Climate Targets & Commitments Methodology

MSCI ESG Research LLC

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1. Introduction

In 2018, the Intergovernmental Panel on Climate Change (IPCC) highlighted the fact that in order to limit the increase in global temperature to 1.5°C above preindustrial levels, global carbon dioxide (CO_2) emissions would need to fall by about 45% by 2030 compared to 2010 levels and reach net-zero by 2050.[1] In Dubai in November 2023, these urgent actions were reaffirmed as many agreed the world might miss its climate goals.[2] Consequently, through regulatory and reporting requirements, pressure on public companies and the financial system to decarbonize continues to grow.

Climate-related targets and commitments play a critical role in measuring and reducing companies' and institutional investors' exposure to climate-related risks over the coming decades. They can be used as a forward-looking assessment tool.

More and more companies are introducing plans to reduce their carbon footprints than ever before. But incomplete target disclosures and the heterogeneity of emissions reduction targets inhibit a meaningful comparison between companies, across industries, and in portfolio exposures. Companies may issue more than one climate target and may have unclear target descriptions that are open for interpretation, further complicating the assessment of each company's decarbonization pathway.

2. Objective

MSCI ESG Research's Climate Targets and Commitments methodology provides a standardized framework to assess corporate climate targets and enables the comparison of emissions reduction commitments across companies. The methodology output is a collection of company-level metrics that aim to provide a clear view of how comprehensive, ambitious and feasible a company's decarbonization plans are.

3. Overview

This methodology calculates company-level emissions projections that incorporate climate targets. These projections integrate current emissions and (often multiple) forward-looking targets into a single aggregated decarbonization pathway at the company level. It incorporates and aggregates all relevant information to project companies' emissions into the future. See Exhibit 1, which demonstrates the modeling framework.

[1] IPCC, "Summary for Policymakers," in *Special Report: Global Warming of 1.5°C*, IPCC, 2018.

[2] "The UAE Consensus Foreword," COP28 UAE, The Secretariat of the United Nations Framework Convention on Climate Change, Accessed January 29, 2024, https://www.cop28.com/en/the-uae-consensus-foreword.

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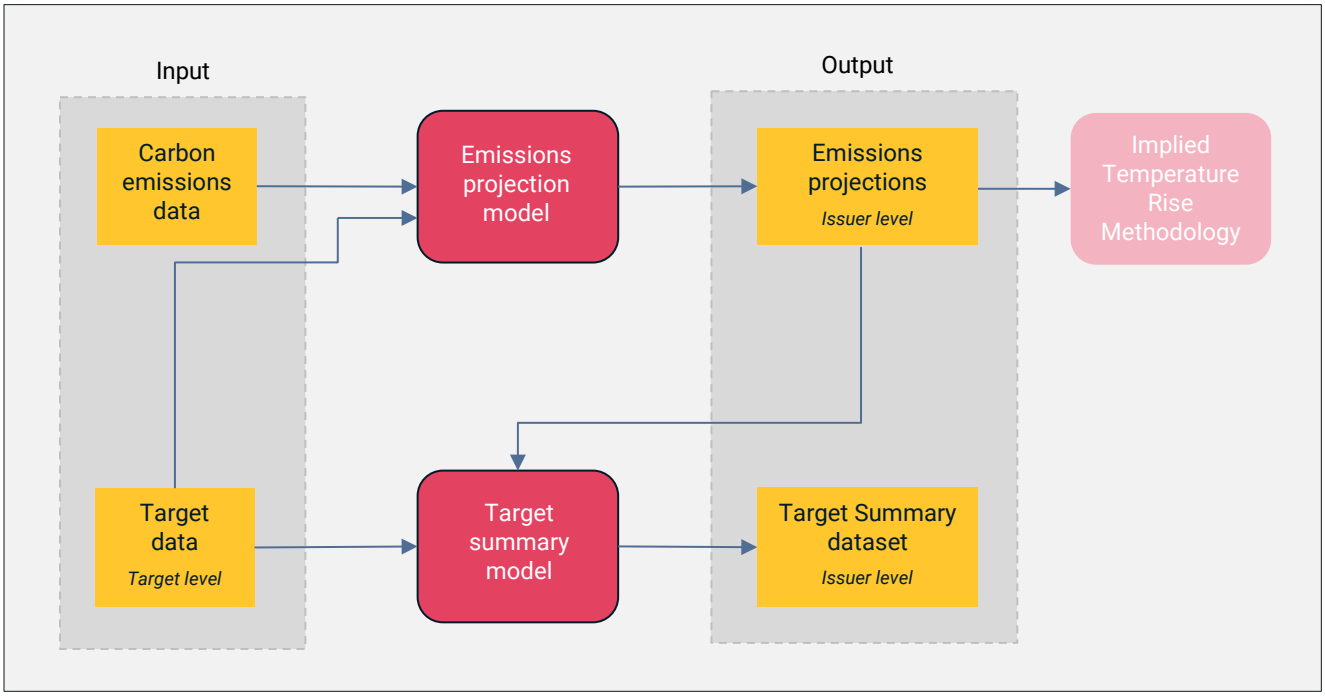
Exhibit 1. Modeling framework



Source: MSCI ESG Research, as of January 2024.

Calculating companies' **emissions projections** that consider their climate targets requires two types of input data:

- **Carbon emissions data**, including historical and current reported and estimated Scope 1, 2 and 3 emissions.[3]
- Publicly available **target data**, including information such as the scope of emissions covered, whether they are absolute or intensity-based, and the time horizon. The target-level dataset may contain multiple entries/targets for each company.

With this input data, the **Emissions Projection model** aggregates targets and calculates emissions projections at the company level. The model incorporates all relevant details of company targets into a single emissions trajectory.

[3] The Greenhouse Gas Protocol (GHG Protocol) defines company emissions by three types : Scope 1 – a company's direct emissions from operations; Scope 2 – indirect emissions from purchase of energy; and Scope 3 – other indirect emissions including from the upstream and downstream value chain, further organized into 15 categories.

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Emissions projections then feed into the **Target Summary model** and the Implied Temperature Rise (ITR) methodology. The Target Summary model calculates company-level summary metrics, such as annual average decarbonization rate (ambition), the percentage of emissions covered by companies' climate targets (comprehensiveness) and information on track record of historical targets as well as progress towards current targets (feasibility). The output of the Target Summary model is the **Target Summary dataset**.

The two models shown above are described in this document. Section 5 provides an explanation of the methodology and calculation steps of the Emissions Projection model, which creates target-based emissions projections. Section 6 demonstrates the conceptual framework of the Target Summary model, which builds on the projections and calculates company-level metrics that are included in the Target Summary dataset.

The next Section (Section 4) provides an overview of the input data to the models: target-level and carbon emissions data

4. Input data

4.1. Target-level data

Climate targets can be quite complex. Company target disclosures may or may not include information about emission scopes, the type of target (absolute or intensity-based), timeline, or other important information about the nature of the target. As described in Section 5.1.1, targets can be included in company emissions projections only if sufficient information about the targets is disclosed.

MSCI ESG Research collects information on climate targets and publishes this information as the Climate Targets and Commitments Data. This dataset consists of targets (as rows) and their 32 different target attributes (as columns). Companies typically have more than one target, hence several rows of data are attributable to a single company.

The 32 target attributes provide key information about a target, such as the magnitude of the planned emissions reduction, the base year and the base year emissions value, or the targeted emissions scopes. They also cover information on the expected end-year emissions value of the target, as well as the percentage of emissions covered in the targeted scopes. MSCI ESG Research collects additional target-level data points, including whether the target has been submitted to the Science Based Targets initiative (SBTi), whether SBTi has approved the target and whether the company is committed to setting a science-based target in the future.

4.2. Carbon emissions data

Carbon emissions are the starting point within the framework to provide a baseline carbon footprint for each company, as well as to measure progress towards each company's climate targets.

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Scopes 1 and 2: Given the coverage and consistency of companies' Scope 1 and Scope 2 emissions reporting, this reported data is typically used in the Emissions Projection and Target Summary models. In cases where no reported Scope 1 and Scope 2 data are found, MSCI ESG Research uses estimations, as produced by our estimation model.

Scope 3: Scope 3 emissions reporting is inconsistent, inhibiting comparison across companies or industries. MSCI ESG Research therefore uses our estimated Scope 3 emissions data. Estimated Scope 3 data are produced by MSCI ESG Research's Scope 3 estimation model.[4]

5. Emissions Projection model

The Emissions Projection model calculates target-based emissions trajectories. The model has three components, which build on each other sequentially: target-level, scope-level, and company-level. These components are described in Section 5.1., Section 5.2., and Section 5.3., respectively. Exhibit 2 provides a schematic overview of the inputs, outputs and features of the three components, as well as the relationship between them.

Company targets are first passed through the **target-level component** of the model, which filters out irrelevant or incomplete targets, imputes missing target attributes where possible (see Section 5.1.2, Imputing missing information, below), converts intensity targets to absolute targets, and finally selects the targets that can be applied to the emissions projection.

These targets are then passed to the **scope-level component** of the model, which first determines the starting point (year and emissions) on which subsequent projections can be based, and then applies the prefiltered and preprocessed set of targets (the applied targets) one after another in chronological order by target year. The model assumes that targets with an earlier end year will be met first, and then moves on to targets with later end years, and subtracts the progress already made by meeting the completed targets. Exhibit 3 demonstrates an illustrative emissions projection on the scope level.

Finally, the **company-level component** of the model aggregates the emissions projections from the 15 Scope 3 categories into a single Scope 3 trajectory, and then adds this to the Scope 1 and Scope 2 trajectories to produce the final output, a company-level target-based emissions projection.

[4] Category 15 estimates include the "optional" category. For details, see: MSCI ESG Research LLC, *Scope 3 Carbon Emissions Methodology*, MSCI ESG Research, November 2023, (client access only).

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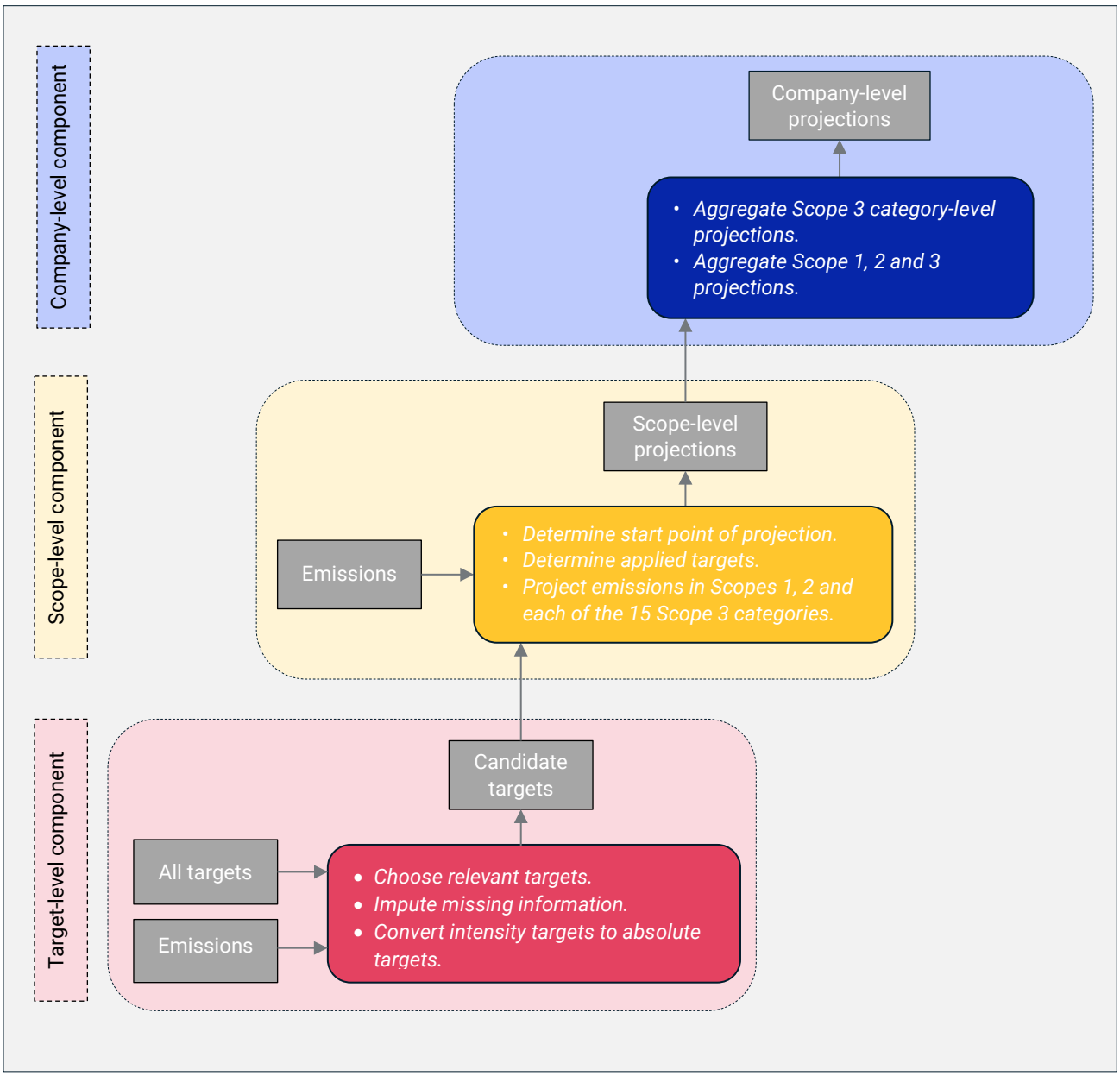
Exhibit 2. Components of the Emissions Projection model



Source: MSCI ESG Research, as of January 2024.

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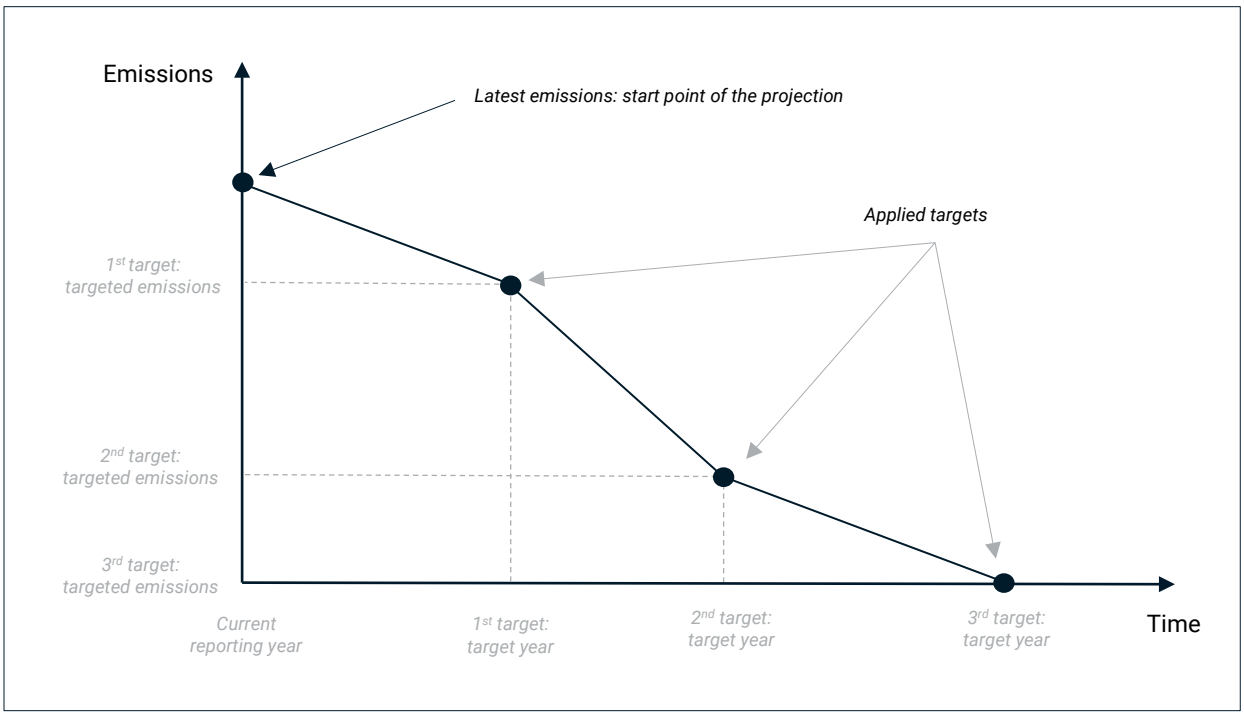
Exhibit 3. Illustrative scope-level target-based emissions projection



Source: MSCI ESG Research, as of January 2024.

5.1. Target-level component

Companies typically set multiple targets. Individual targets refer to various dimensions of companies' carbon reduction commitments, such as different time horizons, business activities, products, locations, emissions scopes, external validation statuses, types (absolute vs. intensity), etc. Due to the heterogeneity of climate targets, MSCI ESG Research applies a standardized framework which is designed to enable the targets' comparison and aggregation. Integrating target-level information in a coherent framework makes it possible to create an Emissions Projection model that can take into account companies' emissions reduction targets.

There are three modelling steps on the target level: choosing relevant targets, imputing missing information where possible and converting intensity targets to absolute targets. Each step is described in detail below.

5.1.1. Choosing relevant targets

MSCI ESG Research collects a wide range of climate targets, covering an extensive universe of business activities and geographical areas. However, these climate targets take several forms and not all of them

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can be considered in the Emissions Projection model. MSCI ESG Research uses two exclusion criteria that are applied in the preprocessing of individual targets.

First, we process emissions targets, but not energy targets. The unit of measurement of emissions targets is usually tons of CO_2 equivalent, whereas energy targets are typically measured in megawatt hours or other measures of energy consumption. Since information about the carbon intensity of the energy use mentioned in these targets is typically not available, they are excluded from further analysis.

Second, forecasting emissions into the future requires the prefiltering of targets based on their status, i.e., whether they are currently ongoing, active targets, or not. Historical targets, where the target year is in the past, and withdrawn and replaced targets are excluded from the forward-looking emissions projections. Similarly, achieved targets are excluded because they do not convey information about future emissions reductions.

After applying these two exclusion criteria to the initial pool of targets in the Climate Targets and Commitments database, the remaining smaller set can be processed further.

5.1.2. Imputing missing information

Some target attributes are critical for projecting a company's emissions into the future. MSCI ESG Research considers that a target has sufficient information if it includes:

- Target type (absolute or intensity).
- Targeted emissions scopes and categories.
- Targeted change.
- Coverage percentage.
- Baseline year and value.
- Target year and value.
- Current year and value (if intensity target).

If any of these pieces of information are missing, MSCI ESG Research tries to impute the values. We use previously reported emissions data or minimal calculations to complete the target description. Exhibit 4 describes the imputations in detail.

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Exhibit 4. Imputation of missing values on the target level

Missing data point	Only applicable for net-zero targets?	Imputation
Target value	No	Calculate target value from other target attributes. If base year value and reduction percentage are not missing, target value can be calculated: *target value = (base year value) * (1 - reduction %)*
Target value	Yes	Apply zero as the target value. For a small set of net-zero targets the target value is missing — this effectively is zero.
Base year value	No	For a set of targets, the base year is reported but the base year value is missing. Use reported or estimated emission data for the corresponding year to impute the base year value and multiply it with the coverage % of the target: *base year value = (emissions in base year) * (coverage % of target)*
Base year	Yes	Announcement year minus 1 year.
Coverage %	No	If a target is SBTi-approved and coverage % is missing, MSCI ESG Research imputes the SBTi criteria for minimum coverage %:[5] • 95% for long-term Scope 1 and Scope 2 targets • 67% for short-term Scope 2 and Scope 3 targets • 90% for long-term Scope 2 and Scope 3 targets

By applying the imputations described in Exhibit 4, MSCI ESG Research can process more companies' targets into projected emissions and provide a more comprehensive view of a company's decarbonization efforts.[6]

To promote transparency for targets that used imputed data, as opposed to data disclosed by companies, MSCI ESG Research provides an additional factor in the Target Summary dataset explaining what exactly was imputed for each of the targets.

[5] SBTi, *SBTi Criteria Assessment Indicators*, SBTi, 2023.

[6] Coverage: Coverage of a target may be in numerical or categorical format. The numerical factor describes the percentage of company operations covered by the target and is required for the Emissions Projection model. When this factor is missing, and the categorical factor is company-wide (meaning that the target does not refer to a specific business unit or location, but to the entirety of the company's operations), we replace the missing numerical value with 100%. This is not an imputation per se, because 100% coverage and company-wide coverage mean the same thing.

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5.1.3. Converting intensity targets to absolute targets

One of the most important features of a climate target is its type: whether it is an absolute or an intensity target. Most emissions reduction targets are absolute, but many companies set intensity-based targets that normalize emissions to a physical or economic metric.

While absolute targets aim to reduce emissions by a set amount, intensity targets aim to reduce emissions relative to a physical or economic metric. Absolute targets are expressed in terms of the amount of greenhouse gas (GHG) reduction (e.g., reduce emissions by 90% by 2030 from the base year of 2020). Intensity targets, on the other hand, are expressed as a ratio of emissions to some metric. They can be normalized to operational metrics (such as tons of GHG per tons of cement produced, or tons of GHG per cars produced), to business metrics (such as tons of GHG per unit of revenue), or to other industry-specific metrics (such as tons of GHG per square meter in the real estate sector).

While intensity targets have the benefit that they enable the comparison of efficiency improvements among companies, they pose a significant challenge when it comes to calculating emissions projections since they are not directly convertible to absolute emissions reductions. Calculating change in absolute emissions depends on the change in emissions intensity and the change of the normalization metric. Importantly, absolute emissions can still rise while the headline intensity metric falls. For example, if emissions per unit (i.e., intensity) decreases from 10 to 5 tons/unit, while production increases from 100 to 300 units, absolute emissions will increase from 1,000 tons (100 unit * 10 tons/unit) to 1,500 tons (300 unit * 5 tons/unit) despite the decreasing emissions intensity.

Most companies do not disclose production or capacity growth assumptions for intensity targets, which impedes the understanding of how these targets will impact absolute emissions. Additionally, if there is variability in industry-specific intensities (i.e., varied physical units used for the denominator), it is difficult to apply or compare intensity targets between industries or in portfolio applications. Therefore, it is important to model the trajectory of the normalization metric (the denominator) of intensity targets. MSCI ESG Research converts intensity targets to absolute targets by applying a 1% per annum (p.a.) growth factor to the denominator (i.e., production unit) over the period of the target.

The conversion happens in three steps and builds on the following formula, in which the emissions intensity (I), is equal to the ratio of absolute emissions (E) to some normalization metric (Q):

$$I = E/Q$$

In the first step, the value of the normalization metric in the current year (c) is calculated, if information about current emissions (E_c) and current intensity (I_c) is available:

$$Q_c = \frac{E_c}{I_c}$$

In the second step, the value of the normalization metric is backcasted to the base year (b) and forecasted to the target year (t) using the 1% p.a. growth assumption:

$$Q_b = Q_c * 1.01^{(b-c)}$$

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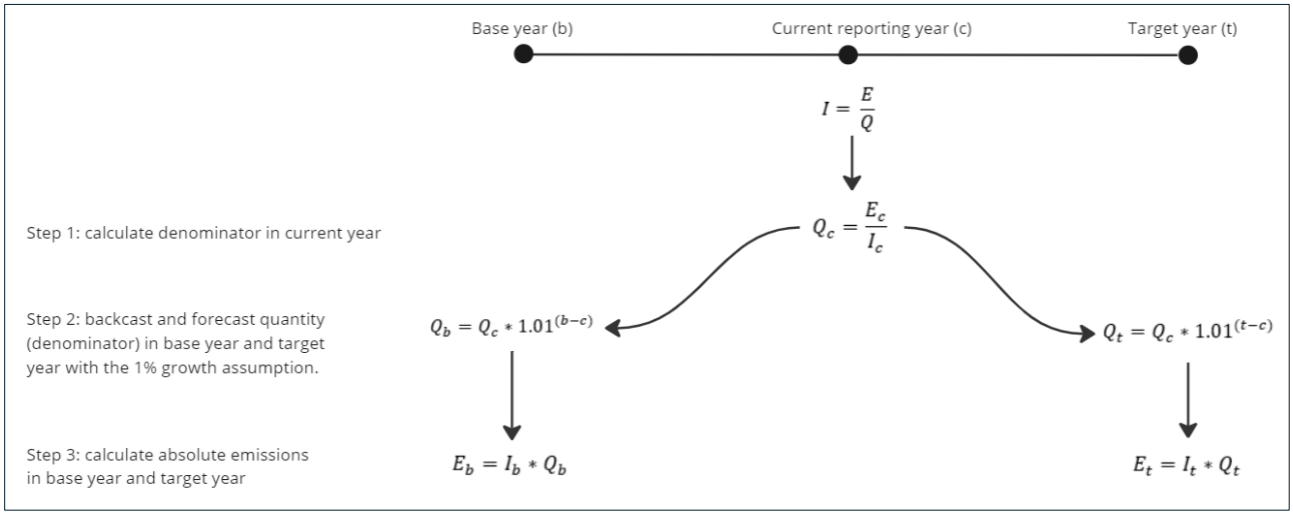
$$Q_t = Q_c * 1.01^{(t-c)}$$

In the third step, absolute emissions in the base year and target year are calculated based on the backcasted and forecasted value of the normalization metric from step 2, and the stated base-year intensity and target-year intensity:

$$E_b = Q_b * I_b$$

$$E_T = Q_t * I_t$$

Exhibit 5. Calculation steps of intensity to absolute target conversion



Source: MSCI ESG Research, as of January 2024.

Following this conversion, intensity targets are processed in the same way as absolute targets.

5.2. Scope-level component

Projecting future emissions requires the aggregation of targets, since companies usually have more than one target in their disclosures. MSCI ESG Research aggregates these targets to enable the assessment of a company's total climate change commitments. Based on the detailed analysis of individual targets as reported by the company, we project the company's emissions for all scopes and categories until 2070, applying all sufficiently accurate targets in chronological order of target end year.

5.2.1. Determine the starting point of the projection

In the Emissions Projection model, MSCI ESG Research projects companies' future emissions trajectories. "Future," in this context, is determined by the available emissions data: the projection starts in the year after the year for which the latest information about companies reported or estimated emissions is available.

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Depending on input data availability, companies' reporting practices, or the timing of data collection, these emissions time series have various end years, which means that the projections also start in different years.

Additionally, companies' scope-level emissions time series often have different end years. For example, a company's available Scope 3 emissions time series data might run until 2022, but available Scope 1 and Scope 2 emissions time series data might run only until 2021. In such situations, the start year of the projection is harmonized across scopes at the company level. In the specific example, 2021 emissions data would be used as the basis of the emissions projections.

5.2.2. Allocate targeted emissions among the targeted scopes

Companies often set targets that combine scopes or Scope 3 categories. For example, if a company commits to reduce its Scope 1 and 2 emissions by 50%, it means the company commits to half its aggregated Scope 1 and Scope 2 emissions by the target year. This standard target-setting practice does not provide information about the allocation of the emissions reduction targets across the targeted scopes. In theory, the company might choose to reach the target by directing more decarbonization efforts into Scope 1 than into Scope 2, or the other way around.

Therefore, it is necessary to determine each target's absolute targeted emissions for each scope because there are often several targets with different timescales covering the same scopes, and emissions projections are calculated for each scope and Scope 3 category. For example, it is common practice to set a short-term target covering Scope 1 and Scope 2 emissions, and a long-term target covering all direct and indirect emissions (i.e., scopes 1, 2 and 3). In this situation, the Scope 1 and Scope 2 projections need to consider both the short-term and the long-term targets, while the Scope 3 projection only needs to consider the long-term target. In order to calculate the future emissions trajectory of Scope 1 emissions, for example, it is necessary to know what share of the short-term and long-term emissions reduction targets can be attributed to Scope 1.

Targets that combine scopes or Scope 3 categories do not reveal how such an attribution should be made. Hence, MSCI ESG Research assumes that the current proportion of individual scopes and Scope 3 categories is preserved in the future. That is, when a target covers several scopes, we allocate the targeted emissions among the targeted scopes based on the current share of the individual scope-level emissions in total emissions. Exhibit 6 demonstrates how current scope proportions are preserved in the emissions projections.

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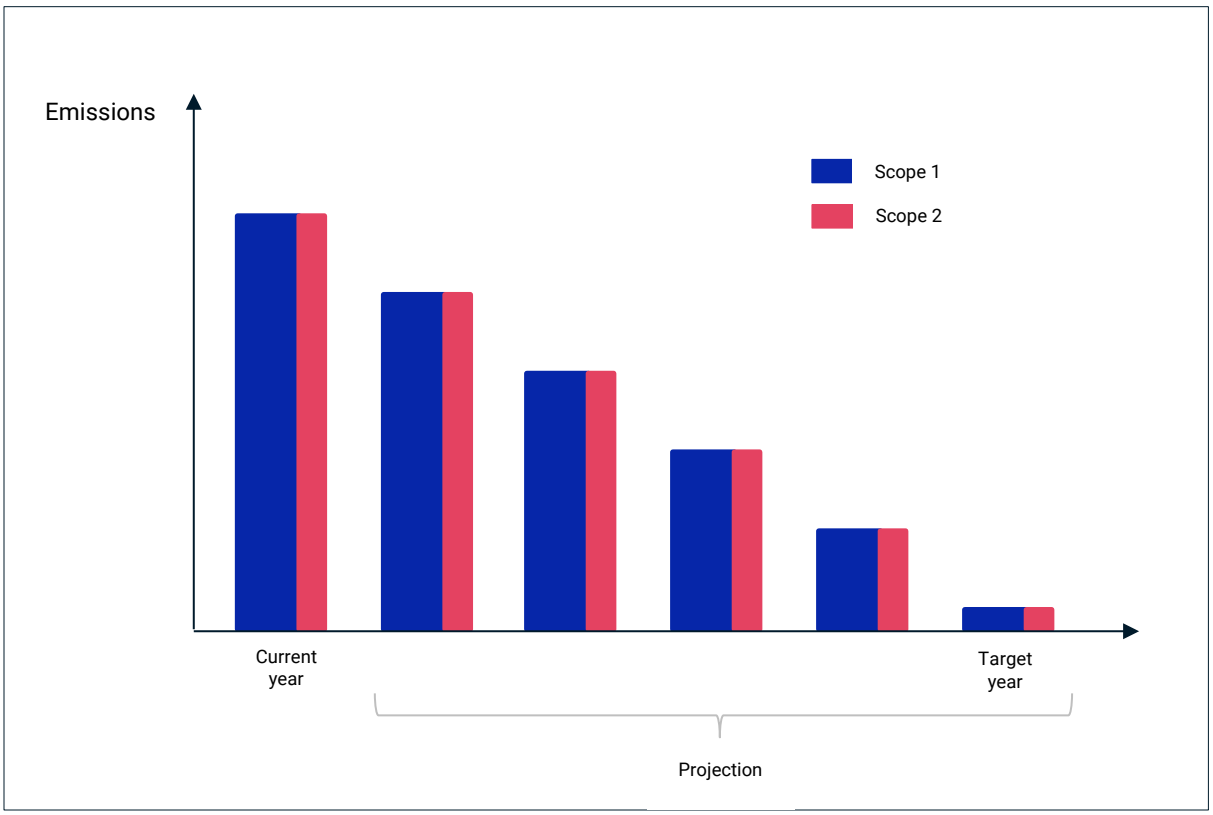
Exhibit 6. Current emissions shares are preserved in emissions projections.



Source: MSCI ESG Research, as of January 2024.

5.2.3. Determine applied targets — the break points of the projection

The sections above describe how two ingredients are determined for a scope-level emissions projection: the start point of the projection (i.e., a scope-level year-emissions pair, see Exhibit 3 for illustration) and the targeted emissions attributable to the scope from multi-scope targets. With these pieces of information in hand, the next step towards the creation of a scope-level emissions projection is the choice of targets that are to be applied. Applied targets are the subset of the company's targets that are used in the emissions projection.

Even after filtering for relevant targets (Section 5.1.1), MSCI ESG Research might still observe the presence of so-called "conflicting" targets. At the scope level, two (or more) targets are considered to be conflicting when their target year is the same. These targets cannot be applied simultaneously in the emissions projection.

The following target attributes are used to prioritize targets and choose a single target from the set of conflicting targets:

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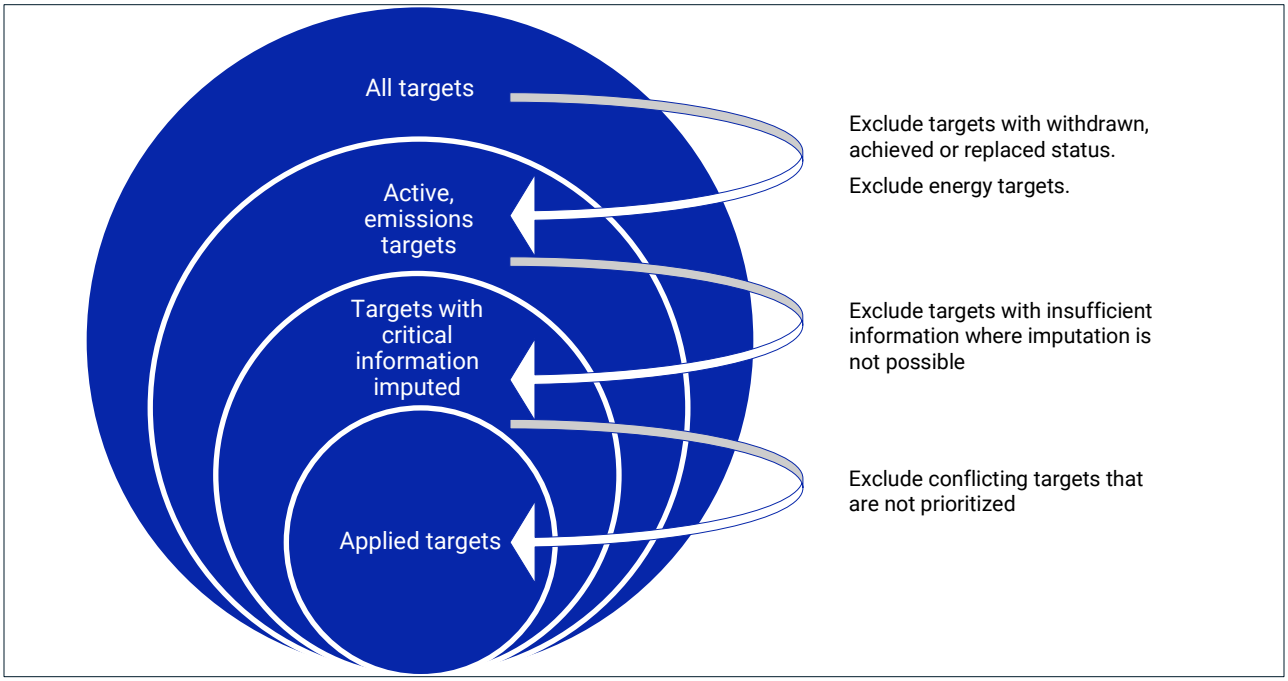
- Intensity type: An absolute target is preferred over an intensity target.
- Base year: A later baseline year is preferred over an earlier baseline year.
- Targeted emissions reduction: A higher reduction is preferred over a lower reduction.
- Announcement date: A target with a later target announcement date is preferred over a target with an earlier announcement date.

Exhibit 7. Sets of targets at different points of the analysis



Source: MSCI ESG Research, as of January 2024.

Once conflicting targets are excluded from the pool of candidate targets, only targets that can be applied in the scope-level emissions projections remain. Applied targets determine fixed (targeted) points of the scope-level emissions projection (Exhibit 8).

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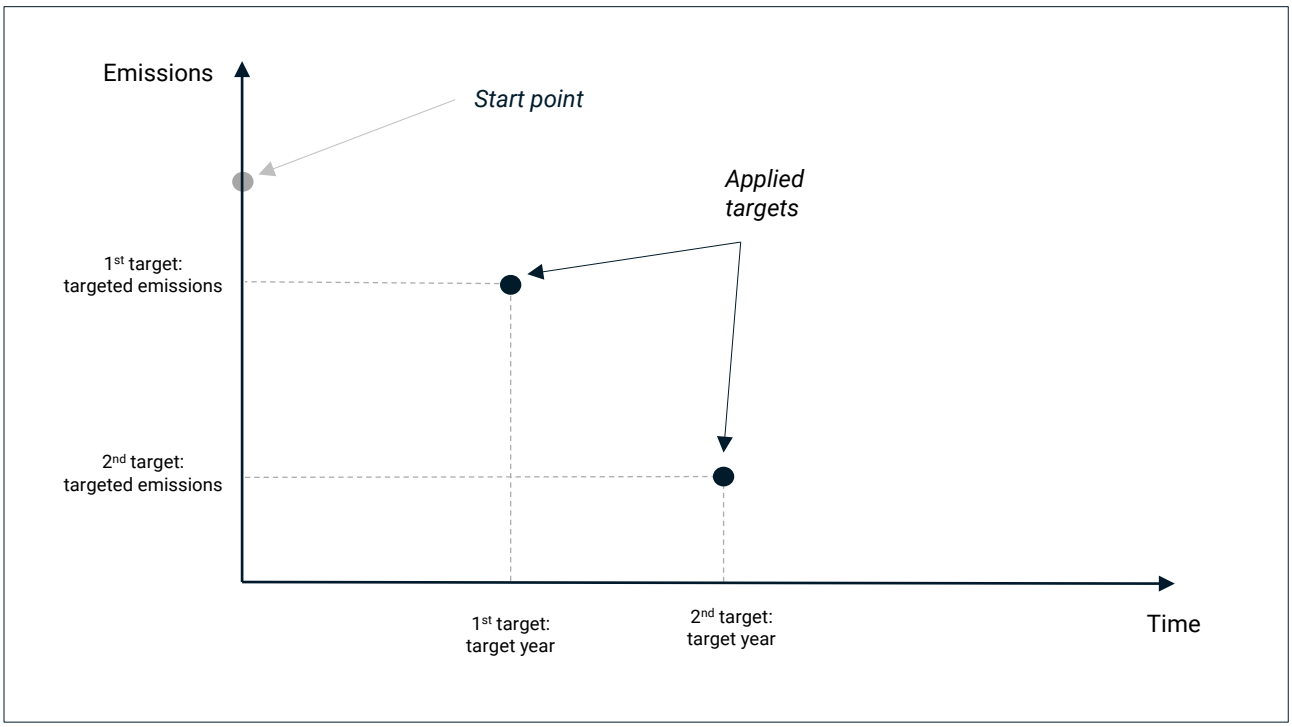
Exhibit 8. Applied targets: the break points of the scope-level emissions projection.



Source: MSCI ESG Research, as of January 2024.

5.2.4. Scope-level emissions projection

The final step of the scope-level emissions projection is the calculation of the emissions pathway between the start point of the projection and the first applied target, and between the subsequent applied targets. Theoretically, there are multiple possible pathways to reach individual targets.

By setting near-term, mid-term and long-term targets, companies can demonstrate the milestones of their intended emissions reduction trajectory. However, even with these milestones at hand, an attempt to create a yearly emissions projection requires assumptions about the shape of the emissions trajectory curve *between* these milestones.

MSCI ESG Research assumes a linear pathway between targets covering the same scope or Scope 3 category with different end years. In other words, the scope-level emissions projection is a piecewise linear function whose break points are determined by the target year and targeted emissions of applied targets. The trajectory between these points is determined by linear interpolation. To put it differently, MSCI ESG Research assumes that companies will meet their targets with earlier end years first, then move on to targets with later end years and subtract the progress already made via the completed targets. (see Exhibit 9).

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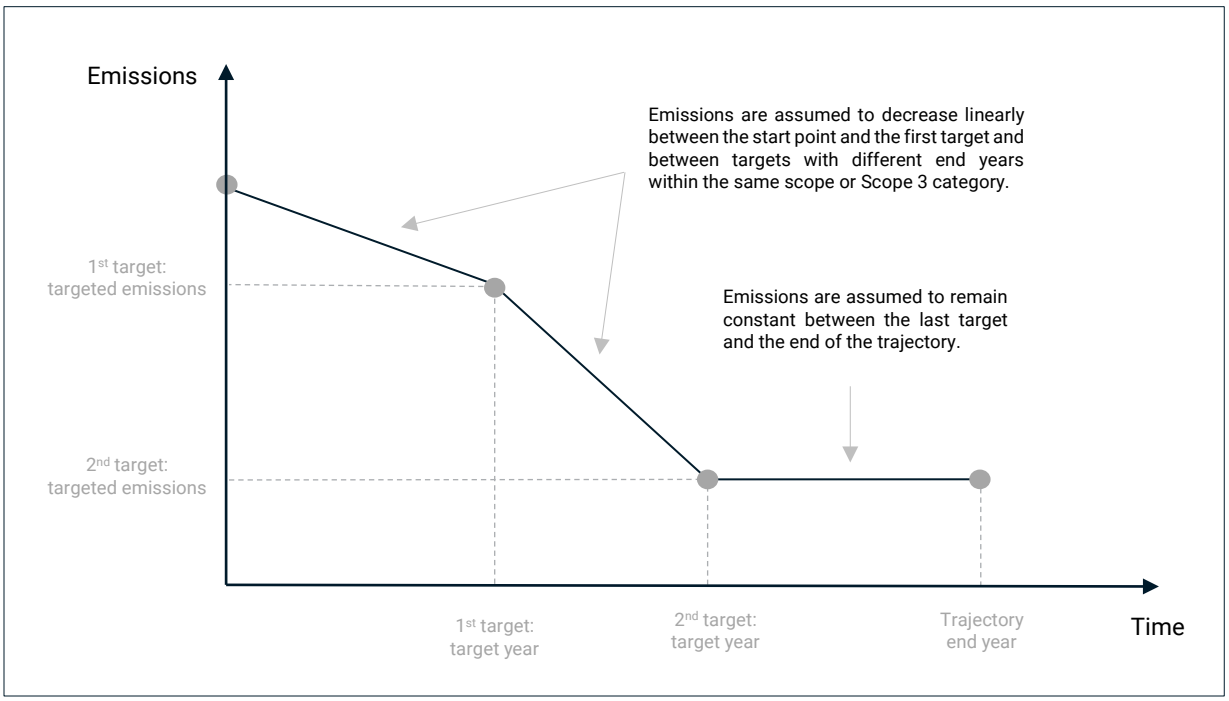
Exhibit 9. Scope-level emissions projection in scopes with targets



Source: MSCI ESG Research, as of January 2024.

If a company does not have a target to reduce any part of its Scope 1, 2 or 3 emissions, then MSCI ESG Research assumes its projected emissions footprint will increase based on a 1% p.a. growth rate (see Exhibit 10). This is MSCI ESG Research's basic growth assumption across the methodology.[7]

The 1% growth rate is not applied after the end year of the last applied target, as we consider it unlikely that a company targeting any part of its emissions footprint now will reverse course in the future, as pressures to mitigate emissions may only intensify (see Exhibit 9).

[7] Based on data from the UNEP Emissions GAP report, emissions grew globally by 1.4% p.a. in the period 2009-2019. If this number is adjusted by GDP, then the resulting growth is approximately 1% p.a. See: United Nations Environment Programme (UNEP), *Emissions Gap Report 2020*, UNEP, 2020.

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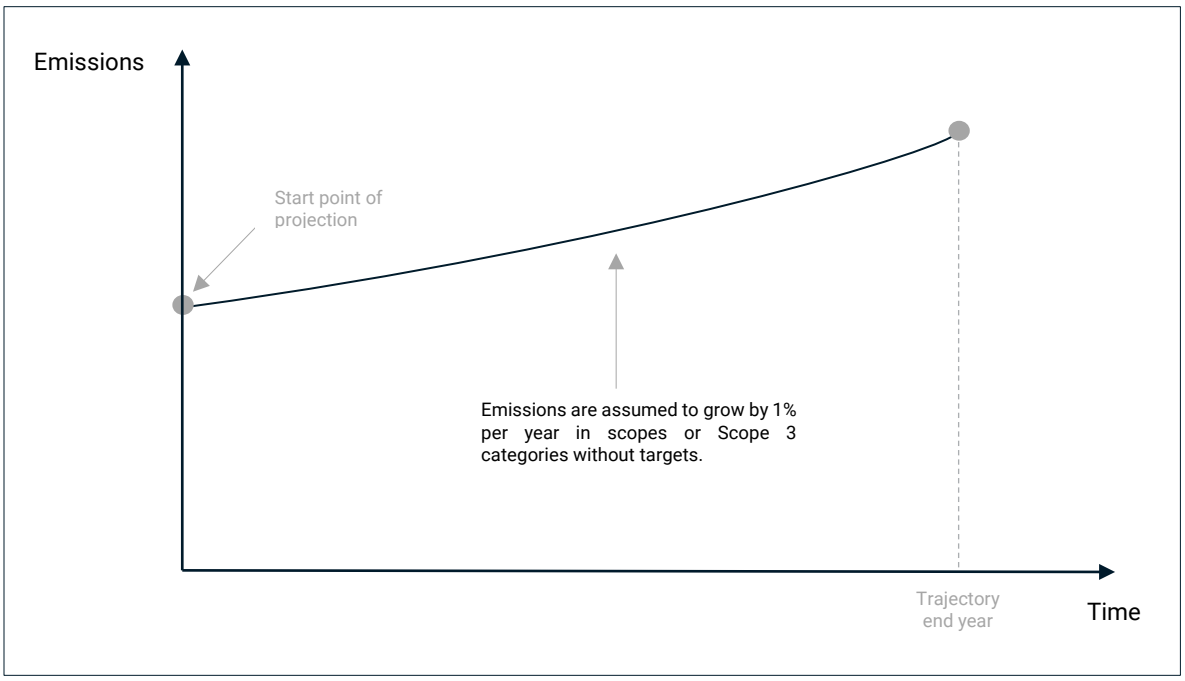
Exhibit 10. Scope-level emissions projection in scopes without targets



Source: MSCI ESG Research, as of January 2024.

5.3. Company-level component

Company-level emissions projections consist of the aggregated Scope or Scope 3 category-level projections. The first step is the aggregation of the 15 Scope 3 category trajectories into a single Scope 3 trajectory, and the second step is the aggregation of the Scope 1, Scope 2 and Scope 3 trajectories. Specifically, for every year of the emissions projection, the scope-level projected emissions for that year are summed (see Exhibit 11).

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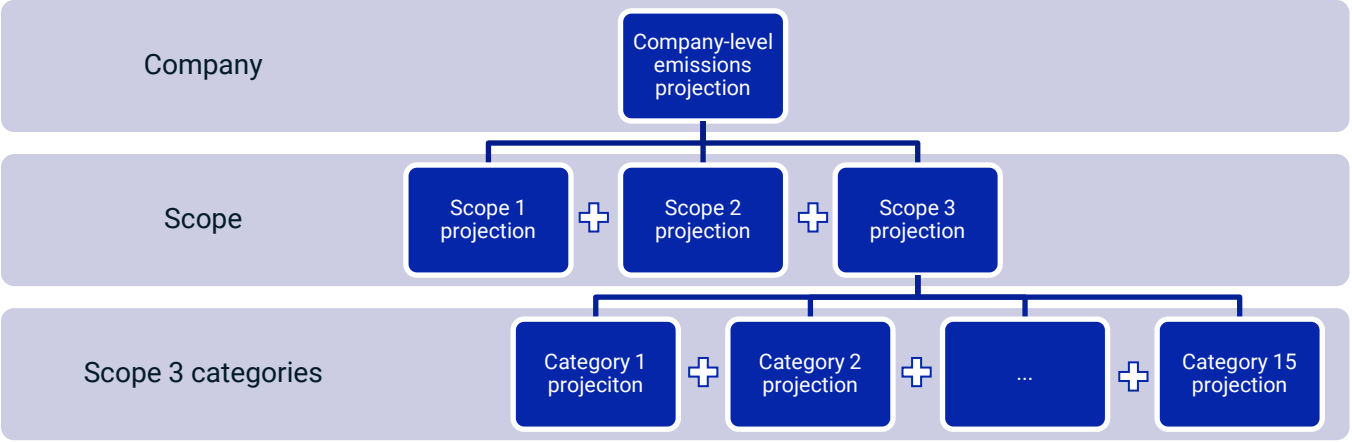
Exhibit 11. Hierarchical representation of emissions projections



Source: MSCI ESG Research, as of January 2024.

6. Target Summary model

The Target Summary model provides company-level information about crucial aspects of emissions reduction targets of companies, such as:

- Comprehensiveness: Whether targets cover a significant share of total emissions.
- Ambition: Whether company targets aim for large emissions reduction during a short time frame.
- Feasibility: Whether a company can meet its climate targets.

MSCI ESG Research evaluates companies' climate targets through these three lenses and company-level data points related to net-zero targets. Each of these lenses is described in the next subsections.

The Target Summary model uses the following key inputs:

- Company-level emissions projections from the Emissions Projections model.
- Target-level data as input (see Exhibit 1).

The output of the Target Summary model is the Target Summary dataset, a collection of company-level data points about the emissions reduction efforts and targets of companies.

6.1. Comprehensiveness: emissions and activities covered by targets

Comprehensiveness refers to the proportion of total emissions covered by a company's targets. A set of targets covering all emissions scopes, geographies and business activities would be comprehensive and signal that the decarbonization efforts of the company are broad and exhaustive, taking into account all sources of emissions linked to its operation.

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Because companies typically set multiple targets, each covering different sources of emissions, MSCI ESG Research constructed the effective coverage ratio metric, which summarizes this target-level information and aggregates it to the company level. Its value ranges between 0 (targets are not comprehensive, no emissions covered) and 1 (targets are comprehensive, all emissions of the company are covered).

At the **target level**, companies declare the coverage percentage of the target. This is less than 100% when some activities or geographies are excluded. For instance, a European electric utility might have a target to reduce its Scope 1 emissions within Europe, but not have the same target for its operations outside of Europe. This target would cover Scope 1 but would have a coverage percentage of less than 100%. Similarly, an automobile manufacturer might have fuel efficiency targets for the passenger cars it produces but no such target for its commercial trucks; if so, its target that covers Scope 3 emissions would also have a coverage percentage below 100%.

On the **company level**, emissions reduction targets are more comprehensive when they focus on scopes and Scope 3 categories that constitute the highest share of total emissions *and* cover most of the emissions *within* those targeted scopes. The effective coverage ratio combines these two components across all scopes and scope 3 categories:

$$Effective\ coverage\ ratio = \sum_{s=1}^{17} \frac{Emissions\ in\ scope\ s}{Total\ emissions} * \frac{Emissions\ covered\ by\ targets\ in\ scope\ s}{Emissions\ in\ scope\ s}$$

In other words, the effective coverage ratio is the scope-level share of emissions covered by targets, summed over Scope 1, Scope 2 and the 15 scope 3 categories:

$$Effective\ coverage\ ratio = \sum_{s=1}^{17} \frac{Emissions\ covered\ by\ targets\ in\ scope\ s}{Total\ emissions}$$

Note that only targets that are applied by the Emissions Projection model enter the assessment of comprehensiveness.

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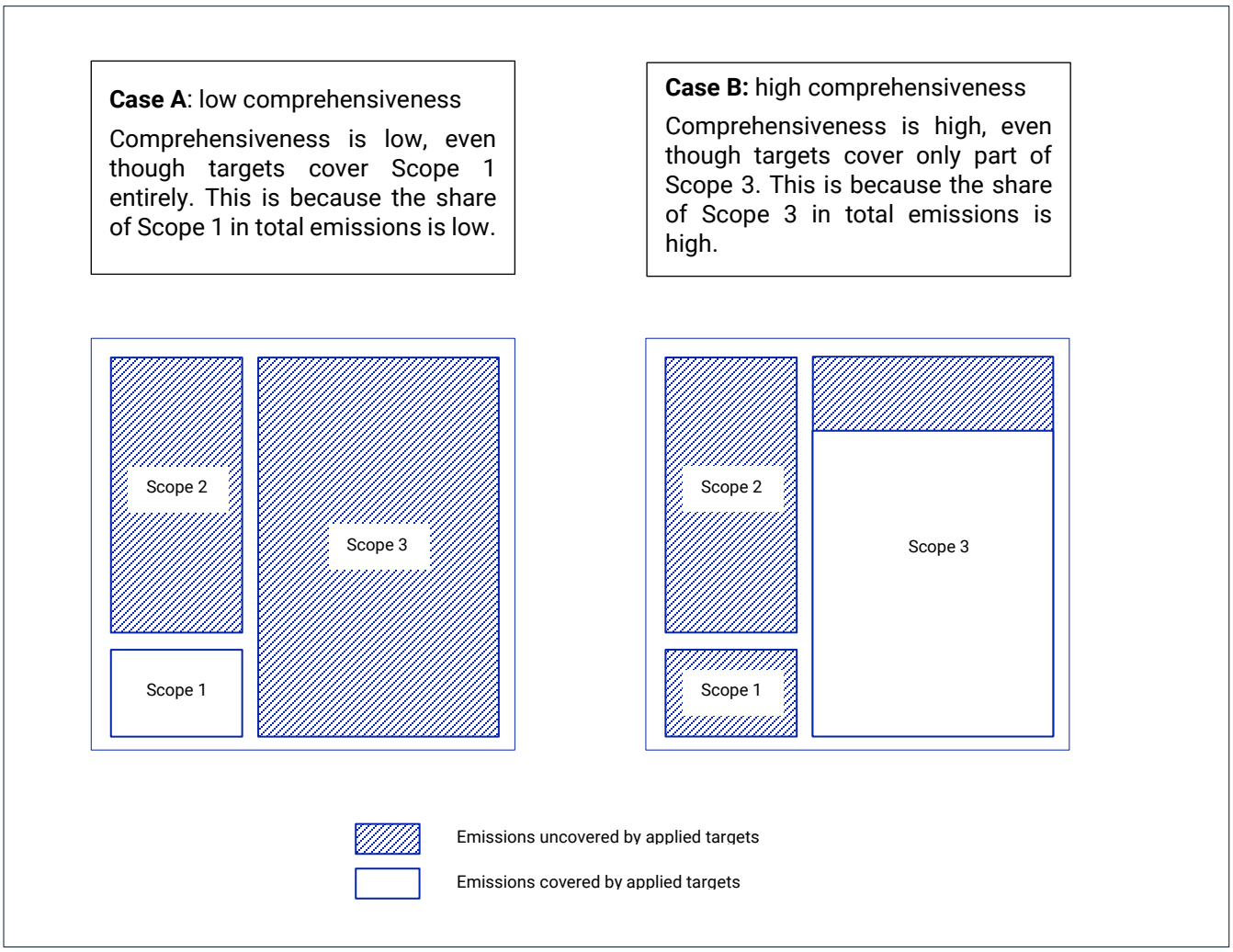
Exhibit 12. Demonstration of the effective coverage ratio metric



Source: MSCI ESG Research, as of January 2024.

Comprehensiveness includes the effective coverage ratio, data points on the scopes and Scope 3 categories covered by company targets, and specific information on the type of targets (intensity or absolute) applied by the Emissions Projection model.

6.2. Ambition: the amount of emissions reduced and time required

An emissions reduction target is ambitious if it aims to reduce a large share of current emissions during a short time. Companies may have several targets with different levels of emissions reductions, coverage

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and time frames. The annual reduction metric encompasses relevant target-level information regarding ambition and facilitates comparison across companies.

Annual reduction is the yearly amount of emissions that a company has to reduce in order to reach its stated targets (see Exhibit 13). The metric is normalized, i.e., the total emissions reduction is divided by starting emissions to enable cross-company comparison. Annual reduction is calculated based on the company-level emissions projection (the output of the Emissions Projection model described in section 5) using the following formula:

$$Annual\ Reduction = -\left(\frac{latest\ emissions - target\ emissions}{latest\ emissions}\right)/(target\ year - latest\ year)$$

In other terms, annual reduction is the total reduction (expressed as a share of the latest year's emissions) divided by the number of years during which the company aims to fulfill its target.

A positive number corresponds to an increase in absolute emissions (for example 0.012 is an annual average increase of 1.2% per year), a negative number corresponds to a decrease in absolute emissions. An increase may be caused by targets with low comprehensiveness, such as targets which do not cover all emissions or are intensity-based and do not lead to a reduction of absolute emissions.

The variables in the above formula come from the company-level emissions projection (see Exhibit 13 for a visualization):

- *Latest year* is the most recent year when emissions in all scopes and Scope 3 categories are available (i.e., the start point of the emissions projection, described in section 5.2.1.).
- *Latest emissions* are the company's total emissions (across Scopes 1, 2 and 3) in the year that they were most recently reported or estimated (i.e., the start point of the emissions projection, described in section 5.2.1.).
- *Target year* is the end year of the last applied target in the company-level emissions projection.
- *Target emissions* is the value of the emissions projection in the end year of the last applied target. In other words, it expresses what the level of emissions would be if all targets are successfully met.

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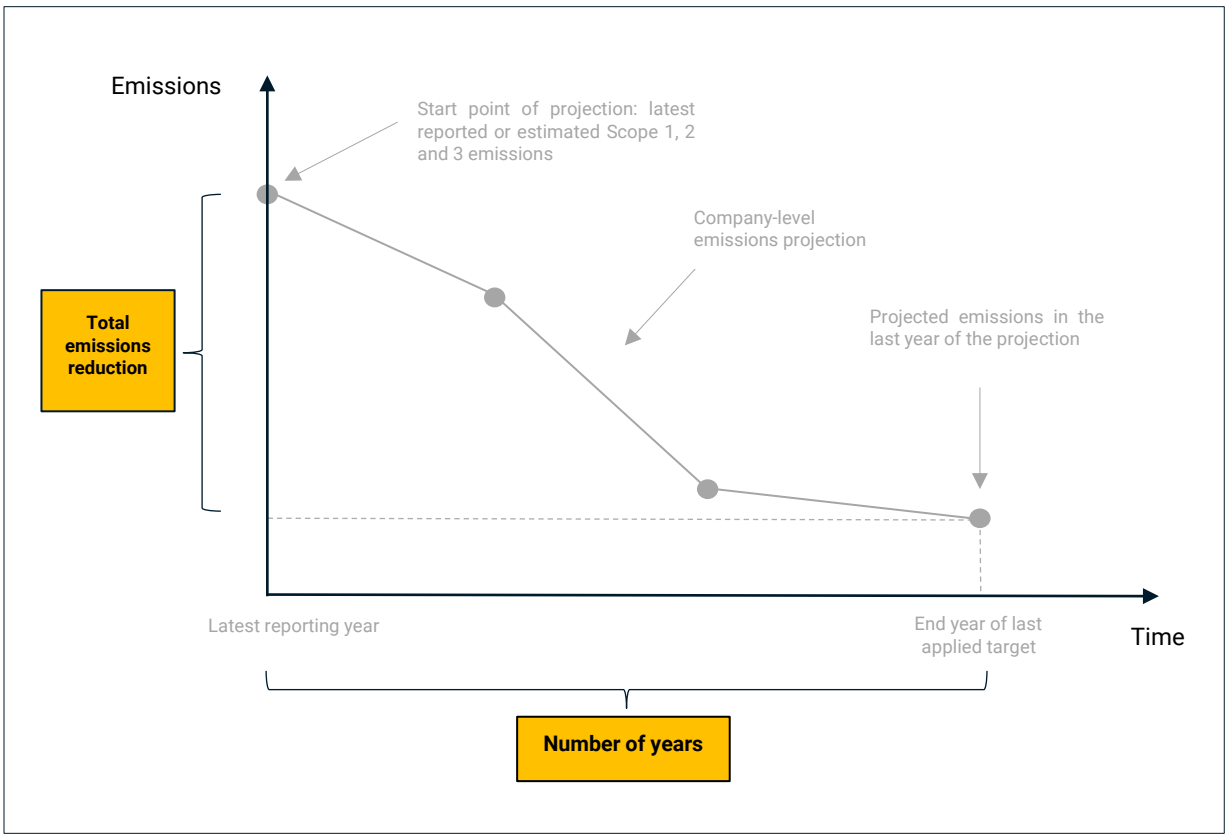
Exhibit 13. Visualization of the ambition metric: emissions reduction/number of years



Source: MSCI ESG Research, as of January 2024.

6.3. Feasibility: track record and progress towards stated target

MSCI ESG Research assesses the feasibility that a company meets its targets based on the outcome of past targets and the progress towards ongoing, active targets. We provide information about whether a company has met its past targets and whether the company is on track to meet its current stated targets.

The current progress data point involves a target-level assessment (see Exhibit 14). We compute whether a company is on track to meet an applied target by comparing company emissions in the current reporting year of the target to the hypothetical value that would be emitted (point C) if emissions followed a linear pathway between the base-year emissions (point A) and target-year emissions (point B) of the target in question. The company is on track to meet the target if its emissions in the current reporting year are below the hypothetical trajectory (point D), while it is not on track if emissions exceed the trajectory (point E). This assessment is carried out for every target that has been applied by the Emissions Projection

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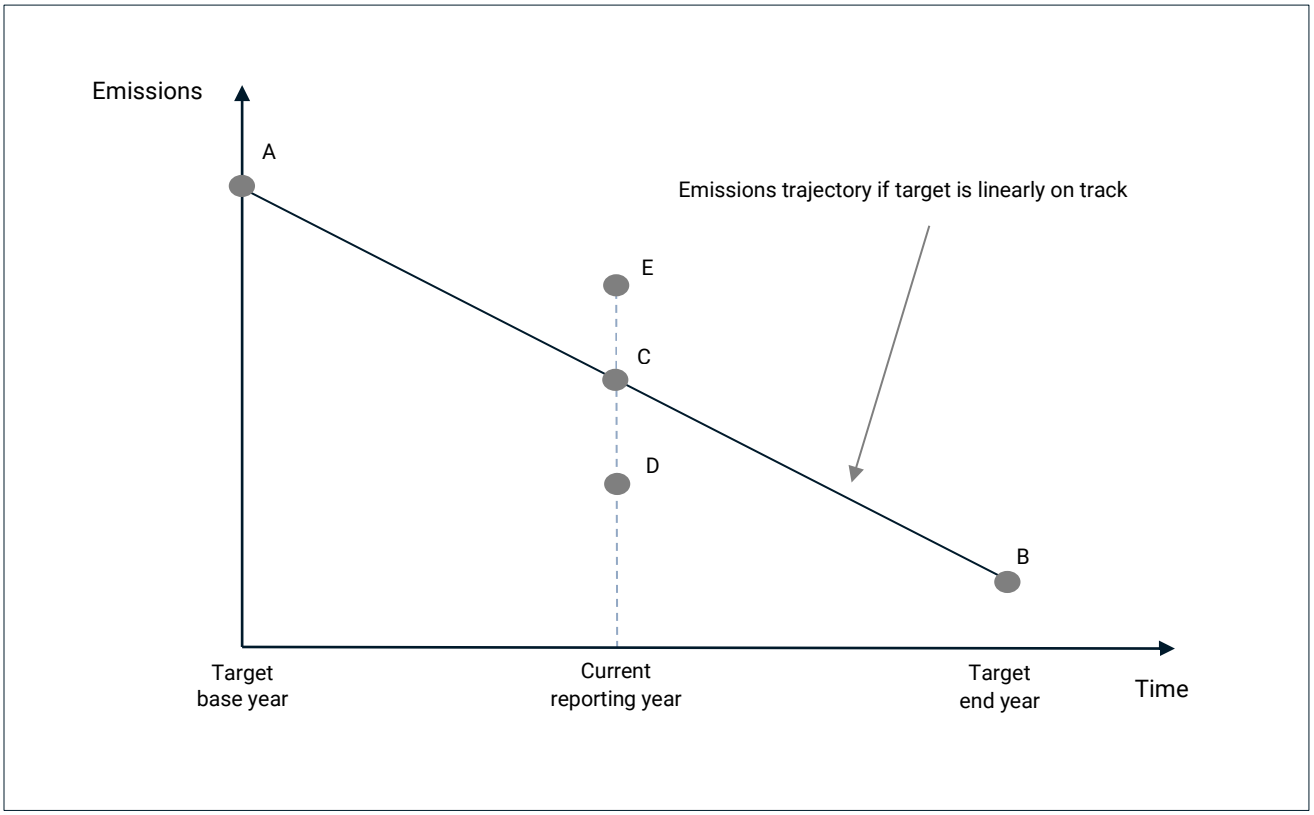
model, and the information is aggregated to the company level. The current progress data point has one of three values, depending on the outcome of the target-level assessments. A company can be:

- On track with all its applied targets.
- On track with some of its applied targets.
- Not on track with any of its applied targets.

Exhibit 14. Demonstration of target-level analysis for the calculation of the current progress data point



Source: MSCI ESG Research, as of January 2024.

6.4. Net-zero targets and related data points

Net-zero targets represent a commitment by a company to reduce its GHG emissions by the maximum available and to compensate for the remaining unavoidable emissions with carbon removal or offsets. Behind the headline reduction amount of a net-zero target lie important questions relating to the period over which the company intends to achieve those reductions and also the scope of the commitment, i.e., whether or not the target covers the entirety of a company's footprint.

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MSCI ESG Research collects self-declared net-zero commitments at the target level. This information is aggregated to the company level. The self-declared net-zero data point is flagged if any of the targets applied by the Emissions Projection model are flagged as net-zero. Note that this data point relies on information declared by the company itself and does not rely on other assessment criteria.

Another approach to net-zero assessment is the application of SBTi's criteria of near- and long-term net-zero targets.[8] SBTi's definitions of net-zero targets for different target years are the following:

- 2030: 95% or higher reduction in Scope 1 and Scope 2 emissions and *67%* reduction of Scope 3 emissions by 2030 or sooner.
- 2050: 95% or higher reduction in Scope 1 and Scope 2 emissions and *90%* reduction of Scope 3 emissions by 2050 or sooner.
- 2070: 95% or higher reduction in Scope 1 and Scope 2 emissions and *90%* reduction of Scope 3 emissions by 2070 or sooner.

The above criteria are applied to the scope-level emissions projections described in section 5.2. That is, the self-declared net-zero 2030/2050/2070 factor is flagged if a company's scope-level projections fulfill the above-described criteria.

Additionally, the projected cumulative change in total emissions of a company in 2030, 2050 and 2070 factors are calculated from the company-level emissions projection described in Section 5.

7. Coverage, data and methodology processes

7.1. Coverage

The Climate Targets & Commitments coverage universe is determined by issuers' inclusion in the MSCI ESG Climate Change Metrics coverage universe. As of Feb 2024, this universe includes constituents of the MSCI ACWI Investable Markets Index (IMI), constituents of other selected equity indexes,[9] and fixed income issuers.[10]

7.2. Data collection

MSCI ESG Research collects information on climate targets for companies in the coverage universe from publicly available sources throughout the year and publishes this information through MSCI ESG Research distribution platforms as the Climate Targets and Commitments Data.

[8] SBTi, *SBTi Corporate Net-Zero Standard*, version 1.1, SBTi, 2021.

[9] MSCI China A International, MSCI Pakistan IMI, MSCI Argentina Standard, MSCI Domestic Kuwait, MSCI EFM AFRICA, MSCI Australia IMI+, MSCI New Zealand IMI+, MSCI Europe IMI+, MSCI UK IMI+.

[10] Corporate constituents of the Bloomberg Global Aggregate Index that meet our minimum disclosure threshold.

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There are three sources of target data. First, data is collected by a team of MSCI ESG Research experts from companies' publicly available documents, such as annual reports, CDP reports, the Science Based Targets initiative, Form 10-K, Form 20-F, sustainability reports, investor presentations, and other companies' disclosures. Second, companies can verify, amend and input new climate targets through MSCI ESG Research's dedicated platform. Third, natural language processing software is used to identify new target announcements.[11]

7.3. Data updates and quality assurance

The data update cycle of the Target Summary dataset is two weeks. Climate target data is collected continuously throughout the year. All target data undergoes a quality assurance process upon entering MSCI ESG Research's databases. This includes automated checks and review by ESG data experts and ESG analytical personnel when required.

The Emissions Projection and Target Summary models are recalculated and published bi-weekly, typically every other Wednesday. Quality assurance is performed on model outputs, including statistical output monitoring (such as range checks for numerical data points) and review by ESG analytical personnel, when required.

7.4. Methodology update processes

The ESG Methodology Committee (EMC) presides over the development, review and approval of all MSCI ESG Research methodologies. Methodology update proposals are subject to market consultation prior to approval for implementation by the EMC.

[11] For further details on data collection and update processes, we refer to the following document: MSCI ESG Research, *Implied Temperature Rise and Climate Change Targets Data Process*, MSCI ESG Research, December 2023, (client access only).

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