



**alpha architect**

# AN INTRODUCTION TO ALPHA ARCHITECT

We Empower Investors Through Education | Affordable Alpha

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# Investors Embrace Client Education and Our Philosophy

Blog attracts \$Bn+ family office



July '10  
AUM (\$M): \$0

We launch our ETF business



Oct '14  
AUM (\$M): ~\$100

Word gets out...



Nov' 2019  
AUM > \$800mm

Investors like our approach

No Sales Reps. No Gimmicks. Pure Education.



# Alpha Architect Overview

## Boutique Asset Management Firm (AUM: \$825mm+)<sup>1</sup>

- Founded in 2010 as a quantitative consultant
- Launched asset management business in 2012

## Research Focus

- Multiple academic book and peer-reviewed article publications
- Multiple team members have advanced degrees and qualifications (e.g., CFA or Masters/PhD)

## Employee-Owned and Operated

- Employees own approximately 92% of the firm; seed investor owns a 5% royalty
- Strategic investors owns approximately 8% of the firm

## Minority & Disabled Veteran Owned

- Wesley (CEO): Choctaw Nation of Oklahoma (Roll No. 1202) & US Marine (disabled\*)
- Patrick (CCO/COO): US Marine (disabled)

## FIRM MISSION

# WE EMPOWER INVESTORS THROUGH EDUCATION



# Our Core Beliefs Reinforce Our Mission

## OUR CORE BELIEFS

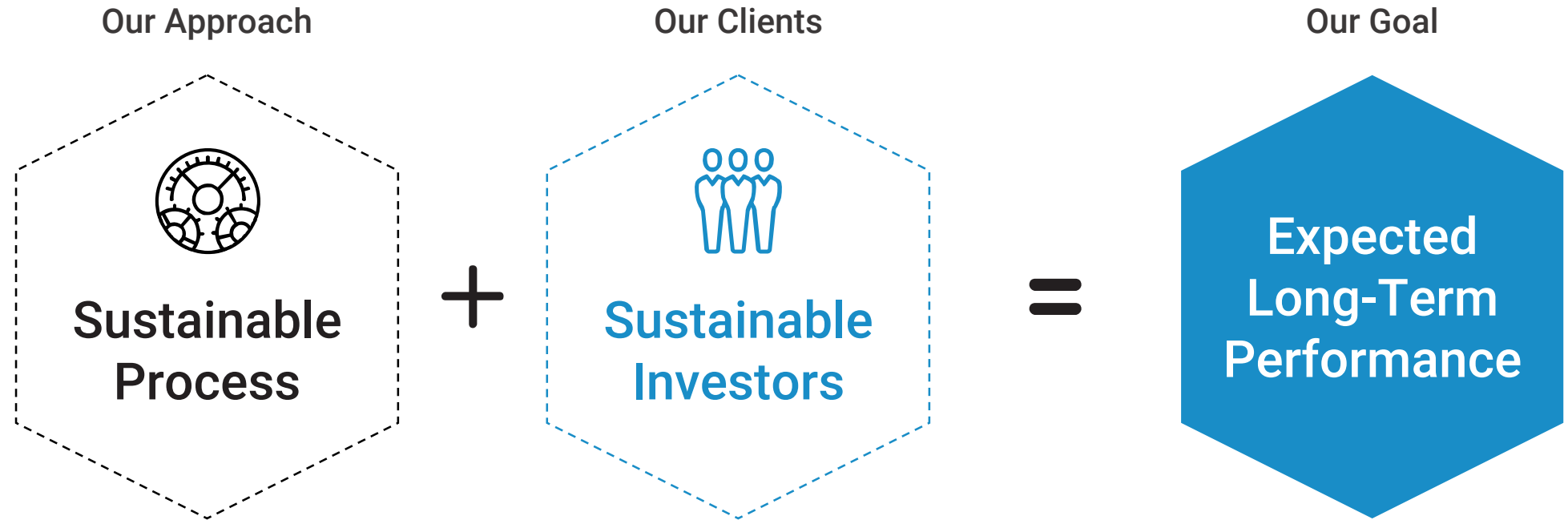
## WHY IMPORTANT

## MISSION

<b>1</b> Transparency, not Black-Boxes	>	Transparency increases trust for the process	=	Sustainable investors understand the plan
<b>2</b> Evidence-Based, not Stories	>	Evidence increases chance of success	=	Sustainable investors use data, not emotion
<b>3</b> Systematic, not Ad-Hoc	>	Systematic eliminates human bias & costs	=	Sustainable investors stay the course
<b>4</b> Win-Win, not Win-Lose	>	Win-Win cultures sustain long-term partnerships	=	Sustainable investors trust their advisors

Education Helps Clients Become Better Investors

# Education Develops Sustainable Investors



Education is critical for cultivating long-term, sustainable investors

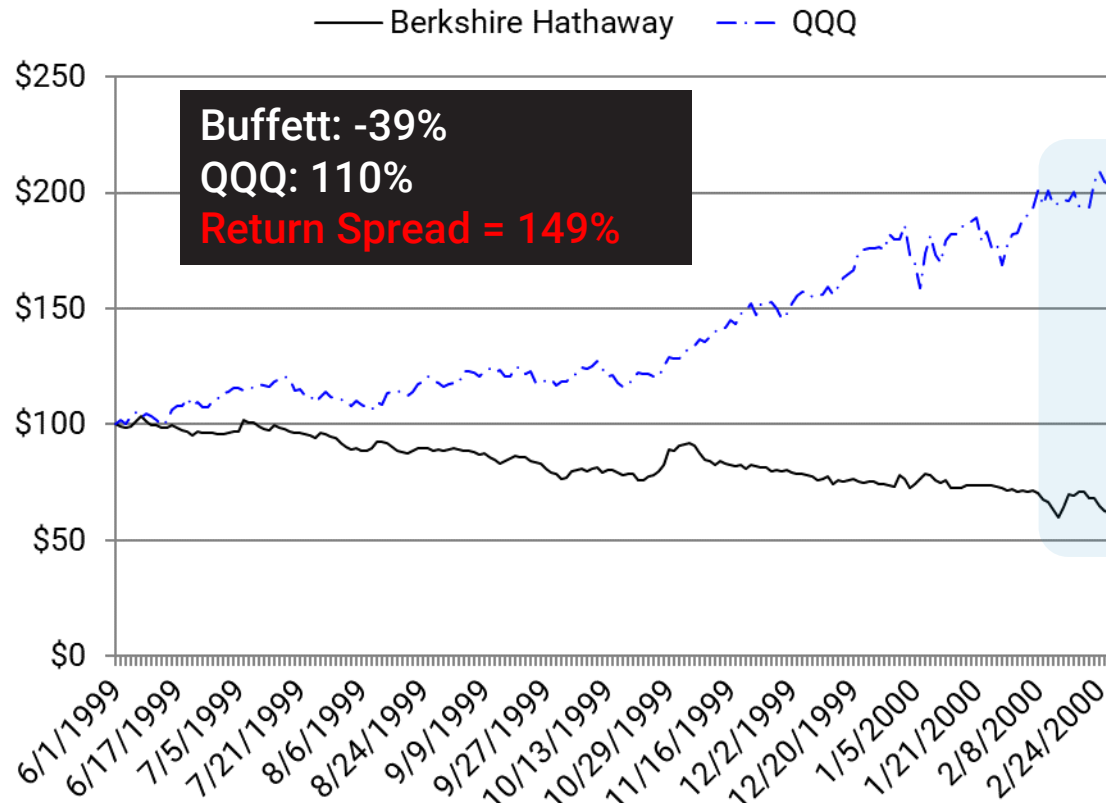
“Alpha” is Earned via Patience & Discipline



# Why Does Sustainability Matter? Ask Warren Buffett!

Disciplined investors earn risk premiums from less disciplined investors

## 9-Months of Extreme Relative Performance Pain



Warren Buffett

“Charlie, should we buy tech?”

“Warren Buffett may be losing his magic touch.”

BARRON'S

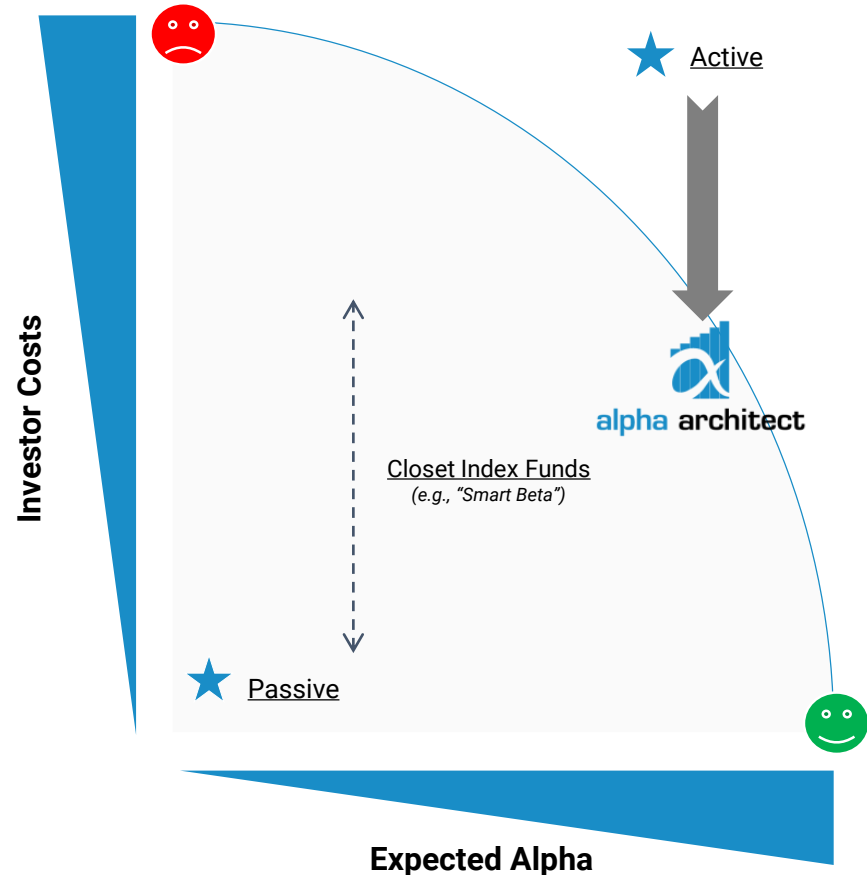


# What we Do: **Affordable Alpha**



# What we do: Affordable Alpha

Active management works better...if it's affordable



Why our value proposition works

## Affordable

- Our products are bought, not sold, which minimizes distribution costs
- We do more with less via low overhead and technology
- We are tax-aware and focus on tax-efficient investment solutions

## Alpha

- We conduct exhaustive research
- Our portfolios have high active-share (i.e. not closet-indexing)

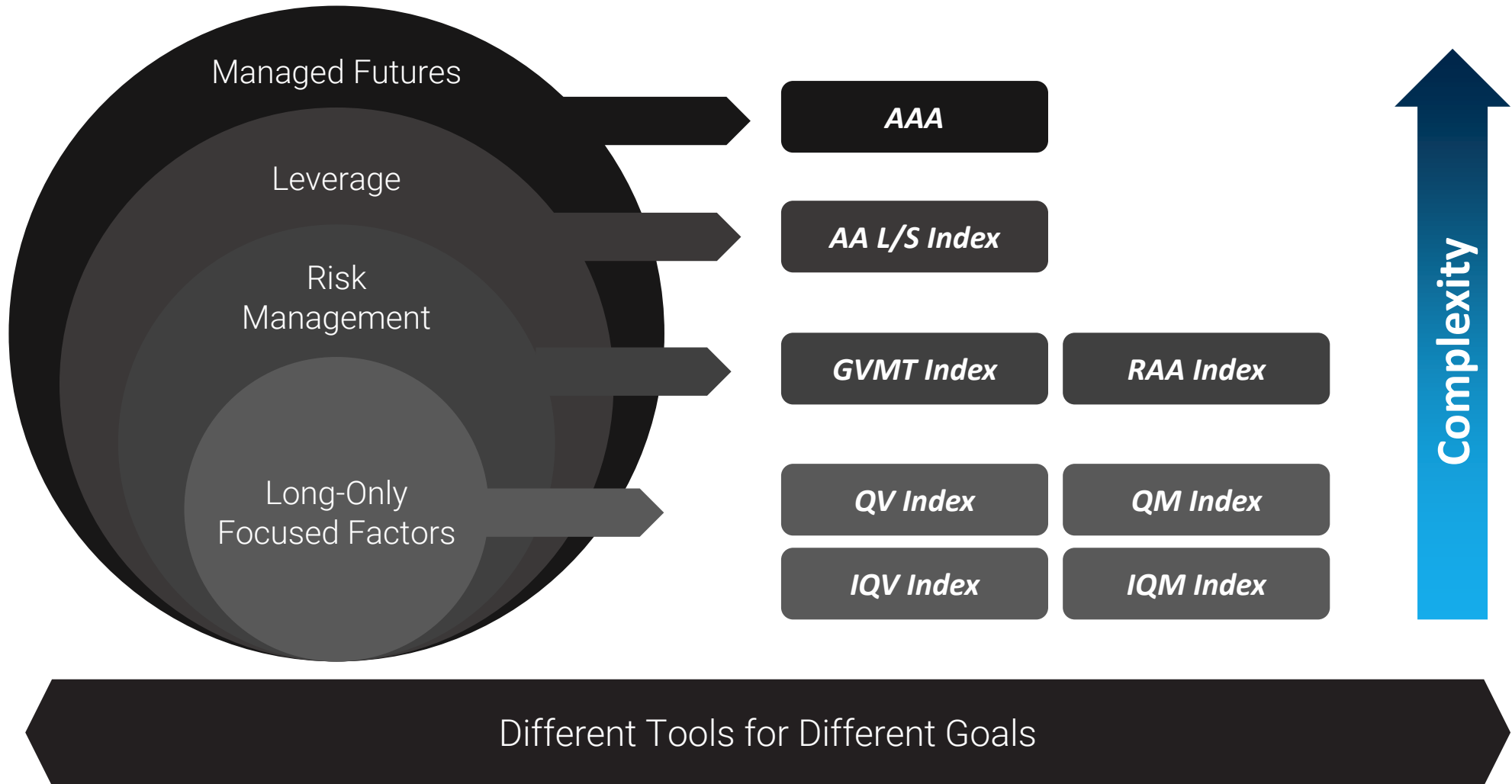
# Our Business Model Helps Clients Win

We are built for tax-sensitive, independent, long-term investors...we are NOT for everyone

Description	Differentiated?	Good Value?	Distribution Costs?	Capacity	Outlook for investors
Passive Index	No	Likely – Very cheap	Low	Yes	Positive
Closet Index or “Smart Beta”	No	Maybe	High	Yes	Neutral
Active	Yes	Unlikely – Too expensive	High	Limited	Negative
	Yes	Yes	Low	Limited	Positive

Active Investing that Seeks to Achieve a Win-Win

# Our Strategies are Differentiated and Leverage Our Research



# We Attract **E.D.U.C.A.T.E.D.** Clients

E	Empirical	Evidence-based. Show me the data
D	Disciplined	Long-term investors. Avoid short-term fads
U	Unassuming	Billionaires that drive Honda Civics. Disdain for flash
C	Committed	Long-term horizon. Not afraid of short-term volatility
A	Active	Not satisfied with passive index performance
T	Tax Aware	Looks for after tax results. Incorporates tax planning
E	Economical	Understands price is what you pay. Value is what you get
D	Do It Yourself	An entrepreneurial spirit. Avoids the status quo





We are NOT for everyone: Are you the right client?





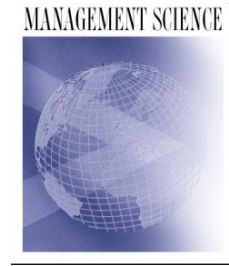
# Appendix

# Firm Managing Members

Name	Position	Recent Experience	Education
 <p>Wes Gray</p>	CEO	Alpha Architect (2010-Present) Drexel Finance Professor (2010-2014) US Marine Corps Captain (2004-2008)	Ph.D./M.B.A. Finance, University of Chicago Booth School of Business B.S. The Wharton School of the University of Pennsylvania, magna cum laude Series 65 and 3 licenses
 <p>Jack Vogel</p>	CFO/CIO	Alpha Architect (2011-Present) Mathematics Instructor (2008-2009)	Ph.D. Finance, LeBow College of Business, Drexel University M.S. Mathematics, Drexel University B.S. Mathematics, University of Scranton, summa cum laude Series 65 license and 3 licenses
 <p>Tao Wang</p>	Portfolio Manager	Alpha Architect (2012-Present)	M.S., Finance, Drexel University B.A., B.L., Shanghai University of Finance & Economics Series 65 and 3 licenses CFA Charter Holder
 <p>Patrick Cleary</p>	COO/CCO	Alpha Architect (2014-Present) Algeco Scotsman (2014) The Boston Consulting Group (2010-2014) US Marine Corps Captain (2004-2008)	M.B.A Harvard University B.S. The Wharton School of the University of Pennsylvania, cum laude M.S. Cybersecurity, Webster University (2018) Series 65 license CFA Level III Candidate
 <p>Brandon Koepke</p>	CTO / Capital Markets	Alpha Architect (2017-Present) Strawhouse Labs (2017) Amazon (2015-2016) Disney (2014-2015)	B.S. Computer Science, University of Calgary B.C. Finance, University of Calgary CFA Passed Level III Series 65 and 3 licenses
 <p>Ryan Kirlin</p>	Head of Capital Markets	Alpha Architect (2017- present) Revenue Shares (2013-2017) NYSE (2009-2013)	B.A. Economics, Fordham University CFA Level II Candidate Series 65 license

# We are Thought Leaders in Quant and Factor Investing

We Publish Peer-reviewed Research



Contribute To National Outlets

THE WALL STREET JOURNAL.  
THE EXPERTS



And Our Approach Is Making News



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There are risks involved with investing, including loss of principal. There is no assurance that the objectives of any strategy or fund will be achieved or will be successful. No investment strategy, including diversification, can protect against market risk or loss. Current and future portfolio holdings are subject to risk. Past performance does not guarantee future results.

There is a risk of substantial loss associated with trading commodities, futures, options and other financial instruments. Before trading, investors should carefully consider their financial position and risk tolerance to determine if the proposed trading style is appropriate. Investors should realize that when trading futures, commodities and/or granting/writing options one could lose the full balance of their account. It is also possible to lose more than the initial deposit when trading futures and/or granting/writing options. All funds committed to such a trading strategy should be purely risk capital.

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Index returns are for illustrative purposes only and do not represent actual fund performance. References to an index do not imply that the portfolio will achieve returns, volatility or other results similar to that index. The composition of the index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility or tracking error targets, all of which are subject to change. Index performance returns do not reflect any management fees, transaction costs, or expenses, which would reduce returns.

Indexes are unmanaged and one cannot invest directly in an index. There are no active components of indexes; therefore, using them as a proxy can be of limited value because there is no guarantee that the portfolio would have been managed to match the index. Realized returns and/or volatility may come in higher or lower than expected.

Annual performance is calculated based on monthly return streams, geometrically linked as of the end of the specified month end.

Results, unless cited otherwise, are shown gross of fees and do not reflect the effect of investment fees which would lower performance. Performance reflects the reinvestment of dividends and other earnings. The following hypothetical illustrates the compound effect fees have on investment return: For an account charged 1% with a stated annual return of 10%, the net total return before taxes would be reduced from 10% to 9%. A ten year investment of \$100,000 at 10% would grow to \$259,374, and at 9%, to \$236,736 before taxes. For a complete description of all fees and expenses, please refer to Alpha Architect's Form ADV Part 2A.



# IMPORTANT INFORMATION - DISCLOSURES

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# IMPORTANT INFORMATION - DISCLOSURES

- Simulated Historical Performance: All returns are total returns and include the reinvestment of distributions (e.g., dividends).
- Index Characteristics Data Source: Characteristics are from FactSet and derived via the ETFs that track the respective Indexes. Characteristics are holdings-weighted. The data for the performance and factor attribution analysis are from Alpha Architect and Solactive.
- The S&P 500 Index (SP500) is a capitalization-weighted index that measures the performance of the broad U.S. equity market.
- The MSCI EAFE Index (EAFE) is a capitalization-weighted index that measures the performance of developed market equities, excluding the U.S. and Canada.
- The MSCI World Index is a capitalization-weighted index that measures the performance of developed market equities.
- EBIT/TEV is defined as earnings before interest and taxes divided by total enterprise value.
- Momentum (2-12) is defined as the cumulative total return for the past 12 months, excluding the last (12th) month.
- Size is defined as the total market value of the company's listed equity.
- Return on assets is defined as net income divided by total assets.
- Compound annualized growth rate, or CAGR, is defined as the annualized growth of an initial investment to the ending investment value if you assume that the investment has been compounding over the time period.
- Standard Deviation: Sample standard deviation
- Downside Deviation: Sample standard deviation, but only monthly observations below 41.67bps (5%/12) are included in the calculation
- Sharpe Ratio (annualized): Average monthly return minus treasury bills divided by standard deviation
- Sortino Ratio (annualized): Average monthly return minus treasury bills divided by downside deviation
- Appraisal Ratio (annualized): CAPM regression intercept estimate divided by regression residual volatility
- Worst Drawdown: Worst peak to trough performance (measured based on monthly returns)
- Rolling X-Year Win %: Percentage of rolling X periods that a strategy outperforms
- Sum (5-Year Rolling MaxDD): Sum of all 5-Year rolling drawdowns
- Down %: The Down Number Ratio is a measure of the number of periods that the investment was down when the benchmark was down, divided by the number of periods that the benchmark was down. The smaller the ratio, the better
- Up %: The Up Number Ratio is a measure of the number of periods that the investment was up when the benchmark was up, divided by the number of periods that the benchmark was up. The larger the ratio, the better
- Tracking Error: Tracking Error is measured by taking the square root of the average of the squared deviations between the investment's returns and the benchmark's returns
- Negative Correlation: Correlation of returns relative to benchmark returns when the benchmark is negative
- Positive Correlation: Correlation of returns relative to benchmark returns when the benchmark is positive
- Performance figures contained herein are hypothetical, unaudited and prepared by Alpha Architect, LLC; hypothetical results are intended for illustrative purposes only. Past performance is not indicative of future results, which may vary. Index returns are for illustrative purposes only and do not represent actual fund performance. Index performance returns do not reflect any management fees, transaction costs, or expenses, which would reduce returns. Indexes are unmanaged and one cannot invest directly in an index.



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