non-linear nature of progress as well as practical issues relating to measurement (e.g. imperfect/lagged data, use of proxies for certain asset classes/strategies etc...) while also not allowing too much latitude for emissions to remain persistently above the CJP. The review range ensures that there is an assessment of whether the financial case exists at times when the portfolio is a long way from the expected trajectory rather than a failure of the approach.

Finally, if system-level emissions do not decline at the required rate then the probability of overshooting the carbon budget increases with time. It is therefore also desirable for the width of the review range around the CJP to narrow in absolute terms over time.

### **Choosing the baseline year**

Industry practice amongst a number of the net zero alliances has arrived at 2019 as the most appropriate starting point for setting portfolio reference targets. The issue of course is that any target trajectory between then and 2050 (and any point in between) is very heavily influenced by portfolio emissions at this particular date. This can be a real issue if one of the following things was true in 2019. All were true for WTW and hence the CJP looks rather unflattering in the early years.

- A dynamic asset allocation view that led to being temporarily underweight more carbon intensive asset classes or overweight less carbon intensive asset classes.
- A dynamic view within asset classes that led to being temporarily underweight more capital-intensive industries or overweight less capital-intensive industries.
- Greater use of proxies at that date through a lack of data in the past, where those proxies turned out to be less carbon intensive than the actual holdings once data was available.

Ultimately this makes it important to ensure the width of the review range is set with an awareness of the types of temporary factors that can cause emissions to deviate from the CJP.

### **Emissions dominated by small number of assets**

It can often be the case that a portfolio looks as though it is way behind the desired trajectory on emissions, yet if there are one or two asset sales out of the portfolio of a large number of assets, that picture can change dramatically to suddenly being well ahead of the desired trajectory. In many asset classes there is a very significant skew in this way, so it is important not to use the review ranges as necessarily requiring action where the overall emissions are dominated by a small number of liquid assets where the holding period can be relatively short. This reinforces the importance of focussing on metrics including bottom-up alignment of assets and transition risk exposure when interpreting CJP outcomes.

### **Supporting narrative**

Even if a portfolio is above the upper end of the review range described above there are a number of reasons why immediate management action may be undesirable (e.g. if the majority of high emitters in the portfolio are aligned and/or if emissions are largely driven by climate solutions). It is therefore important to develop a supporting narrative that explains how CJP outcomes should be interpreted by readers and where relevant a “comply or explain” framework<sup>2</sup> for addressing cases where emissions are materially above the review range.

### **Approach taken and outcomes**

The approach taken by WTW to construct the CJP is to:

- Construct an “absolute emissions index” based on portfolio emissions / \$ invested, allowing for market value inflation from the baseline year (2019), rebased to 100 at the starting point of the CJP.
- Set the target pathway of the CJP based on a 6% pa reduction in the absolute emissions index from end-2019 to end-2030 so that there is a 50% reduction between 2019 and 2030.
- Set the upper and lower levels of the review range at 30% above and 30% below the target pathway.

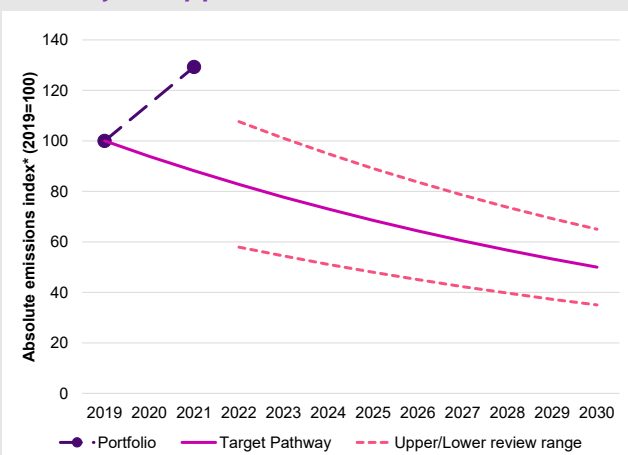
<sup>1</sup>A 6.5% pa increase in market value from 2019 to 2030 would, all else equal, result in portfolio value doubling and therefore emissions / \$ invested halving.

<sup>2</sup>This is explored in more detail in later sections of this case study.

The outworking of applying the CJP framework to a multi-asset portfolio managed by WTW, as well as the supporting narrative, is shown below.

- The Carbon Journey Plan (CJP) sets out a pathway of emissions from 2019 to 2030 that is consistent with the Fund’s long-term net zero goals. It sets out an annual carbon budget for the portfolio that is consistent with a net zero transition. The purpose of this analysis is to show the historical pathway of the portfolio’s emissions against the desired pathway to net zero.
- The Portfolio’s carbon emissions have increased by c30% relative to the 2019 baseline level. Whilst this is not consistent with the desired trajectory, the main source of the increase is not due to our portfolio companies becoming more carbon intensive but due to asset allocation changes that were made in response to the COVID-19 pandemic. The Portfolio was heavily underweight equities back in 2019 as we had the view that they were overvalued at the time. Following the market crash in Q1 2020, we repositioned the Portfolio from more defensive diversifying strategies and sovereign credit (which have a structurally lower carbon footprint) into equities and alternative credit to take advantage of the improved outlook for markets.
- This highlights the complexity of managing a portfolio in the interests of both investors and the planet and the need to look at a balanced scorecard of climate metrics in assessing progress (or not) against its net zero goals.
- In the context of these strategy changes, we are comfortable that the existing CJP continues to set out an appropriate trajectory for the portfolio to net zero.

### Carbon journey plan



\*Absolute Emissions index is the total portfolio emissions per \$ invested for changes in market value since 2019, rebased to 100 at the end of 2019, adjusted

Source: WTW, Factset, MSCI

Taken at face value, portfolio absolute emissions have risen by around 30% between 2019 and 2021, suggesting that management action may be required. As noted above, some of this is simply a result of the baseline year chosen, and some of it to dynamic asset allocation changes. No single metric can fully reflect progress towards net zero goals – the application of other metrics, including portfolio alignment metrics, to further interrogate this outcome is demonstrated later in this case study.

### Future work

Future work that we intend to carry out in relation to the CJP framework includes:

- Attribution of emission changes – as noted in the narrative above we will be looking to do more work on attributing changes in emissions to various drivers including changes in existing companies/assets, changes in sector/security allocation and allocation to climate solutions.
- Refinement of emission targets – at this stage the CJP framework is based on global scenarios but in reality the “true” net zero pathway for a portfolio is the aggregation of asset class and strategy-specific pathways. Another area of future work is the further validation of decarbonisation pathways from a bottom-up perspective and determination of asset class-level decarbonisation and climate solution targets. This means that the contribution from each asset class to overall portfolio climate goals may vary (e.g. the absolute increase in allocation to climate solutions may vary by asset class), which is consistent with WTW’s Total Portfolio Approach to investing where the focus is on the contribution of individual strategies in the portfolio to overall portfolio/client goals.

### Asset class alignment measurement

#### Introduction

As noted above, our portfolio-level decarbonisation target is primarily a reference target which is used to assess whether portfolios are on an appropriate long-term trajectory. Consistent with the NZIF, WTW believes that a key metric for “success” of a climate integration strategy is the alignment of all assets in the portfolio with pathways consistent with the goals of the Paris Agreement.

In particular, a key element of the “comply or explain” framework referred to above is a bottom-up assessment of high emitters in the portfolio. That is, portfolio emissions above the CJP likely would not require significant management action if the parts of the portfolio in the asset classes/strategies that are the key contributors to total emissions are assessed as being highly aligned with a Paris-aligned scenario. Related to this, another key use case for portfolio alignment metrics is as part of the evaluation of the approach that asset managers take to climate integration and/

or the identification of managers with whom we should be engaging to improve overall portfolio alignment outcomes – the latter is discussed in more detail later in this case study.

### Challenges and learnings

The key challenges that were encountered when applying portfolio alignment tools and metrics to the types of portfolios that we manage for clients were:

#### Multi-asset context

The indicators/data points that will be appropriate for assessing proximity of a company/asset to a Paris-aligned pathway will by nature differ markedly by asset class. This means that assessing portfolio alignment for a multi-asset portfolio is inherently a more complicated and data intensive exercise than for a single asset class/strategy.

#### Aggregation

The fact that a single common alignment tool is not currently available across all asset classes means that aggregation of asset class alignment metrics to total portfolio level is a challenge. In addition, the sophistication of the available portfolio alignment tools varies significantly across asset classes meaning that care needs to be taken when aggregating and also when using comparisons of alignment in decision making.

#### Capital vs emissions weighting

Overall portfolio alignment can be expressed in either capital- or emissions-weighted terms and both approaches are used in the specification of targets set out in the NZIF. Although an emissions-weighted metric is arguably more relevant to net zero goals, a capital-weighted metric is potentially more useful for portfolio construction.

#### Direct vs indirect ownership

As is the case for many asset owners, WTW utilises external managers for implementation, and in the vast majority of cases does not directly hold the underlying securities in the portfolios that we manage. This means that management action will, initially at least, be focussed on engaging with our underlying managers and/or understanding the quality of the data used to assess alignment. Other actions that could be taken in response to climate performance outcomes that are not in line

with our targets include designing better mandates and indices and a range of portfolio construction responses (e.g. changing manager configuration, finding new climate-positive investment ideas etc...).

### Approach taken and outcomes

Reflecting the challenges above, WTW has taken an “alignment categorisation” approach to assessing portfolio alignment. This is essentially the equivalent of a binary target approach but with multiple discrete descriptions of the degree of alignment. We believe that this approach is more appropriate for an asset owner context where having a broad understanding of the degree of alignment of a wide range of potential assets is more important than having a single figure measure of alignment like ITR.

A key advantage of an alignment categorisation approach is that it allows different data points to be used to inform the assessment of alignment in different asset classes while resulting in an overall figure that is in the same “unit” across asset classes and can therefore be aggregated to total portfolio level. It should be noted however that the challenges presented by different levels of sophistication of the underlying approach still remain as data availability and granularity/sophistication varies across asset classes.

The NZIF sets out recommended approaches to assessing alignment of individual securities/assets in listed equity, corporate credit, real estate and sovereign bonds (draft guidance is available for private equity, infrastructure and hedge funds). The approach for a given asset class generally uses a range of asset class-specific indicators in a “decision tree” that is used to determine whether a security is “committed to aligning”, “aligning”, “aligned” or “net zero”. In the case of sovereign bonds the recommended approach is the Germanwatch Climate Change Performance Index which translates a number of metrics for each sovereign into a 0-100 score which is used to divide countries into alignment tiers which can be mapped to the NZIF alignment categories.

The result of applying the alignment approaches set out in the NZIF as at 31 December 2021 to a multi-asset portfolio that WTW manages is set out below:

Asset class	Allocation	Emissions (tCO2e)	Emissions contribution	% Emissions Aligned	% Emissions Aligning	% Emissions Not aligned	Contribution to misaligned emissions
Equities	38%	26,066	27%	4%	36%	60%	25%
Real Assets	18%	22,058	23%	15%	41%	44%	15%
Credit	14%	33,026	34%	2%	14%	84%	44%
Diversifying Strategies	30%	15,267	16%	3%	34%	63%	15%
<b>Total portfolio</b>	<b>100%</b>	<b>96,417</b>	<b>100%</b>	<b>6%</b>	<b>29%</b>	<b>65%</b>	<b>100%</b>

Source: WTW, Climate Action 100+, Factset, Germanwatch, MSCI, Transition Pathway Initiative, Science Based Targets Initiative

Note: in the table above “committed to aligning” and “aligning” have been consolidated into a single “aligning” category and “aligned” and “net zero” have been combined in the “aligned” category.

**Initial observations on the results are:**

- At a total portfolio level around 35% of financed emissions have been assessed as aligning or aligned using the NZIF framework which indicates that there is material scope/work to be done to improve alignment across most asset classes in the portfolio. On a capital/AUM weighted basis this figure is slightly higher at 45%.
- The credit assets in the portfolio are the primary driver of misalignment, both having the highest contribution to financed emissions as well as misaligned emissions with 85% of emissions associated with credit strategies assessed as not aligned. In particular, the contribution of credit to both financed and misaligned emissions is significantly higher than its capital allocation in the portfolio, indicating that, in isolation, credit strategies are “over contributing” to portfolio emissions and misalignment<sup>1</sup>.
- Real assets are also a material contributor to portfolio emissions, however over 50% of emissions are assessed as aligning or aligned, suggesting that addressing this part of the portfolio is a lower priority at this point in time.
- A key management action in response to the CJP outcomes illustrated above is therefore to carry out a “deep dive” into the credit strategies in the portfolio – this is explored in the following sections.

**Future work**

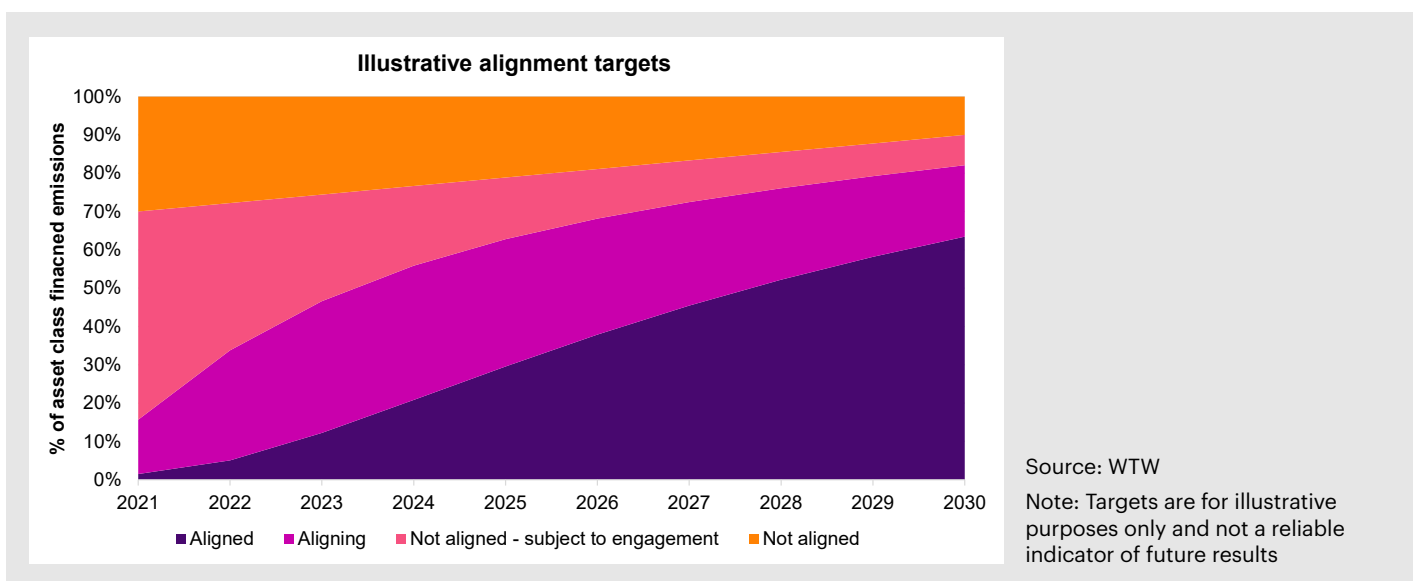
A key priority for WTW relating to portfolio alignment metrics is the formalisation of alignment targets at the asset class level. The NZIF describes two targets relating to portfolio alignment:

- A portfolio coverage target for the % of AUM that is assessed as net zero, aligned or aligning (with the expectation that this target increases to 100% by 2040); and
- An engagement target which ensures that at least 70% of financed emissions in material sectors are assessed

as net zero, aligned or are subject to engagement and stewardship activity (increasing to 90% by 2030).

WTW had not set portfolio coverage targets at end-2021 as this was the first time at which portfolio alignment had been measured across our portfolios in a structured way. The intended framework for developing portfolio coverage and engagement targets across our portfolios is as follows, although we will need to be realistic about timeframes given the amount of work required:

- Understand the current degree of misalignment in portfolios and identify managers with whom we should be engaging directly in order to ensure that at least 70% of emissions in each asset class are (using the WTW classification above) aligned, aligning or subject to engagement/stewardship activities<sup>2</sup>.
- Assess the likely timeframe over which engagement activities will result in improvements in the alignment of individual strategies, balancing the need to achieve progress at a reasonable pace against the feasibility of achieving progress. These timeframes will likely vary across asset classes reflecting factors including the degree of influence our outsourced managers have over the underlying assets (e.g. direct real estate vs corporate credit).
- Translate the above into a set of targets for the various alignment categories assuming that underlying strategies are progressively transitioned from “not aligned, under engagement” to “aligning” to “aligned” over time. The result of this will be targets for the “aligned” category that increase progressively over time and targets for the “aligning” category that increase initially (due to strategies moving into the aligning category from the large proportion of emissions that are misaligned) and then flatten out/decrease as the target level of aligned emissions is achieved. An illustrative example of what this might look like for the credit part of the portfolio analysed above is set out below:



<sup>1</sup>The latter observation should be interpreted carefully noting that different asset classes should have different contributions to total portfolio climate goals and the need to balance these against financial goals and other dimensions of portfolio quality.

<sup>2</sup>WTW employs an outsourced provider to carry out engagement and stewardship activities across our listed equity exposures in addition to the stewardship of the underlying managers, and the assessment of diversifying strategies is largely based on proxies therefore this would be focussed primarily on credit and real assets.

## Climate performance assessment using multiple metrics and associated actions

### Introduction

While in principle if it were possible to define a “perfect” alignment metric this could be a primary measure of climate performance, the measurement of progress towards stewarding the transition to a net zero and climate-resilient economy is an important and complex issue and there is no single definitive metric that can be used to adequately measure progress. As a result, the measurement of progress against climate goals requires the use of multiple metrics in the form of a climate dashboard or balanced scorecard that considers the multiple dimensions of “success”.

Therefore, although portfolio alignment metrics are a core element of the “comply or explain” framework used to determine if management action is required in response to the trajectory of portfolio emissions being above the range set out in the CJP, progress towards this goal needs to be achieved with reference to clients’ financial goals as well as the need to contribute to reduction in system-level emissions (e.g. by investment in climate solutions). WTW believes that there are a number of areas where the use and interpretation of portfolio alignment metrics can be enhanced by consideration of other metrics, including:

### Transition risk

While portfolio alignment metrics look at the strength of a company’s commitment to decarbonise their operations and products, transition risk metrics provide insight into the alignment of a company’s operations with the required economic transition as a company that has a more aligned operating model should be subject to lower economic costs/greater economic benefits in a transition than a company whose operating/business model is misaligned. Our analysis suggests that the correlation between these two types of metrics is typically not that high, yet for most investors the true financial risk of the transition is the most important metric of all. It is for this reason that we have our own proprietary Climate Transition Value at Risk (CTVaR) measure that does exactly this. WTW has a climate transition analytics team of over 20 (part of a wider climate team of over 70) that focus entirely on this.

### Transition finance

One shortcoming in a number of portfolio alignment metrics is that they can potentially give a false impression of achievement of goals, e.g. if the market ITR is 3°C, an individual portfolio with an ITR of 1.5°C is still exposed to the physical and systemic risks associated with a 3°C world. In addition, our observation is that most portfolio alignment metrics do not do a good job of capturing climate solutions, e.g. companies that make relatively little contribution to real world emission reductions can have low ITRs whereas genuine climate solutions (e.g. high emitters that are transitioning and/or are enabling other sectors to transition) might have relatively high ITRs.

### Engagement

It is often companies that have impact on climate outcomes, and while investors can/should influence the magnitude of this impact, much of the climate reporting currently produced can give the impression that the investor is the entity driving the impact which is in the main not the case. It is therefore important to provide evidence of additionality through engagement and other stewardship activities as a complement to measures that illustrate the alignment of a portfolio.

### Physical risk

Physical risks are by nature not captured by alignment measures as these consider Paris-aligned pathways which by definition look to mitigate physical risks. However, these are a key consequence of climate change outcomes resulting from increasing temperatures and are therefore important for investors to consider. Although these can be difficult to quantify there are a number of suitable approaches that exist which are most suited to physical assets with known locations (e.g. real estate assets, infrastructure projects etc...) and methodologies that can be applied to strategies with many underlying assets (e.g. listed equity) are rapidly evolving. Again this is an area WTW has spent a lot of time on as part of our leadership of the Coalition for Climate Resilient Investment group set up by the World Economic Forum.

### Challenges and learnings

The key challenges that were encountered in designing and applying climate dashboards were:

#### Metric selection

There is a wide range of climate metrics available, and the space is rapidly developing. This means that organisations need to both consider which metric(s) are most appropriate for their use case and stakeholders, and be open to evolving their reporting frameworks over time.

#### Multi-asset context

As was the case with portfolio alignment, the multi-asset nature of the portfolios managed by WTW (and most other asset owners) creates challenges relating to the complexity arising from needing to use different metrics for different parts of the portfolio, comparability between asset classes and aggregation to total portfolio level.

#### Data availability

The availability of suitable data also varies significantly across asset classes and in a number of cases there are either material gaps in coverage (e.g. a number of corporate credit strategies) and/or look-through to portfolio level is not readily available and proxies need to be used (e.g. hedge funds, private markets). Broadly speaking, data for underlying strategies can be split into the following categories:

Data category	Example	Indicative PCAF <sup>1</sup> data quality score
Holdings based data	i.e. security level data for the strategy is available that can be mapped to this to issuer-level emissions data from an ESG data provider	1 to 2
Other asset-based data	Data obtained for a strategy via a data provider (e.g. GRESB for unlisted real estate funds) or reported directly by an outsourced asset manager	2 to 4
Proxy based on a granular strategy detail	Proxy portfolio based on country and GICS sub-sector exposures for a private equity strategy	4 to 5
Proxy based on a high-level strategy detail	Proxy portfolio based on regional and high-level sector composition, indicative asset allocation for a diversified growth fund applied to benchmark exposures	5

### Market comparators/benchmarks

While absolute targets can be readily defined for some metrics, in other categories (e.g. transition risk) it is not immediately obvious what an absolute hurdle for “success” is. In addition, although absolute targets for metrics like carbon emissions and alignment are important, the achievement of these by an asset owner will be in part driven by the progress of the broader market and therefore comparisons to relevant market benchmarks can also help to provide context when interpreting outcomes. Comparisons of climate metrics against market comparators/benchmarks may be particularly important for investors with a strong alpha-seeking focus.

### Approach taken and outcomes

#### Chosen metrics

In constructing the climate dashboards that we use to assess progress against net zero goals we utilise the categories of metrics defined by the Climate Financial Risk Forum as set out below:

Category	Use case
Impact of climate change on a firm	1. Transition Risks 2. Physical Risks
Impact of the firm on climate change	3. Portfolio decarbonisation 4. Mobilising transition finance
Cross-cutting	5. Engagement

Source: Climate Financial Risk Forum

In adapting this framework to an asset owner/manager context we:

- Split out portfolio alignment as a separate category from other portfolio decarbonisation metrics, recognising the importance of these as a measure of success on a standalone basis and a key part of our “comply or explain” framework.
- Treat engagement separately through case studies and narrative that evidence our additionality, noting the difficulty of aggregating engagement metrics/statistics across multiple asset classes.

The metrics that we have used under each of the major categories are set out in the table on the following page – these were selected based on the criteria set out in both the TCFD recommendations and the October 2021 report on Measuring Portfolio Alignment from the Portfolio Alignment Team<sup>2</sup>.

A key feature of all of the metrics is that, as was the case with “categorisation” approaches to portfolio alignment, they allow the use of different asset class-specific inputs to be used to derive an overall metric that can be aggregated across the portfolio.

<sup>1</sup>PCAF data quality category/categories corresponding to each data type, see below for further detail. <https://carbonaccountingfinancials.com/files/downloads/PCAF-Global-GHG-Standard.pdf>

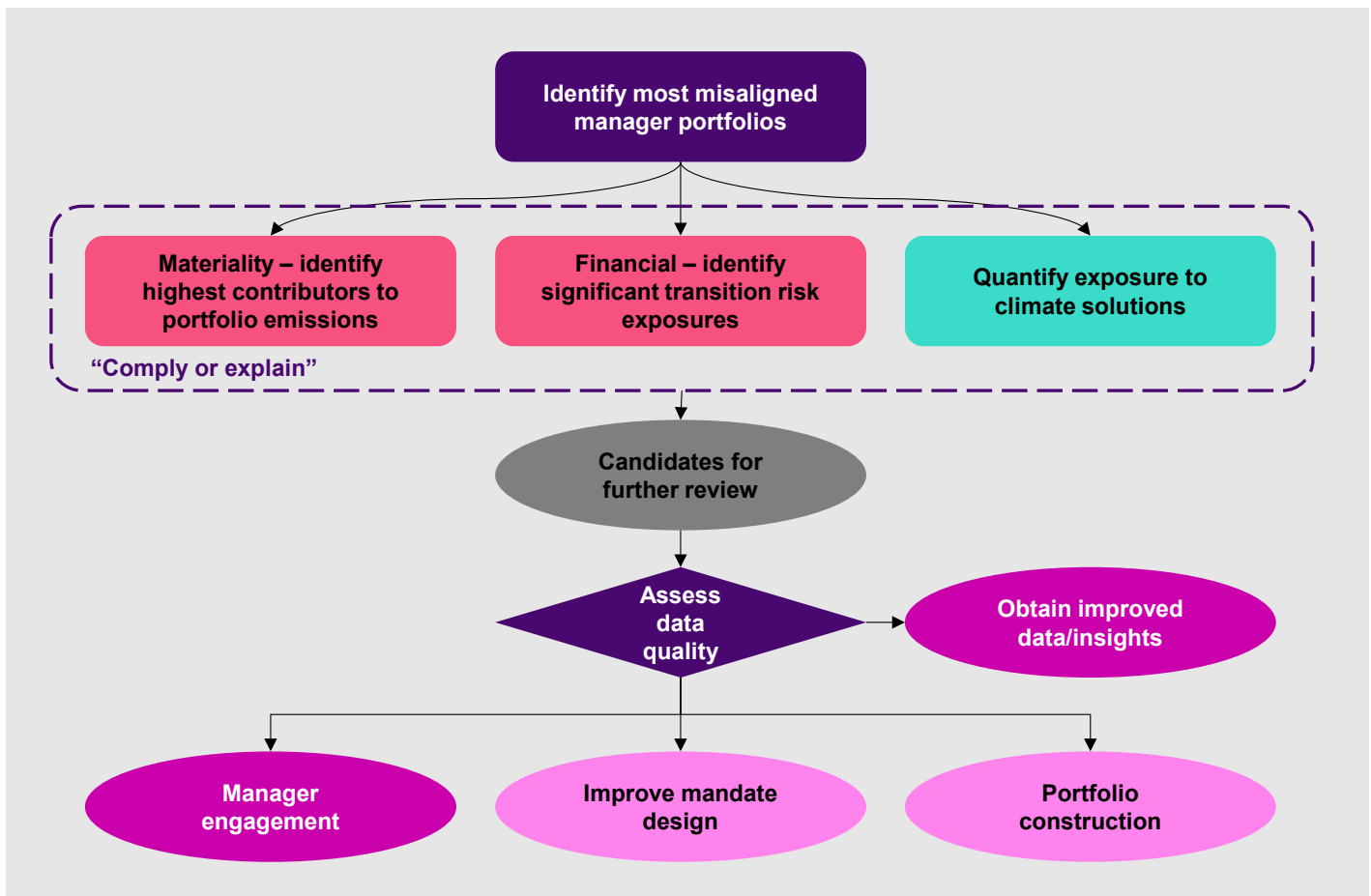
<sup>2</sup>The criteria applied were that metrics should be, to the extent possible, simple to use, transparent, robust, forward-looking, broadly applicable, aggregable and incentive optimal.



Dimension	Category	Description	Chosen metrics
Impact of the portfolio on climate outcomes	Carbon	Current portfolio emissions and/ or emissions intensity	Absolute emissions Carbon footprint – emissions / \$ invested
	Alignment	Proximity of underlying assets to plausible Paris pathways	% emissions aligned with a Paris pathway (using NZIF criteria)
	Transition finance	Contribution to emission reductions in the real economy	% portfolio allocated to climate solutions (using EU Taxonomy or IIGCC definitions)
Impact of climate outcomes on the portfolio	Transition risk	Portfolio exposure to climate transition risks	Expected change in asset prices resulting from a Paris transition being priced (referred to as Climate Transition Value-at-Risk or CTVaR)
	Physical risk	Potential cost from acute and chronic physical perils in a BAU scenario	% portfolio exposure to key physical perils

**Use of portfolio alignment and other metrics to prioritise management action**

In order to ensure that client financial goals and the need to contribute to system-level emission reductions are reflected when applying portfolio alignment metrics, the diagram below summarises the framework that will likely be applied by WTW to prioritise management action and help develop climate action plans<sup>1</sup> in response to the first round of assessment against our net zero pledge as at end-2021.



<sup>1</sup>WTW applies the ICAPS expectations ladder and associated frameworks developed by the Investor Agenda when developing climate action plans for the portfolios we manage.

Under the framework above the starting point is to use the portfolio alignment metrics to identify which manager portfolios are least aligned with Paris-consistent scenarios. The “comply or explain” framework then considers:

- Materiality – i.e. managers that contribute more to financed and misaligned emissions either in total or relative to their capital weight should be given more attention.
- Financial risk – i.e. managers that have higher exposure to transition risk are holding companies/assets whose business operations are misaligned with a Paris-aligned pathway and are of higher priority for management action as they represent a greater risk to client portfolios.
- “Real world” contribution – i.e. managers that are misaligned based on emissions profile but make a significant contribution to financing climate solutions are of less concern.

Once candidates for further review/engagement are identified the quality of the underlying data used to derive the various climate metrics is considered:

- Where metrics for a given manager have been derived using proxies or other approximations this is then a trigger to obtain improved data for the strategy in question (e.g. directly from the manager or by obtaining asset class-specific data) – noting that this does not preclude the manager engagement activities described below.
- Where metrics are based on data of sufficiently high conviction then this is a trigger for engagement with the manager to understand their views on/insights into the drivers of misalignment of their portfolios, whether misaligned companies/securities in their portfolios are subject to engagement or other stewardship activities and/or discuss other potential actions.
- Additional actions that could be considered, particularly if engagement activity does not result in the desired increase in portfolio alignment, are improving the design of individual mandates/indices and a range of portfolio construction responses including changing manager configurations, finding new climate-positive investment ideas etc...

The table below shows a heatmap assessment of the individual managers in the portfolio analysed previously and the resulting suggested management actions that will be considered resulting from applying the framework described above:

Asset Class	Manager	Level of misalignment	Contribution to misaligned emissions	Transition risk exposure	Climate solutions	Data quality	Suggested management action
Equities	Manager 1	High	Medium	Medium	Low	High	No near-term action
Equities	Manager 2	Medium	Medium	Medium	Medium	High	No near-term action
Equities	Manager 3	Medium	High	High	Low	High	No near-term action
Real Assets	Manager 4	High	High	Medium	High	High	No near-term action
Real Assets	Manager 5	High	High	High	Low	High	High priority engagement target
Credit	Manager 6	High	Medium	High	Low	High	Low priority engagement target
Credit	Manager 7	Medium	Medium	Medium	Low	High	Medium priority engagement target
Credit	Manager 8	High	Medium	High	Low	High	High priority engagement target
Credit	Manager 9	High	High	Medium	Low	High	High priority engagement target
Diversifying Strategies	Manager 10	Medium	High	Medium	Medium	Low	Prioritise data quality improvements

Key: ■ Low ■ Medium ■ High

Source: WTW

Note: This case study is an illustration of our capabilities. Results may vary and there can be no guarantee of similar results.

## Future work

Future work that is planned in respect of the climate dashboard and the application of the underlying metrics is:

- Management action – a key area of focus will be carrying out the various engagement and data improvement actions identified in the analysis above, alongside consideration of potential improvements to mandates, portfolio construction changes, new strategies etc...
- Broader application of climate metrics – e.g.
  - Implementation of NZIF guidance on alignment measurement other asset classes when finalised (private equity, infrastructure, hedge funds)
  - Extension of the WTW CTVaR methodology across more asset classes.
  - Application of more sophisticated approaches to assessing physical risks, particularly for corporate assets with many underlying operating assets.
- Portfolio construction integration – given the outcomes of the analysis above it would be logical to further integrate climate metrics (in particular portfolio alignment and transition risk) into bottom-up portfolio construction, the framework for comparing strategies on a competition for capital basis (i.e. whether to add a new opportunity to the portfolio and if so what should be sold in order to fund this).
- Improve data integrity by reducing proxy information across asset classes and consideration of external verification.

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