

# International stocks lead in Q3 2025

October 2025

## Summary

- International stocks drive IVAL and IMOM returns
- QMOM lags as QVAL paces peers
- Put spreads keep CAOS in the mix

This commentary contains performance data. The performance data quoted represents past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted.

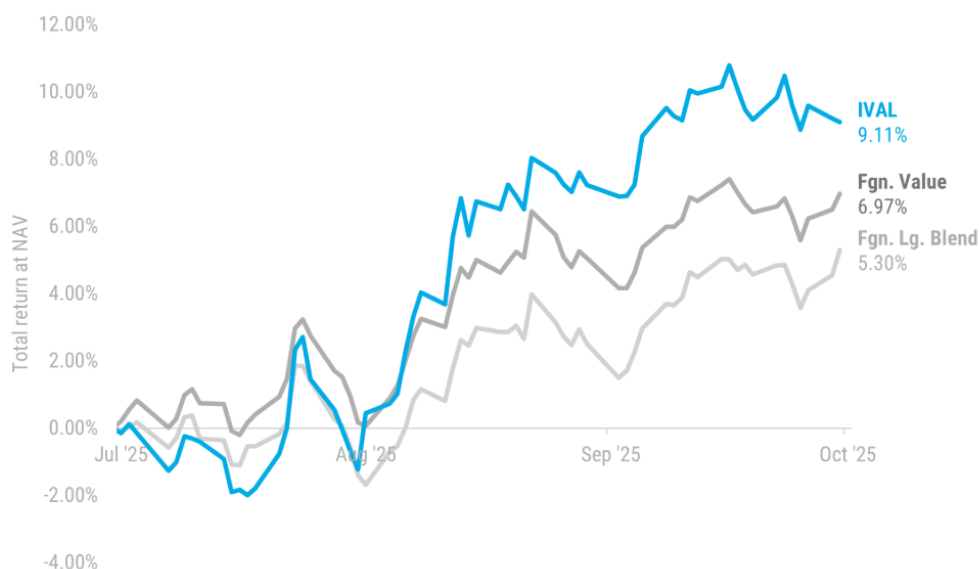
Current standardized performance may be obtained by visiting [funds.alphaarchitect.com](https://funds.alphaarchitect.com).

## Japanese Materials Drive IVAL Outperformance

The Alpha Architect International Quantitative Value ETF (IVAL) gained 9.11% (NAV)/8.58% (MKT) this quarter, **outpacing both Foreign Large Blend and peer Foreign Large Value ETFs.**

### IVAL gains 9.11% in Q3 2025

Total return at NAV | IVAL | Fgn. Value | Fgn. Lg. Blend





Source: YCharts, Alpha Architect. 6/30/2025 – 9/30/2025. Daily returns at NAV. **PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS.** Investing involves risk, including the potential loss of principal. "Fgn. Value" and "Fgn. Lg. Blend" represented by a category average, defined below. You cannot directly invest in a category average or index. Categories determined by YCharts.

IVAL entered the quarter overweight Consumer Cyclical (23.1%), Industrials (21.8%), and Materials (19.0%) relative to value peers. This positioning benefited us this quarter, as each of these sectors contributed returns this quarter.

- Materials contributed approx. 4.45%, with gains diversified across Australian and Japanese stocks.
- Consumer Cyclical contributed approx. 2.55%, with Japanese automotive stocks leading.
- Japanese Industrials contributed approx. 2.39%.

Losses were limited this quarter, with Healthcare and Utilities lagging.

**Looking ahead.** Quarter/quarter, we rotated some risk away from Cyclical to add to our Industrials and Materials positions as our systematic approach continues to identify these sectors as undervalued relative to the market. Overall, IVAL has 27.7% in Industrials, 20.3% in Materials, and 15.4% in Cyclical.

**EBIT/TEV and Japanese equities.** At 46.2%, IVAL remains the most overweight Japanese equities relative to peer value funds, which average approx. 17.4% to Japan. This bias comes from how well Japanese equities tend to screen on our principal value filter, Earnings before interest and taxes (EBIT)/Total Enterprise Value (TEV).

Total Enterprise Value (TEV) represents what it would cost to buy an entire company, calculated by adding equity and debt, less cash. In our view, it's a practical way to filter for profitable companies trading at attractive valuations.

Japanese companies often score well on EBIT/TEV because their TEVs tend to be smaller. Many maintain large cash reserves and carry little debt, a reflection of Japan's conservative corporate culture. These firms also operate in industries with lower research and development (R&D) demands - think automakers like Toyota and consumer electronics like Sony - than faster-growing sectors like biotech.

For investors in IVAL, this tilt toward Japan isn't a quirk: it's a reflection of where our systematic process believes genuine value exists. Simply put, **companies with strong balance sheets and attractive valuations stand out more** in Japan relative to the rest of the world. Overall, Japanese equities contributed approx. 6.00% to IVAL's third quarter returns.

## German Industrials Drive IMOM

The Alpha Architect International Quantitative Momentum ETF (IMOM) gained 8.42% (NAV)/7.90% (MKT) this quarter, **outpacing both Foreign Large Blend and peer Foreign Momentum ETFs.**

## IMOM gains 8.42% in Q3 2025

Total return at NAV | **IMOM** | Fgn. Value | Fgn. Lg. Blend



Source: YCharts, Alpha Architect. 6/30/2025 – 9/30/2025. Daily returns at NAV. **PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS.** Investing involves risk, including the potential loss of principal. "Fgn. Value" and "Fgn. Lg. Blend" represented by a category average, defined below. You cannot directly invest in a category average or index. Categories determined by YCharts.

IMOM entered the quarter overweight Financials (35.1%), Industrials (15.7%), and Tech (13.9%) relative to momentum peers. Of these three, Tech stocks detracted from returns, losing approx. -1.39% this quarter.

- Industrials contributed approx. 3.51%, with our German equity positions gaining approx. 2.18%.
- Financials contributed approx. 2.83%. Gains were regionally diversified.
- Australian Materials contributed approx. 1.97%, principally in mining and exploration.

**Looking ahead.** Quarter/quarter, Financials (32.2%) and Industrials (27.9%) represent IMOM's two largest allocations. We rotated some risk away from Tech in favor of Materials, which now represents IMOM's third-largest allocation at 12.5%.

Regionally, we increased our allocation to Developed European, 56.3% from 42.7% quarter/quarter. German stocks represent the largest Developed European allocation at 21.1% of IMOM's portfolio.

## Mid-cap Industrials power QVAL

The Alpha Architect U.S. Quantitative Value ETF (QVAL) gained 6.53% (NAV)/6.44% (MKT) this quarter, largely matching the performance of peer Mid-Cap Value ETFs, which gained approx. 6.07% at NAV.

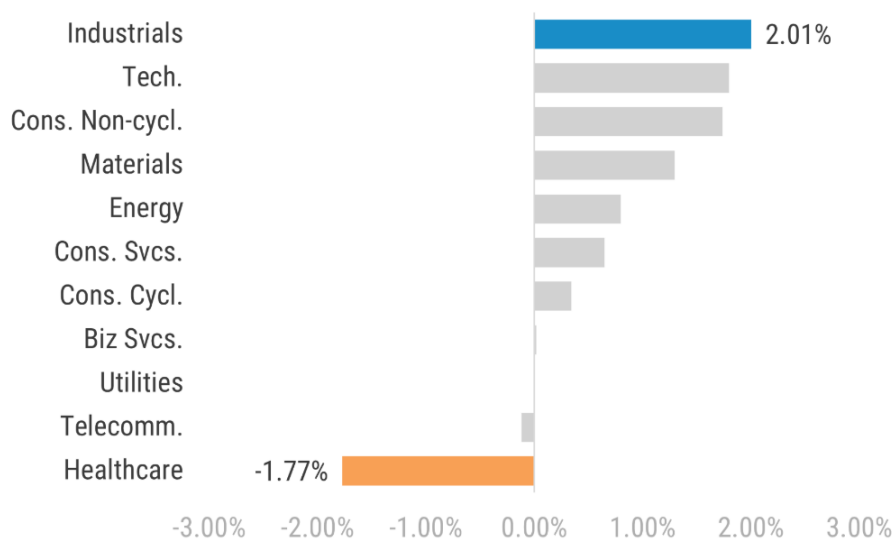
As a reminder, QVAL seeks to invest where we believe the best value stocks are located, . We filter our investable universe of the 1,500 largest US stocks to the 50 most attractively priced stocks. Entering the quarter, QVAL's portfolio of consisted of 25 small-cap stocks, 20 mid-caps, and 5 large caps, as of 7/7/2025.

Our weighted average market cap was approx. \$32.4 billion as of 6/30/2025, which equates to a very small mid-cap or large small-cap. By comparison, US Small Value ETFs weighted average market was approx. \$21.2 billion as of 6/30/2025.

Mid-cap stocks - particularly Industrials - led the charge, contributing approx. 3.54% this quarter. Small- and Mid-cap healthcare stocks detracted approx. -1.77%.

## QVAL | Industrials, Tech offset Healthcare

QTD returns by sector



Source: FactSet, Alpha Architect. 6/30/2025 – 9/30/2025. **PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS.** Investing involves risk, including the potential loss of principal. Sectors based on RBICS taxonomy, defined below. Returns are believed to be accurate but are not guaranteed.

**Looking ahead.** Entering Q4, Healthcare stocks are now QVAL's largest allocation at 24.3%, followed by Industrials at 17.9%, and Materials at 14.4%. The portfolio holds 23 small-cap stocks, 22 mid-cap stocks, and 5 large-cap stocks (Large-cap holdovers from last quarter are Comcast (CMCSA), Verizon (VZ), and Newmont Corp (NEM)).

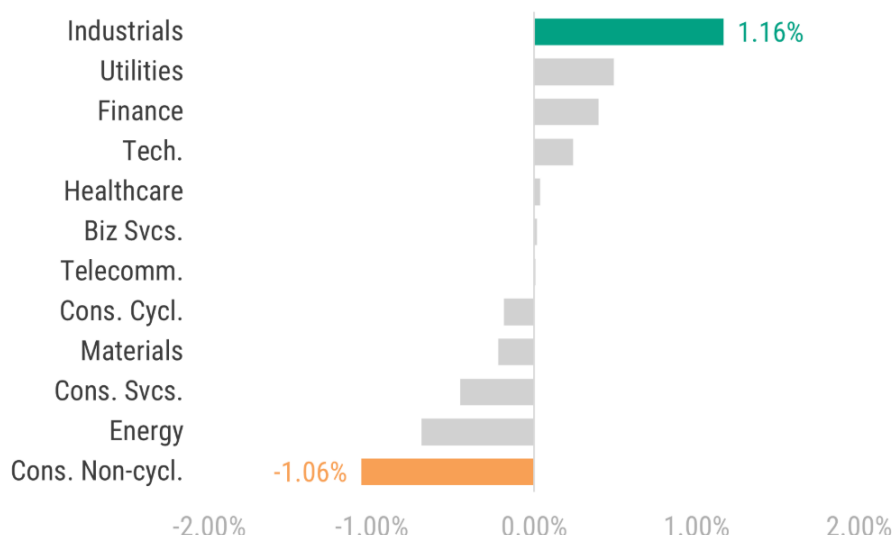
## QMOM flat as Mid- and Small-Cap Tech stocks lag

The Alpha Architect U.S. Quantitative Momentum ETF (QMOM) lost -0.59% (NAV)/-0.83% (MKT) this quarter, underperforming both US Large Blend and US Momentum ETFs.

QMOM entered the quarter with a heavy tilt toward Tech stocks, which made up 33.8% of the portfolio as of 7/7/2025. The allocation included four large caps, ten mid caps, and three small caps. The small caps did most of the heavy lifting, adding about 1.29%, while large caps contributed roughly 0.35%. Mid caps lagged, losing about 1.40%, for a modest net gain of 0.24% for the quarter.

## QMOM | Mixed results as Industrials lead

QTD returns by sector



Source: FactSet, Alpha Architect. 6/30/2025 – 9/30/2025. **PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS.** Investing involves risk, including the potential loss of principal. Sectors based on RBICS taxonomy, defined below. Returns are believed to be accurate but are not guaranteed.

Results across the rest of the portfolio largely mimicked the experience in tech, with losses in one segment offsetting gains in another.

**Looking ahead.** Entering Q4, QMOM has 34.1% of the portfolio in Tech stocks: five large-caps, eight mid-caps, and four small-caps. From a weighted market cap view, QMOM has grown smaller, targeting stocks with approx. a \$66.9 billion market cap (a mid-cap profile). Tech has made room for Financials at 21.5% and Industrials at 18.4% as of 10/7/2025.

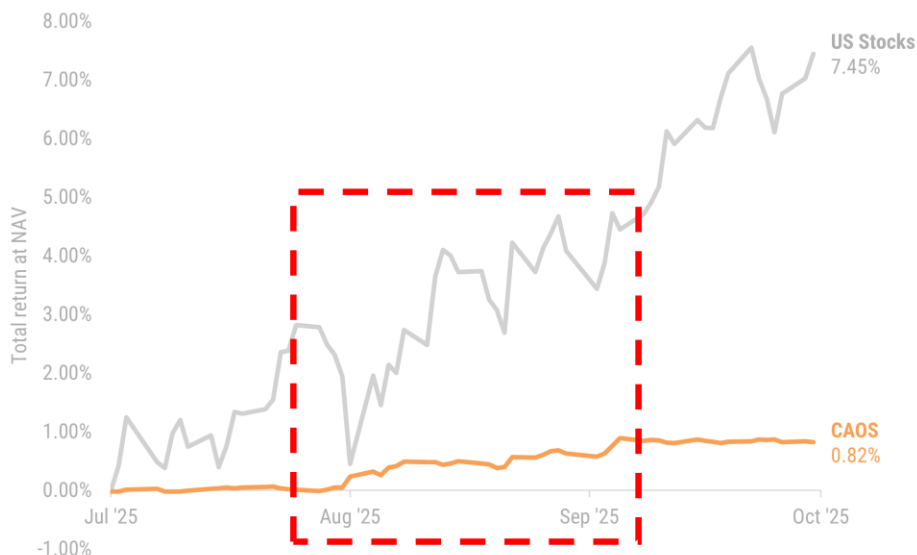
## Put spreads: CAOS's "Secret Weapon"

The Alpha Architect Tail Risk ETF (CAOS) gained 0.82% (NAV)/0.78% (MKT) this quarter, a rather modest-sounding result that understates the effect of bull put spreads, one of CAOS's return drivers.

Bull put spreads are structured to profit when the underlying asset stays relatively flat or rises. Which is a fairly accurate description of how the U.S. stock market performed this quarter:

## Put spreads help nudge CAOS

Total return at NAV | US Stocks | CAOS



Source: YCharts, Alpha Architect. 7/1/2025 – 9/30/2025. Daily returns at NAV. PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. Investing involves risk, including the potential loss of principal. "US Stocks" represented by a category average, defined below. You cannot directly invest in a category average or index. Categories determined by YCharts.

Other than a few drops, stocks have mostly chugged upward this quarter, gaining approx. 7.45% with less volatility than Q3 '24 (16.0% to 8.5%, as measured by annualized std. dev.).

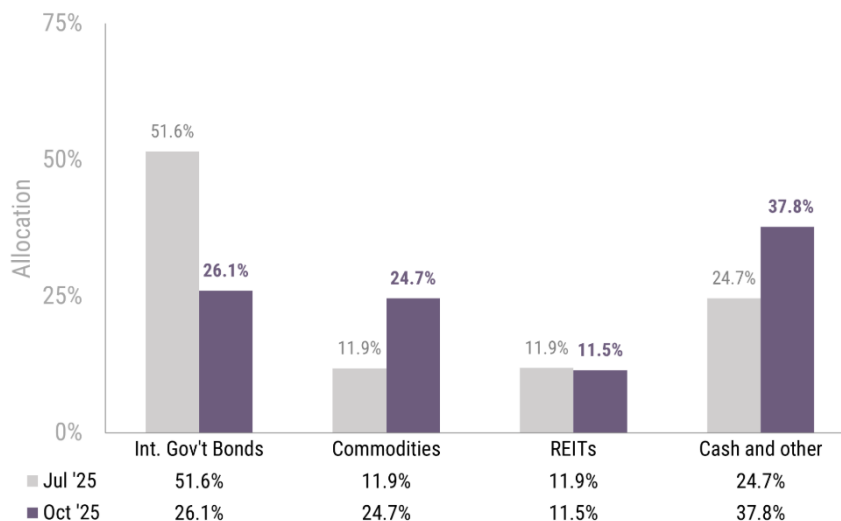
Bull put spreads have been one of CAOS's "secret weapons," helping the fund stay competitive with other risk assets like bonds and managed futures since inception. With a 10-year annualized return of 3.48% (NAV) / 3.49% (Mkt) and near-zero correlation, we believe CAOS offers a compelling alternative to both traditional bond portfolios and alternative asset classes.

## HIDE adds to Commodities as trends accelerate

The Alpha Architect High Inflation & Deflation ETF (HIDE) gained 1.68% (NAV)/1.63% (MKT) this quarter. Commodities moved to full risk as metals prices soared over the quarter, led by all-time highs in spot gold prices.

## HIDE | Commodities move to full risk

Quarter/quarter allocation change



Source: FactSet, Alpha Architect. 6/30/2025 – 9/30/2025. PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. Investing involves risk, including the potential loss of principal. For current holdings, please visit [funds.alphaarchitect.com/hide/](https://funds.alphaarchitect.com/hide/).

HIDE responded to the move, increasing Commodities to full risk (target approx. 25%) heading into Q4. We trimmed Int. Gov't Bonds to half risk (target approx. 25%) and retained our half-risk exposure to REITs (target 12.5%).

**Please visit [funds.alphaarchitect.com](https://funds.alphaarchitect.com) for more information regarding the Alpha Architect Global Factor Equity ETF (AAVM), 1-3 Mo. Box ETF (Cboe:BOXX), the Aggregate Bond ETF (BOXA), U.S. Equity 1 (AAUS), and the upcoming U.S. Equity 2 ETF (AAEQ) launch.**

**For questions about any of the funds,** please contact Jack Vogel, PhD, Alpha Architect's co-CIO, CFO, and portfolio manager. He can be reached at [jack@alphaarchitect.com](mailto:jack@alphaarchitect.com).

### IMPORTANT INFORMATION

**Investors should carefully consider the investment objectives, risk, charges, and expenses of the funds. 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. Obtain the fund's prospectus and/or performance data current to the most recent end by calling (215) 882-9983 or by visiting [funds.alphaarchitect.com/qmom/](https://funds.alphaarchitect.com/qmom/). The prospectus should be read carefully before investing.**

### PRINCIPAL RISKS

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

**Investment Risk.** When you sell your Shares, they could be worth less than what you paid for them. Therefore, you may lose money by investing in the Fund(s). The Fund(s) could lose money due to short-term market movements and over longer periods during

market downturns. Securities may decline in value due to factors affecting securities markets generally or particular asset classes or industries represented in the markets. The value of a security may decline due to general market conditions, economic trends or events that are not specifically related to the issuer of the security, such as geopolitical events and environmental disasters. The value of a security may also decline due to factors that affect a particular industry or group of industries. During a general downturn in the securities markets, multiple asset classes may be negatively affected. Therefore, you may lose money by investing in the Fund(s).

**High Portfolio Turnover Risk.** The Fund(s)'s investment strategy may from time-to-time result in higher turnover rates. This may increase brokerage commission costs, which could negatively impact performance. Rapid portfolio turnover also exposes shareholders to a higher current realization of short-term capital gains, distributions of which would generally be taxed to you as ordinary income and thus cause you to pay higher taxes.

**Risks common to QVAL, QMOM, IVAL, IMOM, AAVM, AAUS, and AAQ**

**Quantitative Security Selection Risk.** Data for some companies may be less available and/or less current than data for companies in other markets. The Sub-Adviser uses quantitative models, and its processes could be adversely affected if erroneous or outdated data is utilized. In addition, securities selected using a quantitative model could perform differently from the financial markets as a whole as a result of the characteristics used in the analysis, the weight placed on each characteristic and changes in the characteristic's historical trends.

**Equity Investing Risk.** An investment in the Fund involves risks similar to those of investing in any fund holding equity securities, such as market fluctuations, changes in interest rates and perceived trends in stock prices. The values of equity securities could decline generally or could underperform other investments. In addition, securities may decline in value due to factors affecting a specific issuer, market or securities markets generally.

**Large-Capitalization Companies Risk.** Large-capitalization companies may trail the returns of the overall stock market. Large-capitalization stocks tend to go through cycles of doing better - or worse - than the stock market in general. These periods have, in the past, lasted for as long as several years. Larger, more established companies may be slow to respond to challenges and may grow more slowly than smaller companies.

**Small- and Mid-Capitalization Company Risk.** Investing in securities of small- and mid-capitalization companies involves greater risk than customarily is associated with investing in larger, more established companies. These companies' securities may be more volatile and less liquid than those of more established companies. Often small- and mid-capitalization companies and the industries in which they focus are still evolving and, as a result, they may be more sensitive to changing market conditions.

**Risks common to QVAL and IVAL**

**Value Style Investing Risk.** A value stock may not increase in price if other investors fail to recognize the company's value and bid up the price, or the markets favor faster-growing companies. Cyclical stocks in which the Fund may invest tend to lose value more quickly in periods of anticipated economic downturns than non-cyclical stocks. Companies that may be considered out of favor, particularly companies emerging from bankruptcy, may tend to lose value more quickly in periods of anticipated economic downturns, may have difficulty retaining customers and suppliers and, during economic downturns, may have difficulty paying their debt obligations or finding additional financing.

**Risks common to IVAL, IMOM, and AAVM**

**Foreign Investment Risk.** Returns on investments in foreign securities could be more volatile than, or trail the returns on, investments in U.S. securities. Investments in or exposures to foreign securities are subject to special risks, including risks associated with foreign securities generally, including differences in information available about issuers of securities and investor protection standards applicable in other jurisdictions; capital controls risks, including the risk of a foreign jurisdiction imposing restrictions on the ability to repatriate or transfer currency or other assets; currency risks; political, diplomatic and economic risks; regulatory risks; and foreign market and trading risks, including the costs of trading and risks of settlement in foreign jurisdictions.

**Risks common to QMOM and IMOM**

**Momentum Style Risk.** Investing in or having exposure to securities with the highest relative momentum entails investing in securities that have had above-average recent returns. These securities may be more volatile than a broad cross-section of securities. Returns on securities that have previously exhibited momentum may be less than returns on other styles of investing or the overall stock market. Momentum can turn quickly and cause significant variation from other types of investments, and stocks that previously exhibited high momentum may not experience continued highest relative momentum. In addition, there may be periods when the momentum style is out of favor, and during which the investment performance of the Fund using a momentum strategy may suffer.



#### Risks common to AAVM and HIDE

**Fund of Funds Risk.** Investment performance will largely depend on the investment performance of the selected underlying funds. An investment in the Fund(s) is subject to the risks associated with the underlying funds that then-currently comprise the Fund's portfolio. At times, certain of the segments of the market represented by the Fund's underlying funds may be out of favor and underperform other segments. The Fund will indirectly pay a proportional share of the expenses of the underlying funds in which it invests (including operating expenses and management fees), which are identified in the fee schedule above as "Acquired Fund Fees and Expenses."

#### Risks common to CAOS, Cboe:BOXX, and BOXA

**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.

**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.

**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.

#### Risks specific to HIDE

**Non-Diversification Risk.** The Fund is non-diversified, meaning that it is permitted to invest a larger percentage of its assets in fewer issuers than diversified funds.

**Commodity Risk.** Investing in physical commodities is speculative and can be extremely volatile. Market prices of commodities may fluctuate rapidly based on numerous factors, including: changes in supply and demand relationships (whether actual, perceived, anticipated, unanticipated or unrealized); weather; agriculture; trade; domestic and foreign political and economic events and



policies; diseases; pestilence; technological developments; currency exchange rate fluctuations; and monetary and other governmental policies, action and inaction. When the Fund obtains exposure to commodities through its investments in other underlying funds, it will be indirectly exposed to the foregoing risks.

**Real Estate Investment Risk.** Companies in the real estate sector include companies that invest in real estate, such as real estate investment trusts (REITs) and real estate management and development companies. Companies that invest in real estate are subject to the risks of owning real estate directly as well as to risks that relate specifically to the way that such companies operate, including management risk (such companies are dependent upon the management skills of a few key individuals and may have limited financial resources). Adverse economic, business or political developments affecting real estate could have a major effect on the value of an underlying fund's investments. Investing in real estate is subject to such risks as decreases in real estate values, overbuilding, increased competition and other risks related to local or general economic conditions, increases in operating costs and property taxes, changes in zoning laws, casualty or condemnation losses, possible environmental liabilities, regulatory limitations on rent, possible lack of availability of mortgage financing, market saturation, fluctuations in rental income and the value of underlying properties and extended vacancies of properties. Certain real estate securities have a relatively small market capitalization, which may tend to increase the volatility of the market price of these securities. Real estate securities have limited diversification and are, therefore, subject to risks inherent in operating and financing a limited number of projects. Real estate securities are also subject to heavy cash flow dependency and defaults by borrowers or tenants. The Fund's investments in REITs are subject to additional risks, such as poor performance by the manager of the REIT or failure by the REIT to qualify for tax-free pass through of income under the Code.

**Fixed Income Risk.** The market value of fixed income securities will change in response to interest rate changes and other factors, such as changes in the effective maturities and credit ratings of fixed income investments. During periods of falling interest rates, the values of outstanding fixed income securities and related financial instruments generally rise. Conversely, during periods of rising interest rates, the values of such securities and related financial instruments generally decline. Fixed income investments are also subject to credit risk.

**Risk of U.S. Treasury Bills.** Direct obligations of the U.S. Treasury have historically involved little risk of loss of principal if held to maturity. However, due to fluctuations in interest rates, the market value of such securities may vary.

### 351 Exchange Risks

**New Fund Risk.** The Fund(s) are a recently organized 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.

**In-Kind Contribution Risk.** At its launch, the Fund(s) expect to acquire a material amount of assets through one or more in-kind contributions that are intended to qualify as tax-deferred transactions governed by Section 351 of the Internal Revenue Code. If one or more of the in-kind contributions were to fail to qualify for tax-deferred treatment, then the Fund(s) would not take a carryover tax basis in the applicable contributed assets and would not benefit from a tacked holding period in those assets. This could cause the Fund(s) to incorrectly calculate and report to shareholders the amount of gain or loss recognized and/or the character of gain or loss (e.g., as long-term or short-term) on the subsequent disposition of such assets.

### Tax-related matters

**Tax disclaimer.** Neither Alpha Architect nor its affiliates provide tax advice.

**IRS Circular 230 disclosure.** To ensure compliance with requirements imposed by the IRS, we inform you that any tax advice contained in this communication was not intended or written to be used, and cannot be used, for the purpose of (i) avoiding tax-related penalties under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any matters addressed herein. You should seek advice based on your particular circumstances from an independent tax advisor. The information contained in this communication is not meant to substitute for a thorough estate planning and is not meant to be legal and/or estate advice. It is intended to provide you with a preliminary outline of your goals. Please consult your legal counsel for additional information.

**Estate Planning Notice.** The information included in this communication is not intended as a substitute for comprehensive estate planning and does not constitute legal or estate advice. It serves only as a preliminary outline of how tax-free conversions operate. For detailed guidance, we recommend consulting your legal counsel.

### CATEGORY AVERAGE METHODOLOGY

Constituents of a given category are determined by YCharts. 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.

#### Category average constituent selection criteria

Unless otherwise noted, the given category is represented by the 50 biggest funds based on assets under management (AUM). The AUM figure is point-in-time and is not retroactively applied to constituent funds. In the event fewer than 50 funds are available in a given category, all funds are used in to calculate returns. Funds that may have been open for investment over the given period but are no longer active are not included. The number of constituent funds in a given category average may affect represented returns. In the event of multiple share classes, the share class with the highest AUM is referenced. Category returns are a straight average of the total return of the constituent funds over the given period.

Wherever possible, we reference the 50 biggest funds by AUM to provide what we believe to be a reasonable sample of the most popular strategies that includes a mix of passive and active approaches. The highest AUM funds tend to have more established track records, providing what we believe to be a reasonable basis for returns.

#### FOREIGN MOMENTUM METHODOLOGY

There is no explicit "momentum" category. Generally, momentum funds tend to fall into the "growth" category, however, that standard is not uniformly applied by third party data providers such as FactSet, Morningstar, YCharts, or others. To facilitate what we believe to be fair and balanced comparison, we build a momentum category using the following criteria.

- 1.Exclude Alpha Architect funds
- 2.Exclude non-USD denominated funds
- 3.Exclude mutual funds. We do this to facilitate a fair comparison at a structural level (ETF to ETF) and to facilitate accurate advanced characteristics data, such as active share and momentum score
- 4.Filter for Broad Asset Class: International Equity & Sector Equity. We include sector momentum ETFs on the basis that a sector-based momentum strategy could be a reasonable alternative to a broad-based momentum approach. Filtering for funds in the International Equity broad asset class excludes alternatives such as long/short momentum funds. Our goal is to identify "peer" momentum strategies that are long-only.
- 5.Filter for US Equity Exposure <50%. We seek to avoid strategies that aren't focused on International Developed equities.
- 6.Filter for Emerging Market exposure <20%. Our Quantitative Int'l Momentum ETF (IMOM) excludes emerging market equities in its process; as a result, we remove funds focused on emerging market to facilitate what we believe to be a fair and balanced comparison.
- 7.Remove funds that contain the word "value" or variations in the fund's name. This removes funds that blend value and momentum together, which can cause performance deviations.
- 8.Filter funds that contain the word "momentum" or variations in the fund. While this step likely understates the number of funds that use momentum in their investment strategy, we believe this is a reasonable approach to identify funds seeking to hold themselves out as a momentum strategy.

Limited universe. The information presented regarding peer ETFs may be based on a limited universe of comparable funds that we believe are relevant to the strategy, investment style, and asset class of this ETF. This comparison is not exhaustive and may exclude other funds that also offer similar exposures or strategies. Investors are encouraged to conduct their own research and consider other products in the marketplace that may provide comparable investment objectives or characteristics. Past performance is no guarantee of future results, and differences in fees, structures, or market conditions may lead to different outcomes between peer funds and this ETF. Investors should consider factors such as risk tolerance, fees, liquidity, and investment goals before making any investment decisions based on peer comparisons. This disclosure is not an endorsement of any peer fund, nor should it be interpreted as financial advice. As of 3/31/2025, there are four ETFs that meet the criteria.

## DEFINITIONS

Foreign Large Blend represented by the 50 biggest ETFs based on assets under management in the Foreign Large Blend category, as defined by YCharts. Foreign Large-cap represented by ETFs that invest in stocks with market caps in the top 70% of developed markets, including Japan, Britain, France, and Germany. The blend designation is assigned when neither growth or value characteristics dominate.

Foreign Momentum represented by ETFs that we believe use a momentum-based strategy to manage its portfolio. Momentum defined as buying securities that have had high returns over a recent period and selling those that have had poor returns over the same period. Funds selected based on the appearance of “momentum” in the security’s name and a portfolio that predominantly invests in developed international securities.

Foreign Value represented by the 50 biggest ETFs based on assets under management in the Foreign Large and Small/Mid-Cap Value categories. Value defined as equities with low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

Managed futures is represented by the biggest open-ended funds (mutual funds and ETFs), by AUM, in the Systematic Trend category, which is composed of funds that primarily implement trend-following, price-momentum strategies by trading long and short liquid global futures, options, swaps, and foreign-exchange contracts. These portfolios typically obtain exposure referencing a mix of diversified global markets, including commodities, currencies, government bonds, interest rates, and equity indexes.

Market Cap is a measurement of business value based on share price and number of shares outstanding. It generally represents the market’s view of a company’s stock value and can be a determining factor in stock valuation. The weighted average market cap is the average market capitalization of the companies in a portfolio or index, weighted by their proportionate size within the portfolio. It reflects the overall size exposure of the portfolio.

P/E Ratio measures how much an investor is willing to pay for one dollar of earnings. It is calculated by dividing the share price by the annual net income earned by the firm. The weighted average P/E ratio is the average P/E of a portfolio or index, where each stock’s P/E ratio is weighted by its market value relative to the total portfolio or index.

## RBICS Economies Definitions

Business Services is composed of companies that offer services targeted toward businesses, including administrative, support, janitorial, and professional services.

Consumer Services is composed of companies that offer services targeted toward individuals, including accommodation; food and beverage retail; gaming, arts, entertainment and recreation; and television, radio, film, and print media.

Consumer Cyclical is composed of companies that offer products targeted toward individual or household use, including apparel, toys, school and art supplies, and electronics; motor vehicle sales and rental, and automotive parts and services; building materials, garden supplies, furniture, appliances, cabinetry, window treatments, and carpets.

Energy is composed of companies that primarily engage in oil and gas exploration and production, pipeline transportation, refineries, and oil and gas equipment and services; leasing, mining and processing of coal and coke; uranium, radium, and vanadium mining.

Finance is composed of companies that offer financial products and services in banking, insurance, investment, specialty finance, and real estate.

Healthcare is composed of companies that offer products and services that are designed, developed, and utilized in the promotion of health and well-being, including medical services, health plans, medical devices, and biopharmaceuticals.

Industrials is composed of companies that offer products and services for industrial use or with applications in aerospace, defense, or security; transportation, construction, and related infrastructure; or farming, including equipment and machinery manufacture, wholesale, rental, and distribution and related support activities.



Non-Energy Materials is composed of companies that offer basic and intermediate material products, including non-energy mining; forestry, timber logging, and lumber production; and chemical, plastic, paper, metal, and textile manufacturing.

Consumer Non-Cyclicals is composed of companies that offer products targeted toward individual and consumer needs, including groceries, beverages, health and personal care items, kitchenware, decorative items, and household cleaning products.

Technology is composed of companies that offer semiconductor, electronic, and optics based products and related software and services that directly or indirectly facilitate the creation, transfer, storage, manipulation, or interpretation of data, audio, and video.

Telecommunications is composed of companies that offer services designed to promote or enhance transmission of voice, data, and video over various communications mediums, including cable, satellite, terrestrial-based wireless, and wireline mediums.

Utilities is composed of companies that offer gas, electricity, and water services delivered directly to residential and commercial users.

The Funds are distributed by Quasar Distributors, LLC. The funds' investment advisor is Empowered Funds, LLC, which is doing business as ETF Architect. Alpha Architect, LLC serves as the Sub-adviser to the Funds. Quasar is not affiliated with ETF Architect or Alpha Architect.

AA-797825-2025-09-02