

## Cboe:BOXX | Investment case

**Cboe:BOXX** is an options-based alternative to an ultrashort duration bond position.



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

			Y	ΓD				nnualized 5 Yr. Annualized 10 Yr. Total Return Total Return			Annualized Return Since Inception		Expense Ratios			
Name	Ticker	Inception Date	NAV	Mkt.	NAV	Mkt.	NAV	Mkt.	NAV	Mkt.	NAV	Mkt.	NAV	Mkt.	Gross	Net
1-3 Mo. Box	Cboe:BOXX	12/27/2022	3.98%	3.87%	5.40%	5.35%							5.14%	5.14%	0.24%	0.19% <sup>1</sup>

Source: Alpha Architect, YCharts. Investing involves risk, including the loss of principal. Past performance does not guarantee future results. Returns are annualized total returns, except for those periods of less than one year, which are cumulative. The performance data quoted represents past performance and 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. 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. ¹The Adviser has contractually agreed to waive receipt of its management fees and/or assume expenses of the Fund so that the total annual operating expenses of the Fund do not exceed 0.1949% of the Fund's average daily net assets. This agreement will remain in place until January 31, 2025 and may only be terminated by the Board of Trustees. The Alpha Architect 1-3 Month Box ETF (Ticker: Cboe:BOXX) is not affiliated with, associated with, sponsored by, or endorsed by IHS Markit Ltd. or S&P Global Inc. or any of their products or services, including their iBoxx™ bond indices.



## **Cboe:BOXX** | Sub-adviser & Portfolio Management team

## **Arin Risk Advisors**

The Arin team has decades of experience trading options.

### Joseph DeSipio, CFA, FRM | Chief Market Strategist

- Leads strategy design and risk management
- Previously held strategist and Lead Portfolio Manager positions with SEI Investments, Evergreen Investments, Wachovia and Vector Capital Management
- BS, Indiana University of PA; MA Economics Temple University
- · CFA charter holder and Financial Risk Manager

### **Lawrence Lempert** | Trading Director

- · Oversees all trading and regulatory processes.
- Previously served as market maker/index/sector correlation and dispersion trader with Susquehanna International Group
- BS, Statistics & Economics Rutgers College; JD, Villanova; Masters in Taxation New York University School of Law

## Ryan Bailey | Lead Portfolio Manager

- Creates and monitors customized options overlay and volatility management mandates.
- Previously served as Market Maker and Proprietary Trader with Bullock Capital and Susquehanna International Group across the equities, options and futures markets.
- BS, Business Administration Drexel University; magna cum laude



### Cboe:BOXX | Sub-adviser

## **Alpha Architect**

Alpha Architect is led by Wesley R. Gray, PhD, and Jack R. Vogel, PhD.



## Wesley R. Gray, PhD

### Alpha Architect CEO | co-CIO

- PhD/MBA from the University of Chicago Booth School of Business; studied under Nobel Prize Winner Eugene Fama
- BS The Wharton School of the University of Pennsylvania, magna cum laude
- United States Marine Corps Captain (2004-2008)
- Published in multiple academic journals, including the Journal of Portfolio Management, the Journal of Investing, the Journal of Quantitative Finance, and more. Authored or co-authored four books.



## Jack R. Vogel, PhD Alpha Architect CFO | co-CIO

- PhD Finance and an MS in Mathematics from Drexel University
- BS in Mathematics and Education, summa cum laude from The University of Scranton
- Published in multiple academic journals, including the Journal of Portfolio Management, the Journal of Investing, the Journal of Quantitative Finance, and more. Co-authored two books.



## Why consider Choe: BOXX?





## ACCESS BOX SPREADS

Cboe:BOXX seeks to democratize access to the box spread market



## PROFESSIONAL MANAGEMENT

Decades of trading complex options positions



## REASONABLE COSTS

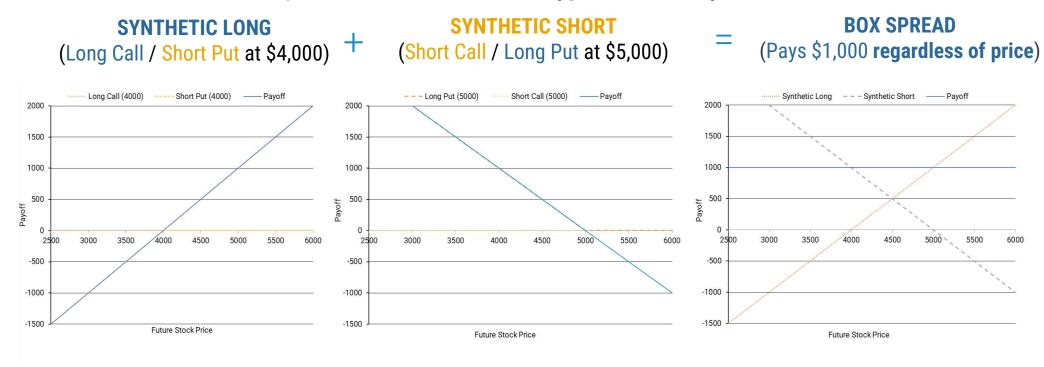
We aim to keep the fund's costs reasonable relative to peers.



# What is a box spread?



### **Box Spread Construction and Hypothetical Payoff Profile**



Underlying	Current Price	Synthetic Long	Synthetic Short	Cash Outflow	Payoff at Expiration	Box Spread Return	
SPY	4,000	-\$2,950	\$2,000	-\$950	\$1,000	5.26%	

The examples presented above are for illustrative purposes only and not the return of any actual investment. See disclosures section for definitions. The Alpha Architect 1-3 Month Box ETF (Ticker: Cboe:BOXX) is not affiliated with, associated with, sponsored by, or endorsed by IHS Markit Ltd. or S&P Global Inc. or any of their products or services, including their iBoxx™ bond indices.



#### What is a box spread?

A box spread is an options trading strategy that combines a long call and short put at one strike price with a short call and long put at a different strike price. The resulting payoff resembles a fixed-income investment.

## Why does the box spread market exist?

Box spreads have historically provided institutional investors with **an efficient alternative market to borrow and/or lend.** Options market makers, proprietary trading desks, and hedge funds make up a large portion of the market.

## Are box spreads a new market phenomenon?

No - as early as November 1985, Billingsley and Chance published "Options Market Efficiency and the Box Spread Strategy" in Financial Review.



# Managing a box spread



## Are the legs of a box trade executed individually?

NO. All four option legs have the same maturity date. A box spread is always executed with all four legs traded at the same time. The fund does NOT execute each leg of the box spread individually.

How do you address early exercise risk?

Cboe:BOXX generally trades and holds "European" style options, which are only exercisable at expiration, thus eliminating early exercise risk.

What does a trade look like?

When trading into a new box spread, the Fund generally trades box spreads with 1 to 3 months until the maturity date on each option.



## **Counterparty risk**



Box spreads are backed
by the Options Clearing
<b>Corporation (OCC)</b>

	S&P Global Credit rating	S&P Global Outlook
Options Clearing Corporation (OCC) <sup>1</sup>	AA	Stable
United States Sovereign Debt <sup>2</sup>	AA+	Stable

These are OCC ratings and not the credit rating for the 1-3 Mo. Box ETF. ¹As rated by S&P Global Ratings as of 2/15/2024: Confirmed via OCC investor relations. ²As rated by S&P Global Ratings as of 01/20/2023: https://www.spglobal.com/ratings/en/research/articles/230120-bulletin-credit-faq-u-s-sovereign-debt-hits-the-ceiling-again-12617455. The Alpha Architect 1-3 Month Box ETF (Ticker: Cboe:BOXX) is not affiliated with, associated with, sponsored by, or endorsed by IHS Markit Ltd. or S&P Global Inc. or any of their products or services, including their iBoxx™ bond indices.



## The OCC is a **SIFMU**

Systemically Important Financial Market Utilities (SIFMUs) are entities whose survival is **critical to the stability of the U.S. financial system** due to their roles in the transfer, clearing, and settlement of payments and securities.

	SIFMUs									
	The Clearing House Payments Company	Chicago Mercantile Exchange	Options Clearing Corporation	Fixed Income Clearing Corporation						
CLS Bank International		ICE Clear Credit Depository To Company		National Securities Clearing Corp.						
	NOT SIFMUs									
JPMorgan Chase		Wells Fa	CITI							
Bank of America		US I	Regional Banks							



## **Expenses**



## **Net Expense Ratio** | Ultrashort bond category, by quartile

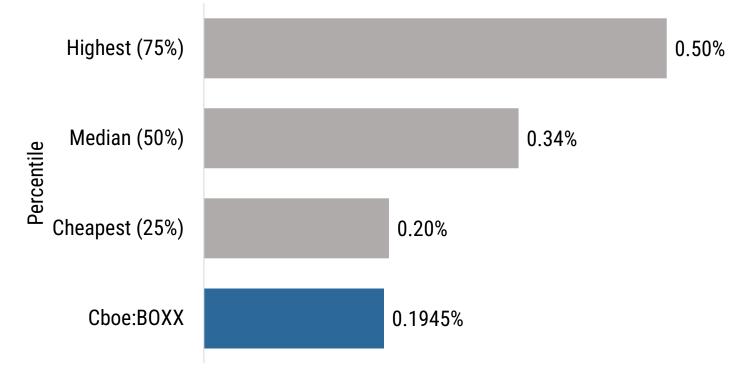
## **Fund expenses**

We aim to keep the fund's costs reasonable relative to peers.

### **Expense ratios**

Gross 0.24%

Net<sup>1</sup> 0.1945%



¹The Adviser has contractually agreed to waive receipt of its management fees and/or assume expenses of the Fund so that the total annual operating expenses of the Fund do not exceed 0.1949% of the Fund's average daily net assets. This agreement will remain in place until January 31, 2025 and may only be terminated by the Board of Trustees. ²The As of 9/30/2024, the Ultrashort bond category consists of 265 opened-end funds (ETFs and mutual funds), including funds that may have multiple share classes. **Ultrashort-bond funds** invest primarily in investment-grade US fixed-income issues and have durations typically of less than 1.0 year. This category can include corporate or government ultrashort-bond portfolios, but it excludes international, convertible, multisector, and high-yield-bond portfolios. The Alpha Architect 1-3 Month Box ETF (Ticker: Cboe:BOXX) is not affiliated with, associated with, sponsored by, or endorsed by IHS Markit Ltd. or S&P Global Inc. or any of their products or services, including their iBoxx™ bond indices.



## Ready to learn more? Click below to schedule a call.

Talk to our team

Access additional resources by visiting the Content Library on our ETF site. Want to see how Cboe:BOXX stacks up against a specific fund?

Request an illustration here.



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#### **PROSPECTUS OFFER**

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.funds.alphaarchitect.com. The prospectus should be read carefully before investing.

**Investment risk.** When you sell your Shares of the Fund, they could be worth less than what you paid for them. The Fund could lose money due to short-term interest rate market movements and over longer periods during continued interest rate market movements. 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 Risk. 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. An underlying or reference asset may be an index, equity security, or ETF. If this occurs, the call option could be exercised and the underlying asset would then be sold at a lower price than its current market value. In the case of cash settled call options such as SPX options, the call seller would be required to purchase the call option at a price that is higher than the original sales price for such call option. Similarly, while writing - 4 call options can reduce the risk of owning the underlying asset, such a strategy limits the opportunity to profit from an increase in the market value of the underlying asset in exchange for up-front cash at the time of selling the call option. The risk involved in writing a put option is that there could be a decrease in the market value of the underlying asset. If this occurs, the put option could be exercised and the underlying asset would then be sold at a higher price than its current market value. In the case of cash settled put options, the put seller would be required to purchase the put option at a price that is higher than the original sales price for such put option.

**Buying or Purchasing Options Risk.** If a call or put option is not sold when it has remaining value and if the market price of the underlying asset, in the case of a call option, remains less than or equal to the exercise price, or, in the case of a put option, remains equal to or greater than the exercise price, the buyer will lose its entire investment in the call or put option. Since many factors influence the value of an option, including the price of the underlying asset, the exercise price, the time to expiration, the interest rate, and the dividend rate of the underlying asset, the buyer's success in implementing an option buying strategy may depend on an ability to predict movements in the prices of individual assets, fluctuations in markets, and movements in interest rates. There is no assurance that a liquid market will exist when the buyer seeks to close out any option position. When an option is purchased to hedge against price movements in an underlying asset, the price of the option may move more or less than the price of the underlying asset.

**Box Spread Risk.** A Box Spread is the combination of a Synthetic Long position coupled with an offsetting Synthetic Short position through a combination of options contracts on an underlying or reference asset such as index, equity security or ETF with the same expiration date. A Box Spread typically consists of four option positions two of which represent the Synthetic Long and two representing the Synthetic Short. If one or more of these individual option positions are modified or closed separately prior to the option contract's expiration, then the Box Spread may no longer effectively eliminate risk tied to underlying asset's movement. Furthermore, the Box Spread's value is derived in the market and is in part, based on the time until the options comprising the Box Spread expire and the prevailing market interest rates. If the Fund sells a Box Spread prior to its expiration, then the Fund may incur a loss. The Fund's ability to profit from Box Spreads is dependent on the availability and willingness of other market participants to sell Box Spreads to the Fund at competitive prices.



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. In less liquid markets for the FLEX Options, the Fund may have difficulty closing out certain FLEX Options positions at desired times and prices. The value of FLEX Options will be affected by, among others, changes in the underlying share or equity index price, changes in actual and implied interest rates, changes in the actual and implied volatility of the underlying shares or equity index and the remaining time to until the FLEX Options expire. The value of the FLEX Options will be determined based upon market quotations or using other recognized pricing methods. During periods of reduced market liquidity or in the absence of readily available market quotations for the holdings of the Fund, the ability of the Fund to value the FLEX Options becomes more difficult and the judgment of Arin (employing the fair value procedures adopted by the Board of Trustees of the Trust) may play a greater role in the valuation of the Fund's holdings due to reduced availability of reliable objective pricing data.

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.

Low Short-Term Interest Rates Risk. 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. In addition, it is possible that during these conditions the Fund may experience difficulties purchasing and/or selling securities with respect to scheduled rebalances, and may, as a result, maintain a portion of its assets in cash, on which it may earn little, if any, income.

Market Risk. The Fund's investments are subject to changes in general economic conditions, general market fluctuations and the risks inherent in investment in interest rate sensitive markets. Interest rate markets can be volatile and prices of investments can change substantially due to various factors including, but not limited to, economic growth or recession, the investment's average time to maturity, changes in interest rates, changes in the actual or perceived creditworthiness of issuers, and general market liquidity. The Fund is subject to the risk that geopolitical events will disrupt securities markets and adversely affect global economies and markets. Local, regional or global events such as war, acts of terrorism, the spread of infectious illness or other public health issues, or other events could have a significant impact on the Fund and its investments.

Cash and Cash Equivalents Risk. Holding cash or cash equivalents rather than securities or other instruments in which the Fund primarily invests, even strategically, may cause the Fund to risk losing opportunities to earn increased returns, and may cause the Fund to experience potentially lower returns than the Fund's benchmark or other funds that remain fully invested.

**Frequent Trading Risk.** The Fund may engage in active and frequent trading of portfolio securities to achieve its investment objective. This frequent trading of portfolio securities may increase the amount of commissions that the Fund pays when it buys and sells such portfolio securities, which may detract from the Fund's performance. Derivative instruments and instruments with a maturity of one year or less at the time of acquisition are excluded from the calculation of the Fund's portfolio turnover rate, which leads to the 0% portfolio turnover rate reported herein.

Limited Operating History Risk. The Fund is a recently organized investment company with a limited operating history. As a result, prospective investors have a limited track record or history on which to base their investment decision.



Tax Risk. The Fund may enter into various transactions for which there is a lack of clear guidance under the Code, which may affect the taxation of the Fund or its distributions to shareholders. In particular, the use of certain derivatives may cause the Fund to realize higher amounts of ordinary income or short-term capital gain, to suspend or eliminate holding periods of positions, and/or to defer realized losses, potentially increasing the amount of taxable distributions, and of ordinary income distributions in particular. In addition, certain derivatives are subject to markto-market or straddle provisions of the Code. If such provisions are applicable, there could be an increase (or decrease) in the amount of taxable distributions paid by the Fund. The Fund intends to qualify as a regulated investment company ("RIC") under the Code, which requires the Fund to distribute a certain portion of its income and gains each tax year, among other requirements. Similar to other ETFs and pursuant to the Code, when the Fund disposes of appreciated property by distributing such appreciated property in-kind pursuant to redemption requests, the Fund does not recognize any built-in gain in such appreciated property. If the Internal Revenue Service ("IRS") disagrees with the Fund's position as to the applicability of this non-recognition rule to the Fund's disposition of derivatives, the Fund may not have distributed sufficient income or gains to qualify as a RIC. If, in any year, the Fund fails to qualify as a RIC, the Fund itself generally would be subject to U.S. federal income and potentially excise taxation and distributions received by its shareholders generally would be subject to further U.S. federal income taxation. Failure to comply with the requirements for qualification as a RIC would have significant negative economic and tax consequences to Fund shareholders. Additionally, section 1258 of the Code requires that gain be recharacterized as ordinary income if it is derived from any transaction in which substantia

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. There are multiple methods that can be used to value a portfolio holding when market quotations are not readily available. The value established for any portfolio holding at a point in time might differ from what would be produced using a different methodology or if it had been priced using market quotations. Portfolio holdings that are valued using techniques other than market quotations, including "fair valued" securities, may be subject to greater fluctuation in their valuations from one day to the next than if market quotations were used. In addition, there is no assurance that the Fund could sell or close out a portfolio position for the value established for it at any time, and it is possible that the Fund would incur a loss because a portfolio position is sold or closed out at a discount to the valuation established by the Fund at that time.

Authorized Participants, Market Makers and Liquidity Providers Concentration Risk. The Fund has a limited number of financial institutions that may act as Authorized Participants ("APs"). In particular, the Fund will have a limited pool of APs that are able to transact in standard exchange-listed options as well as FLEX Options, therefore the pool of competitive markets for the Fund will be small. This can result in increased costs to the Fund. In addition, there may be a limited number of market makers and/or liquidity providers in the marketplace. To the extent either of the following events occur, Shares may trade at a material discount to NAV and possibly face delisting: (i) APs exit the business or otherwise become unable to process creation and/or redemption orders and no other APs step forward to perform these services, or (ii) market makers and/or liquidity providers exit the business or significantly reduce their business activities and no other entities step forward to perform their functions.

**Premium-Discount Risk.** The Shares may trade above or below their net asset value ("NAV"). The market prices of Shares will generally fluctuate in accordance with changes in NAV as well as the relative supply of, and demand for, Shares on Cboe BZX Exchange, Inc. (the "Exchange") or other securities exchanges. The trading price of Shares may deviate significantly from NAV during periods of market volatility or limited trading activity in Shares. In addition, you may incur the cost of the "spread," that is, any difference between the bid price and the ask price of the Shares.



Cost of Trading Risk. Investors buying or selling Shares in the secondary market will pay brokerage commissions or other charges imposed by brokers as determined by that broker. Brokerage commissions are often a fixed amount and may be a significant proportional cost for investors seeking to buy or sell relatively small amounts of Shares.

**Trading Risk.** Although the Shares are listed on the Exchange, there can be no assurance that an active or liquid trading market for them will develop or be maintained. In addition, trading in Shares on the Exchange may be halted. In stressed market conditions, the liquidity of Shares may begin to mirror the liquidity of its underlying portfolio holdings, which can be less liquid than Shares, potentially causing the market price of Shares to deviate from its NAV. The spread varies over time for Shares of the Fund based on the Fund's trading volume and market liquidity and is generally lower if the Fund has high trading volume and market liquidity, and higher if the Fund has little trading volume and market liquidity (which is often the case for funds that are newly launched or small in size).

Cash Transactions Risk. Unlike most other ETFs, the Fund expects to effect a substantial portion of its creations for cash, rather than in-kind securities. Cash creation transactions may result in certain brokerage, tax, execution, price movement and other costs and expenses related to the execution of trades resulting from such transactions, and these costs and expenses are typically reimbursed to the Fund by the AP placing the order(s). To the extent that the maximum additional charge for creation transactions is insufficient to cover these costs and expenses, the Fund's performance could be negatively impacted. 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. Further, an investment in the Fund may be less tax-efficient than an investment in an ETF that effects its redemptions only in-kind. ETFs are able to make in-kind redemptions and avoid being taxed on gains on the distributed portfolio securities at the fund level. A Fund that effects redemptions for cash may be required to sell portfolio securities to obtain the cash needed to distribute redemption proceeds. Any recognized gain on these sales by the Fund will generally cause the Fund to recognize a gain it might not otherwise have recognized, or to recognize such gain sooner than would otherwise be required if it were to distribute portfolio securities only in-kind. The Fund intends to distribute these gains to shareholders to avoid being taxed on this gain at the fund level. 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.

#### **Definitions**

Long call. In return for paying a premium, the buyer of a call gets the right (not the obligation) to buy the underlying instrument at the strike price at any time until the expiration date.

Short call. In return for receiving the premium, the seller of a call assumes the obligation of delivering the underlying instrument at the strike price at any time until the expiration date.

Long put. In return for paying a premium, the buyer of a put gets the right (not the obligation) to sell the underlying instrument at the strike price at any time until the expiration date.

Short put. In return for receiving the premium, the seller of a put assumes the obligation of buying the underlying instrument at the strike price at any time until the expiration date.

**Synthetic long** is a position created by combining a long call and a short put at the same strike price and expiration. This replicates the payoff of a long stock position, as both the call and put respond similarly to changes in the underlying asset's price.

**Synthetic short** is a position created by combining a short call and a long put at the same strike price and expiration. This replicates the payoff of a short stock position, as both the call and put benefit from a decline in the underlying asset's price.

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