



Climate Information Guide

How to use this guide

This guide is designed to help you understand the terminology and the climate related information provided in the **Fund Climate Report**.

Please click on each of the terms on the bar above to view additional information about each of the measures that we use in relation to climate change. Or you can scroll through this document to read it from top to bottom.

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Do you know the impact your investments have on climate change?

Climate change is the long-term shift in temperatures and weather patterns (as defined by the United Nations). While this can happen for natural reasons, the burning of fossil fuels since the 1800s has been the main driver of climate change.

Investing in a responsible and sustainable way can present long-term opportunities and help manage the risks for climate change, including the financial risks associated with it. So it makes financial sense to consider these issues when it comes to your investments, as well as the moral reasons.

At Phoenix, we realise there's a barrier in the way – a wall of jargon. Here's where you can find out more about the terms used when you're reading our report.





Governance, strategy and risk management framework

Phoenix Unit Trust Managers are proud to present its 2022 Climate Report. It's been prepared according to the recommendations of the Financial Stability Board's Task Force on Climate Related Disclosures, which include details around Governance, Strategy and Risk Management Framework.

Governance: Phoenix Unit Trust Managers have a clear governance framework in place which helps to oversee how it identifies, assesses and manages climate-related risks and opportunities.

Strategy: As part of Phoenix Group, Phoenix Unit Trust Managers have a strategically important role to play in supporting global efforts to transition to a net-zero economy for the benefit of our customers.

Risk Management Framework: As part of Phoenix Group, Phoenix Unit Trust Managers are aligned with the Group's Risk Management Framework which has been developed to support identifying, assessing and managing the impact of climate risk and to support the achievement of the Group's net-zero ambition.

You can read more about this in the [Entity Report](#).

Phoenix Unit Trust Managers offer a wide range of funds so you have a greater choice and we're committed to transitioning our investment portfolio to net zero by 2050.

Fully Aligned in the report means that the fund is fully aligned to our high-level framework on climate-related governance, strategy and risk management.

Limited Alignment in the report means that the fund may not be fully aligned to or have limited alignment with our high-level framework on climate-related governance, strategy and risk management because of the way it's structured or because of some of the other funds that it invests in.

We'll look to bring our available funds that aren't fully aligned, or that have limited alignment with our high-level framework on climate-related governance, strategy and risk management into alignment over time.



Scope 1 and 2 greenhouse gas emissions: gases that trap heat in the Earth's atmosphere which lead to global warming and climate change

Greenhouse gas (GHG) emissions are gases that trap heat in the Earth's atmosphere which lead to global warming and climate change

The main greenhouse gases include carbon dioxide, nitrous oxide, methane and fluorinated gases. These gases are released into the atmosphere through natural sources and human activities including burning fossil fuels (such as coal and oil) for energy, transportation and agriculture.

We report these emissions in a common unit of measurement, carbon dioxide equivalents (CO₂e)

This means we can measure and compare the global warming potential of gases from different sources and activities (which fall under different scopes; scope 1, 2 and 3) separately and as a total.

We've not reported Scope 3 emissions for our funds as the quality and availability of this data is limited. We're committed to providing accurate and transparent reporting and we'll be including this in next year's reports.



Why should I be interested?

Reporting GHG emissions lets you see the emissions of the direct activity of the companies you're invested in (scope 1 and 2).

It helps you to tell those from the wider emissions, which may happen indirectly because of the products and services they offer (scope 3).



Total carbon emissions (tCO₂e): adds up all the measures of the scope 1, 2 and 3 GHG emissions

You can estimate the total emissions of the activities of the companies and organisations being invested in by adding up all the measures of the scope 1, 2 and 3 GHG emissions

This is measured in tonnes of carbon dioxide equivalents (tCO₂e). Currently we've provided the total Scope 1 and 2 GHG emissions in the report. We'll add Scope 3 in a future report.



Scope 1 covers the emissions that a company makes directly to produce the goods and services they offer. One way you can think of this is when a power company uses natural gas or coal to generate electricity. Or when a company owns and provides petrol or diesel company cars for its staff to use, which emit GHGs while being driven.



Scope 2 emissions are being produced indirectly on behalf of a company. So, this might be when a company consumes purchased electricity or energy it has paid for to heat or cool buildings they own or rent or using the lights in an office building.



Scope 3 emissions includes 15 other types of indirect emissions that might be linked to a company.

These types of emissions are quite broad and can cover things like transporting and supplying materials a company uses, the shipping of goods after they have been produced and ultimately customers using anything a company produces.



Carbon Footprint Scope 1 and 2 Emissions Intensity (tCO₂e/£m): is used to measure something's carbon footprint

Emissions intensity is a metric used to measure something's carbon footprint

Most things now have a carbon footprint: you, an organisation, an event or product. Put simply, it's a measure of how these things can contribute to global warming.

It measures how much harmful greenhouse gas emissions an activity produces and can contribute to climate change.

On a larger scale, this looks at the measurements of the activities of a company, product or even a country. When it comes to investments, it relates to the assets being invested in.

We report this using two different types of intensity, which we've described on the next pages.





Economic intensity: measures GHG emissions a company produces per unit invested

Economic intensity measures how much GHG emissions are produced per unit (£) invested in any companies that a fund invests in

It's calculated by considering the value of each company, known as **enterprise value including cash (EVIC)** and their respective emissions. EVIC measures the total value of a company, by considering the value of the company's equity, debts and cash holdings.

When a fund is made up of lots of different companies, we can use a 'weighted average' to measure the overall economic intensity of the fund. The weighted average takes the size and economic intensity of each company into account.

 A fund invests	£50 million
 The emissions associated with this investment	100 tonnes of CO ₂ e
 So the economic intensity will be	2 tonnes of CO ₂ e, per £1m invested
 This is shown as	2tCO ₂ e/£m



Why should I be interested?

The economic intensity helps you compare the emissions between funds, and in future, can be used to track how these emissions are being reduced over time. Funds with a lower economic intensity are typically more carbon-efficient and have lower GHG emissions with each unit invested.







Revenue intensity: measures GHG emissions a company produces per unit of revenue it earns

Revenue intensity measures how much GHG emissions are produced per unit (£) of revenue generated by the company

Revenue is the total income earned by a company from its main business activities, such as selling goods or services, before taking away any costs or expenses.

When a fund is made up of lots of different companies, we can use a 'weighted average' to measure the overall revenue intensity of the fund. We do this by taking the relative size and revenue intensity of each company into account.

 Amount of revenue made by a company	£50 million
 The emissions associated with this investment	100 tonnes of CO2e
 So the economic intensity will be	2 tonnes of CO2e, per £1m invested
 This is shown as	2tCO2e/£m



Why should I be interested?

The revenue intensity can let you compare the emissions between funds: it's more commonly used to compare companies with similar activities.

Funds with a lower revenue intensity are typically more efficient and have lower GHG emissions associated with each unit of revenue generated. This can sometimes be referred to as weighted average carbon intensity.



Carbon intensive: identifies funds with significant exposure to companies which might find it difficult to move towards lower carbon

Some companies might operate in a way that makes it harder for them to move towards lower carbon

We use an assessment called carbon intensive to identify funds with significant exposure to companies which are thought to be at higher risk in moving to a low-carbon economy.

Industries that may face difficulties in the transition to a low-carbon economy are typically those that rely heavily on fossil fuels for their operations or production processes and have limited alternatives available.

Some examples of common industries facing this challenge include (but are not limited to) manufacturing, transportation and energy production.



Manufacturing: Industries such as steel, cement and chemical production are heavily reliant on high-temperature processes and the use of fossil fuels. These industries often have limited alternatives to the use of fossil fuels in their process. Where those alternative technologies may exist significant investment (at substantial cost) is needed to move towards low carbon options.



Transportation: Airplanes, ships and heavy-duty trucks mainly rely on fossil fuels such as oil and gas and have very complex technical and operational requirements. While developments of electric planes, vehicles and alternative biofuels are underway, they're not yet widely commercially available or have higher costs than conventional fuel.



Energy production: Oil and gas operations require large energy inputs for both extraction and processing which makes it challenging to move towards low-carbon alternatives. There's a continued demand globally for the supply of oil and gas, so there is potentially a slower rate of transition in this sector while demand remains high.



Why should I be interested?

These types of sectors and companies will encounter a lot more challenges in the transition to a low-carbon economy, compared with industries that don't rely heavily on fossil fuels and have a clearer transition pathway. We identify these sectors as Carbon Intensive.

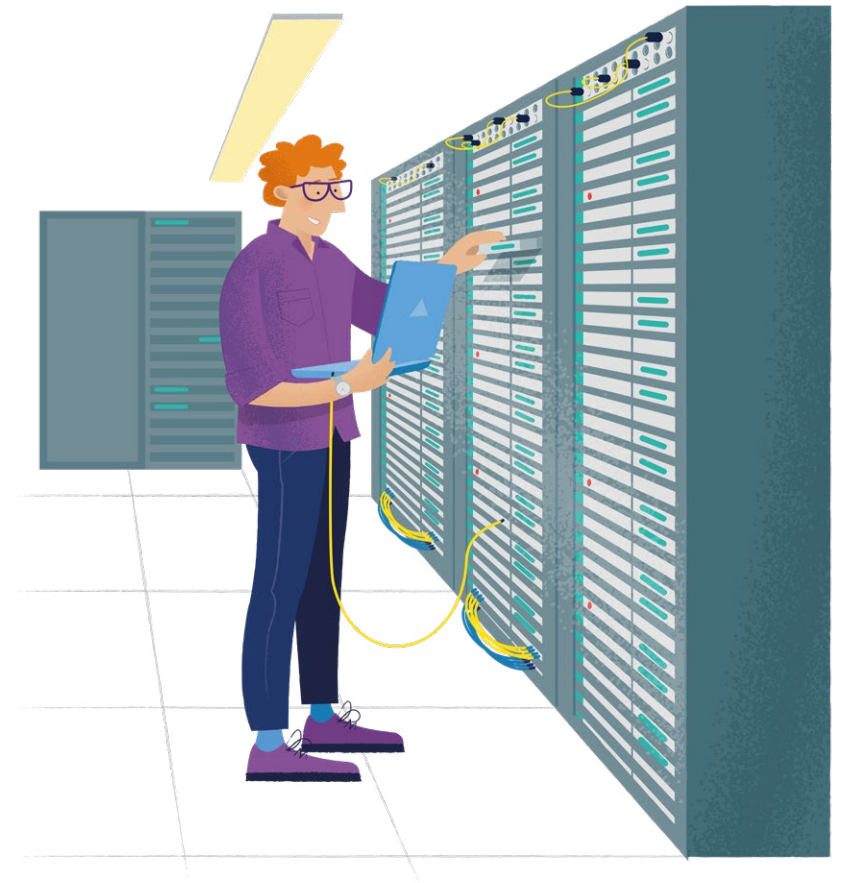


Emissions metric data coverage: tells us how much data is available to work out the emissions metrics

The **emissions metric data coverage** (calculated as a percentage) tells us how much of the fund's holdings have data available which has been used to work out the emissions metrics

Sometimes emissions data may not be available. Where we don't have this it's 0%, so we'll show a dash (-). This happens on some types of investments the fund invests in or when data is not available. Some investment types such as cash and derivatives don't have an industry-recognised way for calculating emissions metrics.

We're continually looking at ways we can increase our data coverage in line with industry standards. This includes looking for and reducing any gaps we have in our data, having better industry sector classification information, and capturing more reported emissions metrics (instead of using models to estimate them).



Scenario analysis: tests how our funds might perform under different conditions in the future

Scenario analysis is a way of testing how our funds might perform under different conditions in the future

We've selected three scenarios which look at how the world might change from an economy that's heavily reliant on carbon-intensive activities (based on fossil fuels) to a low-carbon economy (based on renewable energy sources).

 **We'll talk about two types of risks in our scenarios:**

Physical risks refer to the impacts of climate change on the natural environment and physical infrastructure. Some examples are extreme weather events such as droughts, flooding and wildfires or sea level rise.

Transition risks refer to the impacts linked with the shift to a low-carbon economy. Some examples include regulatory changes, such as carbon pricing, as governments introduce new policies to address climate change.

If warming is 1.5°C or below **This is where:**

- Transition to net-zero emissions starts immediately and happens smoothly
- Carbon taxes and other policies increase over the period for the scenario we're looking at
- Physical risks are low and transition risks are high

We call this scenario:

Orderly Transition CVaR (%) (See next page)
= NGFS NET Zero 2050

If warming is 2°C or below **This is where:**

- The action to transition to net zero emissions doesn't begin until 2030
- More sudden and substantial move to net zero and strict policy change is needed to offset any delayed start
- Transition and physical risks are higher than in the Net Zero 2050 scenario

We call this scenario:

Disorderly Transition CVaR (%) (See next page)
= NGFS Delayed Transition

If warming is 3°C or above **This is where:**

- No new climate policies are implemented beyond those already in place
- Emissions grow and have an irreversible impact on climate change, causing permanent effects on living and working conditions and infrastructure (the facilities and systems which serve cities and countries) across the globe
- Physical risks are high

We call this scenario:

Hot House World CVaR (%) (See next page)
= NGFS Current Policies

NGFS is the Network for Greening the Financial System. They created a set of climate-related scenarios to help understand the impact companies and governments may have on global warming, based on how they transition to a low-carbon economy. We've used NGFS Scenarios, which are closely aligned to CBES (Climate Biennial Exploratory Scenario), and labelled them using the terms Orderly Transition, Disorderly Transition and Hot House World. You will find these in the column headers of the Fund Climate Report.



Climate value at risk (CVaR): estimates how much financial change could happen because of climate-related impacts

CVaR stands for Climate Value at Risk and estimates the potential level of financial change which could happen in a fund because of climate related impacts

It's shown as the potential percentage change in value of the fund from now to 2050 under each scenario (the point at which net zero is expected to be reached in the Orderly Transition scenario on the previous page). The CVaR calculation includes the physical and transition risks as well the costs of measures that could be taken by companies to lessen or adapt to these. Examples would be investments into low carbon technologies and renewable energies.

CVaR Example:

Potential Impact of Scenario on Value (%)	Potential Impact of Scenario on Value excluding Adaptation & Abatement (%)
Companies which a fund has invested in may have taken actions to adapt to the physical impacts of climate change (i.e. protect against flooding), or to abate the transition risks from climate change (i.e. move away from the use of fossil fuels). The cost and the impact of these actions will be included in these figures.	These figures show the impact for the same companies which a fund has invested in but without including any of the costs or impacts of adaptation and abatement (i.e. this shows the impact of the other drivers if no actions are taken).

Note: companies actions may vary in different scenarios, therefore the costs and impacts may also be different.

CVaR excluding Adaptation and Abatement

When adaptation and abatement are excluded, the CVaR calculation only considers the potential financial impact that could result from physical and transition risks. It doesn't include any measures that might be taken to adapt to or lessen the impacts of climate change. It also removes any costs associated with adaptation or abatement. The CVaR excluding adaptation and abatement provides a cautious estimate of the financial impacts that may result from climate change if no action is taken in the scenario to address the risks.

Adaptation and abatement measures can be significant and come with associated costs. In the long run, lack of investment in these measures might lead to much higher financial impacts. For a thorough assessment of CVaR we consider both approaches.

The CVaR metrics represent potential "what if" scenarios and give an indication of what the possible range of impacts might be under that scenario. As these numbers are estimates of what might happen in the future, they are not guaranteed and Phoenix Unit Trust Managers makes no warranty with regard to them. They should not be relied upon for investment decisions.



Abatement shows the impact of the decrease in cost for emissions-intensive companies, which can reduce the amount of emissions they create.

Adaptation is when a company takes specific actions to try to reduce the impact of physical climate change on financial assets.



Main impact driver: factors that cause the largest percentage change in the CVaR metric

The underlying factors that cause the largest percentage change in the CVaR metric for the product is known as the **main impact driver**. There are six main, and three other driver categories. These cover the transition risks and physical risks of climate change, both of which can lead to changes in the value of the fund

Transition risks

As we move towards a low-carbon economy, companies that fail to change how they operate will be left behind, worth less or become stranded. This is what's known as transition risk. It can happen for several reasons. Through lack of demand for products or services or support from investors, or when companies don't adapt quickly enough to new laws or regulations, or changes in the economy and consumer behaviour.

Demand destruction

This shows how less demand for fossil fuels (a key part of scenarios where there is transition to a low carbon economy) could push down prices for producers. It may result in lower profit margins or potentially stranded assets. For example, a company that produces oil or gas may not be able to sell as many barrels of oil as it used to and gets to a point where it can no longer stay open. As the market is experiencing a lack of demand, it's not able to find any potential buyers for the existing barrels that it owns.

Demand creation

The opposite to demand destruction is demand creation. This shows how the increased demand for low-

carbon products and materials, can lead to increases in profits for companies involved in these types of processes, goods and services. For example, if more people are looking to buy electric vehicles (EV) then companies that sell these can expect better profits as well as companies that produce the raw materials (such as lithium for batteries) that help to make EVs.

Direct carbon costs

Companies that have emission-intensive processes may suffer from increasing carbon pricing for the emissions they create. An increasing cost for carbon emissions is a key part of scenarios where there is transition to a low-carbon economy. An example of this might be a power company which uses coal (a high emissions fossil fuel source) for generating electricity.

The cost of the emissions they produce will go up over time meaning that their profits will go down, potentially to a point where the company may not be able to continue operating.

Abatement

This driver shows the impact of the decrease in cost for emissions-intensive companies, which can reduce the amount of emissions they create. For example, a power company using fossil fuels to generate electricity may be able to reduce its reliance on fossil fuels by investing in renewable electricity generation methods such as solar power or wind power. These changes in their process would reduce the cost of carbon pricing for them and may help to improve or maintain margins during transition.

Main impact driver: factors that cause the largest percentage change in the CVaR metric (cont.)

Physical risks

Climate change means we may face more frequent or severe weather events like flooding, droughts and storms. These events bring physical risks that can impact our society and have the potential to affect the economy. If they happen more often, people will become more reliant on insurance to cover the costs of damage to their houses and cars.

Physical impacts

Climate change is one of the most visible effects on our planet, but it can also impact the value of a company. For example, severe or frequent flooding over time could negatively impact how much a company is worth. Or a similar thing could happen to an agricultural company whose crops are damaged due to prolonged or severe drought.

Increased severity and frequency of physical risks is a key point in scenarios where transition to a low-carbon economy doesn't happen fast enough.

Adaptation

Adaptation is when a company takes specific actions to try to reduce the impact of physical climate change on financial assets. This might be when a company builds a

physical flood defence to protect the properties it owns which may be in regions that are at increased risk of flooding. Some agricultural companies have started to use irrigation systems to reduce the impact of drought to its crops.

Other Drivers

Market impacts

Both transition and physical risks can and will have an impact on markets. This driver shows the impact of changes in profit for companies and their ability to pass through costs to consumers and how that impacts their market share. For example, companies who remain emission intensive may see lower profits and reducing market share throughout the transition period. This

driver can be caused by the impacts from the other categories described.

Sovereign Bonds

A Sovereign Bond is a type of investment which some funds invest in, they are typically securities which are issued by national governments in order to raise financing for that nation. The Sovereign driver captures the combined Transition and Physical Risk impacts

(as described above) upon this particular type of investment.

Real Estate

Real Estate is a type of investment which some funds invest in, this typically involves the ownership of property or land. The Real Estate driver captures the combined Transition and Physical Risk impacts (as described above) upon this particular type of investment.



Data and sourcing: what's in scope and how is it worked out?

Where does the data come from?



Phoenix Unit Trust Managers use publicly available information, and additional data provided by a data vendor (an organisation or business that provides data for other companies to use) named ISS (Institutional Shareholder Services). ISS provides the market (company) data used in the calculations such as the carbon emissions and EVIC

Data for governments (such as their debt) and country emissions are taken from public sources such as the International Monetary Fund (IMF) and the Emissions Database for Global Atmospheric Research (EDGAR) respectively.

The data is taken from these sources without any correction, adjustment or further validation and includes a mix of reported, estimated, and modelled information.

Where appropriate, and necessary to improve completeness of data, Phoenix Unit Trust Managers may include data proxies, which are variables that are not directly relevant, but that can take the place of a variable that we aren't able to observe or measure.

An example of this is using the average emissions for companies in a specific sector if an individual company's emission data is not available.

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Data and sourcing: what's in scope and how is it worked out? (cont.)

How is the data worked out?

The carbon metrics included in this report have been calculated in line with recommended guidance from the Partnership for Carbon Accounting Financials (PCAF) in their Global Greenhouse Gas Accounting and Reporting Standard

The Standard gives specific guidance for different asset classes including Listed Equity, Credit and Sovereign Bonds and for the different metrics used, such as GHG emissions, economic intensity and revenue intensity. Further details of the PCAF approach can be found [here](#).

The calculations used to produce the metrics in this report have been reviewed internally and independently within Phoenix Unit Trust Managers and Phoenix Group.

We continue to watch the different ways that gathering and measuring climate data continues to change globally to make sure we use the best available approach and to make sure our data coverage increases in line with industry standards.

The calculations in this document are based on the available fund holdings as at 31 December 2022, using the latest available climate emissions data.

Thank you

The Funds are authorised in the United Kingdom, and regulated by the Financial Conduct Authority. Phoenix Unit Trust Managers Limited is authorised and regulated in the United Kingdom, by the Financial Conduct Authority. Phoenix Unit Trust Managers Limited is a company within the Phoenix Group.

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