

# M&G Japan Fund

Climate Report as at 31 December 2022

## Climate-related Financial Disclosures

This report is designed to help you understand more about the impact this fund has on the climate and will give you the ability to compare a range of climate metrics with other funds. A glossary of terms used in this document can be found here- [TCFD Glossary](#).

The report is based on the recommendations set out in the global standards set by the Task Force on Climate-related Financial Disclosures – (TCFD). The report sets out a range of different climate metrics that can be used to assess climate related risks and opportunities associated with the fund.

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 the governance, strategy and risk management that M&G Investment has in place to manage the risks and opportunities related to climate change, please refer to the [M&G Investments Entity TCFD report](#).

Although this fund doesn't consider climate change as part of its investment approach, the Investment Manager will follow M&G's in-house climate policies; for example, the M&G Investments Thermal Coal Investment Policy. Also, companies that fall under our climate stewardship programme will benefit from engagement of our efforts to accelerate the transition towards a low carbon economy.

The climate metrics are only provided if reliable climate data and appropriate methodologies are available. Where a type of asset class is not a material proportion of the total fund value, less than 5%, then climate metrics are not provided.

### Definition of climate metrics

#### 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.

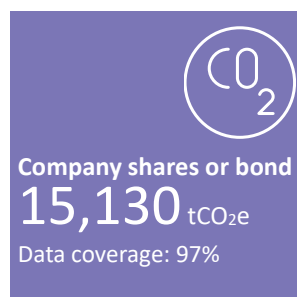
**tCO<sub>2</sub>e** Refers to tonnes of carbon dioxide (CO<sub>2</sub>) equivalent. There are a number of greenhouse gases which warm the earth with different intensity levels. Rather than providing metrics for each gas they are converted into tCO<sub>2</sub>e for reporting.

**Scope 1 emissions** Are the direct emissions associated with the business operations e.g. a utility company's emissions from combusting fuel.

**Scope 2 emissions** Are the indirect emissions associated with the business' heating/power requirements e.g. a software company's emissions from buying electricity.

## Climate metrics for the fund investments

### Financed Carbon Emissions: tCO<sub>2</sub>e



#### Data coverage

The data coverage ratio for this particular metric is sufficient to be relied upon. Any data gap is likely to be as a result of climate or financial data not being reported for the underlying asset types. Lower data coverage results in reduced reliability for this climate metric.

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**Carbon Footprint (CF)** Refers to financed carbon emissions divided by the fund's market value, 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.

**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.

**High impact sectors** High impact sectors, such as utilities, construction, real estate, and transportation, are industrial sectors that exert significant influence on global carbon emissions. These sectors are determined based on global industrial sector codes, without taking into account individual company performance. We utilise the Target Setting Protocol (TSP) definition to classify sectors into the high impact categories. For instance, a renewables company and an oil extraction firm would both be categorised as high impact sectors.

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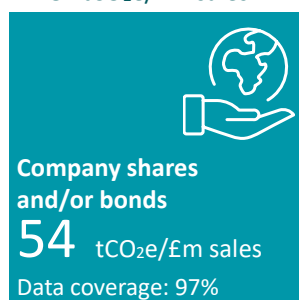
**Carbon Footprint:**  
tCO<sub>2</sub>e / £m invested



**Data coverage**

The data coverage ratio for this particular metric is sufficient to be relied upon. Any data gap is likely to be as a result of climate or financial data not being reported for the underlying asset types. Lower data coverage results in reduced reliability for this climate metric.

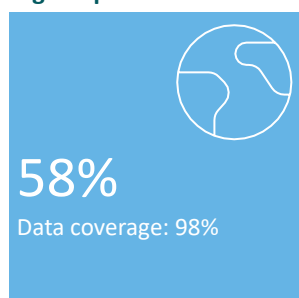
**WACI: tCO<sub>2</sub>e/£m sales**



**Data coverage**

The data coverage ratio for this particular metric is sufficient to be relied upon. Any data gap is likely to be as a result of climate or financial data not being reported for the underlying asset types. Lower data coverage results in reduced reliability for this climate metric.

**High impact sectors**



**Data coverage**

The data coverage ratio for this particular metric is sufficient to be relied upon. Any data gap is likely to be as a result of climate or financial data not being reported for the underlying asset types. Lower data coverage results in reduced reliability for this climate metric.

The fund's exposure to industry sectors that exert significant influence on global emissions is material. To define materiality, we have purposely set a relatively low threshold equal to 20% which permits us to better monitor how emissions evolve over time. High impact sectors could include companies that have either a positive or negative climate impact. 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.

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## Definition of scenario metrics

**Climate adjusted value** This metric is the adjustment of the value of assets in the fund as a result of the climate scenario. A negative number denotes that under the scenario, there will be a devaluation for the fund's underlying assets. This metric is equivalent to value at risk (VaR). 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 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 degrees Celsius on pre-industrial averages.

**Disorderly transition** Scenario assumes climate policies 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 degrees Celsius 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.

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## Scenario analysis

In addition to backward-looking data, which indicates the recent emissions profile of an asset or fund, we also use forward-looking metrics to assess transition alignment and climate risk exposures over a longer time horizon. The financial impact of climate change on our assets is assessed based on a range of scenarios that have been assessed using a climate scenario model. Climate scenario models are complex computational tools that simulate interactions between various climatic systems integrating historical data, current observations, and assumptions about future socio-economic behaviour and regulatory landscape to generate plausible scenarios of future climate conditions. They are helpful in understanding potential impacts of climate change, but bear inherent uncertainties due to the long-term nature of their projections. Given the inherent uncertainty and long time horizons, the model outputs presented here should be considered with caution as they are estimates of projections, not forecasts. Climate models are dependent on numerous assumptions which contain inherent uncertainties, and as such actual future conditions may differ substantially from these projections. Whilst scenario analysis is in its infancy, the outputs are the most relevant models we have at our disposal to assess impacts across long-term horizons. The key forward-looking metrics that we monitor are outlined below.

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Company shares and/or bonds and government bonds

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Scenario	Climate adjusted value	Coverage
Orderly transition	-1.2%	100%
Disorderly transition	-4.7%	100%
Hot house world	-8.4%	100%

Assets under management as at 31 December 2022.

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 either of orderly or disorderly transition scenarios, 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 hot house world scenario, there is a material negative impact on the value of the assets, reflecting the cost of adapting to a changing physical climate (e.g. increased capital expenditure to insure against flooding).

### Data coverage

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**Implied temperature rise** Is a metric that uses a climate model to estimate the temperature increase that would result from the cumulative greenhouse gas (GHG) emissions associated with the fund's underlying assets when compared against the different scenario's carbon budget trajectories. The larger this metric, the worse the climatic impact. **There is no widely accepted industry standard that characterises whether a fund is closely aligned or materially misaligned to the Paris agreement target.** M&G have applied expert judgement to determine that categorisation. Refer to the glossary for further details.

**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

Implied temperature rise estimates the global temperature increase contribution from a fund's current greenhouse gas emissions trajectory. It is a simplified tool to assess alignment of business strategies with climate goals like the Paris Agreement target. The Aladdin Climate model used to generate this metric mainly accounts for Scope 1 and 2 emissions. However, it overlooks emissions occurring outside direct operations (Scope 3) and any avoided emissions that could have a positive environmental impact (Scope 4). These exclusions can lead to an over- or underestimation of a fund's implied temperature rise.

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 are close to being aligned with the Paris Agreement.



2.6°C M&G Japan Fund

1.5-2°C Paris Agreement target

Data coverage:  
100%

### Data coverage

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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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