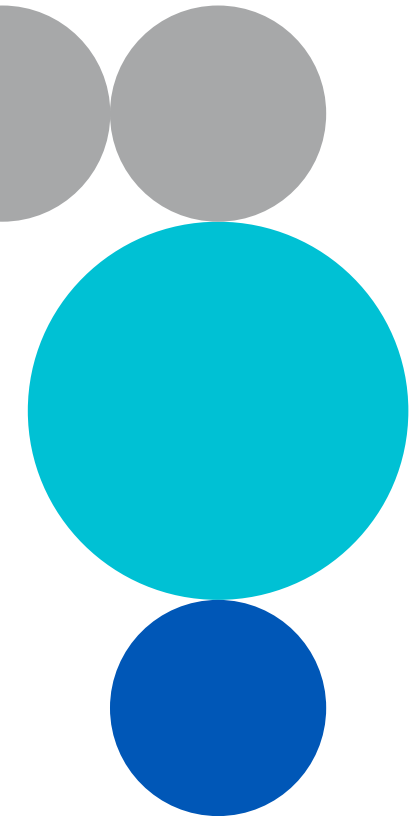


TCFD Product Report **abr dn Diversified Income and Growth plc**

31 December 2022
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Portfolio Overview

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Fund investment objective	The Company seeks to provide income and capital appreciation over the long term through investment in a globally diversified multi-asset portfolio.
Purpose of the report	<p>Climate change is the biggest challenge confronting us all. There is no planet B. At abrdn we view this in two ways, firstly by demonstrating leadership in our operations and secondly by reducing the carbon intensity in our own portfolios with a focus on real world decarbonisation towards net zero.</p> <p>abrdn recognises the growing demand from investors for more climate-related information about their investments as such, we have made disclosures we believe are consistent with the TCFD Recommended Disclosures within this report and we will continue to evolve and enhance our TCFD reporting, in line with data and industry developments.</p> <p>The Financial Stability Board (FSB) created the Taskforce on Climate-related Financial Disclosures (TCFD) to develop recommendations on the types of information that companies should disclose to support investors in appropriately assessing and pricing a specific set of risks related to climate change.</p> <p>In Policy Statement 21/24 the Financial Conduct Authority (FCA) have created a regulatory framework for asset managers, life insurers and FCA-regulated pension providers to make climate-related disclosures consistent with the recommendations of the TCFD.</p> <p>Due to the evolving nature of carbon metrics and methodologies and in some cases the nascent disclosure of carbon data in some asset classes and sectors there can be situations where we have low aggregated data coverage at a portfolio level. Whilst we aim for the highest possible coverage, coverage on non-traditional asset-classes is growing, but still not at the levels we strive for. As a house we have adopted a principle of only reporting where we have greater than 50% data coverage.</p> <p>We expect that the number of portfolio's where we have not reported due to low data coverage will decrease over time as methodologies and reporting disclosures improve. This includes fund-of-fund structures and assets which due to their location or structure have nascent corporate disclosures. In particular we will focus on working with third parties and data providers to improve coverage.</p> <p>Related to this, we have close relationships with our fund managers and have engaged closely to collect data where data providers have blanks, employing a "look-through" approach to their individual holdings. This applies to our real-estate, loans, private credit, private equity, venture capital and other real asset holdings. We have endeavoured to ensure consistency between measurement approaches from vendors and manager-provided information.</p> <p>There are some investment types that due to their nature are not possible to report or estimate carbon metrics. These are typically money market investments that do not have a carbon profile, or synthetic products where methodological constraints mean that they are considered out of scope of these reports.</p> <p>Due to asset-class differences we provide aggregate figures for just listed equity and corporate credit, and separated information for other asset-classes. We will review this year on year, and seek to enhance coverage in future years through alternative data providers, direct engagement and supporting broader industry initiatives.</p>

Carbon Analysis

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Carbon footprinting refers to the use of various carbon metrics that are a useful starting point for understanding exposure to carbon within a portfolio and can be informative in identifying potential climate transition risks. Carbon metrics are also one of the various metrics that can help investors better understand the impact of their investments on the climate.

We split carbon metrics out by Scope 1 & 2 in line with the Greenhouse Gas Accounting Protocol Standards best practices.

It is important to consider that carbon footprinting has inherent limitations. Firstly, emissions data is backward-looking and should be complemented with forward-looking analysis of the entity's transition plans. Secondly, each carbon metric has its own idiosyncratic strengths and weaknesses, and each metric can be driven by short-term volatility unrelated to emissions. Lastly, emissions are not necessarily the most appropriate indicator of climate risk. For example, there are many climate solutions that operate within carbon intensive sectors, potentially falsely implying elevated climate risks when compared to other sectors or a broad market benchmark.

For alternative assets our third party data provider Route 2 has been used to provide proxy data where disclosed data is not available. Route 2 use an input-output model that links the financial interdependencies between economic sectors and then estimates the impacts resulting from production in each country. This is applied to the most detailed level possible or the lowest tier of the GICS standard i.e. "sub-industry" per country and mapped to assets within the portfolio.

Carbon Data Disclosure

Data Disclosure	Proxy Data	Vendor Provided	Portfolio Total Coverage
Data Coverage (% value) ¹	29.8	32.1	62.0

¹ Data coverage (% value) excludes government bonds due to data limitations.

Carbon Analysis Continued

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Portfolio Carbon Intensity

Weighted Average Carbon Intensity

Weighted average carbon intensity (WACI) is a measure of carbon emissions normalized by revenues, expressed as tCO₂e/million USD revenue. Since revenues are a relevant comparison point across all issuers, the metric can be used for portfolio decomposition and attribution analyses across sectors and asset classes. The WACI is calculated by summing the product of each company's weight in the asset class or portfolio with that company's carbon-to-revenue intensity. Given many of our holdings employ significant leverage, we have evaluated weights using Net-Asset Value (NAV). We believe this gives the most accurate representation of a client's climate exposure through our fund. The avoidance of apportioning with the WACI approach means that there is no direct connection to real-world emissions.

For Real Estate assets the weighted average carbon intensity takes the property emissions normalised by floor area (m²) instead of revenue, expressed as tCO₂e/floor area (m²).

How carbon intensive are the companies in my portfolio

Asset class	Scope 1	Scope 2	Scope 1 and 2	Data Coverage %	Weights at 31.12.22 %
	Portfolio	Portfolio	Portfolio	Portfolio	Portfolio
Public Markets					
Government bonds (tCO ₂ e/\$m GDP)	-	-	499.7	91.0%	8.9%
Listed equities	59.0	32.4	91.4	99.9%	2.9%
Listed credit	6.1	6.2	12.3	80.1%	2.6%
Listed alternatives	-	-	-	0.0%	25.3%
Private Markets					
Private equity/VC/Real Assets	113.7	142.8	256.5	61.6%	38.8%
Real estate (tCO ₂ e/m ²)	0.00865	0.00998	0.01863	55.6%	5.8%
Loans/Private credit	69.0	24.2	93.2	36.3%	5.6%
Derivatives					
Index futures	-	-	-	0.0%	0.0%
Government bond futures	-	-	-	0.0%	3.6%
Cash					
Cash	-	-	-	0.0%	6.4%
Weighted average (tCO₂e/\$m sales)¹	98.2	98.9	197.0	62.0%	100%

Scope (1-2) emissions definitions - 1: Direct emissions 2: Indirect emissions.

Trucost data is partly based on estimated figures. Therefore, the reporting should be estimated based on the best available data and used for guidance.

Coverage % based on value of holdings.

¹ Weighted average calculation excludes Government Bonds and Real Estate given the difference in units.

Carbon Analysis Continued

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Portfolio Carbon Footprint

Economic Emissions Intensity

Economic Emissions Intensity (EEI) is a normalised carbon intensity metric, expressed as tCO₂e/million USD invested. The portfolio weighting, measured using NAV, of each holding is multiplied by the ratio of the investee company's emissions normalised by the investee company's enterprise value including cash (EVIC). This is equivalent as dividing the portfolio Financed Emissions by the portfolio's AUM.

In this instance EVIC represents the total value of a company's equity and debt, allowing investors to normalise emissions by company size, based on equity and debt valuations. (i.e. typically larger company's will have a greater total emissions footprint but may be more carbon efficient on an intensity basis). Normalising emissions allows for more accurate comparisons between companies of different sizes and between funds of different sizes. However, volatility in EVIC will impact EEI results and EVIC volatility is not always perfectly tied to actual economic activity or total emissions. Moreover, normalising emissions by EVIC means that EEI does not perfectly reflect the carbon impact of an investment on the real-world.

How carbon intensive are the companies in my portfolio

Asset class	Scope 1	Scope 2	Scope 1 and 2	Data Coverage %	Weights at 31.12.22 %
	Portfolio	Portfolio	Portfolio	Portfolio	Portfolio
Public Markets					
Government bonds	-	-	-	0.0%	8.9%
Listed equities	22.0	8.6	30.6	99.2%	2.9%
Listed credit	0.4	0.5	0.9	80.1%	2.6%
Listed alternatives	-	-	-	0.0%	25.3%
Private Markets					
Private equity/VC	13.4	9.9	23.3	61.6%	38.8%
Real estate	2.1	1.8	3.9	55.6%	5.8%
Loans/Private credit	44.4	12.8	57.2	36.3%	5.6%
Derivatives					
Index futures	-	-	-	0.0%	0.0%
Government bond futures	-	-	-	0.0%	3.6%
Cash					
Cash	-	-	-	0.0%	6.4%
Weighted average (tCO₂e/\$m invested)¹	14.1	8.6	22.8	61.3%	100%

Scope (1-2) emissions definitions - 1: Direct emissions 2: Indirect emissions.

Trucost data is partly based on estimated figures. Therefore, the reporting should be estimated based on the best available data and used for guidance.

Coverage % based on value of holdings.

¹ Weighted average calculation excludes Government Bonds.

Carbon Analysis Continued

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Greenhouse Gas Emissions

Total Financed Emissions

Total Financed Emissions calculate the absolute total emissions, expressed as tCO₂e, that are attributed to the investor. The methodology used follows the Partnership for Carbon Accounting Financials (PCAF) and is recommended by TCFD. The attribution factor is calculated by taking the monetary size of the investment, measured using NAV, and dividing it by the investee company's enterprise value including cash. This attribution factor is then multiplied by the company's total emissions to calculate the final Financed Emissions result.

It is important to consider that Financed Emissions will be principally driven by the size of the investment made in a company and therefore, larger funds will tend to have higher Financed Emissions. Moreover, volatility in a company's EVIC can lead to changes in Financed Emissions between equity and credit investors.

What emissions are "owned" by the portfolio based on company ownership?

Asset class	Scope 1	Scope 2	Scope 1 and 2	Data Coverage %	Weights at 31.12.22 %
	Portfolio	Portfolio	Portfolio	Portfolio	Portfolio
Public Markets					
Government bonds	-	-	-	0.0%	8.9%
Listed equities	297.1	116.5	413.6	99.2%	2.9%
Listed credit	4.0	5.1	9.1	80.1%	2.6%
Listed alternatives	-	-	-	0.0%	25.3%
Private Markets					
Private equity/VC	1,504.4	1,110.4	2,614.7	61.6%	38.8%
Real estate	422.4	122.1	544.5	55.6%	5.8%
Loans/Private credit	31.3	28.1	59.4	36.3%	5.6%
Derivatives					
Index futures	-	-	-	0.0%	0.0%
Government bond futures	-	-	-	0.0%	3.6%
Cash					
Cash	-	-	-	0.0%	6.4%
Total Financed Emissions (tCO₂e)¹	2,259.2	1,382.1	3,641.3	61.3%	100%

Total emissions owned increase with the size of the portfolio and are therefore not comparable across funds.
Coverage % based on value of holdings.

¹ Total financed emissions calculation excludes Government Bonds.

Carbon Analysis Continued

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Exposure to Carbon Intensive Sectors

The TCFD regulation requires fund managers to disclose portfolio exposure to carbon emissions and other sources of climate risk. For multi-asset portfolios this can be a complex task. A simple active equity fund may have 40 companies in its portfolio, a multi-asset fund can have hundreds of companies spread across many sub-funds, as well as holdings in non-corporate assets like government bonds, real estate, derivatives and private assets such as private credit, private equity, venture capital and other real assets. This makes assessment complex. For core public market equity and credit portfolios we have been able to make good progress, but, elsewhere, lack of available data and risk assessment tools mean we have made more limited progress.

For public equities and credit, our climate scenario analysis suggests that by far the biggest climate risk for portfolios is associated with the transition away from fossil fuel energy to low carbon alternatives. Physical climate risks tend to be much more modest in the economic impact. So the core risk for investors arises from companies with carbon intensive products (e.g. coal, oil, gas) or operations (e.g. mining, electric power generation) that are highly exposed to this transition.

The good news is that these activities are highly concentrated in a small number of sectors. Power utilities, oil and gas and materials account for roughly 60% of the carbon intensity of the MSCI World equity index, but these sectors only have around 12% of the weight in the index. By contrast, the technology, financials and healthcare sectors, which together account for half the index weight, only emit 5% of its carbon emissions.

There is some variation across different equity regions. The carbon intensive sectors are not evenly distributed across regional equity and bond indices. Most equity portfolios have fairly low carbon intensity. For example, UK, US, Europe and Japan equity benchmarks have a weighted average carbon intensity of 80–160tCO₂e/\$m revenue), but a few, particularly those focused on emerging markets have higher exposures (350tCO₂e/\$m). Corporate bond portfolios tend to be a bit more carbon intensive than equity indices (200–220tCO₂e/\$m).

Other asset classes – government bonds, real estate – measure carbon exposure in ways that are not directly comparable with equities and credit; real-estate carbon intensity is normalised by floor-space, rather than the traditional revenue figure. Where we have been able to make comparisons, our view is that these assets have carbon risk exposures that are much lower than the average for equities and credit. The activities that are financed by government bonds (government spending on education, healthcare, social security etc.) are not, in most cases, particularly carbon intensive. Real estate emissions are also low relative to industrial equity sectors.

Overall, our analysis suggests that while multi-asset portfolios have pockets of exposure to carbon intensive activities, these more risky exposures are, for most of our funds, heavily diluted by much larger exposures to business sectors and asset classes with little climate risk. This means that most multi-asset funds are not materially exposed to carbon or climate risks.

Nevertheless, abrdn is committed to using its influence to encourage companies with significant emissions to develop strategies to decarbonise their businesses. This should reduce risks further.

Carbon Scenario Analysis

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Climate Value at Risk

Climate change scenario analysis provides a quantitative assessment of the financial impact of a range of potential future climate change pathways and related policy and technology scenarios on investments.

These impacts are driven by:

Transition risks and opportunities: direct and indirect carbon costs, and abatement measures to counteract these costs; demand destruction for emissions-intensive goods, and demand creation for goods with abatement potential.

Physical risks: impacts of chronic physical risks and increased physical damages to real assets caused by more extreme weather events; adaptation measures to help counteract these risks.

Market dynamics: the ability to compete in the market and pass on climate-related costs.

Our analysis provides bottom-up quantification of the financial implications of these direct and indirect economic shocks. The analysis considers the specificities of each security and its sensitivity to those shocks, and thereby assesses the impact on annual value stream. These are consolidated into financial impacts at asset level and can then be aggregated to assess the impact at fund level.

Abrdn has partnered with Planetrics, a subsidiary of McKinsey to assess portfolios for climate risk. The results tend to follow a similar pattern to the results of the carbon analysis described above.

Overall our analysis is that most multi-asset portfolios have little exposure to climate risk. Our data shows that across the specified climate scenarios, the impact on multi-asset portfolios is negligible – equivalent to the kind of volatility we see within a single quarter for an equity fund.

There are several reasons for this low risk exposure.

Most of the fund allocation is to sectors where climate risk is very small – technology, financials and healthcare comprise 50% of global equity markets but see very low climate risk across the three TCFD scenarios (Orderly Transition, Disorderly Transition, and Current Policy). Allocations to high risk sectors (energy, utilities, industrials, materials) is mostly fairly small.

Within many high risk sectors there are both climate winners and losers. For example in the utilities sector in transition scenarios renewable power generators are winners and coal/gas generators are losers. The pattern is the opposite in hothouse scenarios, but in both cases winners cancel out losers and sector risk exposure is reduced.

Multi-asset portfolios also hold significant exposure in asset classes with low climate risk. For example, our data indicates that credit portfolios have much lower risk than equity portfolios. Although credit indices can be a little more carbon intensive than equity benchmarks, this is more than offset by two other factors when assessing climate risk. First, credit has relatively short maturity – a 10 year bond is not exposed to climate risks which tend to be more severe in the distant future. Secondly, credit is inherently less exposed to risk due to its seniority. Similarly, climate risks for other asset classes such as developed market government bonds are even more modest.

These factors – the small size of high risk sectors, the fact that winners offset losers, and the fact that non-equity asset classes tend to have low climate risk – when combined mean that most multi-asset portfolios have very small aggregate risk in all three of the specified TCFD climate scenarios.

Glossary

Data Point	Definition
Carbon Emissions – Scope 1	Greenhouse gas emissions generated from sources which are owned or controlled by the company.
Carbon Emissions – Scope 2	Greenhouse gas emissions generated from the consumption of purchased electricity, heat or steam by the company.
Carbon Emissions – Scope 3	Greenhouse gas emissions that are a consequence of the activities of the company, but occur from sources not owned or controlled by the company, upstream and downstream of a company supply-chain, such as, the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity related activities (e.g.T&D losses) not covered in Scope 2.
Carbon emissions/Greenhouse Gas	Carbon emissions is used as a generic term for the main greenhouse gas (GHG) emissions (carbon dioxide, methane, nitrous oxide, F-gases) in our reporting. This is synonymous to the term carbon dioxide equivalent (CO ₂ e).
Carbon dioxide equivalent (CO ₂ e)	This metric utilises global warming potentials of all the greenhouse gases as defined by the International Panel of Climate Change to calculate a single consistent metric for GHG impact in carbon dioxide equivalent terms.
Weighted Average Carbon Intensity (WACI)	The weighted average carbon intensity takes the property emissions normalised by floor area and subsequently multiplied by the relative weight of the property to the whole portfolio.
Financed Emissions	This is the absolute tonnes of carbon dioxide equivalent (tCO ₂ e) that is attributed or 'owned' by an investors, based on the value of the investment in an investee company. This metric is consistent to the PCAF Financed Emissions methodology, which is integrated into TCFD recommendations.
Economic Emissions Intensity (Carbon Footprint)	Economic Emissions Intensity (EEI) is the terminology used by PCAF. This metric is synonymous with 'carbon footprint'. EEI is a normalised carbon intensity metric, expressed as tCO ₂ e/million USD invested. The portfolio weighting of each holding is multiplied by the ratio of the asset's emissions normalised by the asset's value. This is equivalent as dividing the portfolio Financed Emissions by the portfolio's AUM.
Carbon Intensive Sectors	We have determined the GICS Industry Groups: Utilities, Energy, Materials and Transportation as representing 'Carbon Intensive Sectors'.
Climate Change Scenario analysis	Climate change scenario analysis provides a quantitative assessment of the financial impact of a range of potential future climate change scenario pathways and related policy and technology scenarios on investments.
Probability Weighted Scenario	Weighted average scenario based on our latest assessment of probability across our full suite of 16 scenarios, resulting in a global temperature rise of 2.3C by 2100.
Early Action Scenario ('orderly' transition)	Strict and immediate policy action is put in place and is steadily ramped up to achieve an orderly transition that results in a global temperature rise of 1.7C by 2100.
Stricter Action Scenario ('disorderly' transition)	The implementation of strict policy action is delayed until 2030, resulting in a disorderly transition and a global temperature rise of 1.9C by 2100.
Paris-aligned Mean Scenario (transition)	Weighted average across all 'Paris-aligned' scenarios in our full suite of 16 scenarios, resulting in a global temperature rise of 1.8 degrees Celsius by 2100
Current Policy Scenario ('hot house world')	No new policy action is implemented beyond what is already in place, resulting in a global temperature rise of 3.2C by 2100.
Transition Risk	Climate risks associated with the transition to a low-carbon economy, these include, demand creation, demand destruction, technology risk, carbon price risk, market risks etc...
Physical Risk	Climate risks associated to the physical impacts of climate change, these can be broadly categorised into acute risk (short-term impacts) and chronic risk (long-term impacts).
Climate Value at Risk	The associated financial risk measured based on a selected climate scenario.
GICS/BICS	GICS: Global Industry Classification Standard is an industry taxonomy developed by MSCI and Standard & Poor's. BICS: Bloomberg Industry Classification System is an industry classification system developed by Bloomberg.
PCAF	Partnership for Carbon Accounting Financials.
Glasgow Financial Alliance for Net Zero	The Glasgow Financial Alliance for Net Zero (GFANZ) is a global coalition of leading financial institutions committed to accelerating the decarbonization of the economy.

Data Point	Definition
Net Zero Investment Framework	The Net-Zero Investment Framework was developed by the Institutional Investors Group on Climate Change (IIGCC), it produced an alignment metric that is now being referred to as the maturity scale approach (as defined by GFANZ).
NZIF Maturity Scale Alignment	This alignment metric enables investors to cover the Binary Target Approach in more detail, categorising companies into levels of alignment as defined by the IIGCC NZIF recommendations.
Abatement	Abatement refers to the act of reducing the emissions of an activity (synonymous with decarbonisation).

Find out more

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abrdn Dec 2022