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Net-Zero Alignment: Beyond the Numbers

As governments worldwide increasingly commit to net-zero greenhouse gas emissions targets, companies and investors recognize the need to manage the risk of misalignment with those commitments.

Corporate commitments and emissions-reduction plans are not always science-based or realistic, however, and the data available for assessing alignment is often incomplete and backward-looking. That makes it tempting to rely on one of the many new "Paris-Aligned" or "Climate Transition" indices as a reference point, but we argue that the European Union regulation defining the parameters of these benchmarks is flawed, forcing them to achieve emissions reduction with the blunt instrument of reducing the weight of high-emitting sectors.

That is why we believe investors must make their own assessment of companies' net-zero alignment, and why we think those assessments should be informed by fundamental-research capabilities that can fill the gaps in the data with specialist, real-time insight. Neuberger Berman's Net-Zero Alignment Indicator is designed to answer this need.

In this paper, we describe how the Indicator works, and why we think it is necessary for any investor wanting to assess companies' progress on emissions reduction, and identify where they might help to drive that progress.

Executive Summary

- In our view, the degree to which investment portfolios are aligned with the broadly adopted policy target of net-zero emissions by 2050 represents an important source of risk and opportunity.
- A number of "Paris-Aligned" or "Climate Transition" index benchmarks have appeared on the market, but they suffer from flaws due to incomplete data and poorly conceived parameters in the benchmark regulation.
- We believe investors must make their own assessment of companies' net-zero alignment, and that these assessments should be informed by fundamental-research that complement reported data.
- The Net-Zero Investment Framework (NZIF) developed by the Institutional Investor Group on Climate Change (IIGCC) provides a useful model, particularly in terms of its forward-looking emphasis and its recognition of sector differentiation.
- The NB Net-Zero Alignment Indicator builds on the IIGCC NZIF.
  - Quantitative scores draw on multiple third-party data points
  - Qualitative inputs from specialist research analysts can override the initial quantitative scores
- Real-world examples of analysts overriding initial quantitative scores demonstrate the critical importance of this analyst input in the process.
- Where an investor has a substantial company engagement program, the NB Net-Zero Alignment Indicator introduces an additional feedback loop: insights from engagement feed into the scores, and those evolving scores then help us to track and focus engagement on issuers' specific areas of weakness.

Climate change is a financially material issue affecting virtually all industries and asset classes. In our view, the degree to which investment portfolios are aligned with the broadly adopted policy target of net-zero emissions by 2050 represents an important source of risk and opportunity.

In November 2022, we wrote about 11 key issues asset owners should consider if they have adopted net-zero commitments in their portfolios. One of these considerations is the need to set and deliver on portfolio net-zero targets.[1] Even investors without explicit net-zero commitments of their own may want to know which companies may be leading or lagging in their pursuit of a net-zero commitment. This will require investors to measure and monitor corporate emissions-reduction progress with rigor and, where they do have net-zero portfolio targets, identify where and how they might help to pursue such targets.

"Rigor" is the key word, here. Of the world's largest publicly traded companies, 41% have made public net-zero commitments, and it is reported that more than 4,500 companies are now working with the Science-Based Targets initiative (SBTi) to set emissions reduction targets.[2] However, a recent report from the CDP (formerly the Carbon Disclosure Project) shows that, in spite of those commitments, companies are not developing credible transition plans fast enough: among 18,600 companies globally, only 0.4% have developed what the CDP considers to be a credible transition plan. In particular, companies lack the right financial planning, targets, and strategy to execute their commitment.

Moreover, good data is hard to come by. The IIGCC recently published a guide for investors on how to engage with private data vendors to help improve the quality and usability of the data that goes into net-zero alignment assessments and target setting, because it found the coverage provided by the 16 leading vendors it assessed to be inconsistent, "ranging from multiple options for well-covered criteria (e.g. decarbonisation targets) to scarce for more innovative criteria (e.g. CAPEX alignment, just transition)." At the moment, the IIGCC notes, investors need to "aggregate multiple datasets and assess an asset's performance internally, which is especially problematic for investors with constraints on resources and technical expertise."[3]

[1] https://www.nb.com/en/us/insights/whitepaper-key-considerations-when-navigating-the-net-zero-transition
[2] https://zerotracker.net/ and https://sciencebasedtargets.org/companies-taking-action
[3] https://www.iigcc.org/resource/six-asks-of-data-vendors-improving-net-zero-data-provision/

It is Tempting to Follow a Net-Zero Index—But Suboptimal

Faced with this challenge, it may be tempting simply to track or refer to one of the net-zero benchmarks currently available or being developed by index providers and climate data vendors. These have proliferating since the appearance, in 2019, of the European Union's regulation covering "Paris-Aligned" and "Climate Transition" investment benchmarks (PABs, CTBs).

However, as the IIGCC put it in a recent paper on "Enhancing the Quality of Net Zero Benchmarks," while this regulation has "provided a step in the right direction," it "does not meet the full ambitions of an investor targeting net zero."[4]

To understand why, consider that the E.U. regulation requires that a benchmark must exhibit a 50% reduction in carbon intensity versus the broad index at launch to qualify for the sought-after PAB label. Traditional measures such as carbon footprint and carbon intensity are useful, in that they are comparable across companies and portfolios, but there are major pitfalls associated with relying heavily on them for net-zero alignment assessments.

For example, they are backward-looking and can lag financial disclosures by two years or more. Economic and other macro shocks can change these metrics without changing a company's overall emissions profile—think of how a recession lowers carbon-intensive manufacturing, for example, or how the pandemic decimated air travel.

Perhaps most importantly, they are insensitive to the specifics of particular sectors: given the feasibility of renewable energy solutions for electrical utilities, it might be reasonable to expect those companies to front-load their emissions reductions, perhaps achieving 50% by 2030; for aviation, however, a 25% reduction by 2030 followed by faster reductions thereafter might be more realistic, given the current limitations of sustainable aviation fuel options. As a result, the IIGCC observes, "benchmarks implementing the regulations have a tendency to comply with emission reduction targets through capital reallocation, achieving emissions reductions by reducing the weight of the highest emitting sectors relative to others."[5]

That not only results in major sectoral bets against the broad market. It also forgoes what we believe are significant opportunities to provide capital to, and engage with, businesses that have credible opportunities to improve their emissions performance. We agree with the IIGCC that this bias against inclusion and engagement and toward divestment is not "best practice"—which should "aim to promote real world emissions reductions" rather than just reported emissions in portfolios.[6]

For these reasons, investors who want to include transitioning businesses as well as low-emission businesses in their portfolios cannot rely on the current index benchmarks, in our view. We believe investors need to be able to identify those companies that are genuinely willing and able to reduce emissions, and carry out rigorous ongoing measurement and monitoring of their progress.

This is the case for developing a way to assess net-zero alignment independently, and what motivated us to develop our own Net-Zero Alignment Indicator.

Net-Zero Alignment Indicator Quantitative Input: Multiple Data Points, Forward-Looking, Sector-Appropriate

Being forward-looking and sector-specific are important considerations evident in the Net-Zero Investment Framework (NZIF) developed by the IIGCC, which sets out the criteria a company should meet to be considered net-zero aligned.[7] This framework provided the starting point for development of our own Indicator.

The NB Net-Zero Alignment process involves three steps:

1. Generating a quantitative score for six net-zero alignment sub-indicators
2. Analyst validation, with the option to override the initial quantitative scores
3. Summing those scores into a final net-zero alignment score, mapped to a net-zero alignment status

[4] IGCC-Enhancing-the-Quality-of-Net-Zero-Benchmarks.pdf
[5] IGCC-Enhancing-the-Quality-of-Net-Zero-Benchmarks.pdf
[6] IGCC-Enhancing-the-Quality-of-Net-Zero-Benchmarks.pdf
[7] https://www.iigcc.org/download/net-zero-investment-framework-implementation-guide/?wpdmdl=4425&refresh=63052325dd0171661281061

Our quantitative process currently involves gathering more than 30 binary and numerical data points from third-party vendors. These feed into the six sub-indicators listed below, which mirror the criteria set out by the IIGCC. Note that sub-indicators 1, 2, 5 and 6 are all forward-looking. As the accuracy and availability of data improves, we expect to be able to accommodate new data points and even new sub-indicators when appropriate.

The current sub-indicators are:

1. Long-Term Ambition
2. Short- and Medium-Term Targets
3. Emissions Performance
4. Disclosure
5. Decarbonization Strategy
6. Capital Allocation

We found a binary Aligned/Not Aligned scoring system to be insufficient to capture the nuances of many companies' status and progress, so we generate a score between 1 (lowest) and 5 (highest) for each of the six sub-indicators, using the relevant items from our set of 30-plus data points from third-party vendors. We aim for data redundancy by drawing on multiple data points for each component of each sub-indicator, where possible, so that if one third-party vendor is missing data for a company, we give that company a further opportunity to source this data from another provider. We also think some data inputs are more credible than others. Having an approved Science-Based Target, for example, should count for more than announcing a minimal reduction target in operational emissions. To reflect this, some data points contribute more to the sub-indicator score than others.

Sector-appropriateness is built into the quantitative process in two ways.

First, a number of the data points we use come with sector-specificity built in. For example, for the same data point on decarbonization strategy, a bank's strategy would be scored on green finance targets, whereas an auto manufacturer's would be scored on electric vehicle revenue targets and a utility's would be scored on the target for renewables in its energy mix.

Second, while we apply every criterion to all companies, we give issuers in sectors that are classified as low-impact by the IIGCC a +2 boost to their scores on "Long-Term Ambition" and "Short- and Medium-Term Targets" (subject to a capped total score of 5 for each sub-indicator), to recognize the lesser importance this action has when the hurdle to achieving net-zero emissions is lower.

The sub-indicator scores, along with the low-impact boost where applicable, are then summed to generate an overall net-zero alignment score between 1 and 30, and that overall score is used to map and assign the issuer one of five alignment statuses:

1. Achieving net zero
2. Aligned with a net-zero pathway
3. Aligning with a net-zero pathway
4. Committed to aligning with a net-zero pathway
5. Not aligned

We assign one alignment status per company, which is agreed and applied across asset classes.

[1] https://www.iigcc.org/download/net-zero-investment-framework-implementation-guide/?wpdmdl=4425&refresh=63052325dd0171661281061

1 **LONG-TERM AMBITION**

Assesses whether an issuer has a credible, stated goal of reaching net-zero emissions by 2050

2 **SHORT- AND MEDIUM-TERM TARGETS**

Assesses whether an issuer has credible, stated short- and medium-term emissions targets that cover all relevant emissions scopes

3 **EMISSIONS PERFORMANCE**

Assesses whether an issuer's historical, current and projected emissions puts it on track to achieve a net-zero goal

4 **DISCLOSURE**

Assesses the quality of an issuer's emissions disclosure across Scope 1, 2 and material Scope 3 emissions

5 **DECARBONIZATION STRATEGY**

Assesses whether an issuer has a credible, quantified strategy to decarbonize its business model over time

6 **CAPITAL ALLOCATION**

Assesses whether an issuer's capital allocation decisions are consistent with a net-zero goal

Qualitative Input: The Critical Contribution of Analysts

Our analysts act as overseers and potentially overriders of the quantitative scoring for each issuer. The analyst sees all of the data points gathered from third-party vendors, and the resulting preliminary score, from 1 to 5, for each of the six sub-indicators. At this point, should the analyst covering an issuer believe that any of these scores merit an upgrade or downgrade, they can override it, but each override must be backed by evidence from a direct engagement with the company, the company's sustainability report, or a credible third-party source.

Why do the quantitative inputs require analyst oversight? Because some of the data is backward-looking, some is reported with substantial lags, and most covers only public-listed, large-cap, investment-grade and developed-market issuers. Analysts with multi-year experience of an issuer may have more up-to-date or nuanced intelligence on particular net-zero alignment criteria. Their fuller understanding of the sector they specialize in may also provide important insights, particularly when assessing whether capital allocation and research-and-development plans make the most of a company's capacity through available technologies to decarbonize its business model. In this way, they deepen the forward-looking and sector-specific aspects of the IIGCC's criteria. In fact, having analyst input enables us to score many companies that would not otherwise be captured by traditional ESG data providers, either because they are privately owned or because they are important bond issuers but small in the equity market. This is another reason why we believe net-zero alignment is best approached actively rather than passively.

We believe analysts can bring these invaluable real-time insights to the assessment of all six of the net-zero alignment sub-indicators.

1. Long-Term Ambition

What has the company committed to?

- Board has understood the strategic importance of transition
- Strategic decision making factors in climate
- Trust and belief in company executive to execute on commitments

2. Short- & Medium-Term Targets

How has the company followed up their commitment with credible targets?

- All climate targets and commitments should be informed by current emissions performance metrics, to understand whether the target of commitment is credible

3. Emissions Performance

How is the company tracking progress toward the targets?

- Current emissions intensity performance relative to targets
- Given data lag in emissions disclosures through third-party data providers, analysts can often provide more recent figures

4. Disclosure

How is the company reporting progress toward the targets?

- Disclosure of Scope 1, 2 and material Scope 3 emissions
- Analysts opine on credibility of disclosures and can often provide more recent figures

5. Decarbonization Strategy

Does the company have credible plans to decarbonize?

- Demonstration of a credible plan for reaching net zero in the context of what is feasible given technology and sector expectations

6. Capital Allocation

Is the company dedicating resources to decarbonize?

- Identify sector-specific technology innovation feasibility
- Demonstration of capital expenditure and budgeting to deliver GHG target

To demonstrate what this means in practice, here are two examples of meaningful interventions made by our own analysts, one concerning a privately-owned company and the other a public company.

JAGUAR LAND ROVER

Indicator	Quant Score (1-5)	Analyst-Adjusted Score (1-5)	Score Breakdown
1. Long-term Ambition	5	5	Net-zero commitment captured by SBTi
2. Short- and Medium-Term Targets	4	4	Short- and medium-term targets validated by SBTi
3. Emissions Performance	1	3	Declining emissions intensity trajectory over a three-year period
4. Disclosures	1	4	Discloses Scope 1 and 2 emissions
5. Decarbonization Strategy	1	3	Confirmed quantified decarbonization strategy
6. Capital Allocation	1	1	Does not have a capital allocation strategy in place or any basis to estimate green capex
Total Score	13	20	Aligning

"As a private company, many of Jaguar Land Rover's efforts to transition to net zero were not captured by traditional ESG data providers. Based on our knowledge of the company and its public sustainability reporting, we were able to evidence upgrades for three sub-indicators. We identified full and transparent Scope 1 & 2 absolute emissions disclosures, and documented consistent declines in emissions intensity over a three-year trajectory. We also noted the company's decarbonization strategy included a goal to engage with all Tier-1 suppliers on setting science-based targets, as well as specific quantified targets to increase pure electric vehicles to 27% of overall sales by 2025/2026, and to 60% by 2030."

Tom Tharayil, Senior Research Analyst—Non-Investment Grade

PLAINS ALL AMERICAN PIPELINE

Indicator	Quant Score (1-5)	Analyst-Adjusted Score (1-5)	Score Breakdown
1. Long-term Ambition	1	1	Confirmed lack of net-zero commitment
2. Short- and Medium-Term Targets	1	1	Confirmed lack of short- and medium-term targets
3. Emissions Performance	3	1	Insufficient data to validate emissions performance over time
4. Disclosures	4	4	Discloses Scope 1 and 2 emissions
5. Decarbonization Strategy	1	1	Confirmed lack of quantified decarbonization strategy
6. Capital Allocation	1	1	Does not have a capital allocation strategy in place or any basis to estimate green capex
Total Score	11	9	Not Aligned

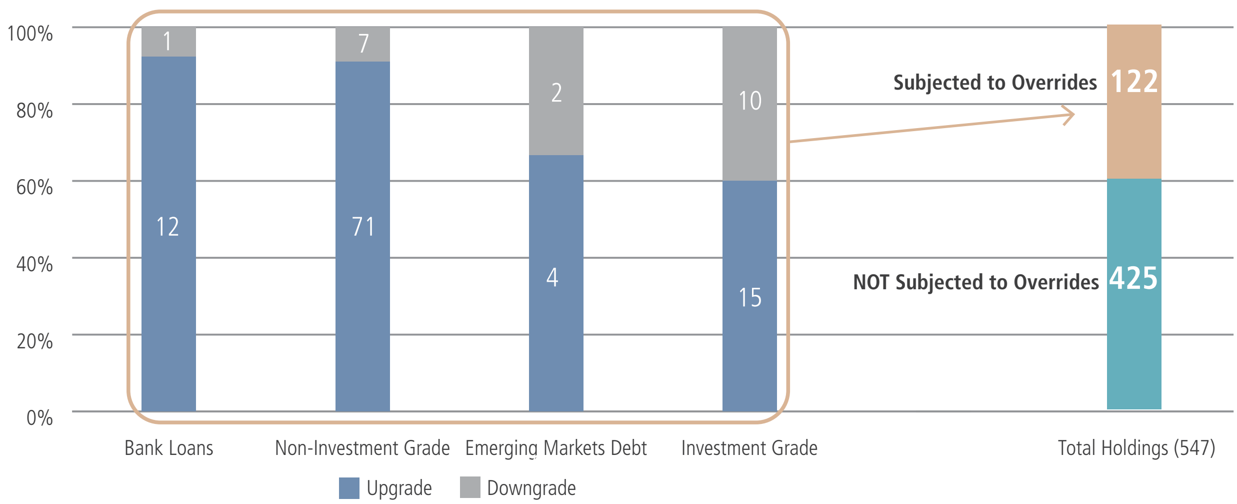
"For Plains All American Pipeline, limited data availability and disclosures from the company were erroneously translated into an implied temperature rise of 2°C. In our view, there was insufficient reported data to establish either a three-year declining emissions intensity trend, or compatibility of the company's current emissions intensity with Paris-aligned emissions pathways. On that basis, we downgraded the emissions performance sub-indicator. For this type of issue, we would typically start by engaging on improving disclosure, followed by making a net-zero commitment, and ultimately monitor how this affects emissions performance over time. As such, we engaged with the issuer on formalizing an emissions reduction pathway with quantitative targets. While the issuer will include an emissions reduction plan in its next ESG report, it told us it will not commit to specific targets in the report nor does it plan to establish quantitative targets in the future. The information gained through our engagement activity reinforces our downgrade of the Net-Zero Alignment Indicator and underlines our view that the issuer is a laggard compared to peers."

Kelly Weber, Senior Research Analyst—Investment Grade

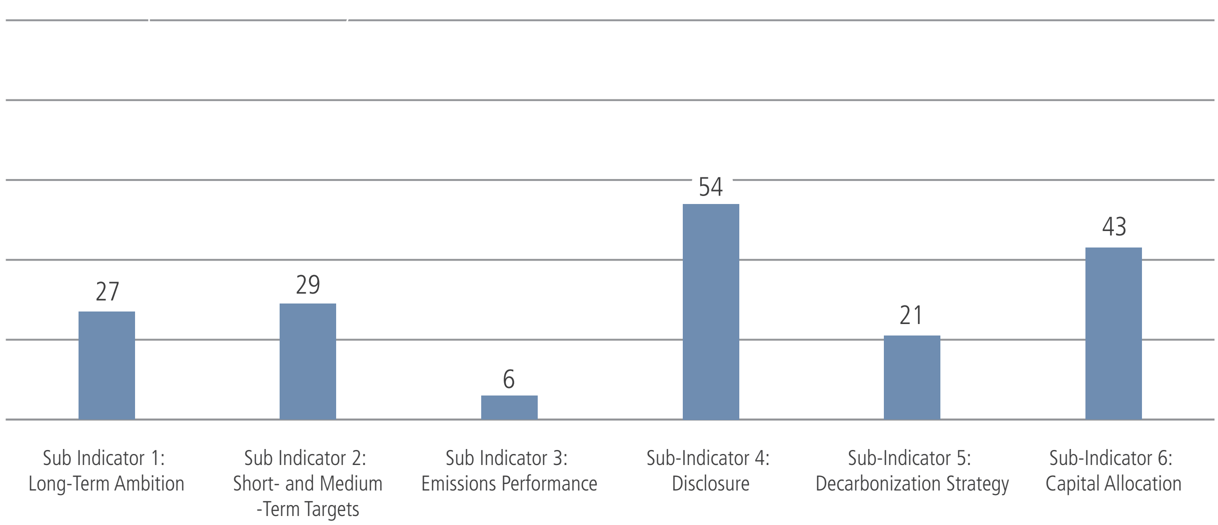
As active managers, we strongly believe that data is only the starting point when it comes to ESG analysis, and that analyst judgement is essential. To illustrate the importance of this stage to our Net-Zero Alignment Indicator process, let's look at the override results we saw from the first Indicator assessment of our Climate Transition Multi-Asset credit strategy, which deploys multiple tools in pursuit of a goal of net-zero emissions.[8]

FIGURE 1. TOTAL ANALYST OVERRIDES IN A TYPICAL NB CLIENT PORTFOLIO WITH A NET-ZERO EMISSIONS GOAL

Number of holdings assessed by the NB Net-Zero Alignment Indicator and subject to at least one analyst override, by asset class



Number of analyst overrides by sub-indicator within the Net-Zero Alignment Indicator



Source: Neuberger Berman. For illustrative purposes only.

[8] For more detail on how we align a credit portfolio with net-zero goals, see https://www.nb.com/en/us/insights/whitepaper-transitioning-to-net-zero-in-credit-portfolios

The thing to notice here is not simply the large proportion of scores that get overridden by analysts but the distribution of overrides across asset classes and the six sub-indicators. This confirms our intuition about the additional insights our analysts can bring.

Scores associated with issuers of bank loans and high yield bonds were subjected to the largest proportion of upgrades by asset class, which is consistent with lower availability of quantitative data and third-party assessments for issuers active in those markets.

Sub-indicators 4, "Disclosure" and 6, "Capital Allocation," were subjected to by far the largest proportion of overrides, reflecting substantial lags in emissions data and the importance of specialist qualitative judgement in assessing companies' spending and investment plans. The reason sub-indicator 3, "Emissions Performance," was subjected to the fewest overrides is that most issuers have not disclosed actual emissions for long enough to allow analysts to compare them directly with previous emissions projections.

Note that these results are from the first occasion on which this portfolio was scored with the Net-Zero Alignment Indicator. They show the overrides that were necessary given the score based on the "raw" quantitative data. Next time the portfolio is scored, analysts will need to reaffirm or update their previous adjustments, but there are likely to be far fewer additional overrides required.

Conclusion: Beyond the Numbers

As governments worldwide commit to emissions-reduction targets, companies and investors increasingly recognize the need to manage the risk of misalignment.

Some investors will simply wish to divest from companies that are substantially misaligned. Others may wish to build an assessment of company alignment into their ESG-integrated investment strategies. Increasingly, we also see a third class of investors who want to set their own portfolios onto a path to net-zero emissions. Many of these investors recognize that, to achieve a net-zero portfolio without sweeping divestments from high-emitting sectors where there is greatest scope to achieve real-world emissions reduction, they and their asset managers need to engage with companies to monitor and encourage credible strategies for alignment.

All three types of investor can benefit from using a rigorous process for assessing net-zero alignment, designed and utilized by an active manager with substantial fundamental-research capabilities.

For the third class of investor, fundamental-research capabilities and insights are particularly important, because they can inform corporate engagement programs. As active managers, engagement is a key part of Neuberger Berman's investment process. Our analysts and portfolio managers conduct between 4,000 and 5,000 engagement meetings with company management each year, and usually around a third of those involve conversations on climate topics. Where an investor has a substantial company engagement program, the NB Net-Zero Alignment Indicator introduces an additional feedback loop: insights from engagement feed into the scores, and those evolving scores then help us to track and focus engagement on issuers' specific areas of weakness.

It is this experience that has informed the development of our Net-Zero Alignment Indicator and persuaded us of the critical importance of going "beyond the numbers" when assessing company's net-zero alignment.

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