## Harbor Disruptive **Innovation Fund**

Harbor Capital Advisors, Inc. Manager Since 09/01/2021

Total Net Assets - All Classes	\$201,453,177
Equity Assets:	98.93%
Cash & Other Assets Less Liabilities:	1.07%
Benchmark 1 Name:	S&P 500 Index
Benchmark2Name:	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	Bench 1	Bench		
Number of Holdings	92	505	1,74		
Wtd Avg Market Cap (\$Mil)	394,375.40	646,980.00	933,090.1		
Med Cap - # Stocks (\$Mil)	28,876.00	31,860.00	1,963.0		
Price/Book Ratio	9.79	7.24	14.4		
Adjusted Trailing P/E Ratio	42.50	29.00	32.8		
% EPS Growth - Past 3 Yr	38.50	20.00	25.5		
Return on Equity (%)	11.67	25.19	32.0		
Beta vs. Fund Benchmark	1.07	0.00			
Forecasted P/E Ratio	45.50	23.80	28.4		
Proj. Earnings Growth Rate (%)	20.90	13.90	17.2		

Portfolio Characteristic

Top 10 Holdings						
	Portfolio % Be	ench 1 % Be	ench 2 %			
Amazon.com Inc.	5.79	3.73	6.21	So		
Microsoft Corporation	4.81	6.04	10.19	Se		
Microchip Technology Incorporated	3.07	0.11	0.15	lt In		
Lam Research Corporation	2.93	0.20	0.33	In		
Salesforce Inc.	2.86	0.55	0.17	Bi		
Block Inc Class A	2.70	0.00	0.29	He		
Alphabet Inc. Class C	2.49	2.03	2.92	Li		
Tesla Inc	2.49	2.36	3.93	Au		
ServiceNow Inc.	2.46	0.29	0.49	Co		
Ball Corporation	2.46	0.08	0.04	T		
Total	32.06	15.39	24.72			

Market Capitalization					
		Portfolio %			
Large	Above 25.0B	74.00			
	10.0B - 25.0B	10.30			
Mid	5.0B - 10.0B	5.53			
	1.0B - 5.0B	7.55			
Small	0.0 - 1.0B	2.62			

## **CHARACTERISTICS & ALLOCATION**

As of 03/31/2022

	Economic Sectors						
ז 1		Portfolio %	Bench 1 %	Bench 2 %			
43	Information Technology	47.91	28.02	44.69			
10	Health Care	16.32	13.57	9.47			
00	<b>Communication Services</b>	15.19	9.35	9.99			
43	Consumer Discretionary	14.62	12.01	18.07			
80	Materials	2.46	2.62	1.02			
50	Financials	1.29	11.08	2.57			
07	Real Estate	0.83	2.72	1.79			
	Utilities	0.31	2.71	0.04			
40	Industrials	0.00	7.89	6.62			
20	Consumer Staples	0.00	6.08	4.18			
20	Energy	0.00	3.89	0.60			

	lop 10 industries						
Bench 2 %		Portfolio % Be	nch 1 % Be	ench 2 %			
6.21	Software	22.96	8.91	17.09			
10.19	Semiconductors	13.04	6.01	8.36			
0.15	It Services	11.91	4.25	6.32			
	Interactive Media	9.24	5.71	8.60			
0.33	Internet & Direct Market	8.96	3.86	6.56			
0.17	Biotechnology	8.59	1.94	3.05			
0.29	Health Care Equip	3.18	2.86	2.66			
2.92	Life Sciences Tools	2.84	1.84	1.39			
3.93	Automobiles	2.49	2.7	3.97			
0.49	Containers & Packaging	2.46	0.31	0.12			
0.04	Total	85.67	38.39	58.12			
24 72							





### Performance

Share Class	Ticker	CUSIP	3 Months	YTD	1 Yr.	3 Yr.	5 Yr.	10 Yr.	Since Inception	Inception Date	Net Expense Ratio %	Gross Expense Ratio %
Institutional	HAMGX	411511876	-16.33%	-16.33%	-18.21%	13.91%	16.88%	13.64%	6.67%	11/01/00	0.58	0.88
Administrative	HRMGX	411511793	-16.24%	-16.24%	-18.41%	13.64%	16.60%	13.36%	12.15%	11/01/02	0.83	1.13
Investor	HIMGX	411511785	-16.37%	-16.37%	-18.55%	13.51%	16.44%	13.23%	12.01%	11/01/02	0.94	1.24
Retirement	HNMGX	411512510	-16.29%	-16.29%	-18.17%	14.00%	16.97%	13.69%	6.69%	03/01/16	0.50	0.80
S&P 500 Index Russell 3000® Growth Index Russell Midcap® Growth Index			-4.60% -9.25% -12.58%	-4.60% -9.25% -12.58%	15.65% 12.86% -0.89%	18.92% 22.68% 14.81%	15.99% 20.16% 15.10%	14.64% 16.64% 13.52%	7.60% 7.45% 7.26%	11/01/00 11/01/00 11/01/00		

### MANAGER COMMENTARY

As of 03/31/2022

# "The shift in market leadership over the course of 2021 through the first quarter of 2022 illustrates how unpredictable markets can be in the short term. Exogenous factors and sentiment can have an outsized influence in short-term price movements."

Harbor Capital Advisors, Inc

### **Market in Review**

After notching fresh, all-time highs to start the year, U.S. equities ended the first quarter of 2022 markedly lower, booking the first quarterly decline since the start of the COVID-19 pandemic. Growth lagged value, and small caps lagged large caps over the period as slowing growth, persistent inflation, the Omicron variant, and increased recessionary fears plagued investor sentiment. Central to the narrative was the breakout of war in Ukraine, which not only created a tragic humanitarian crisis but also exacerbated already-disrupted supply chains and drove sharp price responses in commodity markets, which were already reeling from supply/demand imbalances. For U.S. equity investors, this uncertainty created by an unclear geopolitical outcome was compounded further by increasingly hawkish Federal Reserve ("Fed") posturing. Expectations for interest-rate hikes in 2022 jumped in dramatic fashion from two hikes estimated at the beginning of the year to nearly nine now. The result of swiftly changing market expectations impacted all corners of the market during the quarter, as risk was repriced across the investable universe.

### **Portfolio Performance**

During the quarter, the Harbor Disruptive Innovation Fund (Institutional Class, "Fund") returned -16.33%, underperforming its benchmark, the Russell 3000<sup>®</sup> Growth Index, which returned -9.25%, and the S&P 500 Index, which returned -4.60%. For context, the index serves as a broad market proxy for the strategy. We believe that by identifying and investing in businesses best-positioned to disrupt the status quo or create entirely new frontiers, we can create a Fund capable of outperforming the broad market over a full economic cycle. Since this is not a benchmark-driven strategy, there can be quarters when the performance looks materially different versus the index.

Retirement Class shares commenced operations on March 1, 2016. The performance attributed to the Retirement Class shares prior to that date is that of the Institutional Class shares. Performance prior to March 1, 2016 has not been adjusted to reflect the lower expenses of Retirement Class shares. During this period, Retirement Class shares would have had returns similar to, but somewhat higher than, Institutional Class shares due to the fact that Retirement Class shares represent interests in the same portfolio as Institutional Class shares but are subject to lower expenses.

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. Past performance reflects the beneficial effect of any expense waivers or reimbursements, without which returns would have been lower. 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.



During the quarter, the Fund faced headwinds from both a stock-specific and factor perspective. The higher-growth nature of the Fund proved to be a meaningful headwind. From a sector perspective, relative weakness in Information Technology (IT), Health Care, and Energy outweighed relative strength in Communication Services. Within IT, the Fund's overweight stance versus the index weighed on relative results, as IT was the third worst-performing index sector during the quarter. In addition, investments within the IT services and software segments experienced sharp declines as investors shifted away from companies with duration growth toward those with lower volatility and higher liquidity profiles. Within Health Care, the Fund's investments within biotechnology pressured excess returns during the period. Lastly, the Fund's lack of exposure to the value-oriented Energy sector posed performance headwinds as the group traded higher by 39% within the index.

### **Contributors & Detractors**

The strongest contributors to relative performance were Paramount and T-Mobile. Paramount bounced back from a poor fourth quarter in which we felt the company was overly punished for weak results. T-Mobile had strong results during the quarter, showing better growth in subscribers and key profitability measures than the market had expected.

The weakest contributor during the quarter was Shopify. Shopify shares sold off after the business reported fourth quarter 2021 results. Reported results were solid in our view, with year-over-year gross merchandise volume ("GMV") growth of 32% beating the consensus estimates, despite supply-chain issues and Apple privacy changes affecting e-commerce advertising. The company added over 300,000 new merchants to its platform in 2021, bringing the total count to over two million. It continued to drive take-rate expansion, with the metric eclipsing 1.9% for the first time ever, as payments adoption reached 50% of GMV. However, the relative strength of the quarter was overshadowed by management announcing a material increase in investment in 2022 and reducing operating margins from 16% to breakeven. Given the market's current short-term focus and low appetite for increased investment at the expense of margin gains, the stock reacted negatively. We generally view the investment positively for long-term value creation, especially given the increasing importance of faster/reliable shipping times among consumers. We are also skeptical that the company will be able to fully invest back to breakeven levels, as it would require a three-fold increase in operating expenses during the year. Overall, we continue to believe Shopify is well positioned to drive many years of mid-30% annualized growth. Its current valuation, as measured by the next twelve months' price-to-sales, is at levels not seen since March 2020, despite the company being three times as large and better positioned to drive growth and take-rate expansion.

### Buys & Sells

During the quarter, we established a position in MongoDB, a general-purpose database platform. MongoDB is a high-quality secular grower on the front end of a massive, total addressable market ("TAM") opportunity as it gains share in the approximately \$50 billion database market, which is among the largest markets in software. The company is evolving into an enterprise-grade database provider, reliable enough for mission-critical workloads, which should allow it to chip away at Oracle's lion's share position in this market.

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### Thermo Fisher was also purchased during the period. The firm serves a large number of customers in the life science industry and is one of the largest, contractdevelopment manufacturing organizations ("CDMOs") globally. Within the advanced therapies sector, the firm has been proactively strengthening its offerings across all developmental areas to provide end-to-end service. Thermo Fisher has been able to respond to the challenges related to the industry, which has enabled it to add significant value for both the customers and the company. The industry's high demand for cGMP plasmids and viral vectors has been addressed by the opening of a new facility and acquisitions of key players in the field. Furthermore, the company's rapid response to the demands of the industry has also been demonstrated during the pandemic, which has resulted in Thermo Fisher becoming the leading, single-source supplier for pandemic testing. In addition, the company has exceeded the pandemic response-related revenue guidance for the last quarter of 2021 by \$1.5 billion. Thermo Fisher continues to report revenue growth year after year, which overall, puts it in a good position to continue establishing itself as one of the leading manufacturers for the industry.

Trex Company, Inc., a composite-decking company, was the biggest relative underperformer during the quarter. The stock suffered from a rotation out of owning pandemic beneficiaries. We decided to exit our position due to the rapid rise in oil/energy prices that will result in higher production and transport costs. Trex will try to pass these costs on to consumers, but we are concerned about demand, given the inflationary pressures already facing consumers.

### Outlook

The shift in market leadership over the course of 2021 through the first quarter of 2022 illustrates how unpredictable markets can be in the short term. Exogenous factors and sentiment can have an outsized influence in short-term price movements. Despite these shorter-term impacts, enterprises remain early in their digital transformation efforts; new technological offerings are enabling access to commerce and financial services; and life sciences' innovations continue to change how we define, diagnose, and treat diseases. Over the long term, we believe we will be successful in identifying businesses that will extract most of the value created by these trends.

### QUARTERLY ATTRIBUTION

MANAGER COMMENTARY As of 03/31/2022

As of 03/31/2022

### **Best & Worst Performers**

Best Performers	Average Weight %	Return %	
Paramount Global Class B	2.08	26.12	
Zendesk Inc.	1.15	15.34	
MongoDB Inc. Class A	0.39	13.50	
T-Mobile US Inc.	2.01	10.67	
Ironwood Pharmaceuticals Inc. Class A	0.58	7.89	

Worst Performers	Average Weight %	Return %
Shopify Inc. Class A	1.35	-50.92
Masimo Corporation	0.29	-50.29
Redfin Corporation	0.73	-50.22
Carvana Co. Class A	1.19	-48.54
Sea Ltd. (Singapore) Sponsored ADR Class A	1.08	-46.45

### **Contributors & Detractors**

Greatest Contributors	Return %	Contribution to Return %
Paramount Global Class B	26.12	0.50
T-Mobile US Inc.	10.67	0.26
Amazon.com Inc.	-2.23	0.23
SailPoint Technologies Holdings Inc.	5.88	0.22
MongoDB Inc. Class A	13.50	0.11
Total		1.32

Greatest Detractors	Return %	Contribution to Return %
Lam Research Corporation	-25.01	-1.05
Shopify Inc. Class A	-50.92	-0.95
Twilio Inc. Class A	-37.42	-0.91
Carvana Co. Class A	-48.54	-0.75
Sea Ltd. (Singapore) Sponsored ADR Class	-46.45	-0.75
Total		-4.41

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Quarterly Attribution:

Harbor Disruptive Innovation Fund vs S&P 500 Index

#### Performance

	Portfolio	Benchmark	Active
Return Ex Currency	-16.29	-4.60	-11.69
Currency Contribution	-0.03	0.00	-0.03
Total Return	-16.32	-4.60	-11.72

Sector Attribution	Average Weight			Total Return			Contribution to Return		Attribution Analysis		
								Bench.			
			Variation in Avg.	Port. Total	Bench. Total	Variation in Total	Port. Contribution	Contribution To			
	Port. Avg. Wgt.	Bench. Avg. Wgt.	Wgt.	Return	Return	Return	To Return	Return	Allocation Effect	Selection Effect	Total Effect
Communication Services	14.44	9.73	4.71	-8.18	-11.92	3.74	-0.95	-1.28	-0.30	0.53	0.23
Materials	2.93	2.57	0.36	-6.30	-2.37	-3.93	-0.07	-0.06	-0.01	-0.05	-0.06
Utilities	0.29	2.58	-2.29	-8.77	4.77	-13.54	-0.02	0.14	-0.19	-0.03	-0.22
Consumer Staples	0.00	6.13	-6.13	0.00	-1.01	1.01	0.00	-0.09	-0.23	0.00	-0.23
Real Estate	1.52	2.67	-1.15	-31.44	-6.22	-25.22	-0.66	-0.16	0.00	-0.45	-0.45
Industrials	0.64	7.86	-7.22	-43.55	-2.19	-41.36	-0.50	-0.17	-0.16	-0.41	-0.57
Financials	1.76	11.44	-9.68	-21.91	-1.48	-20.43	-0.49	-0.20	-0.29	-0.41	-0.70
Consumer Discretionary	13.78	12.00	1.78	-14.91	-9.03	-5.88	-1.79	-1.17	-0.03	-0.72	-0.76
Energy	0.00	3.54	-3.54	0.00	39.03	-39.03	0.00	1.07	-1.10	0.00	-1.10
Health Care	16.16	13.33	2.83	-21.71	-2.58	-19.13	-3.57	-0.24	0.04	-3.13	-3.09
Information Technology	46.79	28.16	18.63	-17.33	-8.37	-8.96	-8.28	-2.42	-0.68	-4.21	-4.89
Total	100.00	100.00	0.00	-16.32	-4.60	-11.72	-16.32	-4.60	-2.84	-8.89	-11.73

#### **Quarterly Attribution:**

Harbor Disruptive Innovation Fund vs Russell 3000® Growth Index

#### Performance

	Portfolio	Benchmark	Active
Return Ex Currency	-16.29	-9.25	-7.04
Currency Contribution	-0.03	0.00	-0.03
Total Return	-16.32	-9.25	-7.07

	Average Weight			Total Return			Contribution to Return		Attribution Analysis		
								Bench.			
Sector Attribution			Variation in Avg.	Port. Total	Bench. Total	Variation in Total	Port. Contribution	Contribution To			
	Port. Avg. Wgt.	Bench. Avg. Wgt.	Wgt.	Return	Return	Return	To Return	Return	Allocation Effect	Selection Effect	Total Effect
Communication Services	14.44	10.53	3.91	-8.18	-17.21	9.03	-0.95	-2.03	-0.28	1.24	0.96
Materials	2.93	1.12	1.81	-6.30	-14.32	8.02	-0.07	-0.18	-0.12	0.29	0.18
Utilities	0.29	0.04	0.25	-8.77	-6.99	-1.78	-0.02	0.00	0.01	-0.01	0.00
Energy	0.00	0.56	-0.56	0.00	37.22	-37.22	0.00	0.17	-0.19	0.00	-0.19
Consumer Staples	0.00	4.22	-4.22	0.00	-2.93	2.93	0.00	-0.13	-0.26	0.00	-0.26
Financials	1.76	2.65	-0.89	-21.91	-6.11	-15.80	-0.49	-0.15	-0.02	-0.31	-0.32
Real Estate	1.52	1.80	-0.28	-31.44	-11.15	-20.29	-0.66	-0.20	-0.01	-0.37	-0.38
Industrials	0.64	6.66	-6.02	-43.55	-4.15	-39.40	-0.50	-0.25	-0.26	-0.38	-0.64
Consumer Discretionary	13.78	18.09	-4.31	-14.91	-9.33	-5.58	-1.79	-1.77	0.01	-0.68	-0.68
Health Care	16.16	9.63	6.53	-21.71	-8.71	-13.00	-3.57	-0.76	0.01	-2.14	-2.12
Information Technology	46.79	44.69	2.10	-17.33	-9.06	-8.27	-8.28	-3.93	0.01	-3.86	-3.85
Total	100.00	100.00	0.00	-16.32	-9.25	-7.07	-16.32	-9.25	-0.87	-6.20	-7.07

### **RISKS & DISCLOSURES**

### Risks

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.

### **Benchmarks**

The Standard & Poor's 500 Index is an unmanaged index generally representative of the U.S. market for large capitalization equities. The Russell 3000<sup>®</sup> 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 Russell Midcap<sup>®</sup> Growth Index is an unmanaged index generally representative of the U.S. market for medium capitalization growth stocks. These unmanaged indices do not reflect fees and expenses and are not available for direct investment. The Russell 3000<sup>®</sup> Growth Index, Russell Midcap<sup>®</sup> Growth Index and Russell<sup>®</sup> are trademarks of Frank Russell Company.

Effective September 1, 2021, the Fund's benchmark index changed from the Russell Midcap<sup>®</sup> Growth Index to the S&P 500 Index as the Adviser believes this index is a more appropriate comparison in light of the Fund's new name and investment strategy.

### **Disclosures**

Expense ratio information is as of the Fund's current prospectus, as supplemented. Gross expenses are the Fund's total annual operating expenses. The net expense ratios for this fund are subject to a contractual management fee waiver and/or expense limitation agreement, excluding interest expense and acquired fund fees and expenses (if any), through 08/31/2022.

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.

The mean/median long term growth rate for Projected Earnings Growth Rate is the expected growth over the next 3-5 years calculated by FactSet from data provided by brokers. The Adjusted Trailing P/E (Price/Earnings) Ratio is the closing stock price divided by the sum of the last 12 months actual EPS. The Forecast P/E Ratio is the closing stock price divided by the sum of the next 4 quarters estimated EPS. All P/E, ROE and P/B statistics are calculated as weighted medians.

Views expressed herein are drawn from commentary provided to Harbor by the subadviser 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.

The views expressed herein may not be reflective of current opinions, 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.

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### **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.

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 systematic risk, or the sensitivity of a fund to movements in the benchmark. A beta of 1 implies that the expected movement of a fund's return would match that of the benchmark used to measure beta.