EU Taxonomy
Data Content Guide

Background

The EU taxonomy classification system of environmentally sustainable activities and large EU corporations will disclose information that indicates how aligned the company's revenue, operating expenditure, and capital expenditure are to the EU goal of being net zero by 2050. The EU taxonomy will eventually cover six environmental green "objectives" and will be extended to social objectives and to identify "brown" activities.

To assess a company, it is broken down into its economic activities, but not all economic activities can be assessed under the EU taxonomy as the regulation concentrates on those economic activities that have the largest carbon emissions. Activities in sectors that are not highly emitting do not have rules and cannot be assessed (they are not eligible for assessment under the taxonomy) and therefore cannot be aligned. We refer to those that can be assessed as *eligible* and activities that have no criteria as being *not eligible.* Those activities that are eligible and meet all the relevant criteria are aligned to the taxonomy; activities that are eligible but do not meet one or more of the criteria are eligible but not aligned.

Due to this, a company is not simply aligned or not aligned to the EU taxonomy; rather a proportion of the company's activities will be aligned, as measured by the revenue (or capital expenditure or operational expenditure).

The regulation mandates that EU-domiciled funds (or funds sold into the EU) must also calculate and disclose their portfolio's alignment with the EU taxonomy by providing an aggregation of the percentage alignment of the underlying holdings. This methodology paper describes the calculation of those fund-level metrics.

Just like some activities at the company level cannot be assessed under the taxonomy (are not eligible), certain types of portfolio holdings are not eligible. The regulation specifically states that the alignment of derivatives and sovereign holdings (aside from green bonds issued by sovereign entities) cannot be assessed, and Morningstar's opinion is that cash and commodities holdings cannot be assessed as they do not have associated revenues, operational expenditures, or capital expenditures.

Definition of the Dataset

An indication of how a portfolio can be described in terms of its overall alignment and eligibility to the EU taxonomy and the alignment and eligibility to the individual taxonomy objectives for climate change mitigation and climate change adaptation.

Content

Morningstar calculates EU taxonomy information:

•   Based on the initial two environmental objectives namely: climate change mitigation, or CCM, and climate change adaptation, or CCA, as well as the overall alignment (EU Taxonomy Overall). In this paper, these are referred to as the objectives the taxonomy information can be calculated on.

•   Each objective has information calculated based upon the percentage of revenue, capital expenditure, and operational expenditure of the underlying holdings. In this paper, these are referred to as the metrics the taxonomy information can be calculated on.

•   The alignment breakdowns are calculated as a percentage of the fund's total portfolio and the portfolio excluding sovereign investments.

Note the overall alignment is not a simple sum of the underlying objective alignment scores, as an activity may meet the criteria for multiple objectives and the overall alignment would only count that activity once to avoid double counting

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Basic Structure of the Content

Aligned Investments	Eligible	Own performance
		Transition
		Enabling
Other investments		Eligible not aligned
	Not Eligible	Activities
		Derivatives*
		Govt/Muni/Supra*
		Commodities*
		Cash*
	Holdings with no research (all data)	

The data calculated for the portfolio can be thought of in three levels. The first level being the percentage of the portfolio that is aligned and the rest of the portfolio (other investments).

The next level would be the:

- Eligible portion: The parts that are invested in economic activities that can be assessed under the taxonomy. This includes both the aligned and the eligible but not aligned parts.
- Not eligible portion: The parts that are invested in economic activities or holdings that cannot be assessed.
- No research available portion: The parts where the holding cannot be identified, or where there is no underlying information on the alignment to the EU taxonomy.

The last level consists of the:

- Aligned portion: This is further broken down into activities that meet the regulatory definition for an enabling contribution (where the activity does not directly and substantially contribute to the objective but does enable other activities that make a direct and substantial contribution, such as the activity of making wind turbine blades); or a transition contribution (an activity where there is no technological and economically feasible low-carbon alternative, but it supports the transition to a climate-neutral economy in a manner that is consistent with the pathway to limit temperature increase to 1.5 degrees Celsius); or it is does not meet either of those criteria and is placed into own performance.
- Eligible not aligned portion: Where the activities invested in are eligible to be assessed but do not meet one or more of the requirements to be aligned.
- Not eligible portion is broken down into to reason for ineligibility (whether it is an activity not covered by the taxonomy or a type of holding that cannot be assessed).

The calculations for the aligned investments, other investments, and eligible but not aligned are also broken down into the portions that come from data reported by the company directly, and data based on Sustainalytics estimated values or coefficients. For the company-reported data breakdowns, two other fields are calculated: eligible undisclosed alignment (where investee companies disclose the proportion of their activities that are eligible but do not disclose the alignment) and aligned undisclosed breakdown (where investee companies report the proportion of their activities that are aligned but not if they are enabling, transition, or neither one).

Inputs/Sources/Timing

These calculations will use Morningstar's portfolio data to determine the holdings of the fund and information from Sustainalytics for the taxonomy alignment of the underlying holdings.

The calculations are performed upon the collection of the portfolio, and only data that is available to the market on the portfolio date will be used in the calculation of the aggregated values.

Assumptions

Where a holding of a portfolio cannot be identified, or where there is no underlying information on the alignment to the EU taxonomy, the holding will be assumed to have no alignment to the taxonomy (0%) and will be reported as "no research available."

The regulation is silent on how to treat short positions when calculating the taxonomy data for a portfolio. Morningstar has taken the position that the calculations will be undertaken on the long positions of a portfolio only (after any long and short positions in the same investment have been netted out).

Limitations/Exceptions

These calculations are based on the regulatory rules, but certain limitations should be noted.

- Green bonds: The regulation allows the alignment for green bonds to be calculated based on the use of the proceeds of those bonds. This data is not widely available, and where a portfolio holds green bonds, these calculations will use the alignment of the issuer of the green bond. This alignment will always be lower than the green bond itself and so it is the cautious approach.
- Real estate and infrastructure: The alignment of these types of holdings are not collected or estimated, and these will be added to the "no research available" breakdown.
- Holding in other funds: Where a portfolio invests in another fund, the calculation will "look through" to the underlying holdings of the investee fund where possible. The reported taxonomy alignment of any investee fund being held in the portfolio will not be factored into the calculation.
- If a portfolio is 100% in short positions, no taxonomy data will be calculated; and if it is 100% in sovereign bonds, the "excluding sovereign" data fields will not be calculated.

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Markets

These calculations are available for all markets but are most relevant for funds or portfolios sold into the EU market.

Universes

These calculations are available for all investments that have a portfolio and will also be calculated for Morningstar indexes, but they will not be calculated for indexes from other companies.

Calculations

The calculations are based on the EU taxonomy holding type and underlying corporate-level data from Sustainalytics, a Morningstar company that provides sustainability research. Morningstar will link the corporate holding in the portfolio with the corporate-level data collected or estimated by Sustainalytics. Corporate bond holdings are linked to the issuing company's alignment data.

Note that green bonds will use the same underlying taxonomy data as a standard corporate bond—that is, the data of the issuing entity. They will not have their own separate alignment data.

EU Taxonomy Holding Types

Not all security types are EU-taxonomy-eligible—for example, cash and commodity positions do not have associated revenues and therefore cannot be evaluated. The EU taxonomy regulation currently does not provide an evaluation mechanism for government/sovereign bonds (including, for this methodology, supranational, and municipal bonds) and the regulation notes that derivative positions should not be assessed.

For these calculations, Morningstar will assign one of five EU taxonomy holding types to all securities:
1) Cash or cashlike investments,
2) Commodities,
3) Government bonds (including supranational and municipal bonds),
4) Derivatives, and
5) Corporate securities (including stock, corporate bonds, property, and any other holdings including unidentified holdings).

Corporate bond holdings are linked to the company that issued the bond and have the same taxonomy data as a stock investment in the same firm.

Portfolio Look Through

Morningstar will first attempt to "look through" any funds that are held by the portfolio to find the underlying holdings that are indirectly held. The "look through" function goes up to 10 portfolios '"deep," —that is, when a portfolio holds a fund, and in turn, that fund hold other funds, the "look through" process will assess 10 "levels" of portfolios. The exception to this rule is for funds that are synthetically replicated; for the purpose of the EU taxonomic calculations, they will be treated as being equivalent to

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a portfolio holding derivatives. The derivative holding will not be "looked through" and, for the purposes of the calculations, are treated as "other holdings"—that is, not corporate or sovereign holdings.

Calculation of Total Portfolio Weights

Morningstar calculates portfolio weights based on the proportion of a portfolio that a holding represents once any fund holdings have been "looked through." The weights are based on the market value of the securities. For the EU taxonomic calculations, some additional steps will be taken to calculate the final portfolio weight:

1) Any securities that have both long and short positions will be "netted out"—that is, the short position weight will be subtracted from the long position weight.

2) Any remaining short positions will be removed.

3) Any currency offsets will be removed (if, after this step, no holdings remain, no taxonomy data will be calculated).

4) The portfolio weight will then be recalculated on the netted-out long positions only.

[1]

$$Total\ Portfolio\ Weight\ W_R = \frac{Portfolio\ Weight_i}{\sum_{i=1}^{n} PortfolioWeight_i}$$

Where

Total Portfolio Weight W_R	=	Rescaled portfolio weight
$Portfolio\ Weight_i$	=	Original portfolio weight
i=1, n	=	All long, noncash offset holdings

Calculation of Portfolio Weights Excluding Sovereign Investments

Morningstar calculates portfolio weights based on the proportion of a portfolio that a holding represents excluding sovereign investments, once any fund holdings have been "looked through." For the EU taxonomy calculations, some additional steps will be taken to calculate the final portfolio weight:

1) Any securities that have both long and short positions will be "netted out"—that is, the short position weight will be subtracted from the long position weight.

2) Any remaining short positions will be removed.

3) Any currency offsets will be removed.

4) Any sovereign or supranational investments will be removed (if, after this step, no holdings remain, no excluding sovereign data fields will be calculated).

5) The portfolio weight will then be recalculated on the netted-out long positions only.

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[2]

$$Portfolio\ Weight\ Excluding\ Sovereign\ W_{ES} = \frac{Portfolio\ Weight_i}{\sum_{i=1}^{es} PortfolioWeight_i}$$

Where

$Portfolio\ Weight\ Excluding\ Sovereign\ W_{ES}$	=	Rescaled excluding sovereign portfolio weight
$Portfolio\ Weight_i$	=	Original portfolio weight
i=1, es	=	All long, noncash offset, non-sovereign/supranational holdings

Calculations Based on Portfolio Weights Excluding Sovereign Investments

For the taxonomy calculations that follow, the formulas for total portfolio breakdowns and portfolio excluding sovereign investments breakdowns will be identical, except the total portfolio breakdowns will use total portfolio weight, W_R, and portfolio excluding sovereign investments breakdowns will use portfolio weight excluding sovereigns, W_{ES}. To obtain the formulas for portfolio excluding sovereign investments calculations, replace W_R with W_{ES}.

Calculations Based on Different Taxonomy Objectives/Metrics

Sustainalytics undertakes company-level activity-based research to assess the proportion of a company's revenue, capital expenditure, or operational expenditure that is aligned to the EU taxonomy for the climate change mitigation, or CCM, climate change adaptation, or CCA, and EU taxonomy overall, or Overall, objectives. In the formulas below, replace "metric" with the relevant type (revenue, capital expenditure, or operational expenditure) and objective with the relevant objective (CCA, CCM, or Overall) to obtain the calculation for required metric and objective combination.

Calculation of Covered by Research

This represents the portion of the portfolio that has been identified as a corporate security and where there is taxonomy research on the related company.

To calculate how much of the portfolio is covered by Sustainalytics research simply sum the weights of the corporate holdings that have Sustainalytics data for EU taxonomy.

[3]

$$Portfolio\ Objective\ Covered_R = \sum_{i=1}^{s} W_{R,i}$$

Where

$Portfolio\ Objective\ Covered_R$	=	The proportion of the portfolio covered by Sustainalytics corporate research for that objective.
$i = 1, s$	=	All securities with Sustainalytics corporate research.

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Calculation of Alignment

This represents the portion of the portfolio that is invested in activities aligned to the relevant EU taxonomy objective based upon all Sustainalytics data, including reported, estimated, and coefficient data.

First, for each holding, multiply the portfolio weight by the company-alignment percentage (to the relevant objective and metric).
Summing these calculated values gives the portion of the portfolio that is invested in aligned activities.

[4]

$$Portfolio\ Objective\ \%\ Aligned\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ of\ aligned\ metric$$

W_R	=	Rescaled portfolio weight
Objective % aligned metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective.

Calculation of Alignment (Using Company-Reported Data Only)

This represents the alignment of the portfolio to the EU taxonomy objective chosen based upon data reported by companies only.

First, for each holding, multiply the portfolio weight by the reported company-alignment percentage (to the relevant objective and metric).

Summing these calculated values gives the portion of the portfolio that is invested in aligned activities based upon reported data.

[5]

$$Portfolio\ Objective\ \%\ Reported\ Aligned\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ of\ eligible\ reported\ aligned\ metric$$

W_R	=	Rescaled portfolio weight
$Objective$ % of eligible reported aligned metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective as reported by the company.

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Calculation of Alignment (Using Sustainalytics Estimated Data Only)
This represents the alignment of the portfolio to the EU taxonomy objective chosen based upon data estimated by Sustainalytics only.

First, for each holding, multiply the portfolio weight by the company-alignment percentage, as estimated by Sustainalytics (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in aligned activities based upon estimated data.

Note that this will not be calculated for the climate change adaptation objective, as Sustainalytics does not produce estimated data for that objective.

[6]

$$Portfolio\ Objective\ \%\ Estimated\ Aligned\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ eligible\ estimated\ aligned\ metric$$

W_R	=	Rescaled portfolio weight
Objective % eligible estimated aligned metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective as estimated by Sustainalytics.

Calculation of Alignment (Using Sustainalytics Coefficient Data Only)
This represents the alignment of the portfolio to the EU taxonomy objective chosen based upon data derived from coefficients by Sustainalytics only. For each holding, multiply the portfolio weight by the company-alignment percentage, derived from a coefficient (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in aligned activities based upon coefficient data.

Note that this will not be calculated for the climate change mitigation objective, as Sustainalytics does not use coefficient data for that objective.

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[7]

$$Portfolio\ Objective\ \%\ Coefficient\ Aligned\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ aligned\ metric\ (estimated)$$

W_R	=	Rescaled portfolio weight
Objective % aligned metric (coefficent)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective as derived by coefficients by Sustainalytics.

Calculation of Alignment (Using Company-Reported and Sustainalytics Estimated Data Only)
This represents the alignment of the portfolio to the EU taxonomy objective chosen based upon data reported by companies and estimated by Sustainalytics only. It does not include data derived from coefficients.

First, for each holding, multiply the portfolio weight by the reported and estimated company-alignment percentage (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in aligned activities based upon reported and estimated data.

[8]

$$Portfolio\ EU\ Taxonomy\ Overall\ \%\ Reported\ and\ Estimated\ Aligned\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i}$$
$$* EU\ Taxonomy\ Overall\ \%\ aligned\ metric\ (reported\ and\ estimated)$$

W_R	=	Rescaled portfolio weight
EU Taxonomy Overall % aligned metric (reported and estimated)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the EU taxonomy overall objective as reported by companies or estimated by Sustainalytics.

Calculation of Alignment Breakdown

The aligned investment proportion of the portfolio can be broken down to the contribution type, whether it is an "enabling" or "transition" activity as defined by the regulation, or if it does not fit into either of those activities it will be defined as an "own performance" activity. "Enabling" activities are those that enable a substantial contribution to be made by other activities, such as the manufacture of a component that improves the environmental performance of another activity. "Transition" activities are those that contribute to a transition to a net-zero emissions economy in 2050 but that are not currently close to a net-zero carbon emissions level. These activities are critical to the economy but must significantly enhance their performance beyond the industry average, without locking into carbon-intensive assets or processes.

First, for each holding, multiply the portfolio weight by the company-alignment percentage in the relevant breakdown (to the relevant objective and metric).

Summing these calculated values gives the portion of the portfolio that is invested in aligned activities in the relevant breakdown based upon all available data.

[9a]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ own\ performance\ activites$$
$$= \sum_{i=1}^{n} W_{R,i} * objective\ \%\ aligned\ metric\ own\ performance$$

[9b]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ Enabling\ Activities$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ aligned\ metric\ enabling$$

[9c]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ Transition\ Activities$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ aligned\ metric\ transition$$

W_R	=	Rescaled portfolio weight
Objective % aligned metric *own performance*	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational

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		expenditure) aligned to the relevant taxonomy objective and defined as an "Own Performance" activity.
Objective % aligned metric *enabling*	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective and defined as an "Enabling" activity.
Objective % aligned metric *transition*	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective and defined as a "Transition" activity.

Calculation of Alignment Breakdown (Using Company-Reported Data Only)

The breakdowns into enabling, transition, and own performance are also calculated using company-reported only data.

First, for each holding, multiply the portfolio weight by the reported company-alignment percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in aligned activities in the relevant breakdown based upon all reported data.

[10a]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ own\ performance\ activites\ (reported)$$
$$= \sum\nolimits_{i=1}^{n} W_{R,i} * objective\ \%\ aligned\ metric\ own\ performance\ (reported)$$

[10b]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ Enabling\ Activities\ (reported)$$
$$= \sum\nolimits_{i=1}^{n} W_{R,i} * Objective\ \%\ aligned\ metric\ enabling\ (reported)$$

[10c]

$$Portfolio\ Objective\ \%\ Metric\ in\ Aligned\ Investments\ Transition\ Activities\ (Reported)$$
$$= \sum\nolimits_{i=1}^{n} W_{R,i} * Objective\ \%\ aligned\ metric\ transition\ (reported)$$

W_R	=	Rescaled portfolio weight
Objective % aligned metric *own performance (reported)*	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant taxonomy objective and defined as an "Own Performance" activity.
Objective % aligned metric *enabling (reported)*	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective and defined as an "Enabling" activity.

Objective % aligned metric $transition\ (reported)$	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) aligned to the relevant EU taxonomy objective and defined as a "Transition" activity.

Other Portfolio Holdings

The other holdings of the portfolio can be broken down into the following classifications:

► Eligible but not aligned (that is, the activity can be assessed but failed one of the required criteria to be aligned).

► Not eligible (that is, the activity or holding cannot be assessed under the EU taxonomy).

► No research available (that is, the holding or activity has no research available and so the alignment cannot be determined; in these cases, the alignment is assumed to be 0%. This is the prudent approach and prevents potential greenwashing).

Calculation of Eligible Not Aligned

This represents the portion of the portfolio invested in activities that are eligible for assessment under the taxonomy but do not meet one of the criteria to be aligned. For each holding, multiply the portfolio weight by the company-eligible not aligned percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in eligible not aligned activities using all available data.

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[11]

$$\text{Portfolio objective \% Eligible not aligned metric} = \sum_{i=1}^{n} W_{R,i} * \text{Objective \% eligible not aligned metric}$$

W_R	=	Rescaled portfolio weight
Objective % *eligible not* aligned metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible but did not meet one of the criteria to be aligned with the relevant EU taxonomy objective.

Calculation of Eligible Not Aligned (Using Company-Reported Data Only)

This will be further broken down into the proportions where the company-level data was reported by the company, estimated, or derived by a coefficient by Sustainalytics.

For the reported data for each holding, multiply the portfolio weight by the company-reported eligible not aligned percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in eligible not aligned activities using company-reported data only.

[12]

$$\text{Portfolio Objective \% Eligible not aligned metric (reported)} = \sum_{i=1}^{n} W_{R,i} * \text{Objective \% eligible not aligned metric (reported)}$$

W_R	=	Rescaled portfolio weight
Objective % *eligible not* aligned metric (reported)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible but did not meet one of the criteria to be aligned with the relevant EU taxonomy objective, as reported by the company.

Calculation of Eligible Not Aligned (Using Sustainalytics Estimated Data Only)

For the estimated data for each holding, multiply the portfolio weight by the company-estimated eligible but not aligned percentage in the relevant breakdown (to the relevant objective and metric).

Summing these calculated values gives the portion of the portfolio that is invested in eligible not aligned activities using Sustainalytics estimated data only.

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Note that this will not be calculated for the climate change adaptation objective, as Sustainalytics does not produce estimated data for that objective.

[13]

$$Portfolio\ Objective\ \%\ Eligible\ not\ aligned\ metric(estimated)$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ eligible\ not\ aligned\ metric\ (estimated)$$

W_R	=	Rescaled portfolio weight
Objective % *eligible not* aligned metric (estimated)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible but did not meet one of the criteria to be aligned with the relevant EU taxonomy objective, as estimated by Sustainalytics.

Calculation of Eligible Not Aligned (Using Sustainalytics Coefficient Data Only)
For the estimated data for each holding, multiply the portfolio weight by the company eligible not aligned percentage (as derived by Sustainalytics via a coefficient) in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in eligible not aligned activities using Sustainalytics coefficient data only.

Note that this will not be calculated for the climate change mitigation objective, as Sustainalytics does not produce coefficient data for that objective.

[14]

$$Portfolio\ Objective\ \%\ Eligible\ not\ aligned\ metric(coefficient)$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ eligible\ not\ aligned\ metric\ (coefficient)$$

W_R	=	Rescaled portfolio weight
Objective % *eligible not* aligned metric (coefficient)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible but did not meet one of the criteria to be aligned with the relevant EU taxonomy objective, as derived by Sustainalytics using coefficients.

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Calculation of Eligible Not Aligned (Using Company-Reported and Sustainalytics Estimated Data Only)

For the reported and estimated data for each holding, multiply the portfolio weight by the company eligible not aligned percentage (as derived by Sustainalytics via a coefficient) in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in eligible not aligned activities using company-reported and Sustainalytics estimated data only.

[15]

$$Portfolio\ Objective\ \%\ Eligible\ not\ aligned\ metric(reported\ and\ estimated)$$
$$= \sum_{i=1}^{n} W_{R,i}$$
$$* Objective\ \%\ eligible\ not\ aligned\ metric\ (reported\ and\ estimated)$$

W_R	=	Rescaled portfolio weight
Objective % *eligible not* aligned metric (reported and estimated)	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible but did not meet one of the criteria to be aligned with the relevant EU taxonomy objective, as derived by Sustainalytics using coefficients.

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Calculation of Eligible

This represents the proportion of the portfolio that is invested in eligible revenues (comprising both activities that are aligned and eligible but not aligned). For each holding, multiply the portfolio weight by the company-eligible percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in eligible activities using all available data.

[16]

$$Portfolio\ objective\ \%\ Eligible\ metric = \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ eligible\ metric$$

W_R	=	Rescaled portfolio weight
Objective % $eligible$ metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is eligible for assessment under the relevant EU taxonomy objective.

Not Eligible Investments

The not eligible portion of the portfolio is a sum of the different types of holdings and activities that cannot be assessed under the EU Taxonomy. The activities that cannot be assessed and the different holding types (cash, commodities, government bonds, and derivatives) that cannot be assessed are first calculated separately.

Calculation of Not Eligible Activities

This represents the portion of the portfolio invested in the activities of holding companies that cannot be assessed under the taxonomy (that are not eligible under the taxonomy).

For each holding, multiply the portfolio weight by the company not eligible percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in not eligible activities using all available data.

[17]

$$Portfolio\ objective\ \%\ Not\ eligible\ activities\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ not\ eligible\ metric$$

W_R	=	Rescaled portfolio weight
Obective % $not\ eligible$ metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) in activities that are not eligible for the relevant EU taxonomy objective.

Calculation of Not Eligible Cash

This represents the portion of the portfolio invested in cash (or cashlike) holdings. These holdings cannot be assessed under the taxonomy (not eligible under the taxonomy). To calculate these values simply sum all the holdings that have been identified as cash or cashlike holdings.

[18]
$$Portfolio\ Objective\ \%\ Not\ eligible\ Cash = \sum_{i=1}^{n} W_{R,i} Cash\ holdings$$

$W_R Cash\ Holdings$	=	Rescaled portfolio weight of the portfolio holdings that are identified as having the EU taxonomy type of cash.

Calculation of Not Eligible Commodity

This represents the portion of the portfolio invested in commodity holdings. These holdings cannot be assessed under the taxonomy (not eligible under the taxonomy).
To calculate these values simply sum all the holdings that have been identified as a commodity holding.

[19]
$$Portfolio\ Objective\ \%\ Not\ eligible\ Commodity = \sum_{i=1}^{n} W_{R,i} Commodity\ holdings$$

$W_R Commodity\ Holdings$	=	Rescaled portfolio weight of the portfolio holdings that are identified as having the EU taxonomy type of commodity.

Calculation of Not Eligible Sovereign

This represents the portion of the portfolio invested in sovereign (government, municipal, and supranational) holdings. These holdings cannot be assessed under the taxonomy (not eligible under the taxonomy). To calculate these values simply sum all the holdings that have been identified as a government/sovereign holding.

[20]
$$Portfolio\ Objective\ \%\ Not\ eligible\ Sovereign = \sum_{i=1}^{n} W_{R,i} Sovereign\ holdings$$

$W_R Sovereign\ Holdings$	=	Rescaled portfolio weight of the portfolio holdings that are identified as having the EU taxonomy type of sovereign.

Calculation of Not Eligible Derivatives

This represents the portion of the portfolio invested in derivative holdings. These holdings cannot be assessed under the taxonomy (not eligible under the taxonomy). To calculate these values simply sum all the holdings that have been identified as a derivative holding.

[21]
$$\text{Portfolio Objective \% Not eligible Derivativez} = \sum_{i=1}^{n} W_{R,i} \text{Derivative holdings}$$

$W_R \text{Derivative Holdings}$	=	Rescaled portfolio weight of the portfolio holdings that are identified as having the EU taxonomy type of derivatives.

Calculation of Not Eligible

This represents the portion of the portfolio invested any not eligible activity or holding.

To calculate these values simply sum all the individual not eligible breakdowns.

[22]
$$\text{Portfolio Objective \% Not eligible metric}$$
$$= \sum_{i=1}^{n} W_{R,i} * \text{objective \% not eligible metric} + W_{R,i} \text{Cash}$$
$$+ \ W_{R,i} \text{Commodity} + W_{R,i} \text{Sovereign} + \ W_{R,i} \text{Derivative}$$

Calculation of No Research

This represents the portion of the portfolio in corporate securities where there is no taxonomy research.

To calculate these values simply sum all the corporate holdings where there is no taxonomy research.

[23]
$$\text{Portfolio Objective \% No research} = \sum_{i=1}^{n} W_{R,i} \text{No Research}$$

$W_R \text{No Research}$	=	Rescaled portfolio weight of the portfolio holdings that are identified as having the EU taxonomy type of corporate and do not have underlying Sustainalytics research.

Calculation of Other Investments

Under the regulation, the percentage of the portfolio aligned has to be disclosed (to the overall objective, on a revenue, capital expenditure, and operational expenditure basis) along with the remainder of the portfolio (other investments)—meaning the portion of portfolio that does not meet the criteria for alignment or where the alignment is not able to be assessed.

For each holding, multiply the portfolio weight by the company not aligned percentage in the relevant breakdown (to the relevant objective and metric). Summing these calculated values gives the portion of the portfolio that is invested in not aligned (whether eligible or not) activities using all available data. Finally, add the portions of the portfolio in cash, commodities, sovereign investments, derivatives, and corporate holding that have no research.

[24]

$$Portfolio\ Objective\ \%\ Other\ Investments\ metric$$
$$= \sum_{i=1}^{n} W_{R,i} * Objective\ \%\ not\ aligned\ metric + W_{R,i} Cash$$
$$+ W_{R,i} Commodity + W_{R,i} Sovereign + W_{R,i} Derivative + W_{R,i} No\ Research$$

$Objective\ \%\ not\ aligned$ metric	=	The percentage of a company's metric (where metric means either revenue, capital expenditure, or operational expenditure) that is not aligned to the relevant taxonomy objective. This includes activities that are eligible but not aligned and activities that are not eligible.

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Methodology History

Version: 1.0   31 June 2021   Original publication. Climate Change Mitigation alignment (CCM) calculations.

Version: 2.0   31 Dec 2021   Addition of CCM percentage of eligible revenue.

Version: 3.0   30 April 2022   Addition of calculations of CapEx, OpEx and excluding sovereign statistics.

Version: 4.0   31 December 2022 Addition of calculations for EU taxonomy overall alignment, climate change adaptation (CCA), and undisclosed alignment/breakdowns. Renamed "sustainable investments" to "aligned investments."

Frequently Asked Questions

What data will Morningstar use for the calculations?
Morningstar will use company-reported data as well data estimated or derived from coefficients by Sustainalytics on the underlying company holdings where available.

What alignment information will Morningstar calculate?
Currently, the alignment based on revenue, capital expenditure, and operational expenditure for the climate change mitigation, climate change adaptation, and overall objectives will be calculated for portfolios. These are based both on the aligned percentage of the entire portfolio (including sovereign holdings) and the percentage of the portfolio excluding sovereigns.

What data will be calculated?
Alongside the total alignment percentage, the percentage of the portfolio that is alignment based on reported data and the proportion based on estimated data will be disclosed.

The not aligned portion of the portfolio will be disclosed, and the following subdivisions of the not aligned part will be calculated:

1) Eligible but not aligned (further broken down to indicate data based on data reported by the company and data estimated from Sustainalytics). This is the proportion of the portfolio for which the EU taxonomy provides rules for the assessment but that are not aligned.
2) Not eligible (further broken down into cash, commodities, derivatives, sovereign bonds, and economic activities not eligible).
3) No research available. These are holdings in a portfolio that have not been identified or where no research on the alignment is available.

What happens when a fund holds another fund?

Morningstar will first attempt to "look through" any funds that are held by the portfolio to find the underlying holdings that are indirectly held.

How is the total portfolio weight of a holding calculated?

Morningstar calculates portfolio weights based on the proportion of a portfolio that a holding represents (using the market value) once any fund holdings have been "looked through." For the EU taxonomy calculations, some additional steps will be taken to calculate the final portfolio weights used to calculate the total portfolio statistics:

1) Any securities that have both long and short positions will be "netted out"—that is, the short position weight will be subtracted from the long position weight.
2) Any remaining short positions will be removed.
3) Any currency offsets will be removed.
4) The portfolio weight will then be recalculated on the netted-out long positions only.

How is the portfolio weights excluding sovereign calculated?

Morningstar calculates portfolio weights based on the proportion of a portfolio that a holding represents excluding sovereign investments, once any fund holdings have been "looked through." For the EU taxonomy calculations, some additional steps will be taken to calculate the final portfolio weights used to calculate the excluding sovereign statistics:

1) Any securities that have both long and short positions will be "netted out"—that is, the short position weight will be subtracted from the long position weight.
2) Any remaining short positions will be removed.
3) Any currency offsets will be removed.
4) Any sovereign or supranational investments will be removed.
5) The portfolio weight will then be recalculated on the netted-out long positions only.

Are there any differences between the regulatory calculations and the Morningstar calculations?

These calculations are based on the regulatory rules, but there are some differences.

Green bonds: The regulation allows the alignment for green bonds to be calculated based on the use of the proceeds of those bonds. This data is not widely available, and where a portfolio holds green bonds, the calculation will use the alignment of the issuer. This alignment will always be lower than the green bond itself and so this is the reason for the cautious approach.

Real estate and infrastructure: The alignment of these types of holdings are not assessed by Sustainalytics, and these will be added to the "no research available" breakdown of "not aligned" classification.

Glossary

Aligned	The portion of the portfolio invested in activities that are eligible to be assessed under the EU green taxonomy and that pass all the relevant criteria.
Climate Change Adaptation	One of the environmental objectives of the EU taxonomy. An economic activity can be aligned to this objective if it will substantially reduce the risk of an adverse impact of the current, or future, climate on that economic activity or on people, nature, or assets without increasing the risk on other people, nature, or assets.
Climate Change Mitigation	One of the environmental objectives of the EU taxonomy. An economic activity can be aligned to this objective if it contributes substantially to the stabilisation of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system; or for an economic activity for which there is no technologically and economically feasible low-carbon alternative where it supports the transition to a climate-neutral economy consistent with a pathway to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.
Eligible	The portion of the portfolio invested in economic activities that can be assessed under the EU taxonomy. This would include those that pass all relevant criteria (aligned) and those that do not pass the criteria (eligible not aligned).
Eligible Not Aligned	The portion of the portfolio invested in economic activities that can be assessed under the EU taxonomy but do not pass at least one of the criteria.
EU Taxonomy Overall	The EU green taxonomy, often simply referred to as the EU taxonomy, consists of six objectives—currently only two of those objectives have rules under which economic activities can be assessed for alignment. An activity can be aligned to the EU Taxonomy overall if it meets the criteria of at least one of the six objectives. To determine the overall alignment for a company, any activity that meets the criteria for more than one objective should only be counted once, and so it is not a simple sum of the alignment portions of the underlying objectives.
Not Aligned	The portion of the portfolio invested in economic activities or holdings that are not aligned to the EU taxonomy. This includes those that can be assessed under the EU taxonomy but do not pass at least one of the criteria (eligible not aligned) and those that are not eligible to be assessed under the taxonomy.
Not Covered by Research	The portion of the portfolio invested in corporate holdings for which the underlying company taxonomy data is not available.

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Not Eligible   The portion of the portfolio invested in economic activities or holdings that cannot be assessed under the EU taxonomy as there are no assessment criteria for them.

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