RESEARCH INSIGHT

Steering Toward an Aligned Portfolio

Applying the Net Zero Investment Framework maturity scale to evaluate portfolio alignment with Paris Agreement goals

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Executive summary

In 2019, the Institutional Investors Group on Climate Change (IIGCC), a global membership body for investor collaboration on climate change, together with the Asia Investor Group on Climate Change, the Investor Group on Climate Change and Ceres formed the Paris Aligned Investment Initiative (PAII). The PAII is a forum helping asset owners to align their portfolios and activities with the goals of the Paris Agreement.[1] It has worked with its members to develop the **Net Zero Investment Framework (NZIF) 1.0**.[2] With the NZIF 2.0 currently out for consultation,[3] this paper aims to provide initial insights on NZIF 1.0.

The NZIF is designed to offer guidance to asset owners and asset managers and provide a basis on which they can make commitments to achieve net-zero emissions and to define strategies, analyze alignment and transition portfolios.[4] To achieve these objectives, the framework provides a five-tier maturity scale based on seven criteria that aid investors in evaluating an investment's alignment with the Paris Agreement goals.[5] This paper highlights what the NZIF approach may result in when applied to issuer-level data.

Using the MSCI Climate Change Metrics, we have developed an indicative data-mapping solution matching issuers against the NZIF-alignment maturity scale, based on the proposed criteria. This solution offers one way for investors to assess their portfolio alignment with the goals of the Paris Agreement and global net-zero emissions by 2050, as defined by the PAII.

The research described in this paper applied this solution to the constituents of the MSCI World Investable Market Index (IMI) and MSCI Emerging Markets IMI to assess how well these listed companies were aligned with net-zero emissions by 2050, according to the NZIF maturity scale. We assessed portfolio alignment across sectors and markets and discussed the key alignment gaps vis-à-vis the NZIF criteria and their implications for investors using this framework.

[1] "Backgrounder: The Paris Aligned Investment Initiative & the Net Zero Investment Framework," IIGCC, 2021.

[2] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021.

[3] "Net Zero Investment Framework updated: NZIF 2.0," IIGCC, March 21, 2024.

[4] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021.

[5] The NZIF provides separate guidance for other asset classes.

Key takeaways

- **Regulation influences maturity**. Compared to peers in emerging markets, a higher proportion of companies in developed markets meets one or more of the seven criteria for the alignment maturity scales. This may be due to more stringent nationally determined contributions (NDCs) and climate-disclosure-related regulatory regimes in developed markets. In emerging markets, with lower policy pressure, climate disclosures are largely voluntary.
- **High-impact sectors are highly regulated too**. A higher proportion of companies in high-impact sectors meet at least one maturity-scale criterion but fewer meet all criteria and fall into the "aligned" category compared to low-impact sectors.[6] As a result, companies in high-impact sectors are more likely to fall into the NZIF "aligning" or "committed" categories than peers in lower-impact sectors. This may be due to the fact that high-impact-sector companies face stronger pressure from investors and regulators to disclose emissions and to reduce emissions than peers in lower-impact sectors. However, they still need to meet the NZIF's rigorous standards to be considered aligned with the Paris Agreement.
- **Performance gaps across specific criteria**. Breaking down the maturity-scale criteria met by companies reveals performance gaps across those criteria. Many issuers have set some type of decarbonization strategy (criterion 5) across markets and sectors. But few aim for net-zero emissions across Scopes 1, 2 and 3 by 2050 (criterion 1), set short- and medium-term emissions reduction targets (criterion 2), demonstrate they are on track with meeting these targets (criterion 3), or disclose Scopes 1, 2 and material categories of Scope 3 emissions (criterion 4).[7]
- **Simplicity matters**. Certain climate models are inherently complex. For investors who find such models challenging, the NZIF maturity-scale alignment provides a framework to start analyzing (but not quantifying) portfolio alignment with the goals of the Paris Agreement.

[6] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021. The following are considered high impact for the purposes of this assessment: companies on the Climate Action 100+ focus list, companies in high-impact sectors consistent with Transition Pathway Initiative sectors, banks and real estate. (The full list can be found in Exhibit 2.)

[7] MSCI ESG Research defines material categories of Scope 3 emissions in line with the Science Based Target initiative (SBTi) standard as representing more than 40% of total company emissions, according to our Scope 3 estimation model.

Overview of the NZIF maturity scale

MSCI ESG Research has developed an indicative data solution that is designed to help clients map assets against the NZIF maturity scales, covering more than 12,000 listed equity and corporate fixed-income assets as of April 23, 2024.[8] With respect to these two asset classes, NZIF provided a five-tier maturity scale consisting of the following alignment categories: (1) **achieving net-zero**, (2) **aligned**, (3) **aligning**, (4) **committed**, and (5) **not aligned**, based on the combination of criteria issuers fulfill.

According to this framework, investors can assess portfolio alignment by classifying a group of portfolio companies into one of the five alignment categories based on certain criteria. We engaged the IIGCC Secretariat for the interpretation of the descriptions provided for each criterion (Exhibit 1).

Exhibit 1: The seven criteria for IIGCC classification standards

Asset alignment criteria		Categories				
Criteria	**Descriptions**	**Achieving net-zero**	**Aligned**	**Aligning**	**Committed**	**Not aligned**
Net-zero criteria	Achieving current emissions-intensity performance at, or close to, net-zero emissions with an investment plan that will maintain it	■				
1. Ambition	A long-term 2050 goal consistent with achieving global net-zero		■		■	
2. Targets	Short- and medium-term emissions reduction targets (Scopes 1, 2 and material Scope 3)		■	■		
3. Emissions performance	Current emissions-intensity performance (Scopes 1, 2 and material Scope 3) relative to targets		■			
4. Disclosure	Disclosure of Scopes 1, 2 and material Scope 3 emissions		■	■		
5. Decarbonization strategy	A quantified plan setting out measures to meet climate targets and deliver and increase green revenues		■	■		
6. Capital allocation alignment	A clear demonstration that the capital expenditures of the company are consistent with achieving net-zero emissions by 2050		■			

Companies in low-impact sectors were required to meet criteria 2, 3 and 4 (highlighted in a red rectangle) to be assessed as aligned. Data as of April 23, 2024. Source: IIGCC, MSCI ESG Research.

[8] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021. The NZIF methodologies cover four asset classes: sovereign bonds, listed equity, corporate fixed income and real estate. NZIF metrics are available on MSCI ESG Manager (client access only).

As we have seen, the NZIF has classified companies mainly into two sectors: high-impact and low-impact sectors.[9] In the framework, the high-impact sectors are composed of companies on the Climate Action 100+ focus list, companies in high-impact sectors consistent with Transition Pathway Initiative sectors and companies in the banks and real estate sectors, as defined by the Global Industry Classification Standard (GICS®)[10] (Exhibit 2). All other companies were assessed as low-impact sectors.

We found about 35% of the MSCI World IMI and MSCI Emerging Markets IMI constituents were assessed as companies in high-impact sectors. The number and type of criteria companies have to meet in order to fall into the aligned category depend on this sectoral classification.

Exhibit 2: Mapping of NZIF high-impact sectors to GICS sub-industries

NZIF high-impact sectors (mapped to GICS sub-industries)		Banks and real estate (mapped to GICS sub-industries)	
Integrated oil & gas	10102010	Diversified banks	40101010
Oil & gas exploration and production	10102020	Regional banks	40101015
Oil & gas refining & marketing	10102030	Diversified REITs	60101010
Oil & gas storage & transportation	10102040	Industrial REITs	60102510
Coal & consumable fuels	10102050	Hotel & resort REITs	60103010
Commodity chemicals	15101010	Office REITs	60104010
Diversified chemicals	15101020	Health care REITs	60105010
Fertilizers & agricultural chemicals	15101030	Multi-family residential REITs	60106010
Industrial gases	15101040	Single-family residential REITs	60106020
Specialty chemicals	15101050	Retail REITs	60107010
Construction materials	15102010	Other specialized REITs	60108010
Paper & plastic packaging products & materials	15103020	Self-storage REITs	60108020
Aluminum	15104010	Telecom tower REITs	60108030
Diversified metals & mining	15104020	Timber REITs	60108040
Copper	15104025	Data center REITs	60108050
Steel	15104050		
Paper products	15105020		
Aerospace & defense	20101010		
Electrical components & equipment	20104010		
Heavy electrical equipment	20104020		
Industrial conglomerates	20105010		
Construction machinery & heavy transportation	20106010		
Trading companies & distributors	20107010		
Passenger airlines	20302010		
Marine transportation	20303010		
Automobile manufacturers	25102010		
Consumer electronics	25201010		
Technology hardware, storage & peripherals	45202030		
Electronic equipment & instruments	45203010		
Electric utilities	55101010		
Multi-utilities	55103010		
Independent power producers & energy traders	55105010		

Our mapping of relevant banks and real estate GICS sub-industries. We plan to reflect the IIGCC's re-classification of the agriculture, forestry and fisheries sectors as high-impact sectors in upcoming product enhancements at the time of this research. Data as of April 23, 2024. Source: Net Zero Investment Framework Implementation Guide, IIGCC.

[9] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021.

[10] Sectors as defined by the Global Industry Classification Standard (GICS®). GICS is the global industry classification standard jointly developed by MSCI and S&P Global Market Intelligence.

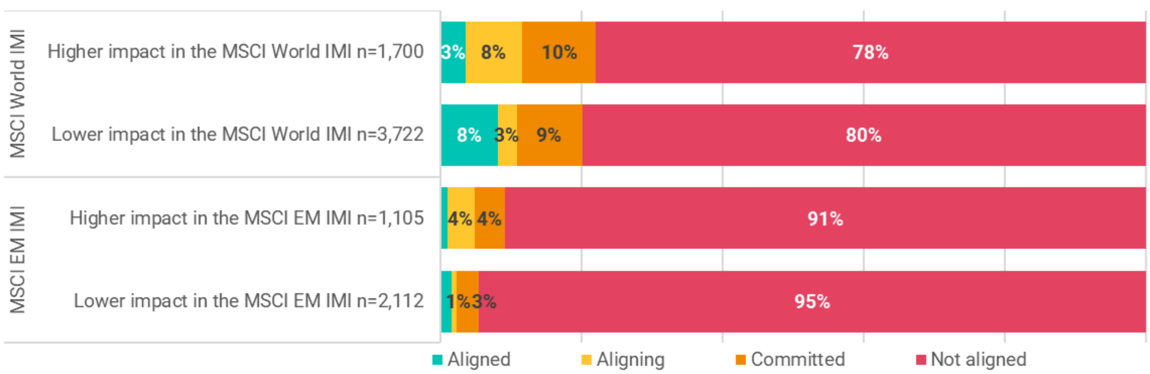
Regulations driving maturity differences

Using our indicative mapping solution, we found that a higher proportion of companies in developed markets (represented by the MSCI World IMI constituents) than companies in emerging markets (represented by the MSCI Emerging Markets IMI constituents) fit the NZIF categories of **aligned**, **aligning** and **committed** across both the high- and low-impact sectors (Exhibit 3). These results suggest that more stringent NDCs and mandatory-climate-disclosure regimes in developed markets may have improved the climate reporting maturity of issuers, whereas voluntary-climate-disclosure regimes, which are common in emerging markets, are a weaker incentive to disclose.[11]

We also observed that a larger proportion of companies in the high-impact sectors met at least one of the criteria and were more likely to fall into the maturity-scale categories of aligning or aligned than companies in low-impact sectors. For the **aligning** category, companies are required to meet criteria such as target setting (criterion 2), emissions disclosure (criterion 4) and decarbonization strategy (criterion 5). Companies in high-impact sectors, such as utilities and steel, have faced stronger regulatory pressure to disclose data and initiatives related to these three criteria. They have lagged, however, in setting ambitious net-zero targets (criterion 1).

For the **committed** category, companies are only required to meet the ambition criteria (criterion 1), which requires them to have set a long-term 2050 target consistent with achieving global net-zero emissions. Our indicative mapping adopts the Science Based Targets initiative (SBTi) definition of net-zero targets coverage for corporates (i.e., at least 95% of company-wide Scopes 1 and 2 emissions and 90% of Scope 3 emissions by 2050 or sooner) and assesses whether company-projected emissions are aligned with net-zero emissions pathways. The lack of an SBTi standard for the fossil-fuel sector does not exclude companies in that sector from meeting that criterion in our indicative mapping. These sectors are indeed explicitly covered by the NZIF maturity scale. Companies in those sectors can therefore meet criterion 1 as long as the corporate disclosure of net-zero targets meets the above definitions.[12]

Exhibit 3: Distribution of maturity-scale criteria



Data as of April 23, 2024. Source: MSCI ESG Research.

[11] "Scaling up private climate finance in emerging market and developing economies: Challenges and opportunities," International Monetary Fund, November 2022.

[12] "Sector Guidance Summary," SBTi, last accessed Feb. 1, 2024, and "SBTi Corporate Net-Zero Standard," SBTi, October 2021. MSCI has set the scope of criterion 1, using its own model, without the IIGCC Secretariat. We also note that companies in any sector can set SBTi-approved targets using an absolute contraction approach.

Exploring the gap

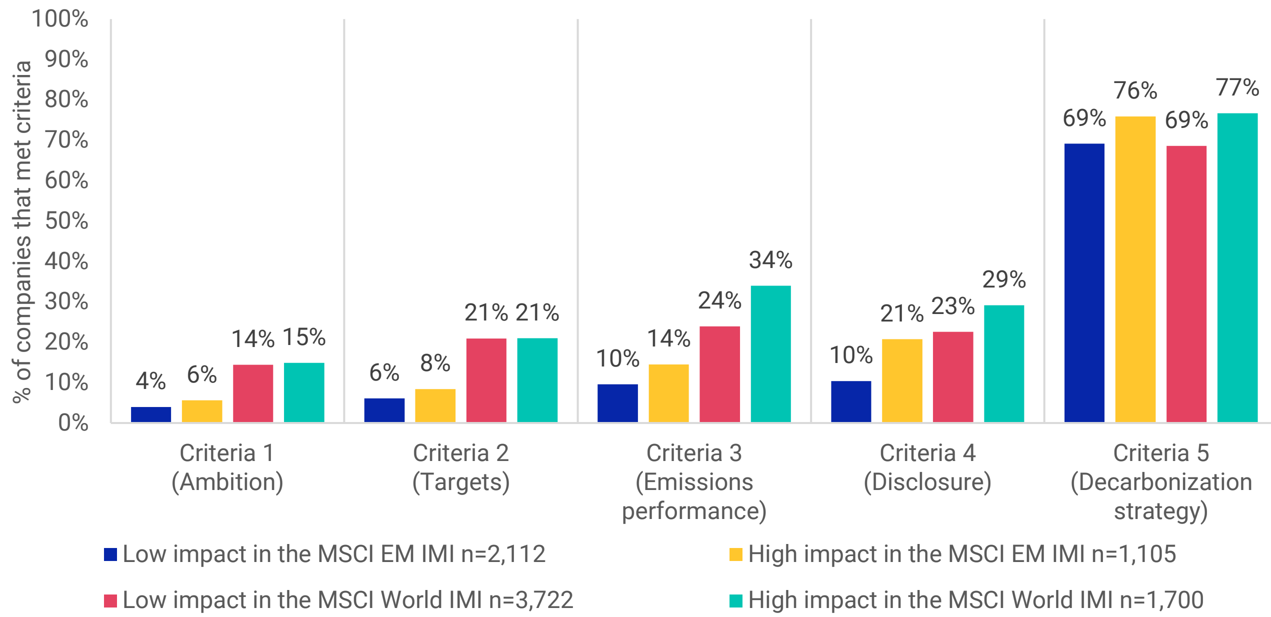
We observed several gaps in our assessment of corporate climate performance across the maturity-scale criteria by impact, sectors and markets. Our findings are as follow:

Disclosure-to-action gap. Across both the MSCI World IMI and MSCI Emerging Markets IMI universe, criteria 1, 2, 3 and 4 appeared harder for issuers to meet than criterion 5. While a large portion of issuers have set some type of decarbonization strategy (criterion 5), they appeared to face greater hurdles in disclosing detailed information on long-term 2050 net-zero emissions targets, setting short- and medium-term interim targets, demonstrating they are reducing emissions on track with one of these targets, and disclosing Scopes 1, 2 and material categories of Scope 3 emissions (criteria 1, 2, 3 and 4, respectively).

Target-performance gap. Across all segments, criterion 3 (emissions performance) has a higher pass rate than criteria 1 (ambition) and 2 (short-term targets). This discrepancy is explainable: in this indicative mapping, criterion 3 covers any type of targets (including net-zero targets for limited scopes and non-net-zero targets with a beyond 2030 horizon); moreover, criteria 1 and 2 cover different types of targets (comprehensive net-zero targets and targets by 2030).

Note that MSCI's target summary model requires companies to disclose minimum datapoints to be eligible to meet criteria 1 and 2. In this way, companies that set targets without disclosing sufficiently granular target-level data, such as base emissions and target emissions, are considered to have set only declaratory and vague targets rather than clear and measurable targets. For instance, we consider a corporate carbon-neutrality target to be vague when a company does not specify what proportion of its emissions would be reduced and offset by purchasing carbon credits. We also observed there were several companies that had set low-ambition short-term climate targets (e.g., 1% annual Scope 2 emissions reduction targets) and had reduced emissions on track with such targets. These companies had not necessarily set both short-term and medium-term targets nor committed to ambitious long-term net-zero targets.

Exhibit 4: Performance across maturity-scale criteria by impact categories and markets



Data as of April 23, 2024. Source: MSCI ESG Research.

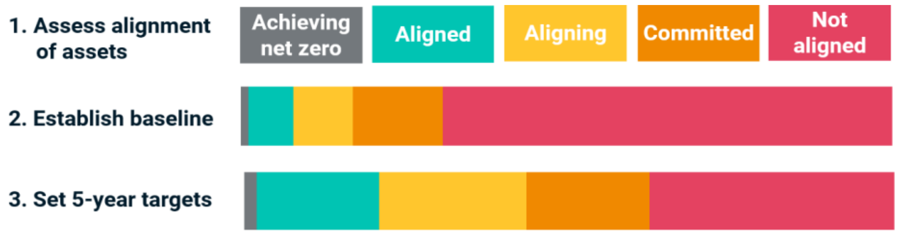
Conclusion

The NZIF maturity-scale alignment provides a simple way to start analyzing portfolio alignment with the goals of the Paris Agreement, potentially alongside other metrics.[13] Our analysis found that constituents of the MSCI World IMI showed higher rates of companies that fall into the **aligned, aligning** and **committed** categories than the constituents of the MSCI Emerging Markets IMI. This result could be attributed to differences in regulatory stringency for corporate climate disclosure between developed and emerging markets, as the NZIF requires emissions disclosures for the aligned and aligning categories.

There may therefore be limitations to applying the framework in the context of emerging markets as there are comparatively few emerging-market firms that can meet the NZIF's high bar for this climate-finance-investment criteria as yet.[14] The IIGCC has noted this challenge and is working to ensure that future versions of the NZIF facilitate rather than discourage climate investment in emerging markets.[15] For the same reason, it may be challenging to assess private assets using the NZIF maturity scale, which is primarily designed for analyzing listed equity and corporate fixed income.[16] While there are some initiatives that could encourage more consistent private-market disclosure, such as the ESG Integrated Disclosure Project, climate disclosures from private assets are currently limited compared to public assets.[17]

The NZIF maturity-scale solution appears well suited to categorize — rather than to measure — company alignment.[18] By associating high-level alignment categories to precise criteria, it offers a transparent way to construct aligned portfolios and engage companies. Using the NZIF maturity-scale solution, investors can assess the current baseline alignment of assets, set five-year targets, and engage with investee companies as per the expected use case (Exhibit 5). Market pressures and investors' engagement could be one of the driving factors for issuers to improve the transparency of their climate action and progress, not just in developed markets, but also in emerging markets.

Exhibit 5: Expected use case of the NZIF maturity scale



Data as of April 23, 2024. Source: IIGCC, MSCI ESG Research.

[13] Certain climate metrics are inherently complex. For example, MSCI's Implied Temperature Rise (ITR) is designed to project future climate impact by computing forward-looking granular sectoral and regional factors as well as notions of carbon budgeting. MSCI's ITR assessments can provide a complementary analysis to the NZIF maturity-scale solutions.

[14] "Global Financial Stability Report," International Monetary Fund, October 2023. To meet global net-zero ambitions by 2050 in line with the net-zero criteria of the NZIF, we would need USD 5 trillion in global investments every year between now and 2030, and 40% of that would need to go to emerging markets.

[15] "Net Zero Investment Framework updated: NZIF 2.0," IIGCC, last accessed March 21, 2024.

[16] For private assets guidance, see "Net Zero Investment Framework Component for the Private Equity Industry," IIGCC, May 2023.

[17] "ESG Integrated Disclosure Project (ESG IDP)," ESG IDP, 2023.

[18] "Scaling Transition Finance and Real-economy Decarbonization – Supplement to the 2022 Net-zero Transition Plans," GFANZ, December 2023.

Appendix I: Deep dive on the seven criteria under the NZIF

We analyzed companies' current status for each of the seven criteria under the NZIF as follows:

Net-zero criterion. This criterion requires a company to have current emissions intensity at, or close to, net-zero emissions with an investment plan or business model expected to continue to achieve that goal over time. Based on our analysis, no company could meet this criterion due to the lack of international consensus on carbon-dioxide-removal credits that could be certified or proven permanent during the duration a company could claim that its emissions are neutralized by the credits to net-zero levels.

Criterion 1 (Ambition). This criterion requires a company to have a long-term 2050 goal consistent with achieving global net-zero. The company's projected emissions remain consistent with net-zero targets coverage as defined by the SBTi (i.e., covering at least 95% of company Scopes 1 and 2 emissions and 90% of Scope 3 emissions by 2050 or sooner). We observed that more companies in developed markets than emerging markets set such ambitious targets, having their targets aligned with the NDCs.

Criterion 2 (Targets). This criterion requires a company to have short- and medium-term reduction targets for Scopes 1, 2 and material Scope 3 emissions. We consider this criterion to be met if the company has at least one target with a target year on or before 2030 in the relevant scopes. Using the MSCI Target Summary Model, we required companies to report, at minimum, seven different data points to be eligible to meet this criterion.[19] More companies in developed markets met this target granularity requirement than in emerging markets. The seven required data points are: (1) base-year emissions, (2) target-year emissions, (3) present-year emissions, (4) target coverage rates, (5) type of targets, (6) scope of targets and (7) emissions-reduction percentages. While the NZIF guidance recommends focusing on targets aligned with a science-based, global net-zero-aligned pathway,[20] this indicative mapping also considers targets that are not explicitly science-based within the 2030 horizon. This is because the same NZIF guidance includes fossil-fuel companies in the high-impact sectors that should be assessed. In the current absence of a SBTi validation process for these types of companies,[21] MSCI ESG Research's indicative mappings' alternative would be to exclude these companies.

Criterion 3 (Emissions performance). This criterion requires a company to have emissions performance in line with its target in Scopes 1, 2 and material Scope 3 emissions. We consider this criterion to be met if the company is currently achieving all or some of its targets on an absolute emissions basis. Most of the companies that set targets appeared to have reduced emissions in line with at least one of the targets they had set, regardless of whether they were short-, medium- or long-term targets.

Criterion 4 (Disclosure). This criterion requires a company to disclose Scopes 1, 2 and material Scope 3 emissions. We consider this criterion to be met if the company discloses its Scopes 1, 2 and material Scope 3 emissions (defined in line with the SBTi standard as representing more than 40% of total company emissions, according to our Scope 3 estimation model). We estimated that for about 90% of the MSCI World IMI and MSCI Emerging Markets IMI constituents, their Scope 3 emissions

[19] Siyao He and Kenji Watanabe, "Targeting clearer climate targets," MSCI Research, September 2022. (Client access only.)

[20] "Net Zero Investment Framework Implementation Guide," IIGCC, April 13, 2021.

[21] "Sector Guidance," SBTi, accessed on Feb. 21, 2024.

represented more than 40% of total value-chain emissions. We found roughly 33% of companies in the MSCI World IMI reported Scope 3 emissions that met the 40% threshold, while the corresponding figure for the MSCI Emerging Markets IMI was only about 15%.

Criterion 5 (Decarbonization strategy). This criterion requires a company to have a quantified plan setting out the measures that will be deployed to meet greenhouse-gas targets. We consider this criterion to be met if the company has programs to reduce emissions in core operations, including by improving energy efficiency. We found about the same rates of companies met the criteria in the MSCI World IMI and MSCI Emerging Markets IMI.

Criterion 6 (Capital allocation alignment). This criterion requires a company to clearly demonstrate that the capital expenditures of the company are consistent with achieving net-zero emissions by 2050. We currently do not have a datapoint available for this criterion.[22]

Appendix II: Data used in this report

MSCI ESG Manager (client access only)	Factor name
PAII_NZIF_ALIGNMENT	PAII NZIF Alignment Category
PAII_NZIF_CALCULATION_DATE	PAII NZIF Alignment Category – Calculation Date
PAII_NZIF_CRITERIA_1	PAII NZIF Criteria 1
PAII_NZIF_CRITERIA_2	PAII NZIF Criteria 2
PAII_NZIF_CRITERIA_3	PAII NZIF Criteria 3
PAII_NZIF_CRITERIA_4	PAII NZIF Criteria 4
PAII_NZIF_CRITERIA_5	PAII NZIF Criteria 5
PAII_NZIF_CRITERIA_6	PAII NZIF Criteria 6
PAII_NZIF_IMPACT_TYPE	PAII NZIF Impact Category
PAII_NZIF_NZ_CRITERIA	PAII NZIF Net Zero criteria

[22] For further information on research projects on these requirements, please see "Examining capital-expenditures data from a net-zero perspective," MSCI Sustainability Institute, last accessed Feb. 1, 2024.

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