

# M&G Global Government Bond Fund

Climate Report as at 31 December 2023

## Why are we producing this report and what does it show?

A glossary of terms used in this document can be found here – [Task force on Climate-related Financial Disclosures Glossary](#)

The report is based on the recommendations from the Task force on Climate-related Financial Disclosures (TCFD). The report provides information that can be used to assess the fund's climate-related risks and opportunities.

We recognise that the investments within the fund could have an impact on climate change and, equally, climate change could influence the performance of investments in the fund. To understand how we manage the risks and opportunities related to climate change, please refer to the [Investment Fund manager Entity TCFD report](#) for this report.

This fund does not have a strategy to engage with companies on climate. It may however benefit from our firm-wide stewardship approach, which involves us talking to some companies from time to time about their effect on climate change. These companies may or may not be held by the fund.

### Changes to this year's report

#### Asset classes

This report presents data about different asset classes separately. Asset classes can include company shares and/or bonds, government bonds, real estate equity and infrastructure equity. Last year's report excluded asset classes that accounted for less than 5% of the fund. Instead of this 5% approach, we now include asset classes based on whether emissions data is available. Some asset classes continue to be excluded, for example cash and derivatives.

#### Changes in emissions

This report shows you last year's emissions (the first year of reporting) and this year's, although the calculation inputs have changed in some places. We explain some potential factors that could contribute to changes in data below each table.

#### Updates to metric calculations

We have revised the way we calculate some metrics in this report, which may result in a material change to the figures, but we consider this results in a higher quality analysis. These changes are detailed in the [M&G Investments Entity TCFD Report](#).

Due to a change in how we calculate these emissions and improved data coverage, reported emissions vary compared to last year's data.

#### Scope 3 emissions

We are reporting on [scope 3 emissions](#) separately for the first time. For certain asset classes, [scope 1, 2 and 3 emissions](#) cannot be separated, which is why data is present for both years. [Scope 3 emissions](#) are indirect emissions that occur up and down the value chain, eg from purchased goods and services.

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## Definition

**Data coverage** How much of the fund for which we have data available, either reported or estimated.

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### Data coverage

We do not show emissions from asset classes where data is not available to us, either reported or estimated, or where there isn't yet a standard methodology to produce the metric for certain asset classes. For example, we do not measure emissions from cash and derivatives.

We consider **data coverage** as 'low', 'medium' or 'high'. Where data coverage is low, we exclude the metric from this report. The percentage coverage for each asset class is shown in the report, so you know whether the coverage is low, medium or high.



### Data gaps

Some companies report the data we need for this report, and we either access this directly from them or from other service providers that compile such information. Not all companies report the data we need and in those cases we estimate the data based on other information available. For example, we may estimate a certain level of emissions based on what a company does.

Data gaps are likely to be a result of climate or financial data not being reported. We aim to address data gaps and improve data coverage in the future by seeking better quality data sources.

### Data quality

Whilst we believe the data we use is appropriate for this report, we do not score its quality or differentiate between reported and estimated data. Every care has been taken in populating this report, however neither M&G Investments nor the sources used guarantee the accuracy, adequacy or completeness of this information or make any guarantee regarding its usage.

We periodically assess the quality of data provided by vendors and may update our sources to improve data quality.

## Definition of climate metrics

**Assets Under Management (AUM)** This is the total market value of the assets we manage on behalf of clients.

**Financed Carbon Emissions (FCE)** Represent the total financed greenhouse gas (GHG) emissions associated with the fund. The larger the number, the more it is contributing to the effects of climate change. The FCE is directly related to the size of the fund and therefore it is difficult to use to compare across funds.

**tCO<sub>2</sub>e** Refers to tonnes of carbon dioxide (CO<sub>2</sub>) equivalent. There are a number of greenhouse gases which warm the earth with different intensity levels. Rather than providing metrics for each gas they are converted into tCO<sub>2</sub>e.

**tCO<sub>2</sub>** Refers to tonnes of carbon dioxide (CO<sub>2</sub>).

**Government bonds – production** These emissions are associated with what a country produces and then uses domestically or exports to other countries.

**Government bonds – consumption** These emissions are associated with the goods and services consumed within a country and includes emissions from imported goods and services.

**Scope 1 emissions** Direct emissions associated with the business operations eg a utility company's emissions from combusting fuel.

**Scope 2 emissions** Indirect emissions associated with the business' heating/power requirements eg a software company's emissions from buying electricity.

**Scope 3 emissions** Indirect emissions that occur up and down the value chain, eg from purchased goods and services, business travel, employee commuting, waste disposal, use of sold products, transportation and distribution (up and downstream), investments, leased assets, and franchises.

## Climate metrics for the fund investments

	<b>Assets Under Management</b> <b>as at 31 December 2023</b> <b>£88,015,696</b>		<b>Assets Under Management</b> <b>as at 31 December 2022</b> <b>£83,761,883</b>		
	<b>Financed Carbon Emissions (annualised figures)</b>	<b>2023</b>	<b>2022</b>		
		<b>Fund</b>	<b>Data coverage</b>	<b>Fund</b>	<b>Data coverage</b>
<b>Company shares and/or bonds (tCO<sub>2</sub>e)</b>					
Scope 1+2		110	53%	–	–
Scope 3		501	53%	–	–
<b>Government bonds – production (tCO<sub>2</sub>)</b>					
Scope 1		23,556	97%	29,718	99%
<b>Government bonds – consumption (tCO<sub>2</sub>)</b>					
Scope 1+2+3		24,130	97%	49,966	86%

### Changes in emissions


A number of factors may contribute to the change in emissions since the previous year and a comparison may not be like for like. The change in government bonds emissions are impacted by methodology changes. The changes may be due to an increase or decrease in the fund's size, a change in how we calculate the data, a change in **data coverage** or a change in the proportion of the fund invested in a particular asset class. The companies invested in may also have reduced or increased their emissions. The **Financed Carbon Emissions (FCE)** table shows the total emissions per asset class of the fund for this year as well as last year (the first year of reporting). This metric is related to the size of the fund and type of asset classes and therefore it is difficult to use to compare across funds.

## Definition of climate metrics

**Carbon Footprint (CF)** Refers to Financed Carbon Emissions divided by the fund's market value (AUM), expressed in tCO<sub>2</sub>e/£m invested. The larger the number, the more it is contributing to the effects of climate change. CF can be used to compare across different funds.

## Carbon Footprint

**Government bonds** are not included in this metric because there is not a supporting methodology for this metric.

 Carbon Footprint (annualised figures)	2023		2022	
	Fund	Data coverage	Fund	Data coverage
<b>Company shares and/or bonds (tCO<sub>2</sub>e/£m invested)</b>				
Scope 1+2	42	53%	–	–
Scope 3	194	53%	–	–

### Changes in emissions

A number of factors may contribute to the change in emissions since the previous year and a comparison may not be like for like. The changes may be due to an increase or decrease in the fund's size, a change in how we calculate the data, a change in **data coverage** or a change in the proportion of the fund invested in a particular asset class. The **Carbon Footprint (CF)** table shows the total emissions per asset class of the fund for this year and last year. The CF figure provides an emission output per million pounds invested in the fund. This metric can be used to compare across all funds, regardless of the fund size.

## Definition of climate metrics


### Weighted Average Carbon Intensity (WACI)

**Investments** Is the fund's exposure to carbon-intensive issuers, expressed in tCO<sub>2</sub>e/£m sales. The larger the number, the more carbon intensive the investments currently are. WACI allows comparison across different funds.

**Government bonds – production WACI** Is the fund's Weighted Average Government Bonds Production Intensity, expressed in tCO<sub>2</sub>/Purchasing Power Parity-adjusted gross domestic product (GDP) in US Dollars (USD).

**Government bonds – consumption WACI** Is the fund's Weighted Average Government Bonds Consumption Intensity, expressed in tCO<sub>2</sub>/capita.

## Weighted Average Carbon Intensity

 WACI (annualised figures)	2023		2022	
	Fund	Data coverage	Fund	Data coverage
<b>Company shares and/or bonds (tCO<sub>2</sub>e/£m sales)</b>				
Scope 1+2	54	36%	n/a	29%
Scope 3	1,158	36%	–	–
<b>Government bonds – production (tCO<sub>2</sub>/\$m PPP)</b>				
Scope 1 <sup>a</sup>	238	97%	411 <sup>c</sup>	99%
<b>Government bonds – consumption (tCO<sub>2</sub>/capita)</b>				
Scope 1+2+3 <sup>b</sup>	12	97%	24	86%

a Scope 1 – Represents the fund's Weighted Average Government Bonds Production Intensity, expressed in tCO<sub>2</sub>/\$m Purchasing Power Parity-adjusted gross domestic product (GDP) in US Dollars (USD). GDP is the value of all final goods and services produced within a country.

b Scope 1+2+3 – Represents the fund's Weighted Average Government Bonds Consumption Intensity, expressed in tCO<sub>2</sub> divided by the country's average population to indicate the emissions associated with consumption per person.

c 2022 figure is expressed in Great British Pounds (GBP).


### Changes in emissions

A number of factors may contribute to the change in emissions since the previous year and a comparison may not be like for like. The changes may be due to an increase or decrease in the fund's size, a change in how we calculate the data, a change in **data coverage** or a change in the proportion of the fund invested in a particular asset class. **The Weighted Average Carbon Intensity (WACI)** table shows the total emissions per asset class of the fund for this year and last year. The WACI figures provide emission output per million pounds or US dollars invested in the fund. This metric can be used to compare across all funds, regardless of the fund size.

# Definition of climate metrics

**High impact sectors** High impact sectors, such as utilities, construction, real estate, and transportation, are industrial sectors that have a significant influence on global carbon emissions. For instance, a renewables company that aim to reduce global carbon emissions and an oil extraction firm that contribute largely to carbon emissions would both be categorised as high impact sectors. There are various ways to classify sectors into the high impact categories, we use the Target Setting Protocol (TSP) definitions.

## High impact sectors

 Fund exposure to high impact sectors	2023		2022	
	Fund	Data coverage	Fund	Data coverage
Exposure level	1%	96%	1%	91%

### Performance

The fund's exposure to high impact sectors is immaterial because it is below a 20% threshold.

In order to inform climate-related decisions, this percentage needs to be read alongside other climate metrics as a high exposure to high impact sectors could relate to sectors that have a positive or negative climate impact.

### Changes in exposure

A number of factors may contribute to the change in fund exposure to high impact sectors since the previous year. The changes may be due to an increase or decrease in the fund's size, a change in how we calculate the data, a change in data coverage or a change in the proportion of the fund invested in a particular sector. The **high impact sectors** table shows the fund exposure to industry sectors that exert significant influence on global emissions. This metric can be used to compare across all funds, regardless of the fund size.

## Definition of climate metrics

**Climate adjusted value** This metric is the change in the value of the fund's assets (what it holds) as a result of the climate scenario. A negative number denotes that under the scenario, there will be a devaluation for the fund's investments or underlying assets. Scenario model outputs are expressed as a range of outcomes, reflecting the inherent uncertainty of the underlying assumptions. We have provided the average model output of that range of results.

**Orderly transition** Scenario assumes climate policies are 'orderly', ie, are introduced early and become gradually more stringent, reaching global net zero greenhouse gas (GHG) emissions around 2050 and likely limiting global warming to below 2°C on pre-industrial averages.

**Disorderly transition** Scenario assumes climate policies are 'disorderly', ie, are delayed or divergent, requiring sharper emissions reductions achieved at a higher cost and with increased physical risks in order to limit temperature rise to below 2°C on pre-industrial averages.

**Hot house world** Scenario assumes only currently implemented climate policies are preserved, current commitments are not met and emissions continue to rise, with high physical risks and severe social and economic disruption and failure to limit temperature rise.

## Scenario analysis


As well as looking backwards, using the climate metrics for the fund's investments, we are also interested in looking forward – to assess how the fund is transitioning to a low-carbon economy and the fund's exposure to climate risk over a longer time horizon. We do this using a range of climate scenarios.

To help us understand the climate impact of the fund we use climate scenario models. These are complex computer simulations that use historical data, current observations, and forward-looking assumptions to generate plausible scenarios of future climate conditions. Climate models are inherently uncertain because of the long-term nature of their projections.

Given the uncertainty and long time horizons, the model outputs presented here should be considered with caution as they are estimates of projections, not forecasts. Future conditions may differ substantially from these projections.

Whilst scenario analysis is in its infancy, the outputs are the most relevant models we can use currently to assess long-term impacts. The key forward-looking metrics that we monitor are outlined below.

The scenario model we have used is provided by an external vendor, it is called Aladdin climate model version 2.0.

 Company shares and/or bonds and government bonds	Climate adjusted value at 2050		Coverage
Orderly transition	-0.1%		96%
Disorderly transition	-0.0%		96%
Hot house world	-0.2%		97%

Assets under management as at 31 December 2023.

All results presented in the table(s) above are based on the Aladdin Climate model version 2.0.

The table above related to company shares and/or bonds and government bonds shows:

- Under an orderly transition scenario, there is a minimal negative impact on the value of the assets, reflecting the cost of transition on the underlying issuers' profit and loss statements.
- Under a disorderly transition scenario, there is no impact on the value of the assets, reflecting the cost of transition on the underlying issuers' profit and loss statements.
- Under hot house world scenario, there is a minimal negative impact on the value of the assets, reflecting the cost of adapting to a changing physical climate (eg increased capital expenditure to insure against flooding).

Further information on climate adjusted value outputs can be found here - [TCFD Frequently Asked Questions](#).

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## Definition of climate metrics

**Implied Temperature Rise** This metric allows a user to quickly gauge if a portfolio and issuer's greenhouse gas (GHG) emissions' trajectory is aligned with the Paris Agreement through sub-industry and regional benchmark comparisons.

**Paris Agreement target** The Paris Agreement resulted from the Paris Climate Conference (COP 21) in December 2015 and brought together all COP member nations in an agreement to undertake ambitious efforts to tackle climate change and limit the rise of global temperatures (from pre-industrial levels) to below 2°C, and ideally below 1.5°C.

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## Implied Temperature Rise

As part of our modelling, we have calculated the Implied Temperature Rise (ITR) where data is available. The ITR shows the temperature alignment of the fund to the Paris agreement target. This analysis enables us to identify funds that are high and low carbon emitters via a simple metric, which aids comparison and can provide an input into investment research and decision-making.

We acknowledge limitations such as lack of a commonly accepted calculation approach for Implied Temperature Alignment and sensitivity to sector and geographical emission assumptions but believe it provides useful indications of alignment when viewed in conjunction with other information – for example, it can be considered a guide to identifying sector leaders during portfolio construction, and inform engagement with laggards to encourage greater transition ambition. For more details on ITR limitations, please refer to [M&G plc Annual Report and Accounts 2023 page 86](#).



The climate model results are presented for year 2030 which permit us to better monitor medium-term alignment of funds ahead of the 2050 target. The results suggest that the fund's current underlying issuers' emissions projection is aligned with the Paris Agreement.



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For your protection calls may be recorded or monitored.



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Some of the climate metrics shown in the report are based on historical emissions data, which may not be a reliable indicator of future emissions and these should not be the sole basis on which you base your investment decisions. The forward looking climate metrics are formulated by models based on a number of assumptions and therefore the resulting impact of climate change on your investments predicted by the model may not actually occur in the future. The source of the data used in the report includes Aladdin Climate/MSCI/Marsh. While every care has been taken in populating this output, however it must be appreciated that neither M&G Investments nor the sources used guarantee the accuracy, adequacy or completeness of this information or make any warranties regarding results from its usage.

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