

HARBOR DISRUPTIVE INNOVATION ETF

CHARACTERISTICS & ALLOCATION

As of 12/31/2023

Harbor Capital Advisors, Inc.

Manager Since 12/01/2021

Ticker: INNO
CUSIP: 41151J307
Net Expense Ratio: 0.75%
Gross Expense Ratio: 0.75%
Total Net Assets: \$31,501,110
Benchmark 1 Name: S&P 500 Index
Benchmark 2 Name: Russell 3000® Growth Index

Portfolio Managers



Spenser Lerner, CFA

Kristof Gleich, CFA

Investment Philosophy

The Fund invests primarily in equity securities, principally common and preferred stocks of all cap companies. Under normal market conditions, the Fund invests at least 80% of its net assets, plus borrowings for investment purposes, in securities of U.S. domiciled companies. The Fund employs a multi-manager approach to achieve its investment objective. As the Fund's investment advisor, Harbor Capital Advisors, Inc. ("Harbor Capital") assumes responsibility of selecting and overseeing underlying managers for the Fund. Each underlying manager is responsible for submitting a model portfolio to Harbor Capital which the portfolio managers will implement in their discretion. The Fund seeks to invest in companies that are innovative and disruptive. The Fund defines innovation and disruption by those companies that are generating secular growth - that growth is typically tied to accelerating shifts in the global economy. The Fund may invest up to 20% of its total assets in the securities of foreign issuers, including issuers located or doing business in emerging markets.

Portfolio Characteristics				Economic Sectors			
	Portfolio	Bench 1	Bench 2	Portfolio %	Bench 1 %	Bench 2 %	
Number of Holdings	95	503	1,517	Information Technology	46.27	28.88	42.37
Wtd Avg Market Cap (\$Mil)	305,713.90	721,660.50	1,050,614.60	Health Care	22.40	12.61	10.95
Median Market Cap (\$Mil)	16,866.00	33,180.00	2,298.00	Consumer Discretionary	10.25	10.88	15.43
Price/Book Ratio	8.58	6.70	12.66	Financials	9.35	12.98	6.36
Adjusted Trailing P/E Ratio	43.40	31.20	33.80	Industrials	3.55	8.86	6.49
% EPS Growth - Past 3 Yr	19.60	19.40	21.50	Communication Services	2.82	8.55	10.92
Est 3-5 Yr EPS Growth Rate (%)	20.90	13.10	18.10	Materials	2.38	2.42	0.86
Return on Equity (%)	6.10	23.11	27.54	Consumer Staples	1.02	6.12	4.08
Forecasted P/E Ratio	45.00	24.60	29.50	Energy	0.00	3.91	0.66
				Real Estate	0.00	2.51	0.94
				Utilities	0.00	2.36	0.11

Top 10 Holdings				Top 10 Industries			
	Portfolio %	Bench 1 %	Bench 2 %	Portfolio %	Bench 1 %	Bench 2 %	
Microsoft Corporation	4.72	6.98	11.23	Software	23.91	10.78	18.36
Advanced Micro Devices Inc.	3.45	0.59	0.54	Semiconductors	14.78	8.12	9.85
Lam Research Corporation	3.13	0.26	0.39	Biotechnology	12.67	2.00	2.72
MercadoLibre Inc.	2.93	0.00	0.00	Financial Services	7.22	4.16	3.98
ServiceNow Inc.	2.76	0.36	0.58	It Services	6.61	1.23	1.68
Amazon.com Inc.	2.58	3.45	5.49	Broadline Retail	5.51	3.53	5.61
Shopify Inc. Class A	2.50	0.00	0.00	Life Sciences Tools	4.30	1.46	1.29
Cadence Design Systems Inc.	2.44	0.19	0.30	Hotels Rest & Leisure	3.88	2.20	2.92
Danaher Corporation	2.43	0.38	0.00	Health Care Equip	3.58	2.58	1.71
Block Inc. Class A	2.42	0.00	0.06	Interactive Media	2.62	5.79	9.48
Total	29.36	12.21	18.59	Total	85.08	41.85	57.60

Market Capitalization		
		Portfolio %
Large	Above 25.0B	69.07
	10.0B - 25.0B	5.83
Mid	5.0B - 10.0B	8.76
	1.0B - 5.0B	8.79
Small	0.0 - 1.0B	5.56

Harbor Disruptive Innovation ETF



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 Disruptive Innovation ETF (NAV)	17.34%	33.09%	33.09%	N/A	N/A	N/A	-14.35%	12/01/2021
Harbor Disruptive Innovation ETF (Market)	17.45%	33.12%	33.12%	N/A	N/A	N/A	-14.38%	12/01/2021
S&P 500 Index	11.69%	26.29%	26.29%	N/A	N/A	N/A	4.37%	12/01/2021
Russell 3000® Growth Index	14.09%	41.21%	41.21%	N/A	N/A	N/A	2.01%	12/01/2021

MANAGER COMMENTARY

As of 12/31/2023

“Broadening market participation, falling inflation, and a resilient consumer backdrop provide hope that a perfectly engineered soft landing may be underway.”

Harbor Capital Advisors, Inc.

Market in Review

U.S. equities rallied sharply to end the year, with major indexes recording double-digit gains during the fourth quarter of 2023. Markets turned sharply higher in October on the heels of a dovish policy pivot by the U.S. Federal Reserve (“Fed”), with many market participants proclaiming the end of the current rate-hiking cycle. The dramatic easing of financial conditions, driven by falling inflation and falling interest rates, propelled the market upward as expectations for a successful soft landing gained traction. Importantly, the quarter saw a broadening in market leadership, moving beyond the dominance of the “Magnificent Seven” tech giants, with standout performances in small-cap equities and subsectors like regional banks, credit cards, and homebuilders.

Portfolio Performance

During the quarter, the Harbor Disruptive Innovation ETF returned 17.34% at NAV, outperforming its primary benchmark, the S&P 500 Index, which returned 11.69%, and the Russell 3000® Growth Index, which returned 14.09%.

From a sector perspective, relative strength within Information Technology and Health Care outweighed relative weakness within Consumer Discretionary.

The relative outperformance was driven by strong stock selection, combined with a common factor tailwind during the quarter. From a factor perspective, the Fund’s risk was driven by industries and an exposure to beta.

Contributors & Detractors

Rocket Pharmaceuticals, a clinical-stage biotech company focused on the development of gene therapy treatment options for rare and devastating pediatric diseases, was the top absolute contributor to performance during the quarter. The stock traded higher following regulatory clarity on its key product for Danon disease. FDA agreement for pivotal design seems to be a very low bar, and thus the probability of success has gone up significantly. The company is now well-capitalized through major value-creating events and benefited from the sharp rally in biotech.

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.

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.

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MANAGER COMMENTARY

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Advanced Micro Devices, a semiconductor company that develops computer processors and chips for personal computers, gaming, and data centers, also contributed positively to absolute performance. The stock performed well, as investors are getting more excited about its story and offering in 2024, as it ramps up its Mi300 products, an alternative to NVIDIA's graphics processing unit (GPU), which has gained significant attention among the artificial intelligence ("AI")-hype.

During the quarter, Sea, a digital entertainment, e-commerce, and financial services business, detracted from Fund performance, as the shares were volatile in 2023 when evidence of improving profitability was overshadowed by fears of increasing competitive pressures. In early 2023, Sea rapidly pivoted to profitability (with Shopee's Asia earnings before interest, taxes, depreciation, and amortization ("EBITDA") improving from -\$300 million in the second quarter of 2022 to \$200-plus million in the second quarter of 2023), benefiting from reduced subsidies, rationalized competition, and a growing and underpenetrated e-commerce market in Southeast Asia.

Lattice Industries also detracted from Fund performance during the quarter. The company reported a poor outlook for 2024 as part of its quarterly results. We added to the position during the quarter.

Buys & Sells

During the quarter, we purchased monday.com, a cloud-based platform that allows users to create their own applications and project management software. With a large total addressable market ("TAM") and improving competitive position, we believe monday.com provides a compelling investment opportunity at a reasonable valuation for a leader in the small- and medium-sized/mid-market space. Additionally, its new products are beginning to contribute financially, which we believe should provide additional upside.

During the quarter, we sold Bio-Rad Laboratories, a producer of specialty chemicals used in biochemical, pharmaceutical, and other life science research applications. Management announced third-quarter results that were below expectations, primarily due to further deterioration in biopharma and early biotech customer spending, as well as a challenging macro environment in China. It subsequently lowered guidance for the third-consecutive time this year, which, along with the stock price decline since the announcement of the chief financial officer's resignation, led us to step away from the name for a better risk/reward opportunity.

Sector Overweights & Underweights

The Information Technology sector was the Fund's largest overweight relative to the index at the start of 2023 and continues to be the largest overweight as of year-end. We continue to believe that the sector houses some of the best businesses with large TAMs and strong management teams. The Consumer Staples sector represented the Fund's largest underweight at the end of 2023.

Outlook

Despite the sharp rally in equities to end 2023, the outlook for 2024 remains uncertain. Broadening market participation, falling inflation, and a resilient consumer backdrop provide hope that a perfectly engineered soft landing may be underway. However, historical analogues of prior curve inversion cycles suggest that we may still be in a window where the lagged impacts of the rate hikes remain ahead of us, and betting odds of U.S. markets avoiding a slowdown may be overestimating the probability of success. Navigating the path ahead will require careful attention to evolving macro conditions and potential headwinds, with several crosscurrents leaving us less confident about the direction of markets.

Harbor Disruptive Innovation ETF

QUARTERLY ATTRIBUTION

As of 12/31/2023



Best & Worst Performers

Best Performers	Average Weight %	Return % (NAV)
AUTOLUS THERAPEUTICS PLC	1.21	176.40
ARVINAS INC	0.45	109.57
KYMERA THERAPEUTICS INC	0.30	83.17
IOVANCE BIOTHERAPEUTICS INC	0.40	78.68
BLOCK INC	1.89	74.76

Worst Performers	Average Weight %	Return % (NAV)
FARFETCH LTD-CLASS A	0.72	-98.93
REPLIMUNE GROUP INC	0.41	-50.73
REPARE THERAPEUTICS INC	0.30	-39.57
DADA NEXUS LTD-ADR	1.13	-25.39
LATTICE SEMICONDUCTOR CORP	0.76	-19.71

Contributors & Detractors

Greatest Contributors	Return % (NAV)	Contribution to Return %
AUTOLUS THERAPEUTICS PLC	176.40	1.48
BLOCK INC	74.76	1.26
ADVANCED MICRO DEVICES	43.37	1.14
MICROSOFT CORP	19.34	1.06
ADYEN NV	72.48	0.97
Total		5.89

Greatest Detractors	Return % (NAV)	Contribution to Return %
FARFETCH LTD-CLASS A	-98.93	-1.31
CHART INDUSTRIES INC	-19.39	-0.38
DADA NEXUS LTD-ADR	-25.39	-0.36
REPLIMUNE GROUP INC	-50.73	-0.35
REPARE THERAPEUTICS INC	-39.57	-0.26
Total		-2.66

Harbor Disruptive Innovation ETF



ATTRIBUTION

As of 12/31/2023

Quarterly Attribution:

Harbor Disruptive Innovation ETF vs S&P 500 Index

Performance

	Portfolio	Benchmark	Active
Return Ex Currency	17.32	11.69	5.63
Currency Contribution	0.32	0.00	0.32
Total Return	17.64	11.69	5.95

Sector Attribution	Average Weight			Total Return			Contribution to Return		Attribution Analysis		
	Port. Avg. Wgt.	Bench. Avg. Wgt.	Variation in Avg. Wgt.	Port. Total Return	Bench. Total Return	Variation in Total Return	Port. Contribution To Return	Bench. Contribution To Return	Allocation Effect	Selection Effect	Total Effect
Health Care	20.02	12.89	7.13	21.03	6.41	14.62	4.01	0.77	-0.33	3.17	2.83
Information Technology	45.08	28.65	16.44	20.77	17.15	3.62	9.30	4.94	0.87	1.62	2.48
Financials	8.53	12.79	-4.26	36.30	14.03	22.27	3.02	1.77	-0.06	1.68	1.62
Energy	0.00	4.28	-4.28	0.00	-6.94	6.94	0.00	-0.40	0.87	0.00	0.87
Utilities	0.00	2.40	-2.40	0.00	8.56	-8.56	0.00	0.22	0.08	0.00	0.08
Materials	2.43	2.41	0.02	10.64	9.69	0.96	0.31	0.23	0.01	0.01	0.02
Communication Services	4.21	8.74	-4.53	11.03	11.05	-0.02	0.45	0.96	0.02	-0.02	-0.01
Consumer Staples	1.13	6.35	-5.22	-25.39	5.54	-30.94	-0.36	0.35	0.30	-0.42	-0.12
Real Estate	0.00	2.40	-2.40	0.00	18.83	-18.83	0.00	0.44	-0.17	0.00	-0.17
Industrials	3.23	8.37	-5.15	7.76	13.05	-5.29	0.18	1.07	-0.07	-0.14	-0.21
Consumer Discretionary	12.66	10.72	1.95	2.95	12.42	-9.48	0.69	1.35	-0.04	-1.10	-1.14
Total	100.00	100.00	0.00	17.64	11.69	5.95	17.64	11.69	1.15	4.80	5.95

Quarterly Attribution:

Harbor Disruptive Innovation ETF vs Russell 3000® Growth Index

Performance

	Portfolio	Benchmark	Active
Return Ex Currency	17.32	14.09	3.23
Currency Contribution	0.32	0.00	0.32
Total Return	17.64	14.09	3.55

Sector Attribution	Average Weight			Total Return			Contribution to Return		Attribution Analysis		
	Port. Avg. Wgt.	Bench. Avg. Wgt.	Variation in Avg. Wgt.	Port. Total Return	Bench. Total Return	Variation in Total Return	Port. Contribution To Return	Bench. Contribution To Return	Allocation Effect	Selection Effect	Total Effect
Health Care	20.02	11.35	8.67	21.03	9.67	11.36	4.01	1.03	-0.33	2.52	2.19
Financials	8.53	6.43	2.10	36.30	11.97	24.33	3.02	0.76	-0.01	1.89	1.88
Information Technology	45.08	42.32	2.77	20.77	17.66	3.12	9.30	7.53	0.10	1.38	1.47
Energy	0.00	0.76	-0.76	0.00	-4.21	4.21	0.00	-0.05	0.15	0.00	0.15
Communication Services	4.21	11.11	-6.90	11.03	11.33	-0.30	0.45	1.23	0.14	-0.03	0.11
Utilities	0.00	0.12	-0.12	0.00	14.12	-14.12	0.00	0.02	0.00	0.00	0.00
Real Estate	0.00	0.94	-0.94	0.00	23.69	-23.69	0.00	0.22	-0.08	0.00	-0.08
Industrials	3.23	6.51	-3.28	7.76	12.97	-5.21	0.18	0.81	0.05	-0.14	-0.10
Materials	2.43	0.83	1.60	10.64	16.59	-5.95	0.31	0.14	0.06	-0.17	-0.10
Consumer Staples	1.13	4.16	-3.03	-25.39	10.45	-35.84	-0.36	0.42	0.08	-0.49	-0.41
Consumer Discretionary	12.66	15.46	-2.80	2.95	12.68	-9.73	0.69	2.00	-0.03	-1.13	-1.16
Total	100.00	100.00	0.00	17.64	14.09	3.55	17.64	14.09	-0.26	3.84	3.58

Performance data shown represents past performance and is no guarantee of future results.

Harbor Disruptive Innovation ETF



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. Since the Fund may hold foreign securities, it may be subject to greater risks than funds invested only in the U.S. Investing in REITs will subject the Fund to additional risk. Investing in international and emerging markets poses special risks, including potentially greater price volatility due to social, political and economic factors, as well as currency exchange rate fluctuations. These risks are more severe for securities of issuers in emerging market regions.

Companies that the adviser and sub-adviser believe create and capitalize on disruptive innovation and developing technologies to displace older technologies or create new markets may not in fact do so. Companies that initially develop a novel technology may not be able to capitalize on the technology. The Fund may invest in a company that does not currently derive any revenue from disruptive innovations or technologies, and there is no assurance that a company will derive any revenue from disruptive innovations or technologies in the future.

Benchmarks

The Russell 3000® Growth Index measures the performance of the broad growth segment of the US equity universe. It includes Russell 3000 Index companies with higher price-to-book ratios and higher forecasted growth values. It is market-capitalization weighted. The Standard & Poor's 500 Index is an unmanaged index generally representative of the U.S. market for large capitalization equities. These unmanaged indices do not reflect fees and expenses and are not available for direct investment. The Russell 3000® Growth Index and Russell® are trademarks of Frank Russell Company.

Disclosures

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

All holdings-related data is provided by FactSet. Because FactSet relies on external sources for its data, that data may differ slightly from actual values maintained by Harbor Funds.

Due to the security valuation procedures of the Fund and intra-day trading activity not included in the FactSet calculations, the actual returns may vary. From time to time the cash return in the portfolio may appear distorted based on the way FactSet's attribution calculation methodology addresses delayed settlements.

Best and Worst Performers sections reflect stocks in the portfolio for the quarter with an average weight of 0.25% or greater.

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.

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.

Sector allocations are determined using the Global Industry Classification Standard (GICS), which is a service of Morgan Stanley Capital International (MSCI) and Standard & Poor's (S&P).

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.

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

Harbor Disruptive Innovation ETF



IMPORTANT INFORMATION

Attribution Disclosures

Linked Performance by Sectors data is produced from FactSet using data supplied by State Street Bank and Trust Company.

Active Currency Contribution is the Currency Contribution of the portfolio minus the Currency Contribution of the benchmark.

Allocation Effect is the portion of portfolio excess return that is attributable to taking different group bets from the benchmark. (If either the portfolio or the benchmark has no position in a given group, allocation effect is the lone effect.) A group's allocation effect equals the average percent capitalization of the portfolio's group minus the average percent cap of the benchmark's group times the total return of the benchmark group minus the total return of the benchmark.

Average Weight is the dollar value (price times the shares held) of the security or group, divided by the total dollar value of the entire portfolio displayed as a percentage. It is calculated as the simple arithmetic average of daily values.

Contribution to Return is the contribution of a security or group to the overall portfolio return. It is calculated as the security weight multiplied by the daily security return linked daily across the reporting period.

Currency Contribution is Total Return in USD subtracting out the Local Returns.

Local Returns are the Total Return of the portfolio or benchmark using the local currency.

Selection Effect is the portion of portfolio excess return attributable to choosing different securities within groups from the benchmark. A group's security selection effect equals the average weight of the benchmark's group times the total return of the portfolio's group minus the total return of the benchmark's group.

Total Effect is the sum of Allocation Effect and Selection Effect. The total effect represents the opportunity cost of what was done in a group relative to the overall portfolio. It is not just the difference between percent contribution in the portfolio and benchmark. At the overall portfolio level, the two numbers are equal. At the group level, they can be different.

Total Return is the price change of a security or group including dividends accrued over the report period (or the in-portfolio return) which includes only the time period that each security was in the portfolio.

Definitions

Beta is a measure of the volatility — or systematic risk — of a security or portfolio compared to the market as a whole.

Median Market Cap: The median size of the companies in a portfolio or index as measured by the market value of outstanding shares.

Weighted Average Market Capitalization: The average size of the companies in a portfolio or index as measured by the market value of outstanding shares.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share.

% EPS Growth - Past 3 Year: Earnings per share refers to the bottom-line measure of a company's profitability defined as net income divided by the number of outstanding shares.

The Adjusted Trailing P/E (price-to-earnings) Ratio is the closing stock price divided by the sum of the last 12 months actual EPS.

Forecasted P/E Ratio: a measure of the P/E (price-to-earnings) ratio using forecasted earnings for the P/E calculation.

Return on Equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity.

The Price/Book (price-to-book) Ratio evaluates a firm's market value relative to its book value.

All P/E, ROE and P/B statistics are calculated as weighted medians.