Hydrogen Certificate
(H2C)

May 2023

Strategy

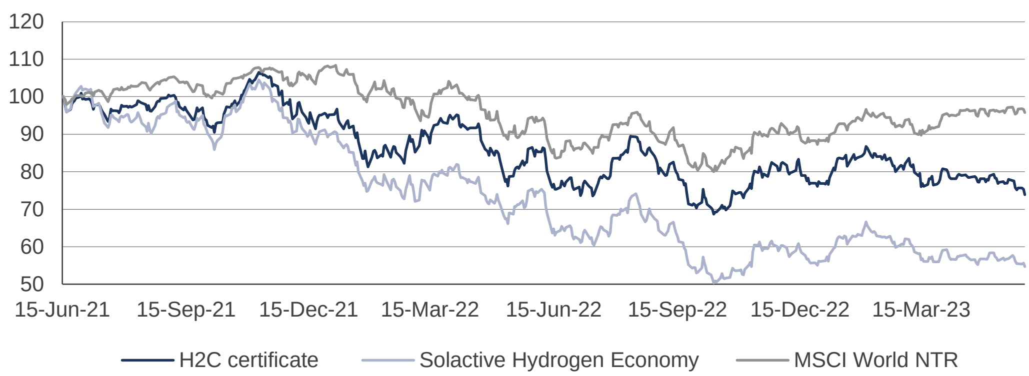
Thematic global equity exposure to best capture the developments of the hydrogen economy.

Concentrated portfolio of 25 - 30 stocks that demonstrate above-average thematic exposure, based on materiality assessment. The stock selection process includes proprietary quantitative screens and qualitative evaluation.

Diversified exposure across 4 hydrogen buckets: Core (direct hydrogen sales, electrolysers, fuel cells), Infrastructure (clean power – upstream – and H2 transportation – downstream), Decarb users (hydrogen as a feedstock/fuel/heat) and Tech enablers (intangible know how that can facilitate the deployment of hydrogen).

Performance[1]

	MTD	YTD	Since certificate inception
H2C certificate	**-5.5%**	**-3.8%**	**-26.1%**
Solactive Hydrogen Economy	-3.6%	-2.5%	-45.3%



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2023	10.0%	-3.4%	-1.2%	-3.2%	-5.5%								**-3.8%**
2022	-11.9%	6.9%	5.4%	-8.5%	-1.2%	-11.8%	11.1%	-1.7%	-13.3%	4.7%	8.0%	-4.5%	**-19.3%**
2021						-0.6%	-2.0%	2.3%	-5.9%	8.8%	-4.0%	-2.7%	**-4.8%**

Comment

In May the hydrogen strategy posted a negative performance of -5.5%, compared to -3.6% for the benchmark Solactive Hydrogen Economy.

In USD terms, Nippon Sanso (+14.2%), Fuelcell Energy (+12.8%) and BMW (+5.1%) were the top 3 performers. Ceres Power (-21.5%), Bloom Energy (-17.6%) and Powercell Sweden (-16.3%) were the worst 3 performers.

Key Information

Structure
Open-end actively managed certificate (SSPA category: Tracker certificate, 1300)

Issuer
Zürcher Kantonalbank, Zurich (S&P AAA)

Investment Manager
Rothschild & Co Bank AG, Zurich

Asset class
Equities

Portfolio management strategy
Active

ISIN
On request

Currency
USD

Inception date
15-Jun-2021

Dividend policy
Net dividend reinvested

Liquidity
Daily

[1] Risk and return data is calculated net of fees.

Past performance is not a reliable indicator or guarantee of future performance.

Rothschild & Co
Wealth Management

Market update

Target True Zero: Delivering the infrastructure for battery and hydrogen-powered flight was published by Target True Zero – a World Economic Forum initiative – with support from Aviation Environment Federation, McKinsey, and the University of Cambridge's Aviation Impact Accelerator.

According to the report, battery-electric- and hydrogen-powered aircraft could make up between 21% and 38% of all aircraft by 2050.

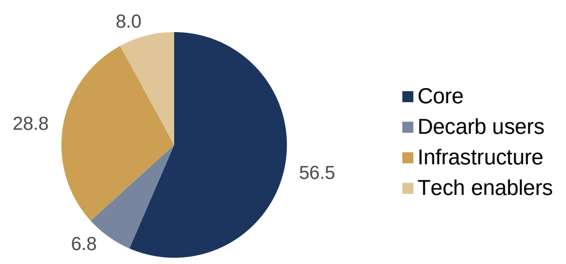
As alternative propulsion gains ground, airports will need more energy for their on-site operations than they do today. To meet these demands, airports will need to take steps to upgrade grid connections, local power distribution infrastructure, and their own power stations. While airports have been touted as possible energy hubs, the scale of energy demand for alternative propulsion will make it extremely difficult to perform all energy production at airports.

The sector will need new procedures for energy acquisition, storage, processing, and management, as well as the means to distribute that energy to aircraft. Delivering the necessary on- and off-airport infrastructure needed for alternative propulsion will require significant investment from airports and other stakeholders.

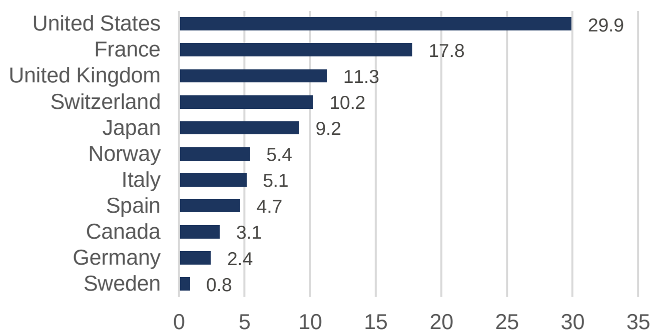
Portfolio rebalancing

No change to the portfolio.

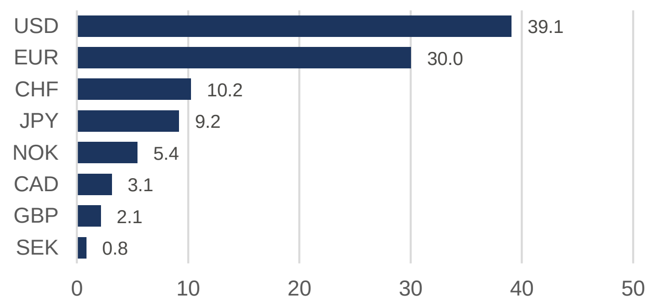
H2 "bucket" allocation (%)



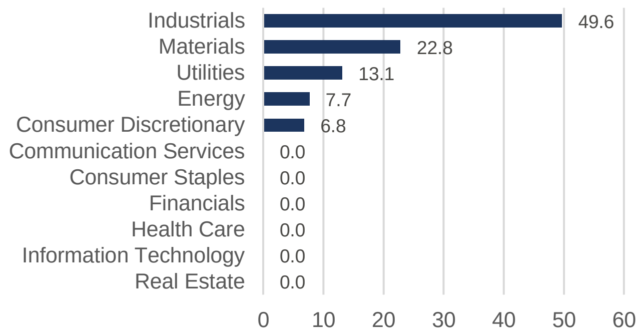
Country allocation (%)



Currency allocation (%)



Sector allocation (%)



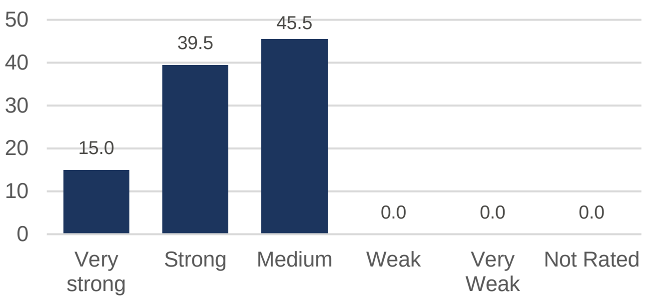
Top 10 holdings

Rank	Company name	Country	Sector	H2 "bucket"	Weight
1	Linde PLC	United Kingdom	Materials	Core	9.1%
2	ABB AG	Switzerland	Industrials	Core	9.0%
3	Air Liquide SA	France	Materials	Core	8.9%
4	IDEX Corp	United States	Industrials	Infrastructure	6.1%
5	SNAM S.p.A.	Italy	Utilities	Infrastructure	5.1%
6	NIPPON SANSO HOLDINGS	Japan	Materials	Core	4.8%
7	AECOM	United States	Industrials	Tech enablers	4.8%
8	Iberdrola SA	Spain	Utilities	Infrastructure	4.7%
9	Bloom Energy Corp	United States	Industrials	Core	4.7%
10	Emerson Electric Co	United States	Industrials	Infrastructure	4.5%

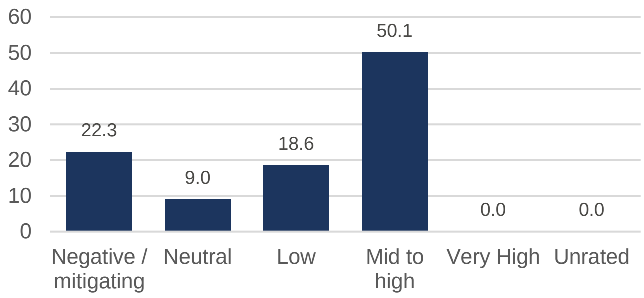
ESG portfolio characteristics

Portfolio ESG track record	Strong	**Portfolio carbon exposure**	Neutral
Portfolio average rating	AA	**Average CO_2 sales intensity**	500.7

ESG – Position distribution (%)



Carbon – Position distribution (%)



Largest positions

Company name	Weight	ESG track record	MSCI ESG rating	Carbon exposure risk	CO_2 sales intensity
Linde PLC	9.1%	Medium	A	Mid to high	1225.4
ABB AG	9.0%	Strong	AA	Neutral	14.0
Air Liquide SA	8.9%	Medium	A	Mid to high	1491.7
IDEX Corp	6.1%	Strong	AA	Low	16.8
SNAM S.p.A.	5.1%	Strong	AA	Mid to high	380.9
NIPPON SANSO HOLDINGS	4.8%	Medium	BBB	Mid to high	750.8
AECOM	4.8%	Strong	AA	Negative / mitigating	5.5
Iberdrola SA	4.7%	Very Strong	AAA	Low	344.3
Bloom Energy Corp	4.7%	Medium	BBB	Negative / mitigating	1491.4
Emerson Electric Co	4.5%	Medium	A	Mid to high	43.9

Remarks

• The ESG track record and the MSCI ESG Rating measure how well a company performs on environmental, social and governance issues compared to other companies (peers) in the same industry. The importance of the 3 different factors varies by industry. Companies with a below average ESG track record / MSCI ESG Rating are considered riskier since they are more likely to be impacted by factors such as controversies, new social and environmental regulations, bad reputation, litigation risk, poorly motivated work force and financial mis-management.

• The Carbon Exposure Risk measures the probability and severity that a company is negatively impacted by climate change. Climate change exposure can be physical, for example through extreme heat or flooding, policy related, for example through the introduction of a carbon tax, or technological, for example through competitors developing greener products. The risk is a function of the company's exposure to climate change and of how well the company is managing that exposure.

• The CO2e Sales Intensity measures how much CO2 equivalents are emitted by a company per USD 1 million sales in the most recent reporting year as reported by MSCI ESG Research. The emissions are direct emissions generated by sources owned or controlled by the company and those from the generation of purchased energy.

• The ESG distributions in the charts exclude money market and derivative positions such as foreign currency forwards.

Important information