HARBOR COMMODITY ALL-WEATHER STRATEGY ETF

Quantix Commodities LP Subadvisor Since 02/09/2022

Portfolio Managers



Matthew Schwa

 Ticker:
 HGER

 CUSIP:
 41151J505

 Net Expense Ratio:
 0.68%

 Gross Expense Ratio:
 0.68%

 Total Net Assets:
 \$117,503,217

Benchmark 1 Name: Quantix Commodity Total Return Index
Bloomberg Commodity Index Total

Return(SM)

PERFORMANCE

As of 12/31/2023

Average Annual Returns

	3 Months	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.	Since Inception	Inception Date
Harbor Commodity All-Weather Strategy ETF (NAV)	-2.38%	1.98%	1.98%	N/A	N/A	N/A	6.54%	02/09/2022
Harbor Commodity All-Weather Strategy ETF (Market)	-2.21%	1.92%	1.92%	N/A	N/A	N/A	6.66%	02/09/2022
Quantix Commodity Total Return Index	-2.13%	3.52%	3.52%	N/A	N/A	N/A	8.24%	02/09/2022
Bloomberg Commodity Index Total Return(SM)	-4.63%	-7.91%	-7.91%	N/A	N/A	N/A	-1.82%	02/09/2022

Performance data shown represents past performance and is no guarantee of future results. Past performance is net of management fees and expenses and reflects reinvested dividends and distributions. Investment returns and principal value will fluctuate and when redeemed may be worth more or less than their original cost. Returns for periods less than one year are not annualized. Current performance may be higher or lower and is available through the most recent month end at harborcapital.com or by calling 800-422-1050.

Investment Philosophy

The Harbor Commodity All-Weather Strategy ETF (HGER) seeks to provide investment results that correspond, before fees and expenses, to the performance of the Quantix Commodity Index (the "Index"). The Index is composed of futures contracts on physical commodities and is constructed using Quantix's proprietary quantitative methodology, which considers a commodity's relative inflation sensitivity and the relative cost of holding a "rolling" futures position in the commodity (as described below).

Under normal market conditions, the Index contains at least 15 U.S. dollar-denominated commodity futures traded on exchanges in the United States and United Kingdom. A commodity futures contract is a legal agreement to buy or sell a particular commodity (for example, metals, oil or agricultural products) at a predetermined price at a specified time in the future.

WEIGHTS

As of 12/31/2023

Commodity Sector Weights				
Commodity Sector	Commodity	Ticker	Facility	Daily Weight %
Precious	Gold	GCJ4	CME	33.45
Petroleum	Brent Crude Oil	COK4	ICE	12.25
Petroleum	Heating Oil	HOH4	CME	9.27
Petroleum	RBOB Gasoline	XBH4	CME	6.54
Industrial	Comex Copper	HGH4	CME	5.44
Industrial	Aluminum	LAH24	LME	4.50
Industrial	Zinc	LXH4	LME	4.40
Grains And Soybean Products	Corn	C H4	CME	3.52
Grains And Soybean Products	Soybeans	S H4	CME	3.43
Industrial	Nickel	LNH4	LME	3.18
Grains And Soybean Products	Bean Oil	BOH4	CME	2.28
Grains And Soybean Products	Wheat	W H4	CME	2.15
Grains And Soybean Products	Soymeal	SMH4	CME	2.08
Petroleum	Gasoil	QSH4	ICE	1.99
Grains And Soybean Products	Kansas Wheat	KWH4	CME	1.92
Softs	Cotton	CTH4	ICE	1.87
Softs	Sugar	SBH4	ICE	1.73

Shares are bought and sold at market price not net asset value (NAV). A fund's NAV is the sum of all its assets less any liabilities, divided by the number of shares outstanding. Market price returns are based upon the closing composite market price and do not represent the returns you would receive if you traded shares at other times.

MANAGER COMMENTARY

As of 12/31/2023



"Concerns about global demand came to the surface during the quarter as expectations for interest rate cuts tempered, leading market participants to price in a bigger economic slowdown."

Quantix Commodities LP

Market in Review

At the start of 2024, there is more optimism in financial markets than 12 months ago when forecasters shared a near consensus view that inflation-fighting rate hikes would lead to a recession. Instead, the U.S. Federal Reserve ("Fed") appears to have achieved the soft-landing nirvana of cooling inflation without sacrificing economic growth, at least in the short term. This remarkable outcome has largely dispelled forecasts of weak equity markets, interest rate cuts, and volatile commodity markets. By the end of 2023, global equity markets were at or near record highs, interest rates remained at cyclical highs, and the daily volatility of commodity markets reached the lowest levels in over five years.

There were two macro drivers of commodity markets in the fourth quarter of 2023. The higher-for-longer interest rate narrative had investors concerned about future demand coming into the quarter, with the Petroleum sector falling nearly 10% in the first week of October. After falling consistently for most of 2023, U.S. inflation leveled off in December and, combined with stronger-than-anticipated economic data, brought these concerns to the forefront once again.

Global risk assets received a jolt in October with the events in the Middle East bringing geopolitical risk center stage. The immediate reaction of commodity markets was Oil and Gold rallies, but markets quickly discounted any impact on oil supply, focusing instead on disappointing manufacturing data.

Fundamentals were also in focus in other sectors, such as Natural Gas. Despite rallying in October, warmer weather, high storage levels, and higher U.S. production created a bearish price environment in November, with the Bloomberg Commodity ("BCOM") Natural Gas Index losing money on more than 80% of the days in the month. The geopolitical risk premium from Russia's invasion of Ukraine continued to come out of global gas markets throughout 2023 and, combined with the negative roll yield in the commodity, led the BCOM Natural Gas Index to lose two-thirds of its value during the year.

Precious Metals bucked the trend of lower commodity prices during 2023, with Gold reaching a record high (in USD) of \$2,135/oz early in December. The yellow metal faced headwinds all year, as real rates rose but performance remained strong. This was partly due to continued central bank buying at record levels; in the nine months through September 2023, net purchases stood at 800 tonnes. This was 14% higher than the same period in 2022, which ended with the highest level of annual demand on record back to 1950. Looking ahead to 2024, a combination of stable or lower real rates, the current widespread geopolitical unrest, relatively light retail and speculative positioning, and continued central bank demand are likely to create tailwinds.

Portfolio Performance

The Harbor Commodity All-Weather Inflation Focus ETF ("ETF") is a passive ETF that aims to track the Quantix Commodity Index ("QCI"). The ETF had a total return of -2.38% (NAV) for the fourth quarter, tracking the QCI's return of -2.13% after accounting for fees and expenses and outperforming the broader commodity markets, as represented by Bloomberg Commodity index, which returned -4.63% for the quarter.

The biggest impact on absolute performance during the quarter was the significant sell-off in the Petroleum sector, with the BCOM Petroleum Sector Sub-Index down 16.5%. Concerns about global demand came to the surface during the quarter as expectations for interest rate cuts tempered, leading market participants to price in a bigger economic slowdown.

On a relative basis to broad commodity indexes, the ETF modestly outperformed BCOM across most sectors, and the ETF had no position (and was therefore underweight relative to BCOM) in Natural Gas, which was the biggest driver. On a relative basis, a higher weight in the Petroleum sector detracted.

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MANAGER COMMENTARY

As of 12/31/2023



Contributors & Detractors

On a sector basis, the Petroleum sector detracted more than 100% of the negative performance, with Softs, Grains, and Industrial Metals also down. The Precious Metals sector contributed positively to performance.

The biggest individual detractor from performance was the biggest position in Petroleum, Brent Crude Oil, as concerns about global economic growth weighed on oil. The second-largest holding, Heating Oil, also detracted from performance. Both of the other holdings in the sector, Gasoline and Gasoil, were also down.

Gold continues to be the largest holding in the ETF and QCI, as the debasement theme continues to be more important than the scarcity theme. The yellow metal outperformed with the strongest individual commodity performance due to continued geopolitical unrest in the Middle East and, if the pattern from earlier in the year continues, strong central bank buying.

Buys & Sells

The ETF aims to track the QCI, which rebalances on a quarterly basis. During rebalances, the index methodology considers the latest inflation data, as well as the cost to hold and roll each commodity. It also considers whether inflation is more likely to come from a scarcity or debasement environment and adjusts the weight of Gold relative to consumable commodities accordingly.

In the third quarter 2023 rebalance (calculated in September 2023 and implemented in the roll in the first half of October 2023), the weight of sectors and individual commodities was largely unchanged, with the biggest increases or decreases being approximately 1%. Precious Metals modestly increased, while Base Metals modestly decreased.

There was no change in the Scarcity Debasement Indicator, with two of the three signals continuing to point to debasement.

These changes are primarily reflective of the change in the shape of futures curves, as well as the reweighting mechanics of the QCI.

Outlook

The QCI has a prescriptive, rules-based methodology and, therefore, does not incorporate any discretionary views from Quantix. The overarching premise is that commodity returns are potentially more likely to be driven by debasement than scarcity in 2024.

Leading agencies in the Petroleum sector, such as the International Energy Agency, the U.S. Energy Information Administration, and the Organization of the Petroleum Exporting Countries ("OPEC+"), have more significantly diverging forecasts for the supply/demand balance for 2024 than in previous years. This huge dispersion in forecasts could lead to unexpected volatility, depending on which scenario plays out. Some forecasts from Wall Street have a 5.4 million barrels per day swing in balances between different scenarios that may play out, which has enormous implications on oil prices. We believe that the current scarcity delivered by OPEC+ cuts is somewhat artificial, and until it is resolved, the buildup in spare capacity will prevent large, speculative-driven price spikes in Oil.

The recent cold wave in the U.S. at the start of 2024 sparked a significant rally in U.S. Natural Gas prices, but it was largely confined to spot contracts. The first nearby Natural Gas contract rallied over 75 cents since the start of the year, while forward prices have had a much more muted response due to oversupply concerns. The overall fundamental picture remains one of oversupply until greater liquified natural gas ("LNG") off-take is possible. We believe that prices will need to dip low enough to force production cuts in 2024. The effect of these cuts could ultimately lead to the next bull cycle in Natural Gas if they remain in place while additional LNG facilities are brought online in 2025.

MANAGER COMMENTARY

As of 12/31/2023



We believe we are more likely to see true scarcity in the Industrial Metals sector than any other due to a lack of supply and robust demand in certain commodities. A weakening dollar and stable or lower interest rates should also help restocking demand from (in some cases historically) low inventory levels. Within the sector, we are most bullish Copper for idiosyncratic reasons. These general demand elements are supplemented with strong energy transition demand in addition to supply concerns related to significant mine closures.

The recent USDA report was incredibly bearish for Grains prices. U.S. corn production in 2023 was reported at a record 15.342 billion bushels versus 13.73 billion bushels in 2022. Soybean and Wheat data also exceeded pre-report forecasts. Relative to other sectors, we have a less favorable view of the sector's ability to drive returns in 2024. However, one bright spot may be Soybean Oil, where the demand for biofuels continues to drive impressive demand growth and create a structural shortage. While soybean crops are ample, crushers will struggle to keep up with Soybean Oil demand.

In the latest QCI rebalance in December 2023, the index moved more toward debasement, increasing the Gold weight to its maximum holding of 40%. This was due to the three macroeconomic signals, which aim to take into account the economic environment and whether inflation is likely to be driven by scarcity or debasement, all pointing toward debasement. The increase in Gold was commensurate with a ratable reduction in the other commodities. The number of commodities in the QCI went from 17 to 16, as Cotton dropped out.

ATTRIBUTION

As of 12/31/2023



Commodity Attribution

Index	QCIER	BCOM ER
Start	9/29/2023	9/29/2023
End	12/30/2023	12/30/2023
WTI Crude Oil	0.00%	-1.76%
Brent Crude Oil	-1.95%	-1.20%
Heating Oil	-1.94%	-0.43%
Gasoil	-0.56%	-0.60%
Gasoline	-0.63%	-0.27%
Henry Hub	0.00%	-2.21%
Corn	-0.16%	-0.17%
Wheat	0.17%	0.24%
Kansas Wheat	-0.09%	-0.07%
Soybeans	-0.02%	-0.05%
Soymeal	0.09%	0.12%
Beanoil	-0.31%	-0.37%
Cotton	-0.18%	-0.16%
Coffee	0.00%	0.84%
Sugar	-0.45%	-0.80%
Live Cattle	0.00%	-0.42%
Lean Hogs	0.00%	-0.16%
Aluminium	-0.04%	-0.02%
Nickel	-0.43%	-0.23%
Zinc	0.00%	-0.01%
CME Copper	0.19%	0.15%
Lead	0.00%	-0.05%
Gold	2.88%	1.50%
Silver	0.00%	0.25%
INDEX RETURN	-3.44%	-5.91%

Commodity Sector Attribution

Index	QCIER	всом
Start	9/29/2023	9/29/2023
End	12/30/2023	12/30/2023
Petroleum	-5.08%	-4.26%
Natural Gas	0.00%	-2.21%
Grains	-0.33%	-0.31%
Softs	-0.63%	-0.13%
Livestock	0.00%	-0.58%
Ind. Metals	-0.28%	-0.17%
Pre. Metals	2.88%	1.75%

QCIER - Quantix Commodity Index Excess Return

BCOM - Bloomberg Commodity Index

Exhibits above show Quantix Commodity Excess Return Index, reflecting commodity exposure of the index. Quantix Commodity Index Total Return would reflect commodity exposure plus the cash return.

IMPORTANT INFORMATION



Risks

Investing involves risk, principal loss is possible. Unlike mutual funds, ETFs may trade at a premium or discount to their net asset value. Harbor ETFs are new and have limited operating history to judge.

There is no guarantee that the investment objective of the Fund will be achieved. Stock markets are volatile and equity values can decline significantly in response to adverse issuer, political, regulatory, market and economic conditions. A non-diversified Fund may invest a greater percentage of its assets in securities of a single issuer, and/or invest in a relatively small number of issuers, it is more susceptible to risks associated with a single economic, political or regulatory occurrence than a more diversified portfolio.

Commodity Risk: The Fund has exposure to commodities through its and/or the Subsidiary's investments in commodity linked derivative instruments.

Authorized Participant Concentration/Trading Risk: Only authorized participants ("APs") may engage in creation or redemption transactions directly with the Fund.

Commodity- Linked Derivatives Risk: The Fund's investments in commodity-linked derivative instruments (either directly or through the Subsidiary) and the tracking of an Index comprised of commodity futures may subject the Fund to significantly greater volatility than investments in traditional securities.

Benchmarks

The Quantix Commodity Total Return Index ("QCI") is calculated on a total return basis, which combines the returns of the futures contracts with the returns on cash collateral invested in 13-week U.S. Treasury Bills. This unmanaged index does not reflect fees and expenses and is not available for direct investment. The Quantix Commodity Index was developed by Quantix Commodities LP and is owned by Quantix Commodities Indices LLC.

The Bloomberg Commodity Index measures the performance of future contracts on physical commodities which traded on US exchanges and London Metal Exchange. The commodity weightings are based on production and liquidity, subject to weighting restrictions applied annually. This unmanaged index does not reflect fees and expenses and is not available for direct investment.

Disclosures

Expense ratio information is as of the Fund's current prospectus, as supplemented. Gross expenses are the Fund's total annual operating expense.

This information should not be considered as a recommendation to purchase or sell a particular security. The weightings, holdings, industries, sectors, countries, and returns mentioned may change at any time and may not represent current or future investments.

As a result of changing market conditions, total net asset levels, expenses and other statistics may change at any time and may differ from those shown.

The total amount shown for sector, industries, or country holdings may be greater than 100% because of the inclusion of derivatives and the collateral securities supporting those instruments.

Views expressed herein are drawn from commentary provided to Harbor by the subadvisor and may not be reflective of their current opinions or future actions, are subject to change without prior notice, and should not be considered investment advice.

Quantix derives a Quality Score for each commodity based on Inflation Sensitivity and Roll Yield Return. The Quality Score is determined based on the sensitivity of a commodity futures contract to inflation. The Quality Scores rank higher those commodity futures contracts in the Eligible Universe that show a higher sensitivity to inflation or a lower cost of holding a rolling futures position using a proprietary Quality Score framework.

Investors should carefully consider the investment objectives, risks, charges and expenses of a fund before investing. To obtain a summary prospectus or prospectus for this and other information, visit harborcapital.com or call 800-422-1050. Read it carefully before investing.

Quantix Commodities LP ("Quantix") is a third-party subadvisor to the Harbor Commodity All-Weather Strategy ETF.

Foreside Fund Services, LLC is the Distributor of the Harbor ETFs.

Definitions

Roll is adjusting a short-term contract into a longer-term contract.

Scarcity is when the demand for a good or service is greater than the availability of the good or service.

Debasement refers to lowering the value of a currency.

Backwardation is when the current price of an underlying asset is higher than prices trading in the futures market.

Roll yield is the return from adjusting a futures position from one futures contract to a longer-dated contract.