

European Climate Change ESG Index

Benchmark : Solactive Europe Total Market 675 Index

Evaluation : June 2018

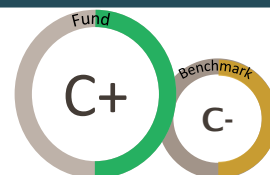


Chart Legend :

Carbon Footprint : **CF** ; Energy Transition Strategy : **ETS**

Scale => Carbon Footprint (t CO₂ eq)

A Moderate	B Significant	C High	D Intense
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Scale => Energy Transition Strategy

++ Advanced	+ Robust	- Limited	-- Weak
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Coverage:

	Fund	Benchmark
Portfolio coverage by investment	100%	98.3%
Portfolio coverage by holdings	30/30	619/663

Carbon Footprint & Energy Transition

Performance attribution	Fund	Benchmark
Financed Emissions per M€ invested	89.36	N/A
Weighted average carbon footprint	2 137 923.25	7 934 947.57

Energy Transition Strategy	Fund	Benchmark
Energy Transition Score	Robust (+) 56/100	Limited (-) 45/100

Performance attribution	CF	ETS
Sector allocation effect	-121.09 %	0.54 %
Value selection effect	-150.06 %	18.35 %
Global performance attribution	-271.15 %	18.89 %

Focus on key fund issuers

TUI AG (2.7%)

Tui has a high carbon footprint (C) and a robust strategy for energy transition (+) with a score of 58/100. The German travel and tourism company aims to reduce its CO₂ emissions by 10% over the 2010-2020 period. However, the company's commitment to reduce its energy consumption is general with no updated quantitative targets disclosed.. As part of measures implemented, the company operates 13 Boeing 787 Dreamliner planes (objective to reach 17 aircrafts by 2019) which emits around 20% less CO₂ per passenger kilometre than comparable aircrafts. Concerning its cruises services, TUI Cruises optimizes voyages and improves intelligent route planning. Of note, silicone anti-fouling paint has been applied to the hulls of all its vessels. The company implemented LED lighting and modern air-conditioning systems in its offices and relies on energy generated through solar collectors, photovoltaic systems as well as from biomass. Tui's CO₂ and NO_x emissions linked to energy consumption, normalised to turnover, have decreased by 14% and 23% respectively between 2010 and 2014. Although its energy consumption, normalised to turnover, has also decreased between 2010 and 2012, no updated indicators have been reported by the company since then.

Galp Energia (3.1%)

Galp Energia displays a high (C) carbon footprint and a robust (+) Energy Transition strategy with a score of 54/100. The performance of the Portuguese oil company is positively impacted by its management and its commitment - notably with the definition of quantified targets – towards the reduction of its CO₂ emissions and its energy consumption. Galp Energia uses innovative measures, including through the modernisation of its refineries and cogeneration units. Normalised to production, Galp Energia's CO₂ emissions and energy consumption related to refinery operations have decreased between 2014 and 2016 but increased in its exploration and production activities. The group invests in biofuels and in solar and wind energy, and displays an increasing associated production over the 2012-2016 period. However, Galp Energia's performance is penalised by a lack of formalised commitment towards renewable energies.

Methodological focus

Carbon footprint

Emissions

Scope 1 covers direct GHG emissions occur from sources that are owned or controlled by the issuer, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment.

Scope 2 covers indirect GHG emissions caused by the organization’s consumption of electricity, heat, cooling or steam purchased or brought into its reporting boundary.

Scope 3 covers other indirect emissions from all the value chain: business and commuting travels, transportation, scope 1 and 2 emissions from suppliers, emission from waste treatment, from customers use of sold products, etc.

Data and Footprint

The carbon data is provided by the CDP and completed with other sources collected by Vigeo (Annual reports, CSR reports, corporate websites, issuer contacts, etc.).

When no data is available from any source, Vigeo’s analysts build a carbon footprint estimation relying on the size of the issuer and the nature of its activities. More precisely, for each sector, 3 ratios are calculated: average emissions per employee, average emissions per million euro of revenue and average emission per million euro of capitalization. We measure the correlation between emissions and the number of employees, the revenue and the capitalization. Depending on the correlation value, we select the most relevant ratios for each sector. We use thus one, two or the three ratios to estimate the emissions of the issuer.

The Carbon Footprint is then defined from A - Moderate to D - Intense according to the scale presented in the tab below.

Energy Transition Strategy

Vigeo’s scoring of issuers’ energy transition strategy is based on specific criteria tied to climate change in Equitics research.

¹The financed emissions indicator is a proportional sum of a constituents’ carbon emissions. For each constituent, the proportion of carbon emissions accounted corresponds to the proportion of capital or shares held in the fund.

²The fund’s average carbon footprint is calculated as the average of constituents’ total carbon emissions, weighted according to their respective importance in the fund or reference index.

³The higher the carbon footprint of an issuer and the weaker its energy transition strategy, the greater its level of eligibility for an engagement strategy.

⁴Due to the nature of their activities, companies which belong to the financial sector usually have lower scope 1 and scope 2 emissions than in other sectors. However, their biggest impact on climate change is performed through their investments in other companies, which are accounted in scope 3 emissions. The energy transition strategy of the financial sector is deeply linked to its investment strategy, i.e. to which companies and projects are financed. Hence our focus on the management of scope 3 emissions for key finance issuers.

Grade	Emissions (t CO2 eq)	Category
A	<100 000	Moderate
B	>=100 000 and < 1 000 000	Significant
C	>= 1 000 000 and < 10 000 000	High
D	>=10 000 000	Intense

Grade	Energy Transition score	Category
++	60 - 100	Advanced
+	50 - 64	Robust
-	30 - 49	Limited
--	0 -29	Weak

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