

# CAOS | Tail Risk ETF

**Why consider CAOS?** | CAOS seeks to maximize total return by investing in a combination of protective puts, put spreads, and box spreads. Over its 10+ year history, CAOS has produced positive returns during “normal” market conditions and positive, asymmetric returns during “fast crashes.” We define a “fast” crash as a loss of approx. 10% to 15% or greater in the S&P 500 Index over 60 days or less. Given this track record, we believe **CAOS may complement or replace US Core Bonds**<sup>1</sup>.

## Standardized Returns | as of 9/30/2024

	Inception		1 Year	Annualized				Expense Ratios	
				3 Year	5 Year	10 Year	Since Incept	Gross	Net
CAOS	8/14/2013	NAV	6.36%	0.62%	5.48%	3.23%	3.53%	0.70%	
		MKT	6.37%	0.62%	5.48%	3.23%	3.53%	0.63% <sup>2</sup>	

Source: FactSet, YCharts

## Total return at NAV | CAOS vs. US Core Bonds



Source: YCharts, Alpha Architect. 9/1/2013 – 11/30/2024. Monthly returns. **Investing involves risk, including the loss of principal. Past performance does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor’s shares, when sold or redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance quoted. For performance data current to the most recent month end, please call 215/882.9983 or visit [www.alphaarchitect.com/funds](http://www.alphaarchitect.com/funds).** 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. A fund’s NAV is the sum of all assets less any liabilities, divided by the number of shares outstanding. <sup>1</sup>US Core Bonds represented by the Intermediate Core Bond Category Average, which consists of the 50 largest open-ended funds (ETFs and mutual funds) based on assets under management (AUM). The funds invest primarily in investment-grade U.S. fixed-income issues including government, corporate, and securitized debt, and hold less than 5% in below-investment-grade exposures. In the event of multiple share classes, the share class with the highest AUM is referenced. In the event of a duplicate ETFs and mutual funds from the same fund family, the ETF is referenced. Categories determined by YCharts. You cannot invest directly in an index or category average. [See note on category average methodology.](#) <sup>2</sup>The Adviser has contractually agreed to waive all or a portion of its management fee from exceeding 0.63% of its daily net assets.



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**CAOS Performance during last three S&P 500 Index drawdowns >10%** | CAOS seeks to generate asymmetric positive returns during “fast” crashes by maintaining exposure to protective put options in its portfolio. Historically, the protective puts trigger if the S&P 500 experiences a loss of -10% or greater in 60 days or less.

Peak	Trough	Days	S&P 500 Drawdown	CAOS Total Return at NAV	Explanation
9/20/2018	12/24/2018	95	-19.36%	-4.29%	Too slow to trigger protective puts
2/19/2020	3/23/2020	33	-33.79%	20.56%	Protective puts triggered during Q1 sell-off
1/3/2022	10/12/2022	282	-24.49%	-18.54%	Too slow to trigger protective puts

Source: YCharts, Alpha Architect. 8/15/2013 – 11/30/2024. Daily returns.

## Performance-based metrics | since CAOS inception

	CAOS	US Core Bonds	Options Trading <sup>8</sup>
Total return	49.95%	26.79%	93.67%
CAGR <sup>4</sup>	3.67%	2.13%	6.05%
Annualized standard deviation <sup>5</sup>	11.46%	4.76%	6.62%
Skew <sup>6</sup>	5.07	-0.13	-0.58
S&P 500 correlation <sup>7</sup>	0.19	0.40	0.98
US Core Bond correlation	0.14	1.00	0.46

Source: YCharts, Alpha Architect. 9/1/2013 – 11/31/2024. Monthly returns.

**Investing involves risk, including the loss of principal. Past performance does not guarantee future results.** <sup>3</sup>**Standard Deviation** measures the degree to which an investment’s historical returns deviate from its mean. Higher standard deviation implies greater deviation. Standard deviation and volatility are often synonymous. <sup>4</sup>**CAGR (Compound Annual Growth Rate)** is the rate at which an investment grows annually over a specified period, assuming the profits are reinvested at the end of each period. <sup>5</sup>**Standard deviation** measures to what degree a security’s returns deviate from the average return over time; higher standard deviation reflects greater price fluctuations. <sup>6</sup>**Skew** refers to the asymmetry in the distribution of returns. Positive skew indicates occasional large gains with more frequent smaller returns, while negative skew indicates occasional large losses with more frequent higher returns. <sup>7</sup>**Correlation** measures the degree to which two variables move in relation to each other. Higher correlation implies a tighter relationship.

**IMPORTANT RISK INFORMATION: Investors should carefully consider the investment objectives, risk, charges, and expenses of the funds. This and other important information is in the indicated fund’s prospectus, which can be obtained by calling (215) 882-9983 or by visiting [www.AlphaArchitect.com/funds](http://www.AlphaArchitect.com/funds). The prospectus should be read carefully before investing.**



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<sup>8</sup>**Options trading** represented by the 50 biggest open-ended funds (ETFs and mutual funds, ex-duplicate share classes) within in the options trading category. These strategies use a variety of options trades, including put writing, options spreads, options-based hedged equity, and collar strategies, among others, to seek their stated objective.

**Category Average Methodology.** As of 4/30/2024, the calculation method used to determine the category average's returns changed to account for potentially different inception dates. Previously, a straight average of constituent funds' total return net asset value (NAV) was used to determine the category's average total return NAV; the percent change of the category average NAV was then used to calculate returns. As of 4/30/2024, total returns for the category are now found using a straight average of the total NAV return (percent change) for a given frequency (daily, weekly, monthly, etc.). There may be instances where the straight average of the constituent funds' NAV returns may be higher or lower than the straight average of the total NAV return. As of 4/30/2024, all category average returns are calculated using the straight average of the constituent funds' total NAV return for a given frequency.

**Investment Risk.** When you sell your Shares of the Fund, they could be worth less than what you paid for them. Therefore, you may lose money by investing in the Fund.

**Management Risk.** The Fund is actively managed and may not meet its investment objective based on the Adviser's success or failure to implement investment strategies for the Fund.

**Selling or Writing Options.** Writing option contracts can result in losses that exceed the seller's initial investment and may lead to additional turnover and higher tax liability. The risk involved in writing a call option is that there could be an increase in the market value of the underlying or reference asset. **Valuation Risk.** Some portfolio holdings, potentially a large portion of the Fund's investment portfolio, may be valued on the basis of factors other than market quotations. This may occur more often in times of market turmoil or reduced liquidity. Unlike most other ETFs, the Fund expects to effect a substantial portion of its creations for cash, rather than in-kind securities. The use of cash creations may also cause the Fund's shares to trade in the market at greater bid-ask spreads or greater premiums or discounts to the Fund's NAV. As a practical matter, only institutions and large investors, such as market makers or other large broker dealers, create or redeem shares directly through the Fund. Most investors will buy and sell shares of the Fund on an exchange through a broker-dealer. During market conditions in which short-term interest rates are at low levels, the Fund's yield can be very low, and the Fund may have a negative yield (i.e., it may lose money on an operating basis). During these conditions, it is possible that the Fund will generate an insufficient amount of income to pay its expenses. The Fund's investment strategy is expected to result in a higher portfolio turnover rate (100% or more). This will increase the Fund's brokerage commission costs, which could negatively impact the performance of the Fund. The Fund is a recently organized management investment company with no operating history. As a result, prospective investors have no track record or history on which to base their investment decision. There can be no assurance that the Fund will grow to or maintain an economically viable size.

**Box Spread Risk.** A Box Spread is a synthetic bond created by combining different options trades that have offsetting spreads (e.g., purchases and sales on the same underlying instrument, such as an index or an ETF, but with different strike prices). **Counterparty Risk.** Counterparty risk is the risk that a counterparty to a financial instrument held by the Fund may become insolvent or otherwise fail to perform its obligations, and the Fund may obtain no or limited recovery of its investment, and any recovery may be significantly delayed. **Equity Securities Risk.** Investments in securities whose performance is linked to that of equity securities, such as SPX Options, may fluctuate in value in response to many factors, including the activities of the individual issuers included in the Index, general market and economic conditions, interest rates, and specific industry changes. Such price fluctuations subject the Fund to potential losses.

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**Limited Number of Authorized Participants, Market Makers and Liquidity Providers.** The Fund has a limited number of financial institutions that may act as Authorized Participants (“APs”). **Cash Creation Unit Risk.** Unlike most other ETFs, the Fund expects to effect a substantial portion of its creations for cash, rather than in-kind securities. The use of cash creations may also cause the Fund’s shares to trade in the market at greater bid-ask spreads or greater premiums or discounts to the Fund’s NAV.

**FLEX Options Risk.** FLEX Options are exchange-traded options contracts with uniquely customizable terms like exercise price, style, and expiration date. Due to their customization and potentially unique terms, FLEX Options may be less liquid than other securities, such as standard exchange listed options.

**Derivatives Risk.** Derivatives are instruments, such as futures contracts, whose value is derived from that of other assets, rates, or indices. The use of derivatives for non-hedging purposes may be considered to carry more risk than other types of investments.

**Counterparty Risk.** Counterparty risk is the risk that a counterparty to a financial instrument held by the Fund or by a special purpose or structured vehicle invested in by the Fund may become insolvent or otherwise fail to perform its obligations, and the Fund may obtain no or limited recovery of its investment, and any recovery may be significantly delayed. Exchange listed options, including FLEX Options, are issued and guaranteed for settlement by the Options Clearing Corporation (“OCC”). The Fund’s investments are at risk that the OCC will be unable or unwilling to perform its obligations under the option contract terms. In the unlikely event that the OCC becomes insolvent or is otherwise unable to meet its settlement obligations, the Fund could suffer significant losses.

The Funds are distributed by Quasar Distributors, LLC. The Fund investment advisor is Empowered Funds, LLC, doing business as Alpha Architect.

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