Harbor PanAgora Dynamic Large Cap Core ETF

Ticker: INFO | October 2024

Strategy Highlights

Experienced quantitative equity manager.
PanAgora's research-oriented, systematic and bottom-up alpha model has been in place for over 20 years.

Differentiated approach. The firm leverages a strong research platform, an extensive alpha factor library, and leading technology to drive a systematic investment process. PanAgora's proprietary Contextual Alpha Model seeks to capture the unique alpha drivers of each company, based on their fundamental characteristics.

Potential Uncorrelated Returns. It is our view that INFO's emphasis on stock selection rather than market trends can potentially lend itself to attractive, uncorrelated results to other active managers in the space.

Overview

The **Harbor PanAgora Dynamic Large Cap Core ETF (INFO)** is an actively managed quantitative strategy that aims to maintain beta exposure while generating consistent alpha.

INFO is managed by PanAgora, one of the leaders in the quant space with over 35 years of experience. The firm leverages research and an extensive alpha factor library to drive a fundamentally-based systematic investment process.

Investment Team

PanAgora Asset Management is a Boston-based investment firm founded in 1989, specializing in quantitative investing. Their proprietary approach is designed to capitalize on inefficiencies across market cycles and to deliver appealing relative and absolute returns. PanAgora's roots in managing money for large public pension plans and sovereign wealth funds underscore the institutional caliber and robustness of their approach.

Ticker Symbol	INFO
Cusip	41151J745
Total Expense Ratio	0.35%
Inception Date	10/09/2024
Listing Date	10/10/2024
Manager Name	PanAgora Asset Management, Inc.
Listed Exchange	NYSE
Active/Passive	Active
Benchmark	S&P 500 Index
Lead Market Maker	Virtu
Morningstar Category	Large Cap Core

ETF Structure

- **Cost Effective:** INFO is a cost-efficient way to gain access to large cap equities.

- **Liquid:** The ETF vehicle can be traded throughout the day, which provides intra-day liquidity for shareholders.

- **Tax-efficient:** Due to the in-kind exchange of shares, the ETF vehicle may allow for greater tax efficiency and reduced costs.

- **Transparent:** The availability of daily holdings may allow investors to make more informed investment decisions.

Investment Process

- INFO focuses on identifying high-quality companies that are reasonably valued and supported by positive market sentiment. The firm leverages leading research and an extensive alpha factor library to drive a systematic investment process.

- The investment process at PanAgora involves a differentiated contextual alpha modeling framework that tailors the alpha model to each stock based on its specific characteristics. This approach recognizes that different stocks have different return drivers, such as growth or value. For instance, high-growth potential companies are evaluated using factors like ESG management, competitiveness, momentum, and sentiment, while mature, value-oriented companies are assessed using valuation and quality factors. This dynamic and systematic approach ensures that the model adapts to the evolving life cycle of each company, capturing what PanAgora believes to be the most relevant return drivers.

- In the portfolio construction phase, the contextual alpha forecasts are input into an explicit portfolio optimization framework. This process maximizes the portfolio's exposure to the alpha model while considering risk forecasts, transaction costs, and various constraints.

- It is our view that INFO's differentiated approach and observance of factors means its performance is driven by stock selection and uncorrelated with market trends. This may lend itself to attractive risk-adjusted returns in comparison to other active and quant managers.

Dynamic Equity Alpha Differentiator – Contextual Alpha Modeling

Valuation	Quality	ESG/Management	Competitiveness	Momentum	Sentiment
Attractive valuation	Fundamental quality factors	ML/NLP and ESG factors	Pro-growth factors	Linkage based momentum	All market participants
▪ Structural value ▪ Cyclical value ▪ Defensive value ▪ Reversal value ▪ Intangible asset valuation	▪ Financial strength ▪ Operating efficiency ▪ Profitability	▪ Board quality ▪ Integrity via NLP of corporate filings & management communication style ▪ Management incentives ▪ Environmental & social factors from alternative data	▪ Competitive edge ▪ Centrality ▪ R&D efficiency ▪ Machine learned Investment opportunities ▪ Consumer trends	▪ Network momentum ▪ Analyst linkage momentum ▪ Machine learned pseudo conglomerate momentum	▪ Short sellers ▪ Institutional investors ▪ Social media ▪ Management sentiment

Source: PanAgora. For illustrative purposes only.

Important Information

All investments involve risk including the possible loss of principal. Unlike mutual funds, ETFs may trade at a premium or discount to their net asset value. The ETF is new and has 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. Large cap stocks may fall out of favor relative to small or mid cap stocks, which may cause the Fund to underperform other equity funds that focus on small or mid cap stocks. The Fund utilizes a quantitative model and there are limitations in every quantitative model. There can be no assurances that the strategies pursued or the techniques implemented in the quantitative model will be profitable, and various market conditions may be materially less favorable to certain strategies than others. 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. Diversification does not assure a profit or protect against loss in a declining market.

The Subadvisor considers certain Environmental, Social and Governance (ESG) factors in evaluating company quality which may result in the selection or exclusion of securities for reasons other than performance and the Fund may underperform relative to other funds that do not consider ESG factors.

ETFs are subject to capital gains tax and taxation of dividend income. However, ETFs are structured in such a manner that taxes are generally minimized for the holder of the ETF. An ETF manager accommodates investment inflows and outflows by creating or redeeming "creation units," which are baskets of assets. As a result, the investor usually is not exposed to capital gains on any individual security in the underlying portfolio. However, capital gains tax may be incurred by the investor after the ETF is sold.

The **S&P 500 Index** is an unmanaged index generally representative of the U.S. market for large capitalization equities. This unmanaged index does not reflect fees and expenses and is not available for direct investment.

Alpha is a measure of risk (beta)-adjusted return.

Investors should carefully consider the investment objectives, risks, charges and expenses of a Harbor 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.

PanAgora Asset Management is a third-party subadvisor to the Harbor PanAgora Dynamic Large Cap Core ETF.

Foreside Fund Services, LLC is the Distributor of the Harbor PanAgora Large Cap Core ETF.

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