

# Climate Related Portfolio Assessment



## IVO Capital (2025.03)

10 March 2025



# ABOUT SUSTAINABLE1

Sustainable1 is part of S&P Global.

Sustainable1 is part of S&P Global. A leader in carbon and environmental data and risk analysis, Sustainable1 assesses risks relating to climate change, natural resource constraints, and broader environmental, social, and governance (ESG) factors. Companies and financial institutions use Sustainable1 intelligence to understand their ESG exposure to these factors, inform resilience, and identify transformative solutions for a more sustainable global economy. S&P Global's commitment to environmental analysis and product innovation enables its team to deliver essential ESG investment-related information to the global marketplace.

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# INTRODUCTION TO CLIMATE-RELATED REPORTING

The effects of climate change pose considerable and far-reaching risks to the global economy. Among those most directly affecting businesses include physical risks posed by increased climate variability and more frequent extreme weather events, which may result in property damage, challenges linked to business continuity, and the disruption to global supply chains. Businesses also face risks associated with the transition to a low-carbon economy, including policy changes designed to discourage carbon-intensive energy use or favour more resource-efficient industries and operations.

At the request of the G20, the Financial Stability Board (FSB) reviewed how the reporting on climate-related issues in financial reporting could be improved in order to better reflect the risks and opportunities facing financial institutions and non-financial businesses alike. In June 2017, the FSB Taskforce for Climate-Related Financial Disclosure (TCFD) published recommendations on the disclosure of “information needed by investors, lenders, and insurance underwriters to appropriately assess and price climate-related risks and opportunities.”

The TCFD provides a voluntary disclosure framework organized around four themes, designed to facilitate better disclosure. These are **governance, strategy, risk management, and metrics and targets**. In order for organizations to disclose in line with TCFD recommendations, they must be able to quantify or qualify the risks and opportunities facing them, linked to climate-related issues, and be able to describe policies, procedures and systems in place to monitor and address climate-related issues on an on-going basis.

This report by Trucost provides both forward-looking and historical metrics that may be used by asset owners and/or asset managers to support their climate-related disclosures in line with TCFD recommendations, and inform internal processes for risk management and strategy development within an organization.

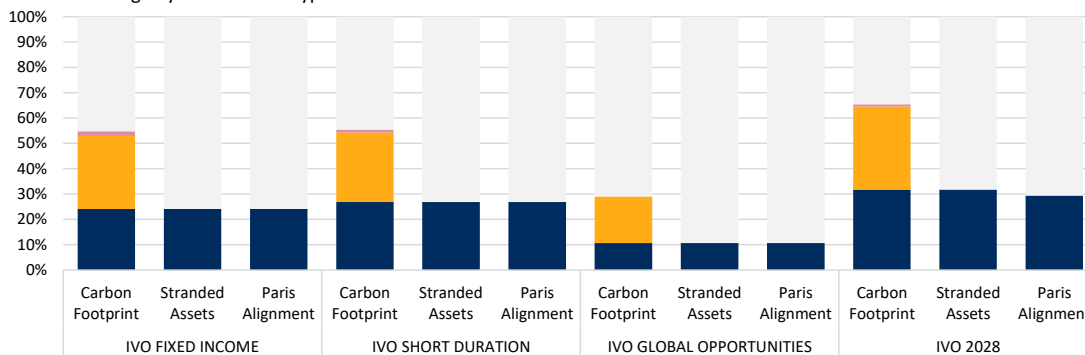
See Appendix 1 for more information on the TCFD recommended disclosures for asset owners and asset managers.

# COVERAGE RATES

## A Note on Mapping

- Equity instruments are mapped to the issuing entity. Debt instruments are mapped to the first publicly listed entity in the instrument's parent chain (starting with a bond's issuer, then its immediate parent, and finally its ultimate parent). Bonds with no public parent are mapped to the issuer.
- 'Out of Scope' indicates the portion of a portfolio relating to non-corporate equity, debt or loans.
- 'Trucost Data with [or without] apportioning' indicates the portion of a portfolio that was mapped to companies in the corresponding product dataset. For example, for the stranded assets module, the corresponding dataset is the Trucost Environmental Register (ER).
- 'Single Sector Modelling with [or without] apportioning' is applicable only to the carbon footprint module. Companies not in the Trucost ER may still have an emissions profile generated and be included in the analysis if both the GICS subindustry and revenues are available.
- Companies without an apportioning factor available will be excluded from portfolio-level metrics that require apportioning - such as absolute footprint - but included in metrics that do not - such as weighted-average carbon intensity (WACI).

Coverage by Method and Type



	Portfolio Size (mEUR)
IVO FIXED INCOME	723
IVO SHORT DURATION	157
IVO GLOBAL OPPORTUNITIES	25
IVO 2028	164

- Out of scope
- Single Sector Modelling with apportioning by EVIC, MC or TC
- Single Sector Modelling without apportioning
- Trucost Data with apportioning by EVIC, MC or TC
- Trucost Data without apportioning
- Not covered

# CARBON

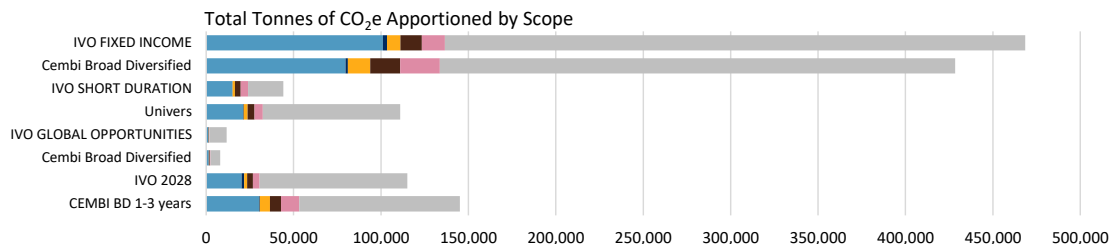
## Carbon Apportioned by Scope

Carbon audits offer a systematic assessment of the carbon risks and opportunities within a portfolio or index at a given point in time. The first step of beginning an audit is to decide on the scope of the analysis. This may range from looking only at the operational emissions of investee companies - which avoids the risk of double counting - to looking at emissions throughout their entire supply chain for a more complete picture.

In the chart below, carbon has been apportioned to each of the portfolios analysed and broken out by the following scopes:

- **Direct (Scope 1):** CO<sub>2</sub>e emissions based on the Kyoto Protocol, greenhouse gases generated by direct company operations.
- **Direct (Other):** Additional direct emissions, including those from CCl<sub>4</sub>, C<sub>2</sub>H<sub>3</sub>Cl<sub>3</sub>, CBrF<sub>3</sub>, and CO<sub>2</sub> from Biomass.
- **Purchased Electricity (Scope 2):** CO<sub>2</sub>e emissions generated by purchased electricity, heat or steam.
- **Non-Electricity First Tier Supply Chain (Scope 3):** CO<sub>2</sub>e emissions generated by companies providing goods and services in the first tier of the supply chain.
- **Other Supply Chain (Scope 3):** CO<sub>2</sub>e emissions generated by companies providing goods and services in the second to final tier of the supply chain.
- **Downstream (Scope 3):** CO<sub>2</sub>e emissions generated by the distribution, processing and use of the goods and services provided by a company.

For more information on apportioning and scopes, please see Appendix 2 and 3 respectively.



	CEMBI BD 1-3 years	IVO 2028	Cembi Broad Diversified	IVO GLOBAL OPPORTUNITIES	Univers	IVO SHORT DURATION	Cembi Broad Diversified	IVO FIXED INCOME
■ Direct CO <sub>2</sub> e (Scope 1)	30,283	20,322	1,486	1,357	21,033	14,953	79,790	101,048
■ Direct CO <sub>2</sub> e (Other)	372	1,343	24	4	368	128	1,302	2,383
■ Purchased Electricity CO <sub>2</sub> e (Scope 2)	5,871	1,726	236	126	2,261	1,411	12,690	7,691
■ Non-Electricity First Tier Supply Chain CO <sub>2</sub> e (Scope 3)	6,358	3,296	319	129	4,004	3,304	17,137	12,205
■ Other Supply Chain CO <sub>2</sub> e (Scope 3)	10,307	3,832	424	254	4,691	4,201	22,742	13,162
■ Downstream CO <sub>2</sub> e (Scope 3)	91,961	84,494	5,489	9,854	78,586	20,203	294,763	331,972

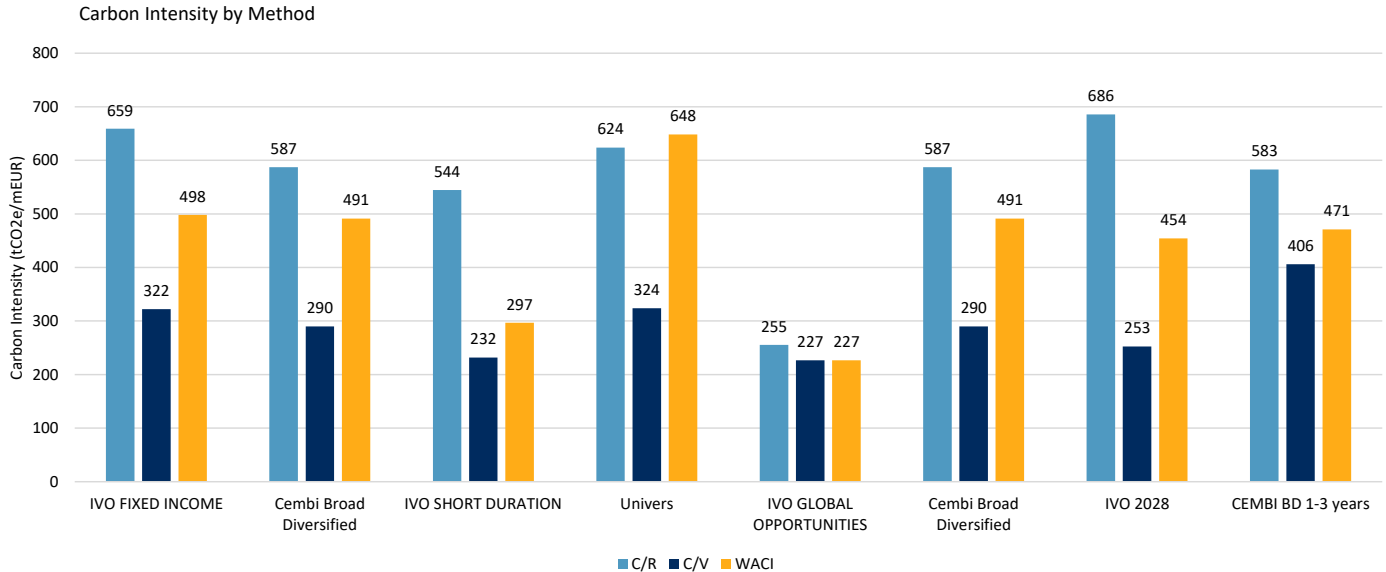
# CARBON

## Carbon Intensity by Method

Portfolios with larger assets under management will typically also have larger absolute carbon footprints than smaller portfolios due to their size. In order to facilitate fair comparison between portfolios, benchmarks and across years, it is therefore important to normalize the totals, either by revenues or by value invested. The three most common approaches to normalization are:

1. **Carbon to Revenue (C/R):** Dividing the apportioned CO<sub>2</sub>e by the apportioned annual revenues.
2. **Carbon to Value Invested (C/V):** Dividing the apportioned CO<sub>2</sub>e by the value invested.
3. **Weighted Average Carbon Intensity (WACI):** Summing the product of each holding's weight in the portfolio with the company level C/R intensity (no apportioning).

The chart below shows the intensity for portfolios using all three calculation methods. The scopes used for the intensity were **Direct** and **First Tier Indirect Emissions**.



# CARBON

## Sector VOH Share vs. Carbon Share

The charts below compare each sector's value-based weight in a portfolio or benchmark to its share of the total apportioned carbon emissions.

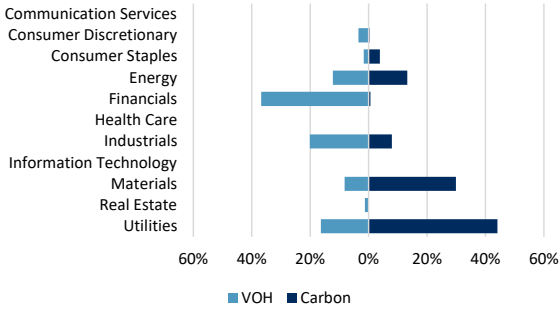


# CARBON

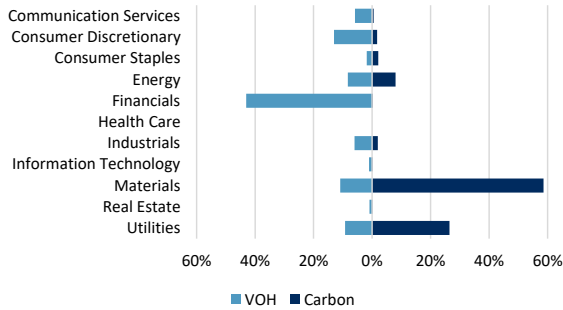
## Sector VOH Share vs. Carbon Share

The charts below compare each sector's value-based weight in a portfolio or benchmark to its share of the total apporportioned carbon emissions.

IVO 2028



CEMBI BD 1-3 years



# CARBON

## Sector Carbon Intensities

The table below shows the C/R intensities of the portfolios and benchmarks at the GICS sector level.

	Communication Services	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Real Estate	Utilities
IVO FIXED INCOME	19	119	110	554	22		809		1,016	107	1,067
Cembi Broad Diversified	93	119	266	551	15		717	121	789	178	2,172
IVO SHORT DURATION	77	119	1,008		19		649		1,076	92	1,117
Univers	71	96	385	472	23		538	56	1,325	99	2,559
IVO GLOBAL OPPORTUNITIES		45	110	782	16		1,096		953	101	328
Cembi Broad Diversified	93	119	266	551	15		717	121	789	178	2,172
IVO 2028		119	1,008	525	20		262		1,264	85	1,618
CEMBI BD 1-3 years	71	88	362	560	16		552	327	665	144	2,162

Carbon Intensity (tCO2e/mEUR)



# CARBON

## Top C/R Contributors

The tables below show the top contributors to the carbon intensity of the portfolios analysed. Note that if the method used is C/R or C/V, then a company may appear due to the proportion owned/financed, rather than because it is the most carbon intensive held. The 'Contribution' is the percentage change in the portfolio's intensity that would be caused by excluding the holding referenced. In other words, it is a measurement of how much a specific holding affects the carbon performance of the portfolio.

### IVO FIXED INCOME

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresa Eléctrica Cochrane SpA.	Utilities	1.26%	12.05%	4,345	-10.41%	Modelled_Supplementary	-
Grupo Aeroméxico, S.A.B. de C.V.	Industrials	3.39%	18.56%	1,104	-8.42%	Modelled	No
Metinvest B.V.	Materials	0.73%	6.71%	1,715	-4.24%	Modelled_Supplementary	-
Nitrogénmuvek Zrt.	Materials	1.14%	11.77%	953	-3.95%	Modelled_Supplementary	-
Pampa Energía S.A.	Utilities	1.00%	4.10%	5,288	-3.61%	Full Disclosure	No
MSU Energy S.A.	Utilities	1.19%	3.64%	4,345	-3.10%	Modelled_Supplementary	-
LATAM Airlines Group S.A.	Industrials	1.51%	3.96%	1,096	-1.62%	Partial Disclosure	No
OCP S.A.	Materials	3.42%	4.33%	953	-1.37%	Modelled_Supplementary	-
Empresas Públicas de Medellín E.S.P.	Utilities	0.36%	1.67%	2,449	-1.22%	Modelled_Supplementary	-
Gran Tierra Energy Inc.	Energy	3.50%	5.80%	789	-1.01%	Partial Disclosure	No

### IVO SHORT DURATION

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresas Públicas de Medellín E.S.P.	Utilities	3.11%	19.86%	2,449	-16.16%	Modelled_Supplementary	-
Grupo Aeroméxico, S.A.B. de C.V.	Industrials	3.30%	24.77%	1,104	-14.30%	Modelled	No
LATAM Airlines Group S.A.	Industrials	3.48%	12.58%	1,096	-6.75%	Partial Disclosure	No
Metinvest B.V.	Materials	0.71%	9.01%	1,715	-6.33%	Modelled_Supplementary	-
Adecoagro S.A.	Consumer Staples	2.86%	7.40%	1,008	-3.54%	Partial Disclosure	No
Nitrogénmuvek Zrt.	Materials	0.36%	5.13%	953	-2.27%	Modelled_Supplementary	-
Grupo KUO, S.A.B. de C.V.	Industrials	4.18%	14.56%	611	-1.83%	Partial Disclosure	No
Zhenro Properties Group Limited	Real Estate	0.00%	0.00%	11	0.00%	Partial Disclosure	No
ACI Airport Sudamerica S.A.	Industrials	1.12%	0.00%	103	0.00%	Modelled_Supplementary	-
Redsun Properties Group Limited	Real Estate	0.00%	0.00%	44	0.00%	Partial Disclosure	No

\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more information see <http://www.climateaction100.org>.

# CARBON

## Top C/R Contributors

The tables below show the top contributors to the carbon intensity of the portfolios analysed. Note that if the method used is C/R or C/V, then a company may appear due to the proportion owned/financed, rather than because it is the most carbon intensive held. The 'Contribution' is the percentage change in the portfolio's intensity that would be caused by excluding the holding referenced. In other words, it is a measurement of how much a specific holding affects the carbon performance of the portfolio.

### IVO GLOBAL OPPORTUNITIES

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
LATAM Airlines Group S.A.	Industrials	9.26%	33.45%	1,096	-27.83%	Partial Disclosure	No
EnQuest PLC	Energy	8.19%	32.48%	782	-24.47%	Full Disclosure	No
Nitrogénmuvek Zrt.	Materials	1.78%	25.13%	953	-19.72%	Modelled_Supplementary	-
Polaris Renewable Energy Inc.	Utilities	8.57%	2.71%	328	-0.61%	Partial Disclosure	No
Casino, Guichard-Perrachon S.A.	Consumer Staples	0.00%	0.00%	110	0.00%	Partial Disclosure	No
Redsun Properties Group Limited	Real Estate	0.03%	0.00%	44	0.02%	Partial Disclosure	No
Zhenro Properties Group Limited	Real Estate	0.09%	0.00%	11	0.06%	Partial Disclosure	No
Powerlong Real Estate Holdings Limited	Real Estate	0.79%	0.16%	159	0.10%	Partial Disclosure	No
Yuzhou Group Holdings Company Limited	Real Estate	0.59%	0.07%	67	0.19%	Modelled	No
Kondor Finance PLC	Financials	4.94%	0.02%	14	0.39%	Modelled_Supplementary	-

### IVO 2028

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresa Eléctrica Cochrane SpA.	Utilities	2.77%	33.09%	4,345	-29.40%	Modelled_Supplementary	-
Metinvest B.V.	Materials	0.68%	7.83%	1,715	-4.85%	Modelled_Supplementary	-
MVM Energetika Zártkörűen Működő Részvénytársaság	Utilities	0.19%	5.35%	4,345	-4.55%	Modelled_Supplementary	-
Methanex Corporation	Materials	2.46%	7.38%	1,285	-3.58%	Partial Disclosure	No
Klabin Austria GmbH	Materials	4.45%	7.09%	1,324	-3.55%	Modelled_Supplementary	-
Nitrogénmuvek Zrt.	Materials	0.59%	7.63%	953	-2.26%	Modelled_Supplementary	-
Adecoagro S.A.	Consumer Staples	1.63%	3.84%	1,008	-1.26%	Partial Disclosure	No
Seplat Energy Plc	Energy	0.27%	0.49%	958	-0.14%	Full Disclosure	No
Shamara Petroleum Corp.	Energy	0.09%	0.03%	511	0.01%	Modelled_Supplementary	-
Kondor Finance PLC	Financials	0.16%	0.00%	14	0.03%	Modelled_Supplementary	-

\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more information see <http://www.climateaction100.org>.

# CARBON

## Attribution Analysis

The principal reasons for the carbon intensity of a portfolio to differ from the benchmark are a) **sector allocation** decisions and b) **company selection** decisions. Sector allocation decisions can cause the carbon intensity of a portfolio to diverge from its benchmark when it is over or underweight markedly high or markedly low carbon sectors. For example, if a portfolio is overweight a high carbon sector, then it is more likely to have a higher overall intensity than the benchmark. However, if the companies selected within a high carbon sector are the most carbon efficient, then it is still possible that the portfolio may have a lower overall intensity.

The tables below show the relative contribution of **sector allocation** and **company selection** effects towards the 'Total Effect' of each portfolio versus their respective benchmark. Sector allocation effects are determined using the 11 GICS Sector classifications, and the analysis uses the Carbon-to-Revenue intensity metric.

### IVO FIXED INCOME

#### Cembi Broad Diversified

	C/R Intensity		Attribution Effect		Total
	Portfolio	Bench.	Sector	Investee	
Communication Services	19	93	-4.97%	0.17%	-4.80%
Consumer Discretionary	119	119	-7.06%	0.00%	-7.06%
Consumer Staples	110	266	-1.70%	0.73%	-0.97%
Energy	554	551	0.82%	-0.17%	0.65%
Financials	22	15	1.35%	-0.18%	1.17%
Health Care					0.00%
Industrials	809	717	-3.35%	-2.95%	-6.31%
Information Technology		121	-0.87%		-0.87%
Materials	1,016	789	7.69%	-5.75%	1.93%
Real Estate	107	178	0.26%	0.10%	0.36%
Utilities	1,067	2,172	-30.11%	33.80%	3.68%
	659	587	-37.94%	25.74%	-12.20%

### IVO SHORT DURATION

#### Univers

	C/R Intensity		Attribution Effect		Total
	Portfolio	Bench.	Sector	Investee	
Communication Service	77	71	-3.16%	-0.04%	-3.19%
Consumer Discretionary	119	96	-10.37%	-0.05%	-10.42%
Consumer Staples	1,008	385	-2.47%	-3.99%	-6.46%
Energy		472	-3.59%		-3.59%
Financials	19	23	8.01%	0.20%	8.21%
Health Care					0.00%
Industrials	649	538	5.08%	-8.06%	-2.98%
Information Technology		56	-2.15%		-2.15%
Materials	1,076	1,325	4.81%	2.92%	7.72%
Real Estate	92	99	-1.02%	0.01%	-1.01%
Utilities	1,117	2,559	1.23%	25.31%	26.54%
	544	624	-3.62%	16.30%	12.69%

# CARBON

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The tables below show the relative contribution of **sector allocation** and **company selection** effects towards the 'Total Effect' of each portfolio versus their respective benchmark. Sector allocation effects are determined using the 11 GICS Sector classifications, and the analysis uses the Carbon-to-Revenue intensity metric.

### IVO GLOBAL OPPORTUNITIES

#### Cembi Broad Diversified

	C/R Intensity		Attribution Effect		Total
	Portfolio	Bench.	Sector	Investee	
Communication Services		93	-6.13%		-6.13%
Consumer Discretionary	45	119	2.20%	1.52%	3.72%
Consumer Staples	110	266	-3.20%	0.00%	-3.20%
Energy	782	551	-0.26%	-4.17%	-4.43%
Financials	16	15	45.40%	-0.14%	45.26%
Health Care					0.00%
Industrials	1,096	717	-0.90%	-5.03%	-5.93%
Information Technology		121	-0.87%		-0.87%
Materials	953	789	10.50%	-1.87%	8.62%
Real Estate	101	178	0.13%	0.08%	0.20%
Utilities	328	2,172	12.64%	6.63%	19.27%
	255	587	59.52%	-2.98%	56.53%

### IVO 2028

#### CEMBI BD 1-3 years

	C/R Intensity		Attribution Effect		Total
	Portfolio	Bench.	Sector	Investee	
Communication Service:		71	-4.09%		-4.09%
Consumer Discretionary	119	88	-7.81%	-0.11%	-7.92%
Consumer Staples	1,008	362	-0.31%	-2.90%	-3.21%
Energy	525	560	0.35%	1.03%	1.37%
Financials	20	16	10.71%	-0.15%	10.56%
Health Care					0.00%
Industrials	262	552	0.98%	10.37%	11.34%
Information Technology		327	-0.17%		-0.17%
Materials	1,264	665	4.96%	-16.69%	-11.73%
Real Estate	85	144	0.00%	0.04%	0.05%
Utilities	1,618	2,162	-31.30%	17.42%	-13.88%
	686	583	-26.68%	9.01%	-17.67%

# CARBON DISCLOSURE

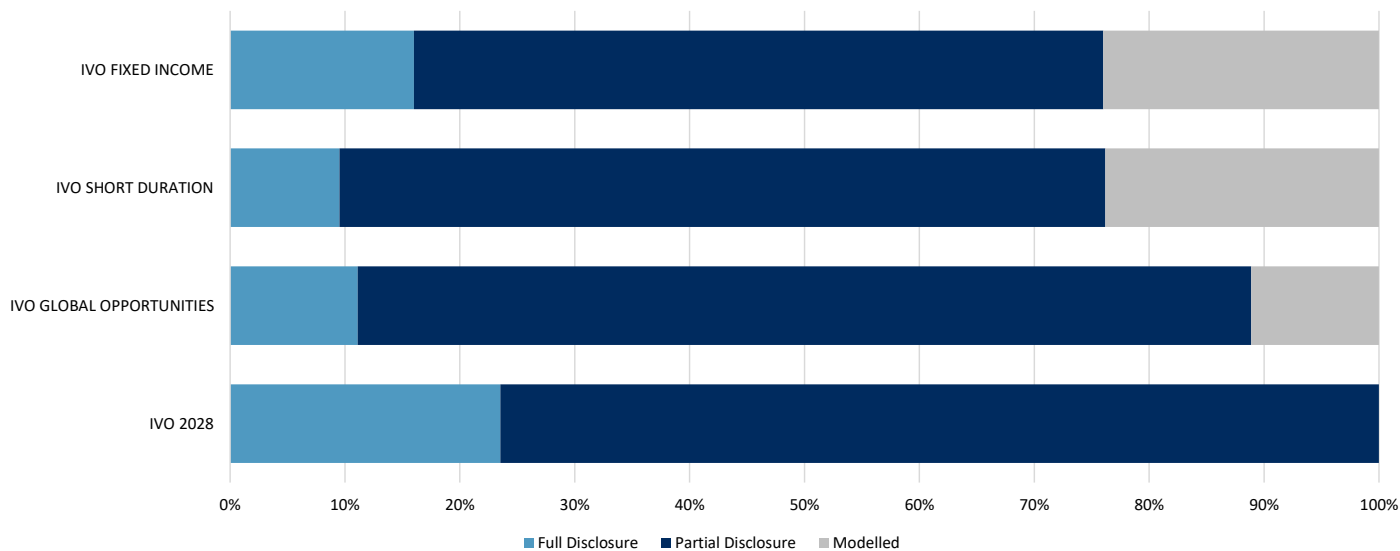
## Disclosure Analysis

In the charts below, the overall level of disclosure in each portfolio is assessed using the following three methods:

1. **VOH:** The sum of the weights of each holding within each of the three disclosure categories.
2. **GHG:** The sum of each holding's share of the total apportioned Scope 1 CO<sub>2</sub>e within each of the three disclosure categories.
3. **Companies:** The number of companies, shown as a percent of all companies analysed, within each of the three disclosure categories.

For more information on data collection and disclosure categories, please refer to Appendix 4.

Disclosure Levels by Company Count



# CARBON DISCLOSURE

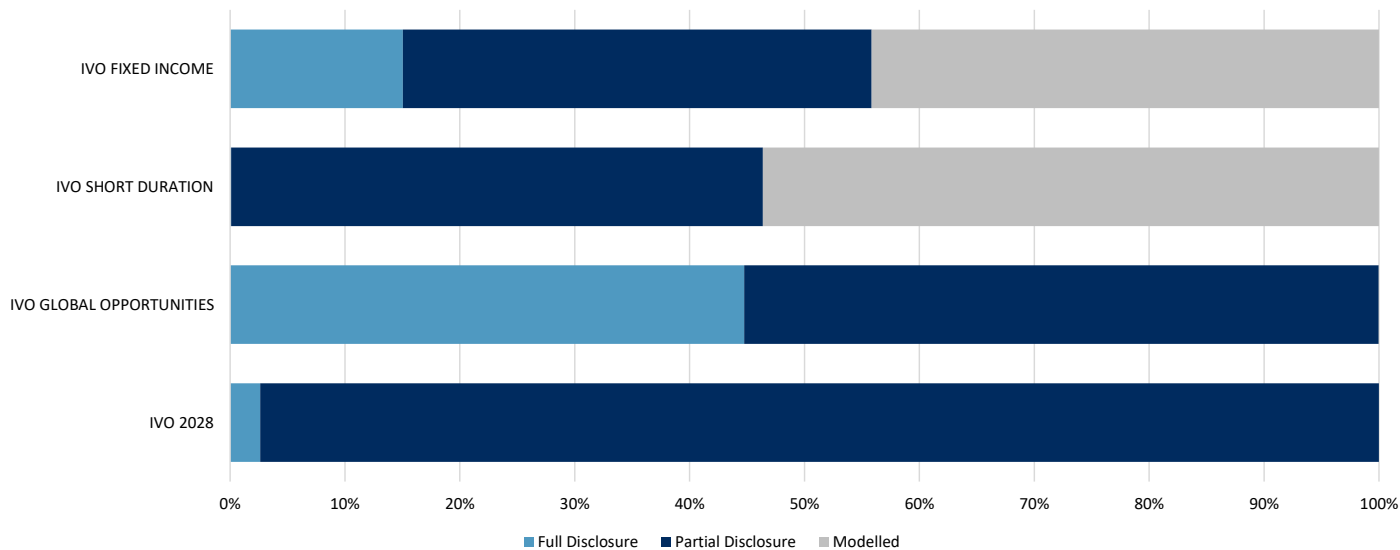
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Disclosure Levels by GHG



# CARBON DISCLOSURE

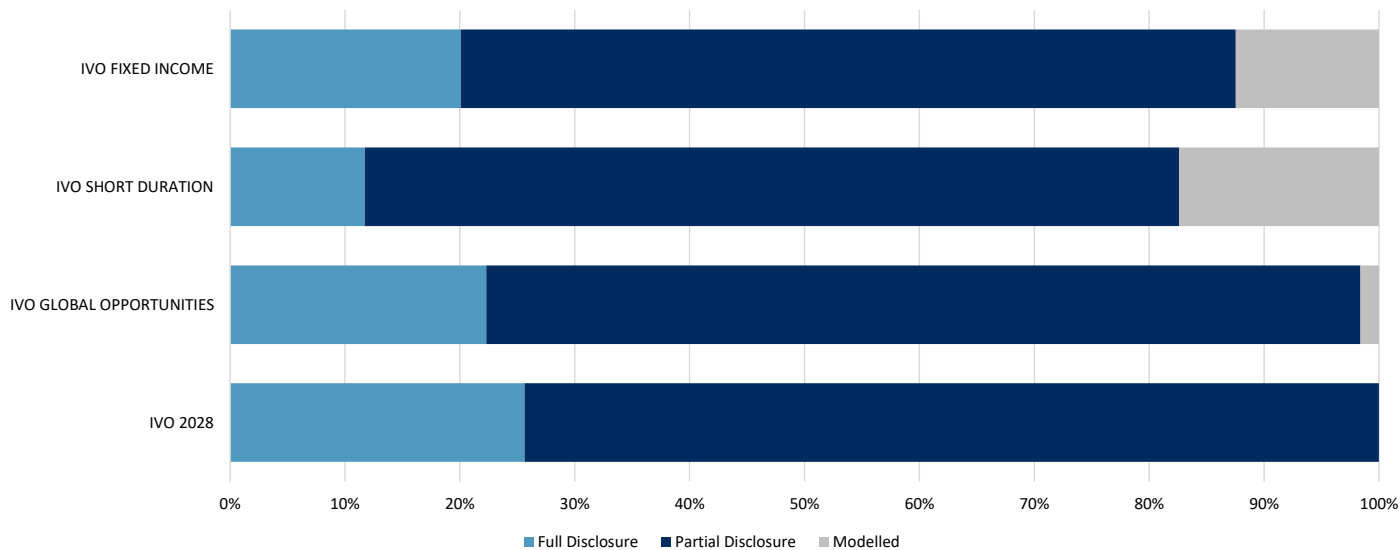
## Disclosure Analysis

In the charts below, the overall level of disclosure in each portfolio is assessed using the following three methods:

1. **VOH:** The sum of the weights of each holding within each of the three disclosure categories.
2. **GHG:** The sum of each holding's share of the total apportioned Scope 1 CO<sub>2</sub>e within each of the three disclosure categories.
3. **Companies:** The number of companies, shown as a percent of all companies analysed, within each of the three disclosure categories.

For more information on data collection and disclosure categories, please refer to Appendix 4.

Disclosure Levels by VOH



# CARBON DISCLOSURE

## Top Modelled C/R Contributors

The level of carbon disclosure is based on each company's Scope 1 emissions, which can be classified as **fully disclosed**, **partially disclosed**, or **modelled**. The table below shows the top contributors to each portfolio's C/R intensity whose Scope 1 carbon is classified as **modelled**. These may be prime candidates for company engagement.

### IVO FIXED INCOME

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresa Eléctrica Cochrane SpA.	Utilities	1.26%	12.05%	4,345	-10.41%	Modelled_Supplementary	-
Grupo Aeroméxico, S.A.B. de C.V.	Industrials	3.39%	18.56%	1,104	-8.42%	Modelled	No
Metinvest B.V.	Materials	0.73%	6.71%	1,715	-4.24%	Modelled_Supplementary	-
Nitrogénmuvek Zrt.	Materials	1.14%	11.77%	953	-3.95%	Modelled_Supplementary	-
MSU Energy S.A.	Utilities	1.19%	3.64%	4,345	-3.10%	Modelled_Supplementary	-
OCP S.A.	Materials	3.42%	4.33%	953	-1.37%	Modelled_Supplementary	-
Empresas Públicas de Medellín E.S.P.	Utilities	0.36%	1.67%	2,449	-1.22%	Modelled_Supplementary	-
Jingrui Holdings Limited	Real Estate	0.00%	0.00%	64	0.00%	Modelled	No
ACI Airport Sudamerica S.A.	Industrials	2.42%	0.00%	103	0.01%	Modelled_Supplementary	-
KWG Group Holdings Limited	Real Estate	0.11%	0.00%	66	0.04%	Modelled	No

### IVO SHORT DURATION

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresas Públicas de Medellín E.S.P.	Utilities	3.11%	19.86%	2,449	-16.16%	Modelled_Supplementary	-
Grupo Aeroméxico, S.A.B. de C.V.	Industrials	3.30%	24.77%	1,104	-14.30%	Modelled	No
Metinvest B.V.	Materials	0.71%	9.01%	1,715	-6.33%	Modelled_Supplementary	-
Nitrogénmuvek Zrt.	Materials	0.36%	5.13%	953	-2.27%	Modelled_Supplementary	-
ACI Airport Sudamerica S.A.	Industrials	1.12%	0.00%	103	0.00%	Modelled_Supplementary	-
Yuzhou Group Holdings Company Limited	Real Estate	0.03%	0.00%	67	0.03%	Modelled	No
JGC Ventures Pte. Ltd.	Financials	0.19%	0.00%	14	0.03%	Modelled_Supplementary	-
KWG Group Holdings Limited	Real Estate	0.09%	0.01%	66	0.04%	Modelled	No
Shimao Group Holdings Limited	Real Estate	0.10%	0.01%	70	0.04%	Modelled	No
Golden Legacy Pte. Ltd.	Financials	0.03%	0.01%	16	0.20%	Modelled_Supplementary	-

\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more

# CARBON DISCLOSURE

## Top Modelled C/R Contributors

The level of carbon disclosure is based on each company's Scope 1 emissions, which can be classified as **fully disclosed**, **partially disclosed**, or **modelled**. The table below shows the top contributors to each portfolio's C/R intensity whose Scope 1 carbon is classified as **modelled**. These may be prime candidates for company engagement.

### IVO GLOBAL OPPORTUNITIES

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Nitrogénmuvek Zrt.	Materials	1.78%	25.13%	953	-19.72%	Modelled_Supplementary	-
Yuzhou Group Holdings Company Limited	Real Estate	0.59%	0.07%	67	0.19%	Modelled	No
Kondor Finance PLC	Financials	4.94%	0.02%	14	0.39%	Modelled_Supplementary	-
Greenko Solar (Mauritius) Limited	Financials	4.16%	0.04%	14	0.65%	Modelled_Supplementary	-
Golden Legacy Pte. Ltd.	Financials	0.39%	0.09%	16	1.38%	Modelled_Supplementary	-
NewDay BondCo Plc	Financials	9.87%	0.09%	14	1.52%	Modelled_Supplementary	-
Vedanta Resources Finance II PLC	Financials	12.66%	0.10%	14	1.63%	Modelled_Supplementary	-
Financiera Independencia S.A.B. de C.V. SOFOM	Financials	12.60%	0.49%	16	8.11%	Modelled_Supplementary	-
PrestigeBidCo GmbH	Consumer Discretionary	10.11%	2.11%	45	11.33%	Modelled_Supplementary	-
NES Fircroft Bondco AS	Financials	6.77%	2.07%	14	55.84%	Modelled_Supplementary	-

### IVO 2028

Name	Sector	VOH Weight	Carbon Weight	Company C/R (tCO2e/mEUR)	Portfolio C/R Contribution	Disclosure	Climate 100+*
Empresa Eléctrica Cochrane SpA.	Utilities	2.77%	33.09%	4,345	-29.40%	Modelled_Supplementary	-
Metinvest B.V.	Materials	0.68%	7.83%	1,715	-4.85%	Modelled_Supplementary	-
MVM Energetika Zártkörűen Működő Részvénytársaság	Utilities	0.19%	5.35%	4,345	-4.55%	Modelled_Supplementary	-
Klabin Austria GmbH	Materials	4.45%	7.09%	1,324	-3.55%	Modelled_Supplementary	-
Nitrogénmuvek Zrt.	Materials	0.59%	7.63%	953	-2.26%	Modelled_Supplementary	-
ShaMaran Petroleum Corp.	Energy	0.09%	0.03%	511	0.01%	Modelled_Supplementary	-
Kondor Finance PLC	Financials	0.16%	0.00%	14	0.03%	Modelled_Supplementary	-
Orazul Energy Perú S.A.	Utilities	1.75%	0.29%	394	0.21%	Modelled_Supplementary	-
Globalworth Real Estate Investments Limited	Real Estate	1.24%	0.05%	85	0.35%	Modelled_Supplementary	-
Golomt Bank JSC	Financials	0.95%	0.01%	10	0.36%	Modelled_Supplementary	-

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# STRANDED ASSETS & ENERGY TRANSITION

## Financial Exposure to Fossil Fuel Activities

Future emissions from fossil fuel reserves far outweigh the allowable carbon budget that will limit global warming to 2 degrees Celsius above pre-industrial levels. Industry experts refer to assets that may suffer from unanticipated or premature write-downs, devaluations or conversion to liabilities as 'stranded assets'.

Trucost assesses exposure to such assets by showing the combined weight of holdings with business activities in either fossil fuel extraction or fossil fuel energy generation industries. This helps to identify potentially stranded assets that would become more apparent as economies move towards a low carbon economy.

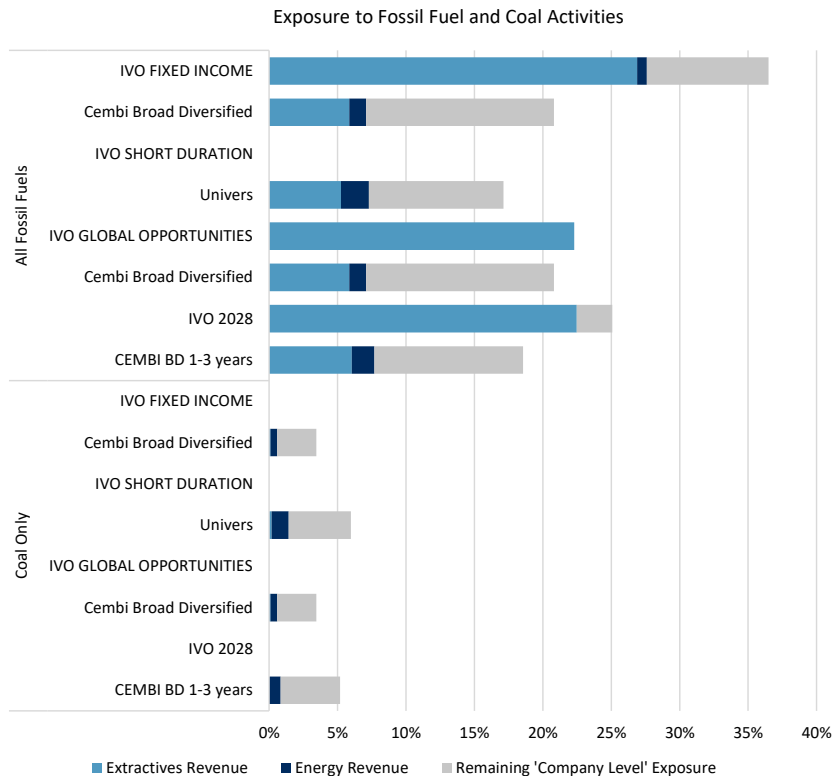
Extraction-related activities include the following:

- **Crude petroleum and natural gas extraction**
- **Tar sands extraction**
- **Natural gas liquid extraction**
- **Bituminous coal underground mining**
- **Bituminous coal and lignite surface mining**
- **Drilling oil and gas wells**
- **Support activities for oil and gas operations**

Energy-related activities include the following:

- **Coal power generation**
- **Petroleum power generation**
- **Natural gas power generation**

The right-hand chart gives an indication of exposure to companies engaged in any fossil fuel activities (top), as well as coal only (bottom). The total bar size represents the combined weight in the portfolio or benchmark of companies deriving any revenues from fossil fuel related activities, while the blue segments indicate the weighted average exposure to the revenues themselves.

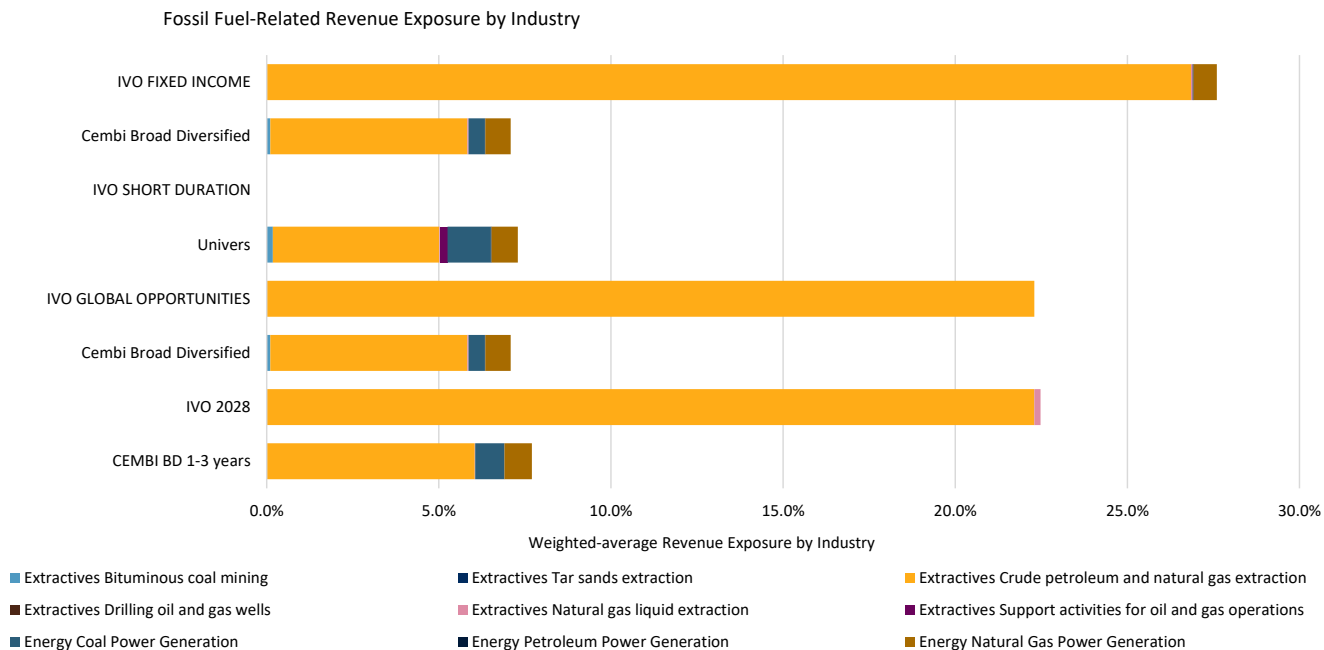


# STRANDED ASSETS & ENERGY TRANSITION

## Fossil Fuel Activities Breakdown by Sector

The chart below breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.

Given coal's status as a highly substitutable energy source, while also a major contributor global GHG emissions, investors may see divestment from these companies as a 'quick-win' on the path to meeting the goals of the Paris Agreement.



# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Fossil Fuel Revenues

The tables below show the top 10 contributors to the portfolio's weighted average fossil fuel revenues exposure.

### IVO FIXED INCOME

Name	Sector	VOH Weight	Company Level Fossil Fuel Extractives Rev.	Company Level Fossil Fuel Energy Rev.	Company Level Total Fossil Fuel Rev.	Portfolio Level Weighted Avg. Fossil Fuel Rev.	Climate 100+*
Kosmos Energy Ltd.	Energy	10.23%	100.00%	0.00%	100.00%	10.235%	No
Gran Tierra Energy Inc.	Energy	7.93%	100.00%	0.00%	100.00%	7.930%	No
Ecopetrol S.A.	Energy	12.73%	36.62%	0.00%	36.62%	4.662%	Yes
Seplat Energy Plc	Energy	3.33%	100.00%	0.00%	100.00%	3.332%	No
Pampa Energia S.A.	Utilities	2.27%	32.51%	31.13%	63.63%	1.442%	No

### IVO SHORT DURATION

Name	Sector	VOH Weight	Company Level Fossil Fuel Extractives Rev.	Company Level Fossil Fuel Energy Rev.	Company Level Total Fossil Fuel Rev.	Portfolio Level Weighted Avg. Fossil Fuel Rev.	Climate 100+*
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\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more

# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Fossil Fuel Revenues

The tables below show the top 10 contributors to the portfolio's weighted average fossil fuel revenues exposure.

### IVO GLOBAL OPPORTUNITIES

Name	Sector	VOH Weight	Company Level Fossil Fuel Extractives Rev.	Company Level Fossil Fuel Energy Rev.	Company Level Total Fossil Fuel Rev.	Portfolio Level Weighted Avg. Fossil Fuel Rev.	Climate 100+*
EnQuest PLC	Energy	22.29%	100.00%	0.00%	100.00%	22.295%	No

### IVO 2028

Name	Sector	VOH Weight	Company Level Fossil Fuel Extractives Rev.	Company Level Fossil Fuel Energy Rev.	Company Level Total Fossil Fuel Rev.	Portfolio Level Weighted Avg. Fossil Fuel Rev.	Climate 100+*
Kosmos Energy Ltd.	Energy	12.13%	100.00%	0.00%	100.00%	12.134%	No
GeoPark Limited	Energy	4.54%	99.28%	0.00%	99.28%	4.507%	No
DNO ASA	Energy	3.79%	100.00%	0.00%	100.00%	3.790%	No
Ecopetrol S.A.	Energy	4.05%	36.62%	0.00%	36.62%	1.483%	Yes
Seplat Energy Plc	Energy	0.56%	100.00%	0.00%	100.00%	0.561%	No

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# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Coal Revenues

The tables below show the top 10 contributors to the portfolio's weighted average coal revenues exposure.

### IVO FIXED INCOME

Name	Sector	VOH Weight	Company Level Coal Extractives Rev.	Company Level Coal Energy Rev.	Company Level Total Coal Rev.	Portfolio Level Climate Weighted Avg. 100+* Coal Rev.
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### IVO SHORT DURATION

Name	Sector	VOH Weight	Company Level Coal Extractives Rev.	Company Level Coal Energy Rev.	Company Level Total Coal Rev.	Portfolio Level Climate Weighted Avg. 100+* Coal Rev.
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\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more

# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Coal Revenues

The tables below show the top 10 contributors to the portfolio's weighted average coal revenues exposure.

### IVO GLOBAL OPPORTUNITIES

Name	Sector	VOH Weight	Company Level Coal Extractives Rev.	Company Level Coal Energy Rev.	Company Level Total Coal Rev.	Portfolio Level Climate Weighted Avg. 100+* Coal Rev.
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### IVO 2028

Name	Sector	VOH Weight	Company Level Coal Extractives Rev.	Company Level Coal Energy Rev.	Company Level Total Coal Rev.	Portfolio Level Climate Weighted Avg. 100+* Coal Rev.
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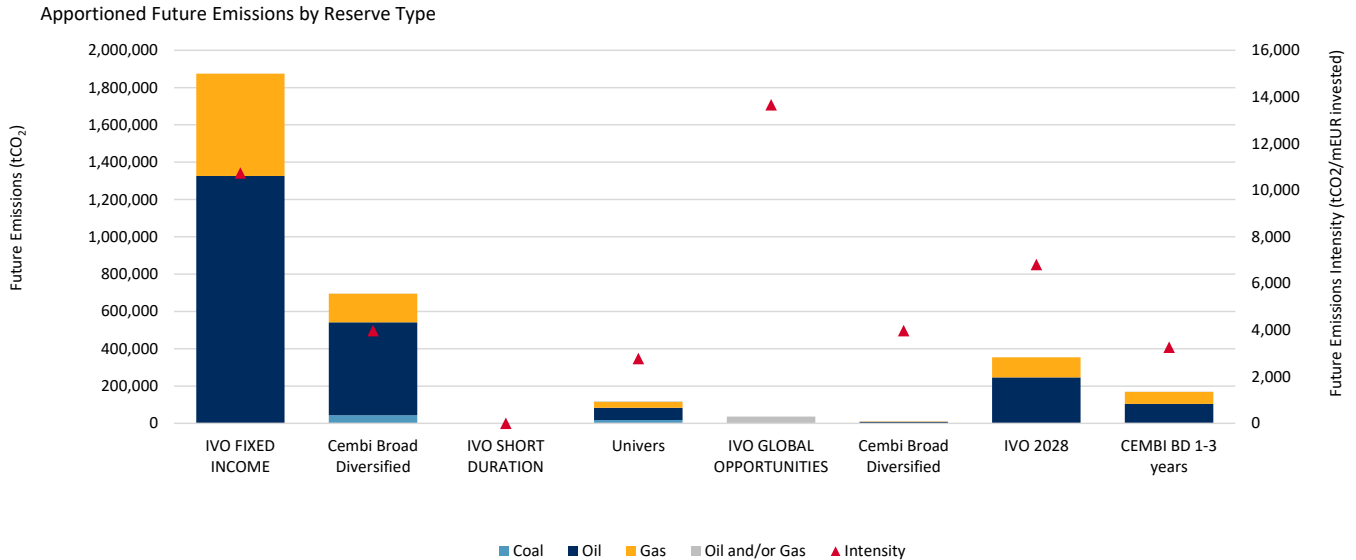
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# STRANDED ASSETS & ENERGY TRANSITION

## Emissions from Reserves

Trucost is able to analyse two additional metrics that provide additional insights relevant to stranded asset risk. First, are the carbon emissions embedded within company owned fossil fuel reserves which can be considered 'unburnable' if 2°C targets are to be achieved. Second, are the capital expenditures set aside for future fossil fuel related activities such as further exploration and extraction. Both metrics are based on disclosures published by investees.

The chart below shows the total tonnes of apportioned "future" CO<sub>2</sub> from reserves, broken down by reserve type.

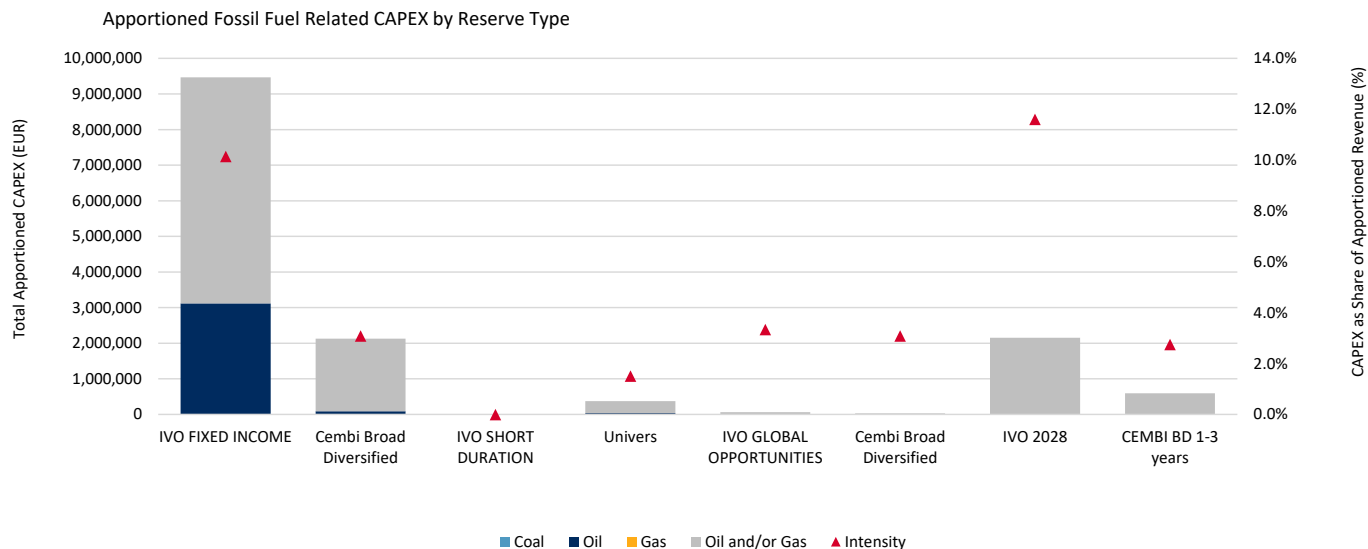


# STRANDED ASSETS & ENERGY TRANSITION

## CAPEX

Trucost is able to analyse two additional metrics that provide additional insights relevant to stranded asset risk. First, are the carbon emissions embedded within company owned fossil fuel reserves which can be considered 'unburnable' if 2°C targets are to be achieved. Second, are the capital expenditures set aside for future fossil fuel related activities such as further exploration and extraction. Both metrics are based on disclosures published by investees.

The chart below shows the total apportioned capital expenditure on fossil fuel related activities, again broken out by reserve type.



# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Future Emissions from Reserves

The tables below show the top contributors to the portfolio's apportioned emissions from reserves.

### IVO FIXED INCOME

Name	Sector	VOH Weight	Company Level Future Emissions Coal Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Oil&Gas Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Total Reserves (m tonnes CO <sub>2</sub> )	Portfolio Level Apportioned CO <sub>2</sub> from Reserves (m tonnes CO <sub>2</sub> )	Climate 100+*
Gran Tierra Energy Inc.	Energy	7.93%		50	50	0.777	No
Seplat Energy Plc	Energy	3.33%		178	178	0.499	No
Ecopetrol S.A.	Energy	12.73%		714	714	0.345	Yes
Kosmos Energy Ltd.	Energy	10.23%		46	46	0.212	No
Pampa Energia S.A.	Utilities	2.27%		69	69	0.041	No

### IVO SHORT DURATION

Name	Sector	VOH Weight	Company Level Future Emissions Coal Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Oil&Gas Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Total Reserves (m tonnes CO <sub>2</sub> )	Portfolio Level Apportioned CO <sub>2</sub> from Reserves (m tonnes CO <sub>2</sub> )	Climate 100+*
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\*Climate Action 100+ is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition. For more

# STRANDED ASSETS & ENERGY TRANSITION

## Top Contributors to Future Emissions from Reserves

The tables below show the top contributors to the portfolio's apportioned emissions from reserves.

### IVO GLOBAL OPPORTUNITIES

Name	Sector	VOH Weight	Company Level Future Emissions Coal Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Oil&Gas Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Total Reserves (m tonnes CO <sub>2</sub> )	Portfolio Level Climate Apportioned CO <sub>2</sub> 100+* from Reserves (m tonnes CO <sub>2</sub> )
EnQuest PLC	Energy	22.29%		73	73	0.036 No

### IVO 2028

Name	Sector	VOH Weight	Company Level Future Emissions Coal Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Oil&Gas Reserves (m tonnes CO <sub>2</sub> )	Company Level Future Emissions Total Reserves (m tonnes CO <sub>2</sub> )	Portfolio Level Climate Apportioned CO <sub>2</sub> 100+* from Reserves (m tonnes CO <sub>2</sub> )
DNO ASA	Energy	3.79%		118	118	0.152 No
Kosmos Energy Ltd.	Energy	12.13%		46	46	0.075 No
GeoPark Limited	Energy	4.54%		27	27	0.070 No
Ecopetrol S.A.	Energy	4.05%		714	714	0.033 Yes
Seplat Energy Plc	Energy	0.56%		178	178	0.025 No

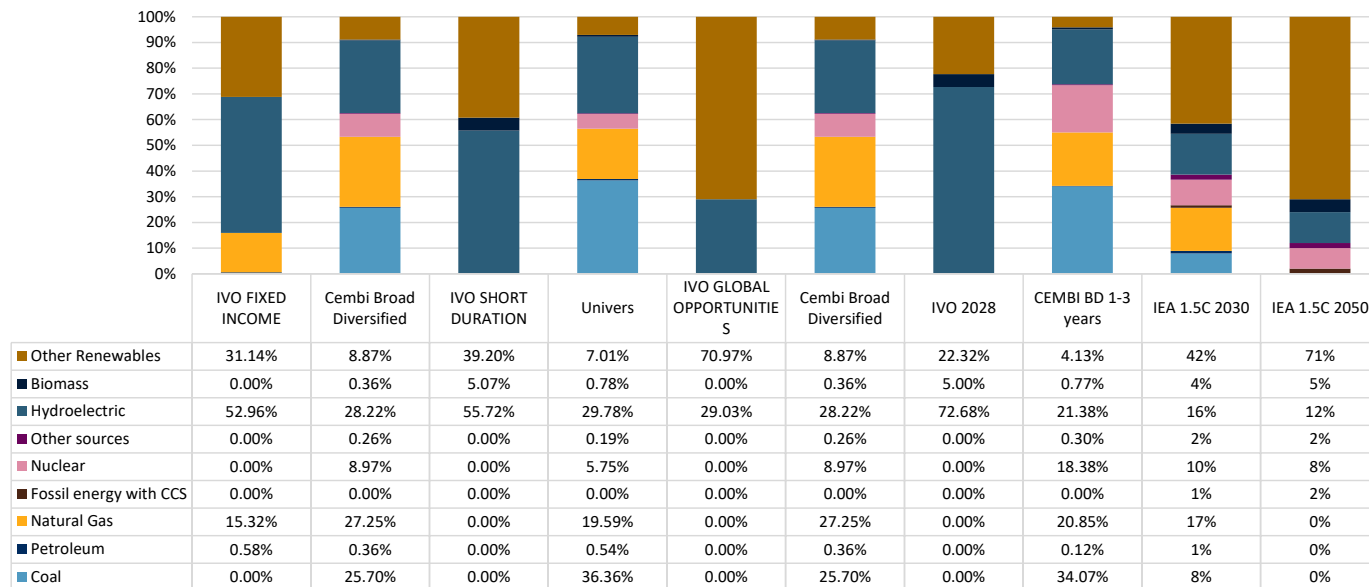
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# STRANDED ASSETS & ENERGY TRANSITION

## Energy Mix

In addition to the emissions alignment analysis above, Trucost is also able to assess the portfolio's energy mix alignment to a 1.5 degree scenario. The chart below shows the share, by energy type, of the total GWh apportioned to the portfolio and benchmark. This can be compared to the energy mix required at different reference years for the low carbon economy of the future, as suggested by the International Energy Agency's (IEA) 1.5 degree scenario\*.

Energy Generation Mix - % of Total Portfolio GWh



\* Based on data from the International Energy Agency (2021) Net Zero by 2050: Net Zero by 2050 Scenario - Data product - IEA; as modified by S&P Sustainable1.

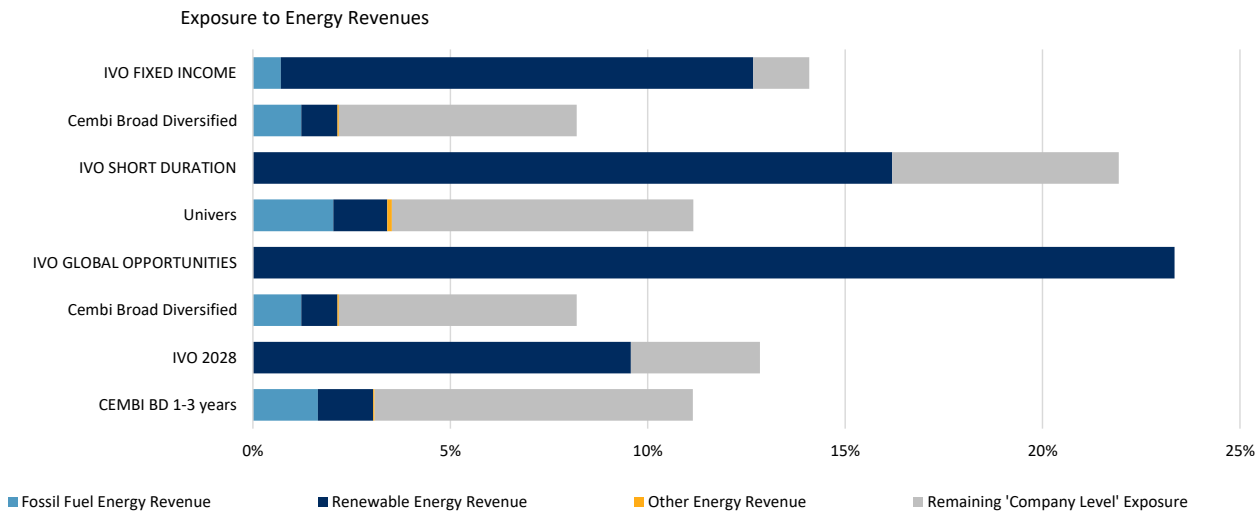
# STRANDED ASSETS & ENERGY TRANSITION

## Financial Exposure to Energy Revenues

As not all energy companies disclose GWh produced, it is also useful to determine exposure to energy 'aggravators' (fossil fuels) and 'mitigators' (renewables) based on sources of revenue. The full list of energy types considered is shown below:

- **Fossil Fuels:** coal, petroleum, natural gas
- **Renewables:** solar, wind, wave & tidal, geothermal, hydroelectric, biomass
- **Other:** nuclear, landfill gas, any other unclassified power generation

The chart below shows total exposure to companies with any energy revenues (total bar size), while the light blue, dark blue and yellow segments represent the weighted-average revenue exposure to Fossil Fuels, Renewables, and Other energy revenues respectively.



# PARIS ALIGNMENT

## Transition Pathways

Trucost's 'Transition Pathway Assessment' enables investors to track their portfolios against the goal of limiting global warming to 1.5°C or 2°C above pre-industrial levels. The assessment examines the adequacy of emissions reductions made over time, by investees, in meeting these targets. It incorporates both historical performance as well as forward-looking indicators (over a medium-term time horizon). This avoids the uncertainties of using only forward-looking data, and is of a sufficient time horizon to make the effect of any year-on-year volatility less significant. Historical data on greenhouse gas emissions and company activity levels is incorporated from a base year of 2012. Forward-looking data sources are used to track likely future transition pathways from the most recent year of disclosed data through to 2030.

Trucost's approach is adapted from two methodologies highlighted by the Science Based Targets Initiative (SBTi), these being the Sectoral Decarbonization Approach (SDA) and the Greenhouse gas Emissions per unit of Value Added (GEVA) approach. The SDA is applied to companies with high-emitting, homogeneous business activities, while GEVA is applied to those with lower emitting, heterogeneous business activities. For more information on the methodology please refer to Appendix 5.

The boxes below show the level of warming that each portfolio is aligned with, while the chart shows each portfolio's trajectory and compares that to its own 2°C aligned trajectory.

### IVO FIXED INCOME

>3	°C
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### IVO SHORT DURATION

>3	°C
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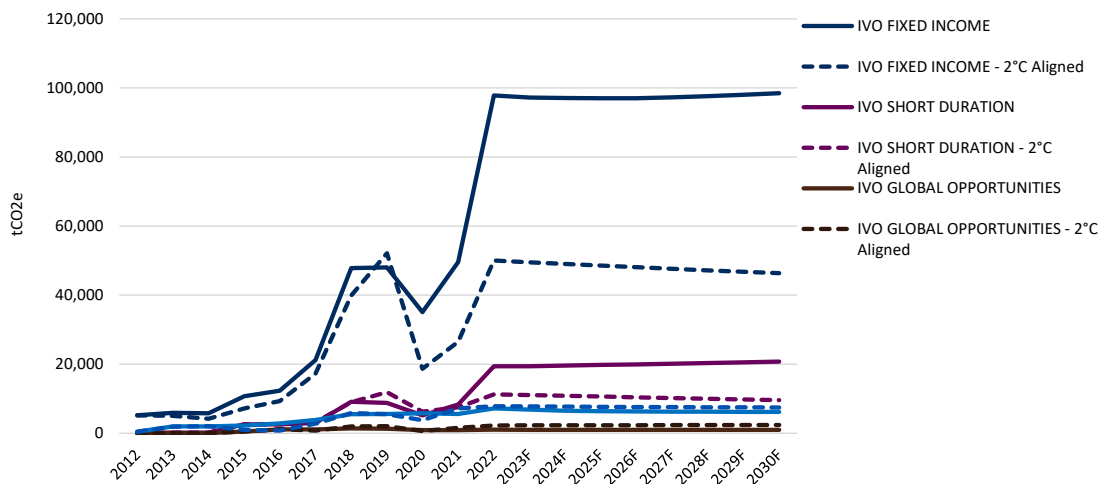
### IVO GLOBAL OPPORTUNITIES

<1.5	°C
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### IVO 2028

<1.5	°C
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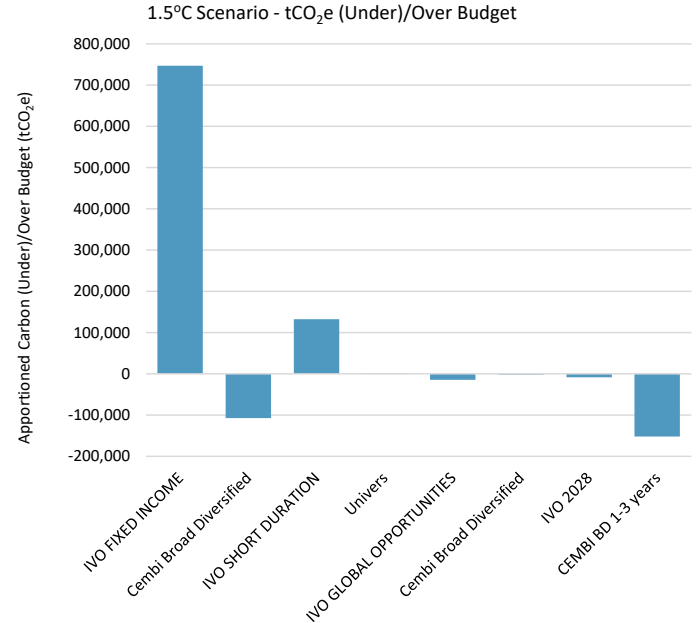
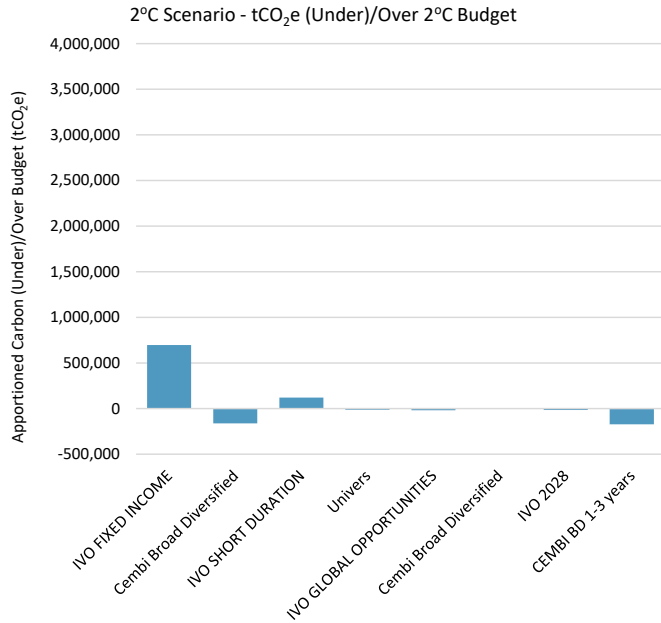
Emissions Trajectory vs. 2 Degree Aligned Levels, 2012-2030



# PARIS ALIGNMENT

## Carbon Budget Assessment

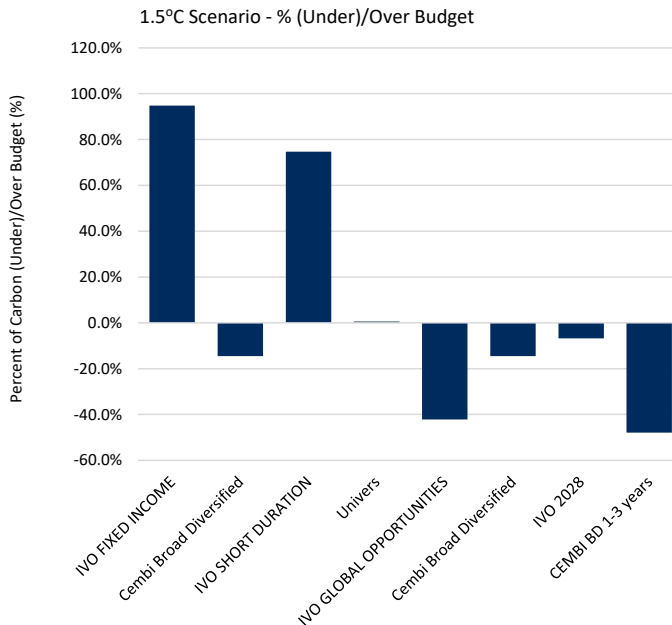
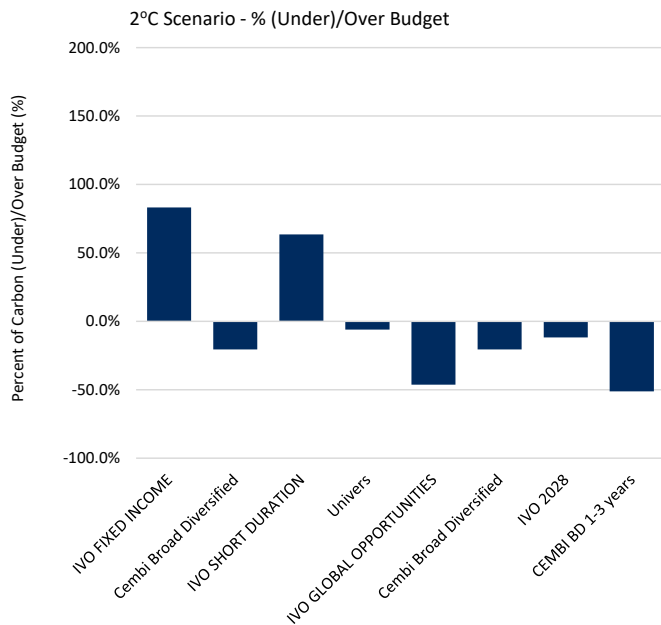
The charts below show each portfolio's performance against their own 2°C and 1.5°C carbon budgets. The chart on this page shows this in absolute tonnes of carbon. A positive number indicates weaker performance, as it means the portfolio is over budget, whereas a negative number indicates stronger performance, as it means the portfolio is under budget.



# PARIS ALIGNMENT

## Carbon Budget Assessment

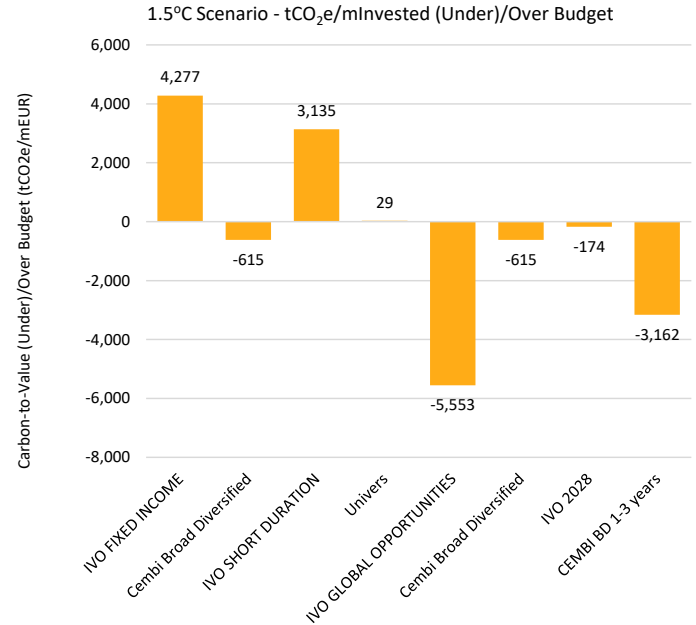
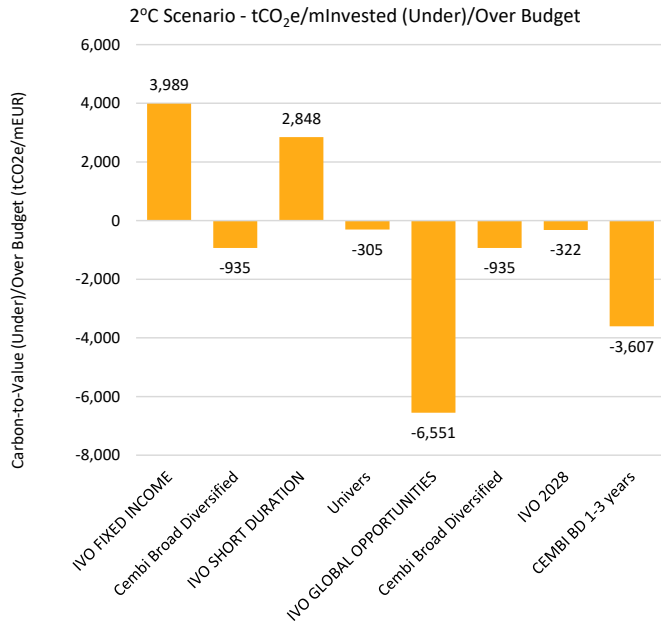
The charts below show each portfolio's performance against their own 2°C and 1.5°C carbon budgets. The chart on this page shows this as a percent of the total portfolio level budget. A positive number indicates weaker performance, as it means the portfolio is over budget, whereas a negative number indicates stronger performance, as it means the portfolio is under budget.



# PARIS ALIGNMENT

## Carbon Budget Assessment

The charts below show each portfolio's performance against their own 2°C and 1.5°C carbon budgets. The chart on this page shows this in absolute tonnes of carbon. A positive number indicates weaker performance, as it means the portfolio is over budget, whereas a negative number indicates stronger performance, as it means the portfolio is under budget.



# PARIS ALIGNMENT

## Sector Contributions

Companies with predominantly homogenous business activities that fall into one of the 5 sectors in the table below were assessed using the SDA approach. This means that the required carbon intensity reductions were calculated in sector specific units of production (for example tonnes of steel produced, or number of passenger miles flown), and each company's share of the overall sector budget is calculated relative to its market share.

Companies with low emitting or heterogeneous business activities were assessed using the GEVA approach. This means that required carbon intensity reductions were calculated in carbon-per-dollar of value added (gross profit), and each company's share of the overall sector budget is calculated using its progress against required reduction rates. For more information, please refer to Appendix 5.

Method	Sector	IVO FIXED INCOME		IVO SHORT DURATION		IVO GLOBAL OPPORTUNITIES	
		Contribution (MtCO <sub>2</sub> e)	Pathway (°C)	Contribution (MtCO <sub>2</sub> e)	Pathway (°C)	Contribution (MtCO <sub>2</sub> e)	Pathway (°C)
SDA	Power Generation	1,855	2 to 2.7	808	2 to 2.7	202	2 to 2.7
	Cement	0		0		0	
	Steel	0		0		0	
	Airlines	-6,505	<1.5	-3,315	<1.5	-720	<1.5
	Aluminum	0		0		0	
GEVA	Communication Services	0		0		0	
	Consumer Discretionary	0		0		0	
	Consumer Staples	2,384	>5	-9,490	<1.5	0	>5
	Energy	84,773	>5	0		-16,653	<1.5
	Financials	440	2 to 3	183	3 to 4	18	2 to 3
	Health Care	0		0		0	
	Industrials	585,530	>5	135,297	>5	0	
	Information Technology	0		0		0	
	Materials	-13,367	<1.5	-3,240	<1.5	0	
	Real Estate	-111	<1.5	-3	<1.5	-1	1.5 to 2
Utilities	41,723	>5	20	2 to 3	0		

# PARIS ALIGNMENT

## Sector Contributions

Companies with predominantly homogenous business activities that fall into one of the 5 sectors in the table below were assessed using the SDA approach. This means that the required carbon intensity reductions were calculated in sector specific units of production (for example tonnes of steel produced, or number passenger miles flown), and each company's share of the overall sector budget is calculated relative to its market share.

Companies with low emitting or heterogeneous business activities were assessed using the GEVA approach. This means that required carbon intensity reductions were calculated in carbon-per-dollar of value added (gross profit), and each company's share of the overall sector budget is calculated using its progress against required reduction rates. For more information, please refer to Appendix 5.

Method	Sector	IVO 2028	
		Contribution (MtCO <sub>2</sub> e)	Pathway (°C)
SDA	Power Generation	0	
	Cement	0	
	Steel	0	
	Airlines	0	
	Aluminum	0	
GEVA	Communication Services	0	
	Consumer Discretionary	0	
	Consumer Staples	-6,635	<1.5
	Energy	-30,511	<1.5
	Financials	471	>5
	Health Care	0	
	Industrials	5,953	>5
	Information Technology	0	
	Materials	15,231	>5
	Real Estate	0	
Utilities	22	2 to 3	

# PARIS ALIGNMENT

## Worst Performers

The table below shows those companies contributing the most to each portfolio being over a 2°C aligned carbon budget.

IVO FIXED INCOME		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Grupo Aeroméxico, S.A.E Industrials		8,187	11,871 m\$ VA	Sub-Industry Trend	128,253,612	584,836 >5°C
Ecopetrol S.A.	Energy	464	433 m\$ VA	Company Target	132,574,187	64,166 >5°C
Pampa Energía S.A.	Utilities	5,821	6,614 m\$ VA	Sub-Industry Trend	69,773,739	41,655 >5°C
Seplat Energy Plc	Energy	1,018	502 m\$ VA	Company Target	10,231,384	28,648 >5°C

IVO SHORT DURATION		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Grupo Aeroméxico, S.A.E Industrials		8,187	11,871 m\$ VA	Sub-Industry Trend	128,253,612	125,304 >5°C
Grupo KUO, S.A.B. de C Industrials		805	1,214 m\$ VA	Sub-Industry Trend	4,219,707	9,832 >5°C
Polaris Renewable Energy Utilities		0.001	0.042 MWh	Asset Level Data	109,757	808 2-2.7°C
TAV Havalimanlari Holdiir Industrials		146	73 m\$ VA	Sub-Industry Trend	227,889	165 >5°C

IVO GLOBAL OPPORTUNITIES		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Polaris Renewable Energy Utilities		0.001	0.042 MWh	Asset Level Data	109,757	202 2-2.7°C
International Personal Fir Financials		36	22 m\$ VA	Sub-Industry Trend	27,768	18 2-3°C
Yuzhou Group Holdings (Real Estate		2	35 m\$ VA	Sub-Industry Trend	774,398	4 >5°C
Casino, Guichard-Perrac Consumer Staples		168	183 m\$ VA	Company Target	4,196,938	0 >5°C

IVO 2028		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Methanex Corporation	Materials	5,298	5,091 m\$ VA	Sub-Industry Trend	34,227,395	15,231 >5°C
Ecopetrol S.A.	Energy	464	433 m\$ VA	Company Target	132,574,187	6,072 >5°C
Grupo KUO, S.A.B. de C Industrials		805	1,214 m\$ VA	Sub-Industry Trend	4,219,707	5,570 >5°C
Seplat Energy Plc	Energy	1,018	502 m\$ VA	Company Target	10,231,384	1,432 >5°C

# PARIS ALIGNMENT

## Best Performers

The table below shows those companies contributing the most to each portfolio being under a 2°C aligned carbon budget.

IVO FIXED INCOME		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Kosmos Energy Ltd.	Energy	969	261 m\$ VA	Company Target	-7,271,965	-33,887 <1.5°C
Aris Mining Corporation	Materials	1,182	43 m\$ VA	Sub-Industry Trend	-2,250,273	-13,367 <1.5°C
LATAM Airlines Group S.	Industrials	104.120	85.629 passenger miles	Company Trend	-15,711,959	-6,505 <1.5°C
Bank Millennium S.A.	Financials	60	29 m\$ VA	Sub-Industry Trend	-97,148	-196 <1.5°C
IVO SHORT DURATION		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
Adecoagro S.A.	Consumer Staples	6,183	2,658 m\$ VA	Sub-Industry Trend	-7,842,991	-9,490 <1.5°C
LATAM Airlines Group S.	Industrials	104.120	85.629 passenger miles	Company Trend	-15,711,959	-3,315 <1.5°C
Aris Mining Corporation	Materials	1,182	43 m\$ VA	Sub-Industry Trend	-2,250,273	-3,240 <1.5°C
Bank Millennium S.A.	Financials	60	29 m\$ VA	Sub-Industry Trend	-97,148	-65 <1.5°C
IVO GLOBAL OPPORTUNITIES		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
EnQuest PLC	Energy	9,478	1,023 m\$ VA	Sub-Industry Trend	-34,125,030	-16,653 <1.5°C
LATAM Airlines Group S.	Industrials	104.120	85.629 passenger miles	Company Trend	-15,711,959	-720 <1.5°C
Powerlong Real Estate H	Real Estate	381	97 m\$ VA	Sub-Industry Trend	-941,445	-5 <1.5°C
Zhenro Properties Group	Real Estate	380	105 m\$ VA	Sub-Industry Trend	-265,316	0 <1.5°C
IVO 2028		GHG Emissions Intensity		GHG emissions (under)/over 2°C carbon budget: '12-'30		
Name	GICS Sub-industry	(tCO <sub>2</sub> e/Unit)	Unit	Forecast Source	Total Carbon (tCO <sub>2</sub> e)	Apportioned Carbon Alignment (tCO <sub>2</sub> e) (°C)
		Start	2030F			
GeoPark Limited	Energy	1,649	249 m\$ VA	Sub-Industry Trend	-6,545,211	-16,625 <1.5°C
Kosmos Energy Ltd.	Energy	969	261 m\$ VA	Company Target	-7,271,965	-11,926 <1.5°C
DNO ASA	Energy	1,700	187 m\$ VA	Company Target	-7,393,836	-9,464 <1.5°C
Adecoagro S.A.	Consumer Staples	6,183	2,658 m\$ VA	Sub-Industry Trend	-7,842,991	-6,635 <1.5°C

# APPENDIX

## 1. TCFD Recommended Disclosures and Supplementary Guidance for Asset Owners and Managers

	Governance	Strategy	Risk Management	Metrics & Targets
Recommended Disclosures for All Sectors	<ul style="list-style-type: none"> <li>a) Describe the board’s oversight of climate-related risks and opportunities.</li> <li>b) Describe management’s role in assessing and managing climate-related risks and opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</li> <li>b) Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning.</li> <li>c) Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</li> </ul>	<ul style="list-style-type: none"> <li>a) Describe the organization’s processes for identifying and assessing climate-related risks.</li> <li>b) Describe the organization’s processes for managing climate-related risks.</li> <li>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization’s overall risk management</li> </ul>	<ul style="list-style-type: none"> <li>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</li> <li>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</li> <li>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</li> </ul>
Supplemental Guidance for Asset Owners / Asset Managers		<p>Asset owners should describe how climate-related risks and opportunities are factored into relevant investment strategies. This could be described from the perspective of the total fund or investment strategy or individual investment strategies for various asset classes. Asset managers should describe how climate-related risks and opportunities are factored into relevant products or investment strategies. Asset managers should also describe how each product or investment strategy might be affected by the transition to a lower-carbon economy.</p> <p>Asset owners that perform scenario analysis should consider providing a discussion of how climate-related scenarios are used, such as to inform investments in specific assets.</p>	<p>Asset owners / managers should describe, where appropriate, engagement activity with investee companies to encourage better disclosure and practices related to climate-related risks to improve data availability and asset owners’ / managers’ ability to assess climate-related risks.</p> <p>Asset owners should describe how they consider the positioning of their total portfolio with respect to the transition to a lower-carbon energy supply, production, and use. This could include explaining how asset owners actively manage their portfolios’ positioning in relation to this transition. Asset managers should describe how they manage material climate-related risks for each product or investment strategy.</p>	<p>Asset owners / managers should describe metrics used to assess climate-related risks and opportunities in each fund / product or investment strategy. Where relevant, asset owners / managers should also describe how these metrics have changed over time. Where appropriate, asset owners / managers should provide metrics considered in investment decisions and monitoring.</p> <p>Asset owners / managers should provide the weighted average carbon intensity, where data are available or can be reasonably estimated, for each fund / product or investment strategy. In addition, asset owners / managers should provide other metrics they believe are useful for decision making along with a description of the methodology used.</p> <p style="text-align: right;">Source:TCFD</p>

# APPENDIX

## 2. Apportioning

Apportioning, as an approach, began with the principle of ownership. That is, if an investor owns 1% of a company, then they also 'own' 1% of the company's emissions. This concept has since been extended to cover all sources of financing, whether equity, bonds or loans in order to calculate an investor or lender's share of 'financed emissions'.

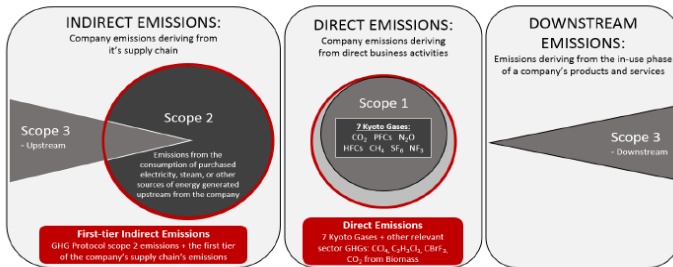
At Sustainable1 we select apportioning denominators in line with the recommendations of the Partnership for Carbon Accounting Financials (PCAF). For listed companies we use Enterprise Value including Cash (EVIC). For unlisted companies we use Total Capital, i.e. the sum of all balance sheet equity and debt, or if this is unavailable then Total Assets. For debt instruments of unlisted companies reporting negative equity, Total Debt is used as the apportioning denominator.

The company level emissions are then multiplied by the apportioning factor to arrive at emissions quantities specific to each holding. The portfolio level emissions are the sum of all of these quantities.

## 3. Scopes

The right scope of emissions to include in footprint calculations is dependent on the breadth of view that the analyst wishes to take. Restricting the scope to direct operational emissions only (scope 1) removes the risk of double counting carbon, but also limits the level of insight provided as much of what can be considered exposure to 'carbon risks' may exist in the supply chain of investees. Trucost recommends widening the scope of analysis to uncover more of these potential risks. The full list of scopes available is shown below:

- **Direct (Scope 1)** = CO<sub>2</sub>e emissions based on the Kyoto Protocol, greenhouse gases generated by direct company operations.
- **Direct (Other)** = Additional direct emissions, including those from CCl<sub>4</sub>, C<sub>2</sub>H<sub>2</sub>Cl<sub>2</sub>, CBrF<sub>3</sub>, and CO<sub>2</sub> from Biomass.
- **Purchased Electricity (Scope 2)** = CO<sub>2</sub>e emissions generated by purchased electricity, heat or steam.
- **Non-Electricity First Tier Supply Chain (Scope 3)** = CO<sub>2</sub>e emissions generated by companies providing goods and services in the first tier of the supply chain.
- **Other Supply Chain (Scope 3)** = CO<sub>2</sub>e emissions generated by companies providing goods and services in the second to final tier of the supply chain.
- **Downstream (Scope 3)** = CO<sub>2</sub>e emissions generated by the distribution, processing and use of the goods and services provided by a company.



# APPENDIX

## 4. Data Collection & Disclosure

Trucost's unique approach to environmental data collection and modelling enables near complete coverage of most investment universes, despite often low levels of reporting among investees. A four step process is used as part of our data gathering exercise.

1. **Analyse Financial and Sector Data** - A company's financials are analysed, collecting consolidated revenues for all companies and specifying their reporting scopes and operational boundaries.
2. **Map Activities to Trucost's Environmentally Extended Input-Output (EE-IO) Model** - Trucost's EE-IO model uses 450+ business activities (broadly aligned to the NAICS, with some additional sectors included to distinguish key activities with materially different physical impacts) to model a company's environmental impacts by assigning portions of each company's revenues to one or more of these activities. The EE-IO model then estimates the pollutant emissions and resource use associated with each business activity, both directly (for a company's own operations) and across the supply chain, using the revenue sector breakdown.
3. **Incorporate Disclosures and Public Registry Data** - Trucost searches all publicly disclosed data sources of companies to find usable environmental data that will be used to over write Trucost's modelled estimates. Trucost ensures the scope and time horizon of any environmental data found matches that of its financials
4. **Company Engagement and Data Verification** - Trucost analysts quality check the entire research process internally, then share the results with each company directly via a secure online portal. Companies are given one month to respond to Trucost to verify its data or directly engage to provide either refined, additional or non-public information. If appropriate and applicable data is provided, Trucost will integrate this into its analysis before publishing the data to our subscribers.

All data collected as part of the process described above will be assigned a 'disclosure flag', indicating the source of each specific data-point. These flags will fall into one of three possible 'disclosure categories', Full Disclosure, Partial Disclosure or Modelled.

- **Full Disclosure** - Trucost has used data disclosed by a company in an un-edited form as it matches the reporting scope and accuracy required by the research process.
- **Partial Disclosure** - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process (e.g. where a company discloses its emissions deriving from 85% of its operational sites, this data is used to model 100% of its emissions). Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.
- **Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

At the portfolio level, disclosure may be evaluated using the following three methods:

- **VOH:** The sum of the weights of each holding within each of the three disclosure categories.
- **GHG:** The sum of each holding's share of the total apportioned Scope 1 CO2e within each of the three disclosure categories.
- **Companies:** The number of companies, shown as a percent of all companies analysed, within each of the three disclosure categories.

# APPENDIX

## 5. Paris Alignment

Trucost's transition pathway analysis adapts two approaches prominent in literature produced and referenced by the Science-Based Targets Initiative (SBTi). These are the Sectoral Decarbonization Approach (SDA), and the Greenhouse Gas Emissions per unit of Value Added (GEVA) approach.

### SDA Approach

The SDA is applied to companies with high-emitting, homogeneous business activities. Its core principle is that companies in each industry must converge toward emissions intensities consistent with a Paris aligned scenario by 2050 from their unique starting points. It uses industry-specific scenario pathways, with companies measured using industry-specific emissions intensities and physical production levels (eg. tCO<sub>2</sub>e per GWh or per tonne of steel). Industry-specific transition pathways may be faster (eg. power), or slower (eg. cement) depending on an industry's available technologies, specific mitigation potential and costs of mitigation. Within a given industry, companies with low base year emissions and low production growth can reduce emissions at a gradual rate. Companies with high emissions or high production growth must make faster reductions.

The scenarios used in SDA assessments are International Energy Agency (IEA) scenarios from the IEA Net Zero Scenario and Energy Technology Perspectives 2017. These provide SDA assessment parameters consistent with 1.5°, 1.75°, 2°, and 2.7°C of warming.

### GEVA Approach

GEVA is applied to companies with lower emitting or heterogeneous business activities. It recognizes that many companies have diverse business activities, most of which do not have distinct transition pathways defined in climate scenarios. For these companies, GEVA entails applying a contraction of carbon intensity principle under which a company should make emissions reductions consistent with rates required for the overall economy, from each company's unique base year emissions intensity. It uses a non-industry specific, economy-wide 2°C scenario, and emissions intensities with a financial, not physical or production denominator. Each company's transition pathway is measured as its GHG per unit of inflation-adjusted gross profit, representing its contribution to total global emissions and emissions intensity. This is compared with a global economy-wide emissions intensity pathway required for achieving below 2°C of warming.

The scenarios used in GEVA assessments are Shared Socioeconomic Pathway (SSP) scenarios used prominently in the sixth assessment report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), published in 2022-23. These provide GEVA assessment parameters consistent with 1.5°, 2°, 3°, 4°, and 5°C of warming. The 1.5°C scenario parameter is also consistent with the requirement of the European Union's Paris Aligned Benchmark regulations.

### Assessment horizon and data sources

Transition pathways assessed incorporate both historical and forward-looking data in order to provide an assessment that has a medium term outlook. This minimizes the uncertainties involved in using only forward-looking data, and is of a sufficient time horizon to make the effect of any year-to-year volatility less significant. Historical data on greenhouse gas emissions and company activity levels is incorporated from a base year of 2012. Forward-looking data sources are used to track likely future transition pathways beyond the most recent year of disclosed data through to 2030. Forward-looking data is incorporated based on an established data hierarchy made up of the following sources:

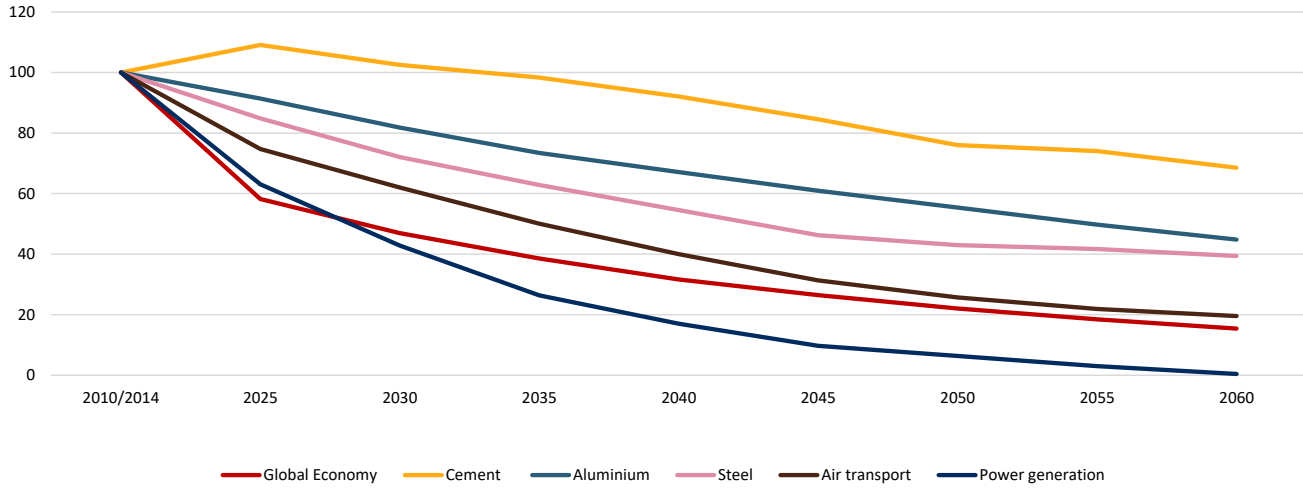
1. Disclosed emissions reduction targets.
2. Asset-level data sources that provide signals of potential future changes in production from high-emitting sources.
3. Company-specific historical emissions trends for companies assessed on the basis of homogeneous business activities.
4. Subindustry-specific average historical emissions trends for companies assessed on the basis of heterogeneous business activities.
5. No change in emissions intensity beyond the latest year.

The portfolio assessments use combined Scope 1 and Scope 2 emissions as the assessment boundary.

# APPENDIX

The chart below illustrates the different decarbonization pathways for the five sectors covered in the SDA approach, as well as that used for the remaining sectors in the GEVA approach ('Global Economy' in the legend). Each sector's unique intensity unit has been indexed to 100 to allow for easy comparison. Sectors in which carbon saving technologies and/or processes are most cost effective are expected to decarbonize more rapidly, and terminate on a lower overall intensity, than sectors where such measures are not. For example, carbon intensity reductions are expected to be greater in the field of power generation than cement production.

### 2 Degree Aligned Decarbonization Pathways per Sector



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