



Hydrogen Certificate (H2C)

February 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, electrolyzers, 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).

Performance¹

	MTD	YTD	Since certificate inception
H2C certificate	-3.4%	6.3%	-18.3%
Solactive Hydrogen Economy	-5.8%	8.0%	-39.4%



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2023	10.0%	-3.4%											6.3%
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 February the hydrogen strategy posted a negative performance of -3.4%, compared to -5.8% for the benchmark Solactive Hydrogen Economy.

In USD terms, Nippon Sanso (+10.5%), Linde (+5.3%) and Equinor (+2.2%) were the top 3 performers. "Pure Plays" underperformed, with Bloom Energy (-13.0%), Ballard Power Systems (-13.0%) and Plug Power (-12.6%) the worst 3 performers. While remaining underweight on this segment compared to benchmark, we increased the exposure to "Pure Plays" at the Dec22 committee (+4pts) to take into account the more favorable valuation set-up and stabilization in relative trend.

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.

Market update

The European Commission published the final version of a Delegated Act setting out the rules that hydrogen producers must abide by to be able to label their product as renewable and count towards EU hydrogen and renewable targets.

According to Bloomberg, it designates “renewable hydrogen” as made with electricity from new renewable power plants – a principle called “additionality”. Moreover, production will need to be matched in space and time – “geographical and temporal correlation” – to renewable energy generation, although exceptions apply until 2028 to 2030.

Projects not meeting these criteria are less likely to be eligible for subsidies. They can still be considered “low carbon” but will not count toward EU renewable energy targets.

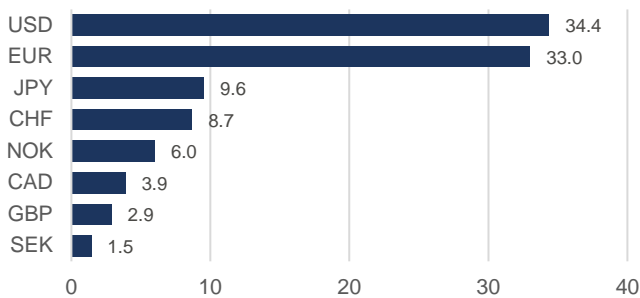
The new rules include a transitional period to soothe industry concerns. Electrolyzers operational before 2028 can use electricity from existing solar or wind capacity until 2038. They can also meet the “temporal correlation” criteria on a monthly, rather than hourly, basis until 2030.

The European Parliament and energy ministers have two to four months to review this rulebook. These bodies can only accept or reject the regulation but not change its content.

Portfolio rebalancing

No change.

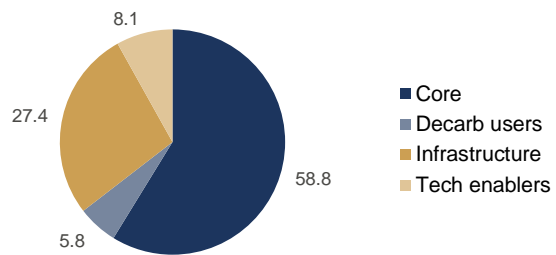
Currency allocation (%)



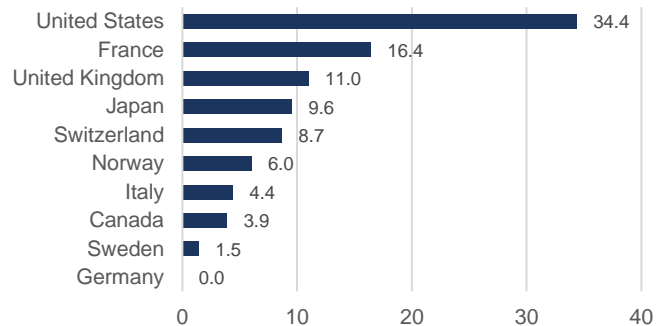
Top 10 holdings

Rank	Company name	Country	Sector	H2 "bucket"	Weight
1	Linde PLC	United Kingdom	Materials	Core	8.1%
2	Air Liquide SA	France	Materials	Core	7.6%
3	ABB AG	Switzerland	Industrials	Core	7.4%
4	Bloom Energy Corp	United States	Industrials	Core	6.7%
5	IDEX Corp	United States	Industrials	Infrastructure	6.2%
6	Toyota Motor Corp	Japan	Consumer Discretionary	Decarb users	5.8%
7	AECOM	United States	Industrials	Tech enablers	4.8%
8	SNAM S.p.A.	Italy	Utilities	Infrastructure	4.4%
9	Emerson Electric Co	United States	Industrials	Infrastructure	4.3%
10	Iberdrola SA	Spain	Utilities	Infrastructure	4.1%

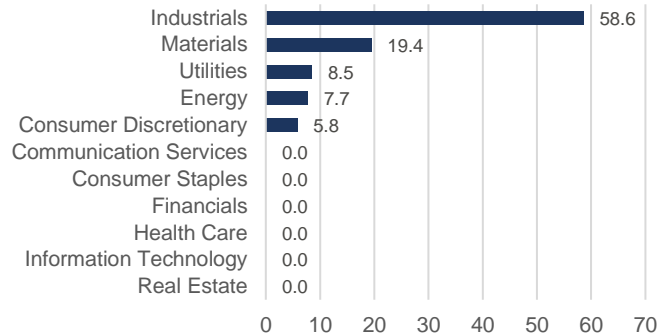
H2 "bucket" allocation (%)



Country allocation (%)



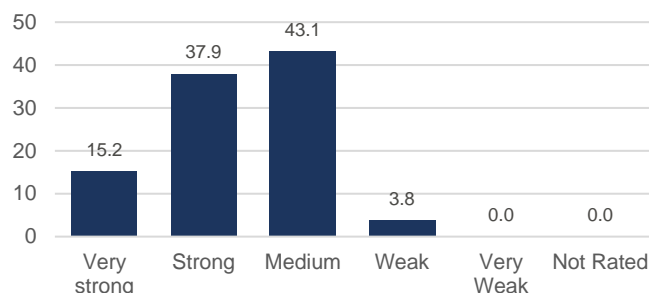
Sector allocation (%)



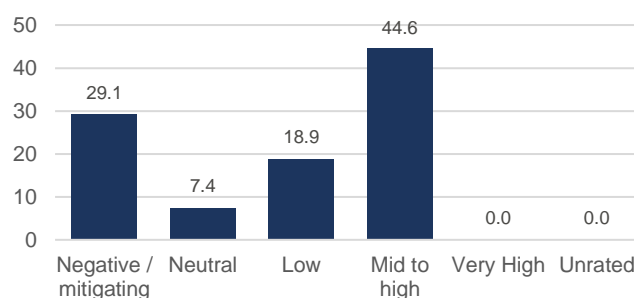
ESG portfolio characteristics

Portfolio ESG track record	Strong	Portfolio carbon exposure	Low
Portfolio average rating	AA	Average CO ₂ sales intensity	406.1

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	8.1%	Medium	A	Mid to high	1225.4
Air Liquide SA	7.6%	Medium	A	Mid to high	1491.7
ABB Ltd	7.3%	Strong	AA	Neutral	14
BLOOM ENERGY CORP- A	6.8%	Medium	BBB	Negative / mitigating	190.3
IDEX Corp	6.3%	Strong	AA	Low	16.8
Toyota Motor Corp	5.9%	Medium	A	Mid to high	26.3
AECOM	4.8%	Strong	AA	Negative / mitigating	5.5
Snam SpA	4.4%	Strong	AA	Mid to high	380.9
Emerson Electric Co	4.4%	Medium	A	Mid to high	43.9
Iberdrola SA	4.1%	Very Strong	AAA	Low	344.3

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

This document is produced by Rothschild & Co Bank AG, Zollikerstrasse 181, 8034 Zurich (the "Bank") for information and marketing purposes only and for the sole use of the recipient. Save as specifically agreed in writing by the Bank, it must not be copied, reproduced, distributed or passed, in whole or part, to any other person. The content of this document does not constitute a personal recommendation or an offer or invitation to buy or sell financial instruments. Nothing in this document constitutes investment, legal, accounting or tax advice. Although the information and data herein are obtained from sources believed to be reliable, no representation or warranty, expressed or implied, is or will be made and, save in the case of fraud, no responsibility or liability is or will be accepted by the Bank as to or in relation to the fairness, accuracy or completeness of this document or the information forming the basis of this document or

for any reliance placed on this document by any person whatsoever. No representation or warranty is given as to the achievement or reasonableness of any future projections, targets, estimates or forecasts contained in this document. Furthermore, all opinions and data used in this document are subject to change without prior notice. Laws or other regulations may restrict the distribution of this document in certain jurisdictions. Accordingly, recipients should inform themselves about and observe all applicable laws and regulations. Neither this document nor any copy thereof may be sent to or taken into the United States or distributed in the United States or to a US person. Rothschild & Co Bank AG's registered office is at Zollikerstrasse 181, 8034 Zurich, Switzerland. It is authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA).