Environmental metrics

Basis of Reporting

For metrics covering the 2024 reporting year end

1. Background

This document outlines the methodologies and policies used for reporting of environmental metrics published by M&G plc and its subsidiary undertakings (the Group, herein referred to as 'we', 'us', 'M&G') for the year ended 31 December 2024. This includes both our operational and financed Greenhouse Gas (GHG) emissions metrics, along with a number of other environmental metrics. It sets out principles, scope of application, data sources and calculation methodology.

Our GHG emissions as a business can be divided into three main categories: scope 1 (direct), scope 2 (indirect), and scope 3 (upstream and downstream value chain) emissions. This document covers reporting on the following operational emissions metrics:

- Scope 1 emissions are our direct emissions from the combustion of fuel, fugitive emissions and company owned vehicles.
- Scope 2 emissions cover our indirect emissions from the purchase of electricity (including company owned cars), heating and cooling.
- Scope 3 emissions include water consumption (category 1), waste generation where data is available (category 5), business travel booked through travel management providers (category 6), car travel in colleague owned cars claimed on expenses in the UK (category 6), and downstream leased assets (category 13).

Other operational metrics we report on are:

- Energy use for electricity and fuel (MWh)
- Water (global where available data) (m^3)
- Waste (global where available data) from operational activities (tonnes)
- Energy attribute certificate (EAC) volumes (MWh)
- Tonnes of CO_2 per employee (for scope 1 and 2 market based emissions)

Appendix 1 sets out more detail on each of the operational metrics presented above.

Whilst the metrics listed above cover our operational footprint as a business, we also produce emissions metrics for the scope 3 footprint relating to the investments we manage and administer as an asset manager and asset owner (Category 15, termed financed emissions). For clarity, the financed emissions are our scope 3 emissions relating to M&G's downstream value chain, but cover scope 1, 2 and 3 emissions of our investee companies – reflecting the direct, indirect, and value chain emissions associated with the companies we invest in. Measuring financed emissions for the assets we manage helps us understand the climate risks associated with our investment activities. More detail on financed emissions metrics is provided in appendix 2.

The methodology and data used to measure and report financed emissions is relatively new and is continuously evolving. We expect industry guidance, market practice and regulations to develop and consolidate over time. We expect to refine our approach and processes in line with these developments.

Other metrics produced to help us understand the climate risks and opportunities associated with our investment activities include the value and proportion of investments exposed to fossil fuels and aligned with EU green taxonomy.

2. Frameworks and general reporting principles

Our emissions metrics are compiled according to the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard – 2015 revised edition ('GHG Protocol'). The GHG Protocol was co-developed by the World Resources Institute and the World Business Council for Sustainable Development.

In preparing our financed emissions metrics we also consider the Global GHG Accounting and Reporting Standard for the Financial Industry developed by the Partnership for Carbon Accounting Financials Standard (PCAF). PCAF builds on the GHG Protocol scope 3 accounting rules, providing guidance to assist in the measurement and disclosure of GHG emissions of specific asset classes, resulting from activities in the real economy that are financed through lending and investment portfolios.

In addition to these frameworks we have a set of general reporting principles, applied across all environmental reporting. These seek to ensure that:

- our reporting is relevant and serves the needs of the reports' users;
- consistent methodologies and boundaries are maintained where possible, allowing for meaningful performance tracking over time. This principle is applied where possible, while recognising the backdrop of evolving best practice for certain scope 3 categories;
- the substance of our disclosures are faithfully represented, presenting a transparent summary of our performance, with any material limitations and exclusions clearly stated so that users can establish confidence in the integrity of our reporting.

3. Reporting Boundary

The reporting boundary for environmental data includes all Group entities under M&G's operational control, as defined by the GHG Protocol. In practice this means that we report, where relevant data is available, for any operation where we have the full authority to introduce and implement policies.

Operational metrics

When applying the concept of operational control to our occupied properties (property where M&G plc personnel are on-site under normal operating conditions) GHG emissions from all owned and leased office facilities over which we have operational control are counted. We also include in our scope 1 and 2 emissions estimated usage for full service gross leased offices (offices where the landlord retains operational control) where we receive metered energy consumption and invoices, and include modelled data based on an intensity metric for offices where no data is currently available e.g. serviced offices. This boundary approach covers emissions (where data is available) generated from all occupied leases, covering 61,074 m^2 (74,474 m^2 including reported sub-let office space) across 68 offices that were open during the year to 31 December 2024 (including offices that closed throughout the year). To determine the sites where emissions reporting was required, lease information was taken from our central lease database.

Changes in operational boundaries linked to acquisitions, divestment activity or lease changes is assessed and the scope of our environmental reporting updated as appropriate.

M&G plc owns and manages investments which are held on its balance sheet in the financial statements over which it does not have operational control but does have control as defined under International Financial Reporting Standards (IFRS) for the purposes of Group financial reporting. These are excluded from the scope of reporting under the operational control approach, however the financed emissions from these assets are included (where data is available) in the metrics reported on our investment portfolios where the assets are managed by an in-scope M&G asset management company, and relevant data is available for the underlying assets.

Investment metrics

Within our Life segment we serve as an asset owner on behalf of the With-Profits Fund[1] policyholders, and our pensions and annuity clients. Our Asset Management segment invests on behalf of individual end investors and large institutional clients (including our asset owner), to meet their required investment objectives.

We currently disclose environmental metrics for M&G plc assets under management and administration (AUMA) that are managed by M&G Investments (The Group's Asset Management business), including those managed on behalf of the asset owner, where relevant data can be sourced. Once portfolio and asset class is accounted for, our environmental metrics cover 66% (2023: 66%) of Group AUMA as at 31 December 2024.

Assets placed by the asset owner in funds managed by external (non-M&G) investment managers and corporate assets – constituting approximately 9% (2023: 9%) of Group AUMA as at 31 December 2024 – are not currently in scope. This includes our assets under advice in the Life segment where the client has chosen not to invest in an M&G managed fund. We plan to bring more of these assets into scope of our environmental reporting in the future.

Based on available PCAF guidance and underlying emissions data, we currently report emissions on the following asset classes, where asset level data is available:

- listed equity and corporate bonds;
- sovereign debt;
- commercial real estate (managed by M&G Real Estate); and
- assets held within our private infrastructure investment arm, Infracapital.

In addition, following an exercise to review the classification of assets (see section A2.2) we have split out the following asset class on the basis that these assets have a 'known use of proceeds' and therefore are now excluded from the 'listed equity and corporate bonds' in line with PCAF guidelines:

- Green, social and sustainability bonds

Certain asset classes are not included - reflecting a lack of either climate accounting standards or mature data sources for these types of assets - including but not limited to:

- reinsurance contract assets;
- loans;
- deposits; and
- cash and cash equivalents.

These exclusions, coupled with an incomplete data set in the market, result in restricted coverage of financed emissions over our total Group AUMA. We expect the range of asset classes we are able to report on to expand over time as additional industry guidance is published and more data becomes available across all asset classes.

[1] The Prudential Assurance Company Limited's fund where policyholders are entitled to a share of the profits of the fund.

4. Reporting Period

Environmental data is reported for 1 January to 31 December, in line with M&G plc's financial reporting year.

For operational metrics, some utilities data may be received after the cut-off for publication, and therefore the usage for the final period is estimated (based on the approach outlined in our calculation methodology in appendix 1) and data received after the cut-off will be included and restated in subsequent period's reporting, where considered material.

For investment metrics, as investees do not disclose their emissions data in official reporting or through data providers with sufficient regularity to align with M&G's current reporting periods, emissions data often lags behind the reporting period. M&G make use of emissions data from different reporting periods in line with our data hierarchy for financed emissions and we map this to our holdings data for the relevant reporting period - more detail on the data sources for financed emissions can be found in appendix 2.

5. Materiality

In the context of environmental metrics, information is considered material if omitting, misstating or obscuring it could reasonably be expected to influence the decision-making of the primary users of our external reporting. Primary users include, but are not limited to, potential investors, lenders and other creditors. We also acknowledge that our published environmental reporting may be used by wider stakeholders.

Assessing whether information could reasonably be expected to influence the decisions made by primary users requires consideration of both quantitative and qualitative factors in addition to the entity's own circumstances.

6. Restatement approach

Given that calculation of environmental metrics is an evolving area, particularly the calculation of financed emissions, we expect that there may be some need for amendments, updates, or restatements over the next few years. Consideration of amendments of historical data may arise due to:

- changes to our group structure;
- improvements in data accuracy and availability (e.g. new data being reported by third party data providers); or
- changes to our calculation methodologies and models.

In addition to these, while we make every effort to capture all information as accurately as possible, for any data that is subsequently found to be materially in error following publication of the report, we shall disclose the nature of the error and correction in the following year's report. If the correction of the error for prior period is impracticable, we shall explain the circumstances that led to the existence of that condition and a description of how and from when the error has been corrected.

Where changes are made to the calculation methodology for our metrics, and the change is considered material, we will restate the comparable information in the following year's report.

Where there are improvements in available data, including new information in relation to estimated amounts disclosed in the prior period, and the new information provides evidence of circumstances that existed in that period, we would restate the comparable information in the following year's report. However, this does not apply where taking

latest available data for the prior period would result in the same underlying data being used to calculate both current and prior periods, such that trends in underlying data are maintained where metrics are reported with a consistent time-lag in underlying data (as is the case with financed emissions).

Where we deem that it would be beneficial to users of the reporting, we may still choose to re-present prior year figures or provide additional numerical analysis even where not required by the principles stated above. In determining the need to restate or re-present comparable information, we examine whether the impacts of the changes are material in line with section 5. A decision tree presenting the approach pictorially has been provided as Figure 1.

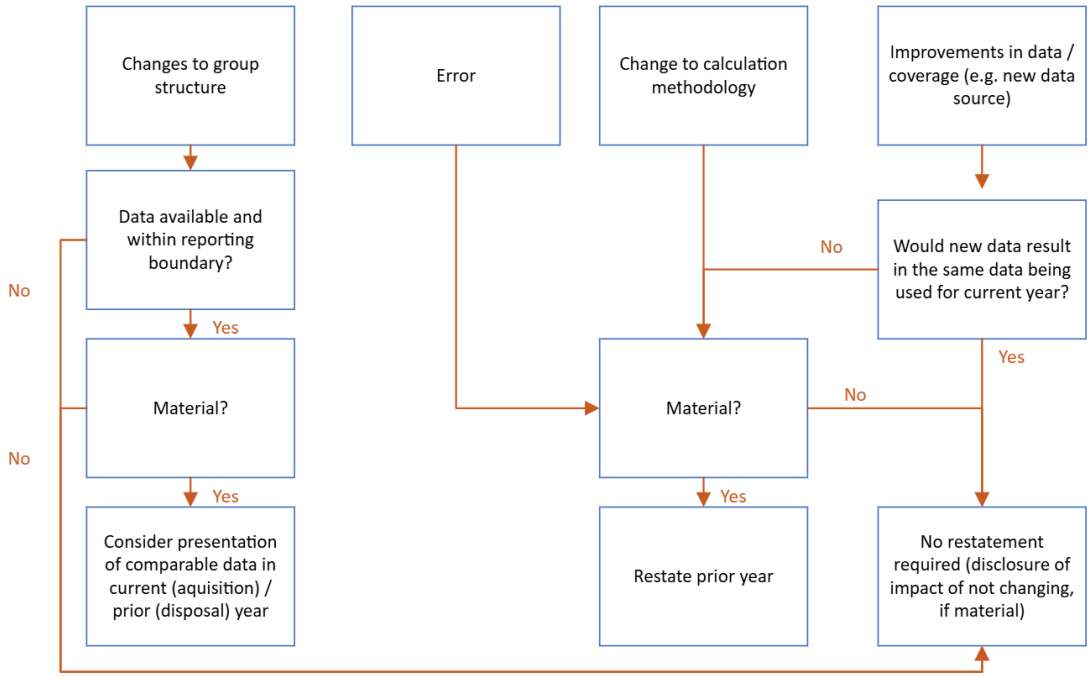


Figure 1 – Decision tree for restatement of financed emissions

Rebaselining

Changes in operational boundaries linked to acquisitions, divestment activity or lease changes will be assessed and the scope of our environmental reporting updated as appropriate. For our operational emissions target, in accordance with our Greenhouse Gas Recalculation Statement, if an acquisition or sale of a business results in a material impact on our baseline, we will restate our baseline as appropriate.

Appendix 1 – Operational metrics

A1.1 - Data

M&G plc uses a third-party reporting platform for the calculation of its own energy, water and waste consumption and GHG emissions. Site specific data contributors are responsible for inputting data directly to the reporting platform, which is approved at a Group Level, based on certain criteria. The data is then extracted from the platform for reporting purposes.

A1.2 - Methodology changes from 2023

There were no updates to our methodology for operational metrics in 2024.

A1.3 - Operational emissions guidance adopted

Our 2024 reporting uses the following sources of emission factors to calculate our footprint measured in carbon-dioxide equivalent (CO_2e):

- Scope 1: Department for Energy Security and Net Zero (DESNZ) 2024 GHG Conversion Factors
- Scope 2 location-based: IEA 2024 Edition of the CO_2 Emissions from Fuel Combustion (including CH4 and N20); USA EPA 2024 Conversion Factors; DESNZ 2024 GHG Conversion Factors
- Scope 2 market-based: European Residual Mixes 2024 - Association of Issuing Bodies; supplier emissions factors for renewable energy use and energy attribute certificates (EACs); IEA 2024 Edition of the CO_2 Emissions from Fuel Combustion (including CH4 and N20); USA EPA 2024 Conversion Factors; DESNZ 2024 GHG Conversion Factors
- Scope 3 Waste, water, business travel, downstream leased assets: DESNZ 2024 GHG Conversion Factors

When reporting market-based emissions, we have used supplier emissions factors where we have evidenced the consumption of electricity is from green energy tariffs. Residual mix, IEA or EPA factors were used as appropriate where supplier factors were unavailable.

A1.4 - Emissions by floor space and employee

Our emissions are normalised by the floor area of our occupied properties held at 31 December 2024 reporting consumption between 1 January and 31 December. Our office spaces are measured in accordance with local practice, which is useable floor space often referred to as ‘net lettable’ or ‘internal’ area. For serviced offices where the floor area is unknown, the floor area is estimated based on an industry average of 50 Sq. ft per desk.

We have also reported tonnes of CO_2e per employee (for Scope 1 and 2 emissions). This is calculated as a snapshot of in scope full time employees (FTE) on 31 December 2024. For some locations managed by subsidiaries, we use average annual headcount numbers where year end data is not available.

To calculate energy for sites where no data has been provided for the current reporting period or the previous 12 months, an intensity metric for each office (kWh per sq. ft per year) has been calculated using available data from another office within the portfolio that has the next closest floor area. In 2024 this has been required for 19 out of our 68 offices.

A1.5 - Calculation methodology and data sources

Parameter:	**Scope 1 emissions**
Definition	Scope 1 emissions are our direct emissions from the combustion of fuel, fugitive emissions and company owned vehicles.
Emissions sources	▪ Fuel combustion – gas ▪ Fuel combustion – oil ▪ Fugitive emissions ▪ Vehicle fleet
KPI	Total energy consumption (kWh) and Scope 1 emissions (Tonnes CO_2e)
Method	**Fuel combustion – gas, oil** Gas consumption (kWh) obtained from invoices, supplier reports and manual meter reads. The 'gross' calorific value is used for carbon conversions when both gross and net are available. Oil consumption from back-up generators is obtained from manual meter reads and delivery volumes. The 'gross' calorific value is used when both gross and net are available. For sites that do not provide data where fuel is consumed, no estimated or modelled data is generated by the platform. If a site usually provides fuel data, but a period during the reporting period is missing (e.g. missing bill etc), then estimation has been applied by the model. An average substitute is calculated using internal benchmarks at the following levels in order of priority: 1. Take consumption data from the same time period in the previous year and apply this as the modelled consumption data. 2. If the location has at least seven months in the preceding 12 months, the value used for the missing month is the average of the reported months across the previous 12 months data. When calculating this data the system evaluates the variance of this average value and if it exceeds 50%, the next level of modelling is used for this location. 3. If the location does not meet the requirements for either Steps 1 or 2 then this option is used to model the data (Step 3). This option can only be used if the location has at least one actual data entry for the previous 12 months and has area (Sq. ft) data in the system for that month. For each of the last 12 months that has data and area data, a 6-month running average intensity factor is calculated and stored against that month. Then the average of those intensity factors is calculated over the last 12 months and this is multiplied by the location's area to complete the modelling. If data is unavailable for more than two consecutive reporting years, the system is unable to model consumption. Where no modelled data is available, the most recent figure available for the equivalent time frame is used. **Fugitive emissions** Refrigerant losses are based on invoices from the provision of top up gases as well as reports from air conditioning engineers and catering equipment engineers. Losses are recorded in kg. **Vehicle fleet** Transport is calculated based on distance travelled: ▪ Mileage is provided by an extract from an expense system, which is extracted a month after the quarter end to align with the company Expense Policy. This includes vehicle type and engine size.

Parameter:	**Scope 1 emissions**
	▪ Where an expense report is not available, mileage is recorded from the vehicle odometer. Transport is also calculated based on fuel consumed where mileage data is not available: ▪ Litres of fuel consumed is provided by an extract from an expense system. This includes vehicle type and size of engine. ▪ Where we do not receive mileage or fuel data for company cars, estimated distance is based on vehicle contracted annual kilometres.
Source	Invoices, supplier reports, manual meter reads and expense system reports.
Emissions factors	DESNZ 2024 GHG Conversion Factors

Parameter:	**Scope 2 emissions**
Definition	Scope 2 emissions cover our indirect emissions from the purchase of electricity, heating and cooling.
Emissions sources	▪ Electricity ▪ Heating and cooling through electrical means ▪ Vehicles that consume electricity ▪ Fuel combustion - oil
KPI	▪ Total energy consumption (kWh) and Scope 2 emissions (tonnes CO_2e) – both market and location based
Method	Indirect energy consumption (kWh) obtained from invoices, supplier reports and manual meter reads. Every building in the site list either has actual or estimated electricity consumption. If a site has no electricity consumption data available, then estimation has been applied. An average substitute is calculated using internal benchmarks at the following levels: 1. Take consumption data from the same time period in the previous year and apply this as the modelled consumption data. 2. If the location has at least seven months in the preceding 12 months, the value used for the missing month is the average of the reported months across the previous 12 months data. When calculating this data the system evaluates the variance of this average value and if it exceeds 50%, the next level of modelling is used for this location. 3. If the location does not meet the requirements for either Steps 1 or 2 then this option is used to model the data (Step 3). This option can only be used if the location has at least one actual data entry for the previous 12 months and has area (Sq. ft) data in the system for that month. For each of the last 12 months that has data and area data, a 6-month running average intensity metric is calculated and stored against that month. Then the average of those intensity factors is calculated over the last 12 months and this is multiplied by the location's area to complete the modelling. Estimations and accruals are only applied to the months where the lease is active; however, if there is incomplete lease information the model then assumes a conservative approach i.e. the property is open for the full reporting period. If data is unavailable for more than two consecutive reporting years, the system is unable to model consumption. Where no modelled data is available, in this instance, the most recent figure available for the equivalent time frame is used. Country specific emission factors are used for location-based emissions. To comply with the dual reporting requirements of the GHG Protocol, both location and market-based factors have been published. For market-based emissions residual mix emissions factors and IEA factors are used as geographically appropriate. For market-based emissions, where we have a renewable energy tariff in place or where we have purchased renewable energy attribute certificates, market-based emissions have been entered manually. Renewable energy certificates can be subject to inherent limitations, including but not limited to the risk of double counting and uncertainty as to whether the third-party energy supplier will purchase and retire enough certificates to cover all of the energy supplied to all of its customers who have purchased the energy through the suppliers' green tariffs in the reporting period, over which M&G has no oversight.

Parameter:	**Scope 2 emissions**
	Fuel Combustion - oil Oil consumption from back-up generators, which are not owned or maintained by M&G, is obtained from invoices (reported in kWh). **Vehicles that consume electricity** Transport is calculated based on distance travelled. Mileage of leased electric cars is provided by an extract from the expense system, which to align with the company Expense Policy, is extracted a month after the quarter end. This includes vehicle type and size of engine.
Source	Invoices, supplier reports and manual meter reads (with back-up photos for verification purposes).
Emissions factors	▪ Location-based: IEA 2024 Edition of the CO2 Emissions from Fuel Combustion (including CH4 and N20); USA EPA 2024 Conversion Factors; DESNZ 2024 GHG ▪ Market-based: European Residual Mixes 2024 - Association of Issuing Bodies; supplier emissions factors for renewable energy use and energy attribute certificates (EACs); IEA 2024 Edition of the CO2 Emissions from Fuel Combustion (including CH4 and N20); USA EPA 2024 Conversion Factors; DESNZ 2024 GHG ▪ Supplier emissions factors where we have evidenced the consumption of electricity is from green energy tariffs

Parameter:	**Scope 3 emissions (selected categories)**
Definition	Scope 3 emissions include business travel (rail and air) booked through travel management providers (category 6), car travel in colleague owned cars claimed on expenses in the UK (category 6), water consumption (category 1), waste generation where data is available (category 5) and downstream leased assets (category 13).
Emissions sources	▪ Waste generated (category 5) ▪ Water consumption (category 1) ▪ Business Travel (category 6) ▪ Electricity consumption (sublet floors) (category 13) ▪ Fuel combustion – gas (sublet floors) (category 13)
KPI	▪ Selected scope 3 emissions (tonnes CO_2e) ▪ Total water consumption (m^3) ▪ Total waste produced (tonnes) ▪ Total waste diverted from landfill (tonnes and %) – excluded from the assurance process ▪ Total waste recycled (tonnes and %) – excluded from the assurance process ▪ Energy consumption (MWh)
Method	**Waste generated** Waste data is provided by waste management companies, property managers and waste transfer notes. At sites where the waste is not weighed, the reported weight is based on the assumed weight per uplift, provided by the waste contractor and/or office contact. Waste figures within the UK are inclusive of feminine hygiene waste, where available. Final waste treatments are based on DESNZ classifications and due to availability, DESNZ 2024 GHG Conversion Factors for all sites. In 2024 we reported waste data for 19 sites (2023: 17) out of 68 sites, due to data availability. We only report recycling figures for sites where we have at least general waste, recycling (mixed or separated) and confidential waste data. **Water consumption** The total quantity of water consumed is obtained from invoices, supplier and site meter readings and recorded in cubic metres or kilolitres (reported as metres cubed). The number of properties providing water data has decreased from 30 in 2023 to 28 in 2024, the remainder of our sites have not been reported on due to data availability. If a site usually provides water data, but a period during the reporting period is missing (e.g. missing bill etc), then estimation has been applied by the model. An average substitute is calculated using internal benchmarks at the following levels: 1. Take consumption data from the same time period in the previous year and apply that as the modelled consumption data. 2. If the location has at least seven months in the preceding 12 months, the value used for the missing month is the average of the reported months across the previous 12 months data. When calculating this data the system evaluates the variance of this average value and if it exceeds 50%, the next level of modelling is used for this location. 3. If the location does not meet the requirements for Steps 1 or 2 then this option is used. This only applies if the location has at least one actual data entry for the previous 12 months and has area (Sq. ft) data in the system for that month. For each of the last 12 months that has data and area data,

Parameter:	Scope 3 emissions (selected categories)
	a 6-month running average intensity factor is calculated and stored against that month. Then the average of those intensity factors is calculated over the last 12 months, and this is multiplied by the location's area to complete the modelling. **Air Travel** Travel reports are provided by our UK travel management provider, and other local travel management providers. Where available distances are reported in km and converted to CO_2e using the DESNZ 2024 emission factors including DESNZ Well to Tank for air travel and radiative forcing uplift. Where distances are not available, the system will use the airport codes to determine distances required for the calculation. No assumptions or estimations have been made for travel booked by individuals and claimed via the expense system. **Other Business Travel – Rail and grey fleet** Where available, rail travel is provided in reports from travel management providers. No assumptions or estimations have been made for travel booked by individuals and reimbursed by the company. Grey fleet mileage is provided by an extract from the expense system, which to align with the company Expense Policy, is extracted a month after the quarter end. This includes vehicle type and size of engine. Average car is assumed for vehicle type and fuel is marked as unknown due to these details not currently being provided. **Downstream leased assets** Data for electricity and fuel consumption is collected for sublet floors in our London office and reported as a scope 3 emission. Calculations are consistent with scope 1 gas and scope 2 electricity data reporting. **Hotels** Reports are provided by our UK travel management provider and cover hotels booked through their system. Hotel emissions are currently excluded from the scope of reporting.
Source	Waste management company and building manager reports, waste transfer notes, invoices, supplier and site meter readings, expense system reports, travel booker reporting.
Emissions Factors	DESNZ 2024 GHG Conversion Factors.

Appendix 2 – Financed emissions

Our climate-related metrics are informed by the metric categories recommended by the Taskforce Climate Financial Disclosures (TCFD), Carbon Disclosure Project (CDP) and the FCA's Transition Plan Taskforce (TPT).

The financed emission metrics we report against can be classified as:

- Financed Carbon Emissions (FCE) – the absolute emissions associated with our investment portfolio where there is available reported data or estimates.
- Carbon Intensity (Carbon Footprint) – the Financed Carbon Emissions per million pounds invested (tCO_2/£m), aiding comparison with peers and used to assess progress against our asset manager and asset owner interim targets.
- Weighted Average Carbon intensity (WACI) – provides a single metric summing the individual emissions intensities (by £m of investee revenue) of companies in a portfolio based on their weightings, indicating our portfolio exposure to carbon-intensive issuers. This metric is produced for our public asset portfolios only.

Other backwards looking metrics we report on, covering our listed equity and corporate bond portfolios are:

- Fossil Fuel Exposure – a measurement of investments held with revenue derived from the entire fossil fuel value chain (from extraction all the way to the final end usage of oil, gas and coal) included in the portfolio. This includes any refining and/or transportation along this value chain.
- EU taxonomy aligned – a measurement of the exposure of a portfolio to the EU Green Taxonomy 'environmentally sustainable' economic activities.

The fossil fuel and EU Taxonomy metrics prorate the investment in a company by the percentage of their revenues that are exposed/aligned.

A2.1 - Data

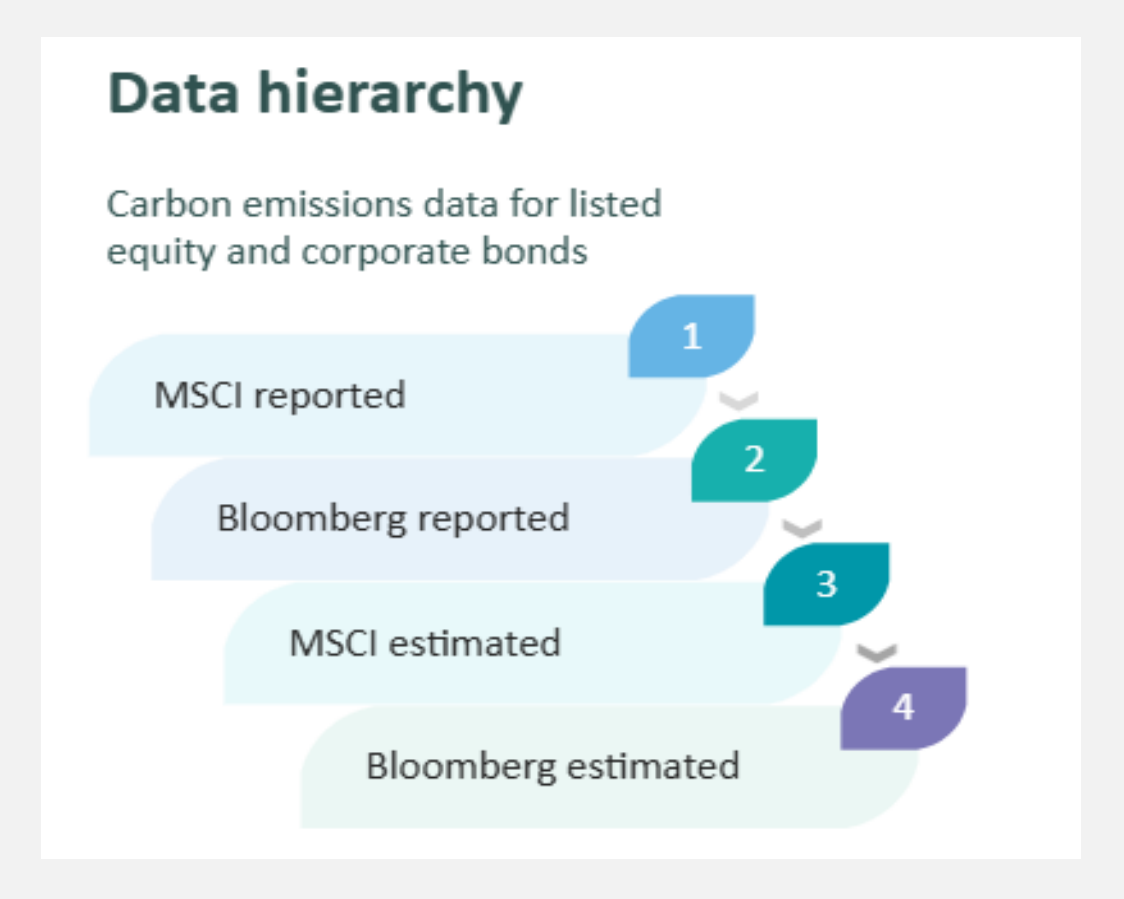
The third-party data used to calculate our financed emissions can come from a variety of sources. As carbon calculation methodologies and datasets continue to evolve, the industry recognises the limitations faced by financial institutions to obtain and disclose investment-specific emissions data, including dependence on third-party data providers whose data availability, coverage and methodologies vary significantly.

The frameworks that M&G report against provide flexibility in disclosure; allowing for estimations, assumptions and use of proxies to overcome the limitations in data availability, coverage and time lag. However, regulators and standard setters expect financial institutions to be transparent in these efforts; by disclosing data quality assessments and remediation efforts to improve data quality.

Alongside the reporting of emissions data, we disclose relevant contextual information to support how carbon metrics should be interpreted and their associated limitations.

Data sources for public assets (listed equity and corporate bonds)

A data hierarchy has been developed to be used for carbon emissions data for listed equity and corporate bonds. The approach prioritises actual reported emissions ahead of estimated emissions and selects more recent data available, with Morgan Stanley Capital International (MSCI) preferred over Bloomberg (BBG) data where both give reported or both give estimated data.



Data sources for sovereign debt

Sovereign debt emissions are reported utilising data sourced through MSCI:

- Production emissions (both including and excluding land use, land-use change, and forestry (LULUCF)): Production emissions refer to domestic GHG emissions from sources located within the country territory. Verified reported emissions from United Nations Framework Convention on Climate Change (UNFCCC) are leveraged where available through the MSCI data feed. Where data is stale or not available, estimates are sourced through the MSCI data feed. It is common for there to be delays in availability of carbon emissions data for sovereign states in the general market. 2020 emissions data for sovereigns is not used in order to avoid artificially understating our sovereign emissions metrics where sovereign emissions may have been temporarily lower over the period impacted by the COVID pandemic.
- Consumption emissions (both including and excluding LULUCF): Consumption emissions adjust production emissions data for emissions embodied in sovereign imports and exports. Estimates of emissions embodied in sovereign imports and exports are sourced through MSCI.
- Purchasing Power Parity (PPP) -adjusted GDP (international $) is used to remove price level differences between countries. Population data refers to the population of the country territory. Both GDP and population use World Bank data sourced via MSCI.

Data sources for green, social and sustainability bonds

Security level data for green, social, and sustainability bonds is sourced through MSCI. Where security level data is not available from MSCI, the data hierarchy specified for listed equity and listed corporate bonds is used, which includes MSCI and Bloomberg data.

Data sources for other backwards looking metrics

Exposure to EU Taxonomy aligned investments across our public asset portfolios is measured using input data from MSCI.

Exposure to fossil fuel investments across our public asset portfolios is measured using input data from MSCI.

Data sources for private assets (Infracapital)

The data sources used to measure emissions for investee companies within our Infracapital portfolios include actual data provided directly by each of the investee companies as part of Infracapital's ESG monitoring process. ESG-related data is collected through quarterly and annual ESG questionnaires, supplemented by a more comprehensive set of Key Performance Indicators to measure impact and ESG performance of operations. All data collected, where available, is based on actual reported data from the investee companies with limitations outlined below. Use of estimated data is limited. If a portfolio company does not disclose ESG-related data, i.e. in the case of greenhouse gas emissions, proxy data may be used to provide an estimation in the medium-term whilst appropriate practices are implemented.

Data sources for private assets (M&G Real Estate)

For commercial real estate emissions, calculated at the asset level by a third-party consultant (Evora), the equivalent hierarchy of options are: 1) actual emissions; 2) estimated emissions based on floor area, and; 3) estimated emissions based on numbers of buildings.

Data quality scores

We report data quality scores for the financed emission metrics for listed equity and corporate bonds, green, social and sustainability bonds, and sovereign debt asset classes. Data quality scores denote a score, weighted by market value of our holdings, of the quality of emissions data used as defined by PCAF.

The PCAF Data Quality Score ranges from '1' – highest quality to '5' – lowest quality and is a means to disclose the integrity and level of estimation within the metric reported. General descriptions of the data quality scores for listed equity and corporate bonds and sovereign debt are detailed in the PCAF Global GHG Standard in tables 5-3 and 5-26, linked here.

For our listed equity and corporate bonds and sovereign debt portfolios we source data quality score inputs from third-party data providers, alongside emissions data. This means we are reliant on the judgement applied by each provider in assigning PCAF data quality score to each asset.

A2.2 - Methodology changes from 2023

The following updates to our methodology for financed emissions metrics in 2024 are detailed below:

- Classification of assets
    - In 2024, a review of our approach to asset class identification was conducted. This review resulted in the incorporation of additional data fields in our asset classification process to assess alignment with PCAF's criteria of assigning investments as listed equity and corporate bonds as follows:
        - on balance sheet;
        - traded on a market;
        - for general purposes i.e. unknown use of proceeds (listed corporate debt only).
    - This process led to the removal of some securitised assets (e.g. Asset-backed Securities) and private assets from what had previously been included in the scope our reporting of listed equity and corporate bonds. Additionally, green, social and sustainability bonds are now reported separately from listed corporate debt.

- Sovereign debt – change in data source
    - In 2023, we obtained sovereign debt data from individual providers such as the UNFCCC, Climate Watch, the OECD and the World Bank. We have updated this process so all data used in the sovereign debt calculations is sourced via MSCI. The MSCI data feed contains both verified reported emissions data from the UNFCCC as well as estimated data. In keeping with the previous approach, verified reported emissions for UNFCCC Annex I Parties are leveraged where available, as this is the highest quality data available per the PCAF hierarchy of data quality. For issuers where UNFCCC reported data is stale or not available, MSCI's economic activity-based estimates are used. For emissions data embodied in sovereign exports and imports, which is leveraged to calculate consumption emissions, multi-regional input-output (MRIO) data is used from MSCI, which had previously been sourced through the OECD.

A2.3 - Calculation methodology, data sources and limitations

<table>
<tr><th colspan="5">Listed equity and corporate bonds</th></tr>
<tr><th>Metric</th><th>Sub asset classes included</th><th>Data</th><th>Calculation</th><th>Limitations</th></tr>
<tr><td>Financed Carbon Emissions (Scope 1 & 2, Scope 3)

(tCO_2e)</td><td rowspan="3">• Listed equity
• Listed corporate bonds
• Agency bonds
• Government guaranteed bonds
• Supranational bonds
• Local-authority bonds
• ABS - whole or single business only
• Covered bonds
• Preferred securities

Note, for all of the above assets, the individual security must be publicly issued.</td><td rowspan="2">Company emissions data and enterprise value including cash: Sourced from external data providers. The single hierarchy of investment and emissions data is set out in section A2.1

Outstanding amount of investment and portfolio value: Internally generated data</td><td>Financed carbon emissions (FCE) are calculated as:
$$\sum_{i=1}^{n}[Attribution\ factor_i \times Company\ emissions_i]$$
The attribution factor for listed companies (equities and bonds) is:
$$Attribution\ factor_i = \frac{Outstanding\ amount_i}{Enterprise\ Value\ Including\ Cash_i}$$
(with i=borrower or investee companies).</td><td>• Financed carbon emissions is not generally used to compare portfolios: Financed carbon emissions is an absolute metric limiting comparability across portfolios.
• Impact on Enterprise Value Including Cash (EVIC) due to market volatility: Emissions metrics are influenced by changes in financial factors such as company EVICs, which are separate to real world emissions changes.</td></tr>
<tr><td>Carbon Footprint (Scope 1 & 2, Scope 3)

(tCO_2e /£m invested)</td><td>Carbon footprint is a way for normalising total financed carbon emissions per £1 million invested:
$$\frac{Total\ portfolio\ FCE}{Total\ portfolio\ market\ value\ (£M)}$$
Note: Scope of portfolio value is limited to assets for which all data necessary for the calculation of financed emissions and carbon footprint is available. M&G currently use market value to measure outstanding amount.</td><td>• Double counting of emissions when aggregating to portfolio level: For instance, every sector's Scope 2 emissions are already accounted for in the Scope 1 emissions of the utilities sector. This issue is amplified for Scope 3. This results in potential double-counting that becomes particularly problematic when trying to aggregate backward looking metrics of a portfolio.</td></tr>
<tr><td>Weighted Average Carbon Intensity (Scope 1 & 2, Scope 3)

(tCO_2e /£m sales)</td><td>Company emissions data and revenue: Sourced from MSCI only

Portfolio weight: Internally generated data</td><td>Weighted average carbon intensity considers a portfolio's exposure to carbon-intensive companies, expressed in tCO_2e / £M sales.
$$\sum_{i=1}^{n}\left[Portfolio\ weight_i \times \frac{Company\ emissions_i}{£m\ sales_i}\right]$$
Note: Scope of portfolio value used for portfolio weighting is limited assets for which all data necessary for the calculation of weighted average carbon intensity is available.</td><td>• Data sensitivity: Metric is sensitive to outliers.
• Favours companies with higher pricing levels: Using revenue (instead of physical or other metrics) to normalise the data tends to favour companies with higher pricing levels relative to their peers.</td></tr>
</table>

<table>
<tr><th colspan="5">Sovereign debt</th></tr>
<tr><th>Metric</th><th>Sub-asset classes included</th><th>Data</th><th>Calculation</th><th>Limitations</th></tr>
<tr><td>Financed sovereign production emissions

(tCO_2e)</td><td rowspan="2">• Sovereign bonds issued in a native currency
• Sovereign bonds issued in a non-native currency

Note, this includes sovereign bonds of all maturities including short dated money market instruments.</td><td rowspan="2">Sovereign emissions and general data: Data for sovereign emissions are sourced through MSCI. The MSCI data feed contains both verified reported emissions data from the UNFCCC as well as estimated data. Verified reported emissions for UNFCCC Annex I Parties are leveraged through MSCI where available, as this is the highest quality data available per the PCAF hierarchy of data quality. For issuers where UNFCCC reported data is not available, MSCI's economic activity-based estimates are used. For emissions data embodied in sovereign exports and imports, which is leveraged to calculate consumption emissions, multi-regional input-output (MRIO) data is used from MSCI. GDP and population data use World Bank data sourced through MSCI.

Exposure to sovereign bond: Internally generated data</td><td>Production emissions refer to a sovereign's domestic territorial emissions, including emissions from exported goods and services. Financed sovereign production emissions multiply the attribution factor by the production emissions of the respective sovereign:
$$\sum_{s=1}^{n}[Attribution\ factor_s \times\ Production\ emissions_s]$$
(with s=sovereign borrower)

Where the attribution factor is
$$\frac{Exposure\ to\ soveriegn\ bond\ (USD)}{PPP\ adjusted\ GDP\ (international\ \$)}$$
Market value is used to measure exposure to sovereign bonds.</td><td rowspan="2">• Scope limitation: Supranational, sub-sovereign and municipal counterparties are not included as part of this asset class.
• Double counting considerations:
○ Double counting of sovereign emissions with non-sovereigns occurs given the accounting of emissions at the sovereign territorial level. This is mitigated through the separate reporting of sovereign asset classes.
○ Double counting of sovereign emissions with other sovereigns is accepted as a limitation, consistent with the treatment of corporate emissions.
• Emission scope: The presented approach to classify scope 1, 2, and 3 emissions of sovereigns is an attempt to mirror the approach adopted for corporates and cannot be compared directly.
• Attribution factor: PPP adjusted GDP has its limitations as an attribution factor, and the relationship</td></tr>
<tr><td>Financed sovereign consumption emissions

(tCO_2e)</td><td>Consumption based emissions adjust for imported and exported emissions to reflect where emissions are consumed, rather than where they were produced.

Consumption Emissions = Production emissions – Exported emissions + Imported emissions.

Per PCAF aligned definitions of scope, this is equivalent to:

Consumption emissions = Scope 1 + 2 + 3 – Exported emissions

Financed sovereign consumption emissions are calculated using the same formulas as financed production emissions, substituting a sovereign's production emissions for their consumption emissions. Market value is used to measure exposure to sovereign bonds.</td></tr>
</table>

Weighted Average Sovereign Production Intensity **(tCO_2e/PPP-adj. GDP (Int'l$))**			For normalisation of production emissions, we apply the following: $$\sum_{s=1}^{n}\left[Portfolio\ weight_s \times \frac{Production\ emissions_s}{PPP\ adjusted\ GDP_s}\right]$$ (with s=sovereign borrower)	between investments and GDP are not 1:1.
Weighted Average Sovereign Consumption Intensity **(tCO_2e per capita)**			Following PCAF guidance, consumption emissions are normalised per capita given they reflect the demand side of the economy. $$\sum_{s=1}^{n}\left[Portfolio\ weight_s \times \frac{Consumption\ emissions_s}{Population_s}\right]$$ **Note:** Scope of portfolio value used for portfolio weighting is limited to sovereign debt for which all data necessary for the calculation of metrics are available	

<table>
<tr><th colspan="5">Green, social and sustainability bonds</th></tr>
<tr><th>Metric</th><th>Sub-asset classes included</th><th>Data</th><th>Calculation</th><th>Limitations</th></tr>
<tr><td>Financed Carbon Emissions (Scope 1 & 2, Scope 3)

(tCO_2e)</td><td rowspan="3">• Green bonds
• Social bonds
• Sustainability bonds

Note, for all of the above assets, the individual security must be publicly issued.</td><td rowspan="2">Company emissions data
MSCI security level data is used for green bonds where available (only available for scope 1 & 2). This security level data is based on the average emissions intensity (/ EVIC) for issuers in the Global Industry Classification Standard (GICS) sectors that the bond is issued in. Where data is not available at the security level, and for all scope 3 emissions, M&G revert to the issuer level emissions hierarchy used for listed equity and corporate bonds. MSCI's data for green bonds has a data quality score of 5 because it is based on sectoral averages.</td><td>Where security level data is available M&G apply the following formula to calculate financed carbon emissions

$$\sum_{i=1}^{n}[Financed\ Emissions\ Intensity_i \times Market\ value_i]$$

Financed Emissions Intensity is sourced from MSCI and is based on the average EVIC emissions intensity (emissions divided by EVIC) for issuers in the Global Industry Classification Standard (GICS) sectors that the bond is issued in.

Where security level data is not available the EVIC and emissions data is based on issuer level data and follows the same hierarchy specified for listed equity and corporate bonds.</td><td rowspan="2">• The scope of green bonds includes CBI aligned green bonds, CBI certified green bonds, and self-labelled green bonds. However, security level emissions data is not applied to self-labelled green bonds.
• Sustainability-Linked Bonds (SLBs) are not included as known use-of-proceeds bonds.</td></tr>
<tr><td>Carbon Footprint (Scope 1 & 2, Scope 3)

(tCO_2e /£m invested)</td><td>Carbon footprint is a way of normalising total financed carbon emissions per £1 million invested:

$$\frac{Total\ portfolio\ FCE}{Total\ portfolio\ market\ value\ (£M)}$$

Note: Scope of portfolio value is limited to assets for which all data necessary for the calculation of financed emissions and carbon footprint is available.</td></tr>
<tr><td>Weighted Average Carbon Intensity (Scope 1 & 2, Scope 3)

(tCO_2e /£m sales)</td><td>Company emissions data and sales: Sourced from MSCI only. Security level data is not used for WACI

Portfolio weight: Internally generated data</td><td>Weighted average carbon intensity considers a portfolio's exposure to carbon-intensive companies, expressed in tCO_2e / £M sales.

$$\sum_{i=1}^{n}\left[Portfolio\ weight_i \times \frac{Company\ emissions_i}{£m\ sales_i}\right]$$

Note: Scope of portfolio value used for portfolio weighting is limited to assets for which all data necessary for the calculation of weighted average carbon intensity is available. Portfolio weighting is calculated on the basis of market value.</td><td>• Security level data is not currently applied to the WACI calculation for bonds with a known use of proceeds.</td></tr>
</table>

Other backward-looking metrics				
Metric	**Asset classes included**	**Data**	**Calculation**	**Limitations**
Fossil fuel exposure	• Listed equity • Listed corporate bonds	**Assets that derive revenue from fossil fuels:** MSCI **Portfolio and investment values:** Internally generated data	The amount or percentage of assets that derive revenue from the fossil fuel value chain in the portfolio, expressed in £m or percentage of the current portfolio value. This includes revenues from extraction all the way to the final end usage of oil, gas, and coal, including refining and/or transportation along this value chain. For calculating the absolute value, the calculation is: $\sum_{i=1}^{n}[Market\ value_i \times Share\ of\ revenue\ derived\ from\ fossil\ fuels_i]$ As a proportion of the portfolio the calculation is: $\frac{\sum_{i=1}^{n}[Market\ value_i \times Share\ of\ revenue\ derived\ from\ fossil\ fuels_i]}{Total\ portfolio\ market\ value}$ This metric can be applied across asset classes and does not rely on underlying companies' Scope 1 and 2 GHG emissions.	• **Sector-based metric:** doesn't indicate scale of associated financial risks e.g. material loss through transition. • **Granularity of sectors:** Sector definition is often at a coarse level, which can result in allocating exposure across assets that might have low climate risk or carbon emissions, yet fall under that higher sector level, impacting the accuracy of the metrics overall.
EU taxonomy alignment	• Listed equity • Listed corporate bonds	**Assets classified as EU Taxonomy aligned:** MSCI's EU Taxonomy Alignment **Portfolio and investment values:** Internally generated data	Metric is expressed as a ratio of investments that are taxonomy aligned within a portfolio. For calculating the absolute value the calculation is: $\sum_{i=1}^{n}[Market\ value_i \times Share\ of\ revenue\ that\ is\ EU\ taxonomy\ aligned_i]$ As a proportion of the portfolio, the calculation is: $\frac{\sum_{i=1}^{n}[Market\ value_i \times Share\ of\ revenue\ that\ is\ EU\ taxonomy\ aligned_i]}{Total\ portfolio\ market\ value}$ The above calculations exclude green bond investments.	• **Data availability:** Taxonomy compliant data is not widely available due to gaps in high quality corporate disclosure and varying data coverage across providers. • **Best practice not established:** The "Does No Significant Harm" criteria used to measure alignment with the EU Taxonomy is not widely used and is currently subjective.

<table>
<tr><th colspan="4">M&G Real Estate and Infracapital</th></tr>
<tr><th>Metric</th><th>Data</th><th>Calculation</th><th>Limitations</th></tr>
<tr><td>Real Estate Financed Carbon Emissions Scope 1 & 2,

Scope 3

(tCO₂e)</td><td rowspan="2">Real Estate: Emissions are calculated at the asset level for the bricks and mortar assets by a third-party consultant, Evora.

The assessment includes all types of emissions relevant to real estate across scope 1, 2 and 3 (both upstream and downstream).</td><td rowspan="2">Financed emissions of a commercial real estate loan or investment are calculated by multiplying the attribution factor by the emissions of the building. Financed emissions are calculated as:

$$\sum_{b=1}^{n}[Attribution\ factor_b \times Building\ emissions_b]$$

(with b=building)

Investors should use an operational boundary of the whole building and an attribution method based on a proportional share.

The total energy use of the building includes the energy consumed by the occupants of the building:

$$Energy\ consumption_{b,e}\ x\ Emission\ factor$$

(with e = the proportion of asset or fund value owned)

The attribution factor is the ratio between the outstanding amount and the property value at the time of loan or equity origination:

$$Attribution\ factor_b = \frac{Outstanding\ amount_b}{Property\ value\ at\ origination_b}$$

Carbon footprint is a way for normalising total financed carbon emissions per £1 million invested:

$$\frac{\sum_n^i(Financed\ carbon\ emissions)}{Current\ portfolio\ value\ (£M)}$$

Note: Scope of portfolio value is limited to assets for which all data necessary for the calculation of financed emissions and carbon footprint is available.</td><td rowspan="2">• Country-specific assumptions: Many countries lack widespread use of building energy labels, and it can be challenging to access measured energy consumption data. As a result we are often required to estimate building energy use. Some country-specific adjustments need to be made to the calculations, depending on the data availability and standards in each country and the different systems of categorising the energy efficiency of buildings.

• Property value requires financial institutions, such as M&G, to use the value determined at loan or equity origination to determine the original value of the property. Thus, using the outstanding amount of the original value provides a consistent estimate of the proportion of the property attributable to the loan or investment. PCAF recognises that the availability of property value at loan or equity origination varies globally. To ensure consistency, where this is no data on value at origination, the latest property value available should be used. This includes the value of the land, building, and any improvements.

• Incomplete data: Within the real estate industry there are material challenges in collecting tenant energy data and corresponding emissions data. For the first time this year, a data quality score has been produced in alignment with the latest PCAF guidance.</td></tr>
<tr><td>Real Estate Carbon Footprint

(tCO₂e /£m invested)</td></tr>
</table>

<table>
<tr><th colspan="4">M&G Real Estate and Infracapital</th></tr>
<tr><th>Metric</th><th>Data</th><th>Calculation</th><th>Limitations</th></tr>
<tr><td>Infracapital Financed Carbon Emissions

Scope 1 & 2, Scope 3

(tCO_2e)</td><td rowspan="2">Emissions data is provided directly by each of the investee companies as part of Infracapital's ESG monitoring process.

The financed emissions for project emissions can be calculated in 3 different ways depending on the availability of project-specific data:

• Option 1: reported emissions
• Option 2: physical activity-based emissions
• Option 3: economic activity-based emissions</td><td rowspan="2">Infracapital's underlying portfolio companies should account for 100% of any GHG emissions which arise from their assets and activities where they have the authority to implement their own operating policies. Portfolio companies are not required to account for GHG emissions from operations in which they own an interest but have no financial or operational control over.

Infracapital adopts the equity share approach for the purposes of reporting consolidated GHG emissions. Using this approach, Infracapital will report its GHG emissions in a proportional manner, according to the share of equity in the portfolio companies' operation. The equity share reflects Infracapital's equity stake in each portfolio company.

$$\sum_{C}(Equity\ share\ \mathrm{x}\ Company\ emissions_{c})$$

(with c=company)

Carbon footprint is a way for normalising total financed carbon emissions per £1 million invested:

$$\frac{\sum_{n}^{i}(Financed\ carbon\ emissions)}{Current\ portfolio\ value\ (£M)}$$

Note: Scope of portfolio value is limited to assets for which all data necessary for the calculation of financed emissions and carbon footprint is available.</td><td rowspan="2">• Does not consider lifetime emissions: Portfolio accounting of emissions occurring in the reporting year does not consider lifetime emissions, e.g. emissions related to future disposal of a wind park are not reported in the current year.
• Limited coverage of emissions related to construction: Infracapital's greenfield strategies seek to invest during the construction stage. Often, construction is carried out by a third party contracted by the business, and as a result the emissions of the construction and purchased goods and services are reported under scope 3 of the business. Scope 3 emissions reporting may not always be available due to limitations regarding data accuracy and availability.
• Data collection is based on reported numbers by the underlying investee companies which have not been externally verified. The combination of self-reported data and the lack of external verification can lead to a number of uncertainties in data output.</td></tr>
<tr><td>Infracapital Carbon Footprint

(tCO_2e /£m invested)</td></tr>
</table>

Other			
Metric	**Data**	**Calculation**	**Limitations**
Data quality score	**Outstanding amount:** Internally generated data **Data quality score (listed equity and corporate bonds and sovereign debt):** MSCI and Bloomberg	For overall score by asset class: $$\frac{\sum_{i=1}^{n}[Outstanding\ amount_i \times Data\ quality\ score_i]}{\sum_{i=1}^{n} Outstanding\ amount_i}$$ (with i=borrower or investee) The PCAF Data Quality Score ranges from '1' – highest quality to '5' – lowest quality and is a means to transparently disclose the integrity and level of estimation within the metric reported. For listed equity and corporate bonds (including those with a known use of proceeds), and sovereign debt, market value is used for the outstanding amount.	• **Third party data providers**: For emissions data associated with listed equity and corporate bonds and sovereign debt, data quality scores are provided by the relevant third-party data providers. This includes guidance on underlying methodologies used when data points are estimated.
Coverage	**Portfolio and investment values:** Internally generated data	Coverage is defined as the proportion of in-scope AUMA (total AUMA of the asset classes covered by the metric) for which we have all environmental, financial, or other such data required in the calculation of the given metric (reported or estimated). $$\frac{Total\ portfolio\ outstanding\ amount\ with\ data}{Total\ portfolio\ outstanding\ amount}$$ For listed equity, corporate bonds (including those with a known use of proceeds) and sovereign debt, market value is used for the outstanding amount.	**N/A**