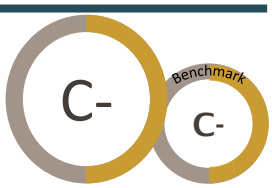
Portfolio Analysis
Summary Report –Carbon Footprint & Energy Transition

vigeo eiris

Solactive Sustainable Development Goals World MV Index



Benchmark : Vigeo World Large Cap Developed

Evaluation: January 2019

Chart Legend :

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

Scale => Carbon Footprint (t CO_2 eq)

A Moderate	**B** Significant	**C** High	**D** Intense

Scale => Energy Transition Strategy

++ Advanced	+ Robust	- Limited	-- Weak

Coverage:

	Fund	Benchmark
Portfolio coverage by Investments	100%	100%
Portfolio coverage by holdings	30/30	2696/2698

Carbon Footprint & Energy Transition

Carbon Footprint	Fund	Benchmark
Weighted average carbon footprint	3 929 042.87 t CO_2 eq.	6 757 935.77 t CO_2 eq.

Energy Transition Strategy	Fund	Test
Energy Transition Score	Limited (-) 47/100	Limited (-) 36/100

Performance attribution	CF	ETS
Sector allocation effect	229.23 %	4.70 %
Value selection effect	-301.23 %	17.87 %
Global performance attribution	-72.00 %	22.58 %

Focus on key fund issuers

Deutsche Telekom (5%)

Deutsche Telekom (DT) displays a high carbon footprint (C) and a robust energy transition strategy (+) with a score of 55/100. DT has implemented significant measures to reduce its energy consumption and CO2 emissions and shows positive results. Normalised to its revenues, the company's energy consumption and CO2 emissions have decreased by 17% and 32% respectively over the 2013-2017 period. DT has also set the goal of achieving a 20% reduction in its Group-wide emissions by 2020 compared to the 2008 baseline, however leaving aside its United States operating segment (44% of 2017 DT's revenue).

A2A (3%)

A2A displays a high carbon footprint (C) and a robust energy transition strategy (+) with a score of 50/100. A2A's main strengths concern the development of renewable energy and the energy demand-side management. By 2022, the Italian utility company aims to achieve 49% of thermal energy produced from renewable sources and 1,818 GWh of green energy sold to the mass market segment. The company has invested in several technologies (hydro mostly, solar, biomass) and, in 2017, 22% of its installed capacity and 26% of its energy generation were from renewable sources. As part of its Sustainability Plan 2018-2022, A2A has set goals to achieve by 2022 with the aim of developing energy efficiency measures of public and private real estate (for example to install 1,500 new heaters to end customers). The company also allocated significant means towards all type of customers – promotion of energy-saving devices and renewable energy offers , smart metering, consumption monitoring. CO2 emission saved have increased over the 2015-2017 period. With regard to the management of its fossil-based generation activities, the company is largely involved in technologies aimed at improving thermal plants' efficiency (combined cycle gas turbine, cogeneration) and has invested in all relevant technologies developed to reduce air emissions (SOx, NOX, particulates, mercury). However, the company does not appear to be involved in the development of carbon capture and storage, and its carbon factor, although decreasing since 2015, remains high in 2017 compared to the company's peers. Finally, A2A is penalised by a weak performance regarding the promotion of access to energy and prevention of fuel poverty due to a global lack of transparency on this issue.

Methodological focus

Carbon footprint

Emissions

Scope 1covers 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.
[1]The 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.

[2]The 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.

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

[4]Due 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 - 59	Robust
-	30 - 49	Limited
--	0 -29	Weak

Disclaimer

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