LINKGroup

PORTFOLIO ASSESSMENT SUMMARY REPORT
(TCFD ALIGNED)

LF Global Emerging Markets Index Pension Fund

as of : 30/12//2022
Market value : 961,128

CARBON PERFORMANCE

The analysis of carbon footprint allows investors to quantify the GHG emissions apportioned to their portfolio and/or benchmark, presented as the amount of tCO_2e apportioned to the investor. The lower, the better.

Additionally, carbon intensity allows comparison between different companies or portfolios, irrespective of size and geography.

Carbon Footprint	Portfolio
Scope 1	203.24
Scope 2	36.23
Scope 3 Downstream	734.81
Scope 3 Upstream	129.25

Carbon Intensity	Portfolio
Direct	350.18
First Tier Indirect	137.32
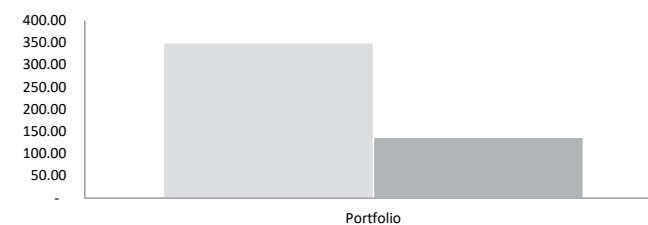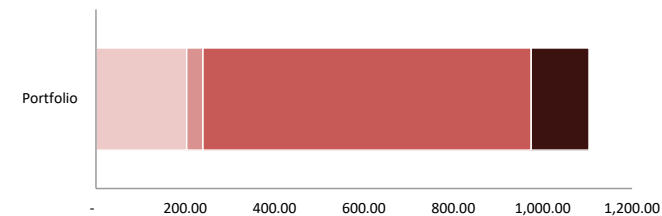
Market Value Covered in %	
ECPI	90.91
S&P Trucost	97.32

Intensity Top 10 Securities	Total Intensity (tCO$_2$e/$M)
Reliance Industries Ltd	734.32
Vale Sa	203.07
Taiwan Semico Twd10	199.83
Meituan-class B	40.34
Alibaba Group Holding Ltd	39.88
Tencent Holdings Ltd	27.28
Infosys Ltd	16.72
China Construction Bank-h	16.16
Housing Development Finance	5.05
Jd.Com Inc - Cl A	3.46

Top 10 by Carbon Footprint	Weight	Carbon Footprint Total (tCO$_2$e/$M)	Carbon Footprint Scope 1 (tCO$_2$e/$M)	Carbon Footprint Scope 2 (tCO$_2$e/$M)	Carbon Footprint Scope 3 Downstream (tCO$_2$e/$M)	Carbon Footprint Scope 3 Upstream (tCO$_2$e/$M)	Absolute: GHG Direct (tCO$_2$e)	Absolute: GHG First Tier Indirect (tCO$_2$e)	Intensity: GHG Direct (tCO$_2$e/$M)	Intensity: GHG First Tier Indirect (tCO$_2$e/$M)
Reliance Industries Ltd	1.70	237.78	234.11	3.67	46.98	129.73	45,473,127	17,008,438	722.99	270.42
Vale Sa	1.13	147.35	131.11	16.24	6,250.03	229.34	10,169,443	8,213,798	186.85	150.92
Taiwan Semico Twd10	5.78	20.21	3.83	16.37	0.00	15.62	2,151,937	11,831,450	37.89	208.32
Alibaba Group Holding Ltd	2.54	7.18	0.87	6.31	1.66	12.14	510,026	5,050,892	4.82	47.74
Meituan-class B	1.52	6.68	1.40	5.28	1.31	10.15	234,908	1,209,366	8.46	43.56
Jd.Com Inc - Cl A	1.08	5.72	2.68	3.04	16.10	115.03	238,775	2,179,368	1.72	14.78
Tencent Holdings Ltd	4.25	4.07	0.03	4.03	1.60	5.34	19,000	2,850,716	0.22	32.84
Infosys Ltd	1.06	2.96	1.98	0.97	–	6.20	152,142	178,544	0.94	13.17

FOSSIL FUELS & STRANDED ASSETS

Future emissions from fossil fuel reserves tend to exceed the allowed carbon budget supposed to limit global warming to 2° Celsius above pre-industrial levels.

Below the exposure to carbon-related assets as well as holdings in companies that have disclosed proven and probable fossil fuel reserves.

Exposure to Fossil Fuels	Portfolio
% from Fossil Fuels	7.75

Exposure to Coal Activities	Portfolio
% from Metallurgical	0.13
% from Mining	2.28
% from Thermal	1.84

Power Generation in GWh	Portfolio	Percentage
Renewable	**37,703.73**	**23%**
Biomass	433.95	0%
Geothermal	1,951.46	1%
Hydroelectric	30,290.09	19%
Solar	1,313.21	1%
Wave and Tidal	4.29	0%
Wind	3,710.73	2%

	Portfolio	Percentage
Non-Renewable	**123,710.85**	**77%**
Coal	59,309.48	37%
Landfill Gas	530.73	0%
Liquid Natural Gas	N/A	
Liquid Petroleum Gas	N/A	
Natural Gas	13,505.44	8%
Nuclear	45,831.64	28%
Petroleum Oil	2,750.29	2%
Undefined Sources	1,783.26	1%

■ Renewable ■ Non-Renewable
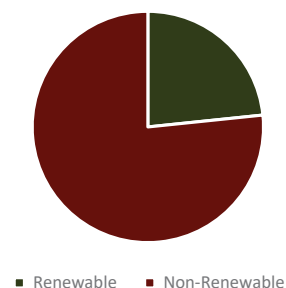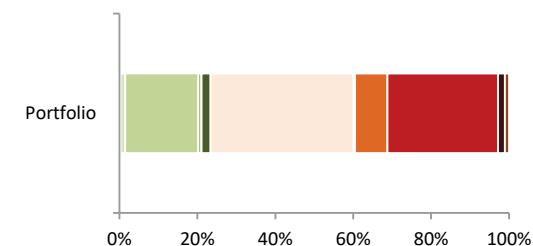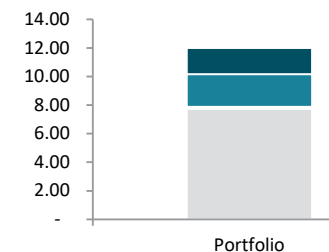
Top 10 by Coal Consumption	Weight	Energy Consumption from Coal (GWh)	Fossil Fuel Exposure	Coal Gasification Exposure	Coal Liquefaction Exposure	Energy Cons Non-Renewable (GWh)	Energy Cons Renewable (GWh)	Energy Prod Non-Renewable (GWh)	Energy Prod Renewable (GWh)
Vale Sa	1.13	7,279	✓	✓	✓	33,671	10,503	–	N/A
China Construction Bank-h	0.97	0	✓	✓	✓	80	N/A	–	–

Top 10 by Coal Mining Revenue	Weight	% Coal Mining Revenue/ Total Revenue	Fossil Fuel Exposure	Coal Gasification Exposure	Coal Liquefaction Exposure	Metallurgical Coal Mining Revenue ($M)	Coal Mining Revenue ($M)	Thermal Coal Mining Revenue ($M)	Undefined Coal Mining Revenue ($M)
Vale Sa	1.13	1.18	✓	✓	✓	249	473	224	–

GREEN TAXONOMY DISCLOSURES

Sustainable product classification and labelling system includes differentiation between products not promoted as sustainable and products promoted as responsible, which may have some sustainable investments. The sustainable products may be split across:

- Aligned => products with sustainable characteristics, themes or objectives; high allocation to Taxonomy-aligned sustainable activities

- Transitioning => products with sustainable characteristics, themes or objectives; low allocation to Taxonomy-aligned sustainable activities

	% Total Not Eligible	% Total Eligible	% Enabling	% Transitional
Portfolio	64.14	29.75	17.00	12.76

	Agriculture	Construction and Real Estate Activities	Electricity, Gas, Steam and A/C Supply	Forestry	ICT	Manufacturing	Transportation and Storage	Water, Sewerage, Waste and Remediation	Multiple Sources
Portfolio	0.21	2.67	2.76	0.01	5.58	16.12	1.73	0.02	0.67

Top 10 by Enabling Activities	Weight	Agriculture	Construction and Real Estate Activities	Electricity, Gas, Steam and A/C Supply	Forestry	ICT	Manufacturing	Transportation and Storage	Water, Sewerage, Waste and Remediation	Multiple Sources
Taiwan Semico Twd10	5.78	–	–	–	–	–	100.00	–	–	–
Infosys Ltd	1.06	–	–	–	–	100.00	–	–	–	–
Reliance Industries Ltd	1.70	–	–	–	–	2.47	24.81	–	–	–
China Construction Bank-h	0.97	–	–	–	–	–	–	–	–	–
Housing Development Finance	0.92	–	0.70	–	–	–	–	–	–	–
Tencent Holdings Ltd	4.25	–	–	–	–	–	–	–	–	–
Jd.Com Inc - Cl A	1.08	–	–	–	–	–	–	–	–	–
Alibaba Group Holding Ltd	2.54	–	–	–	–	6.55	–	–	–	–
Meituan-class B	1.52	–	–	–	–	–	–	–	–	–
Vale Sa	1.13	–	–	–	–	–	–	–	–	–

TOWARDS NET-ZERO

The international Paris Agreement on climate change mentions 3 long-term goals: The first 2 focus on climate mitigation and adaptation, while the 3rd is "to make all financial flows consistent with a pathway towards low-emissions, climate-resilient development". This recognizes the key role that financial institutions play in realising the Paris Climate Agreement – including the need to achieve net-zero emissions by mid-century and reduce emissions 50% by 2030.

	2°C Aligned Intensity Adjusted Profit (tCO$_2$e/$M)	Alignment Gap Well Below 2°C (tCO$_2$e)	Alignment Gap 2°C (tCO$_2$e)	Alignment Gap 3°C (tCO$_2$e)	Alignment Gap 4°C (tCO$_2$e)	Alignment Gap 5°C (tCO$_2$e)
Portfolio	2,703.49	30,053,431	14,773,525	5,590,456	3,007,290	1,299,076

Top 10 by Weight	Weight	Alignment Gap Well Below 2°C (tCO$_2$e)	Alignment Gap 2°C (tCO$_2$e)	Alignment Gap 3°C (tCO$_2$e)	Alignment Gap 4°C (tCO$_2$e)	Alignment Gap 5°C (tCO$_2$e)	Type	Methodology	Source of Forward Looking Data
Taiwan Semico Twd10	5.78	47,939,495	28,442,791	16,655,362	13,097,101	10,950,819	1.5-2°C	GEVA	Company target
Tencent Holdings Ltd	4.25	11,135,452	9,323,488	8,194,216	7,859,752	7,631,704	>5°C	GEVA Modelled	Sub-Industry trend
Alibaba Group Holding Ltd	2.54	44,003,452	42,631,128	41,783,214	41,532,408	41,362,940	>5°C	GEVA Modelled	Sub-Industry trend
Reliance Industries Ltd	1.70	25,359,777	-97,943,460	-173,077,385	-195,807,052	-209,550,573	1.5-2°C	GEVA	Sub-Industry trend
Meituan-class B	1.52	-5,666,781	-7,716,035	-8,989,474	-9,366,504	-9,622,451	3-4°C	GEVA Modelled Including Constant Intensity	Sub-Industry trend
Vale Sa	1.13	68,445,339	35,709,197	15,596,309	9,503,034	5,774,026	1.5-2°C	GEVA	Company target
Jd.Com Inc - Cl A	1.08	23,535,010	7,010,088	-3,204,491	-6,226,061	-8,268,599	<1.5°C	GEVA Modelled	Sub-Industry trend
Infosys Ltd	1.06	416,836	-408,769	-905,812	-1,055,711	-1,145,782	1.5-2°C	GEVA	Sub-Industry trend
China Construction Bank-h	0.97	1,187,933	538,404	155,551	42,202	-28,516	4-5°C	GEVA	Sub-Industry trend
Housing Development Finance	0.92	261,790	83,204	-26,425	-58,819	-80,565	2-3°C	GEVA Modelled	Sub-Industry trend

SCENARIO ANALYSIS

The assessment of physical risks is key as they also (or mostly) result from climate change. Companies are scored 1-100 for each of the key hazard risk types (coldwave, heatwave, hurricane, floods, wildfire, water stress etc).

The assessment is made available across different climate change scenarios (low, medium, high) and future reference years (2030, 2050).

Sensitivity	Low			Medium			High		
	2020	2030	2050	2020	2030	2050	2020	2030	2050
Composite	**31.91**	**31.91**	**31.58**	**31.87**	**31.67**	**31.37**	**32.02**	**31.35**	**32.80**
Coldwave	35.33	31.59	26.34	35.33	30.63	22.25	35.33	28.45	18.67
Flood	2.94	2.74	2.81	2.94	2.74	2.81	2.94	2.68	2.93
Heatwave	10.30	13.35	15.86	10.02	13.10	14.50	11.33	15.87	27.83
Hurricane	13.85	N/A	N/A	1.00	N/A	N/A	1.00	N/A	N/A
Sea Level Rise	7.46	7.69	9.95	7.46	7.70	11.30	7.45	7.72	13.21
Water Stress	62.86	63.45	63.33	62.86	63.45	63.32	62.86	62.66	64.35
Wildfire	13.83	14.45	14.01	13.83	14.15	14.83	13.83	13.45	14.36

Top 10 by Weight	Weight	Sensitivity Composite Score 2020 (High Scenario)	Coldwave Score 2020 (High Scenario)	Flood Score 2020 (High Scenario)	Heatwave Score 2020 (High Scenario)	Hurricane Score 2020 (High Scenario)	Sea Level Rise Score 2020 (High Scenario)	Water Stress Score 2020 (High Scenario)	Wildfire Score 2020 (High Scenario)
Taiwan Semico Twd10	5.78	45.00	36.00	2.00	12.00	N/A	1.00	39.00	28.00
Tencent Holdings Ltd	4.25	9.00	41.00	1.00	11.00	N/A	15.00	60.00	10.00
Alibaba Group Holding Ltd	2.54	19.00	40.00	3.00	12.00	N/A	9.00	72.00	16.00
Reliance Industries Ltd	1.70	56.00	33.00	5.00	8.00	N/A	19.00	61.00	34.00
Meituan-class B	1.52	25.00	48.00	1.00	7.00	N/A	1.00	100.00	27.00
Vale Sa	1.13	41.00	30.00	2.00	13.00	N/A	2.00	22.00	15.00
Jd.Com Inc - Cl A	1.08	52.00	43.00	1.00	11.00	N/A	1.00	70.00	23.00
Infosys Ltd	1.06	22.00	37.00	3.00	8.00	N/A	3.00	61.00	9.00
China Construction Bank-h	0.97	3.00	42.00	6.00	10.00	N/A	9.00	60.00	10.00
Housing Development Finance	0.92	15.00	29.00	1.00	1.00	N/A	34.00	71.00	28.00